

# Maps in the Service of the Nation

The Role of Ethnic Mapping in Nation-Building and Its Influence on Political Decision-Making Across the Balkan Peninsula (1840–1914)

Gábor Demeter / Zsolt Bottlik

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# Maps in the Service of the Nation

The Role of Ethnic Mapping in Nation-Building  
and Its Influence on Political Decision-Making  
Across the Balkan Peninsula (1840–1914)

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## Preface

Ethnic mapping was one of the key means of not only visualizing, but also of inventing and promoting national thought in the nineteenth and twentieth centuries. Contemporaneous scholars recognized and – what may be surprising for a present-day observer – accepted this. In the nineteenth century a cosy relationship was established/evolved between state and science, including the humanities: in era of nationalized science<sup>1</sup> the task of certain disciplines was to strengthen the cohesive forces of the society and to contribute to consolidation of the nation. This was considered natural by many.

Thus, the connection between ethnic mapping and politics is evident, despite the original consideration by its nineteenth century proponents considering ethnic maps at least as scientific as other map types.<sup>2</sup> However, the above-mentioned duality and the fact that ethnic mapping was used for propaganda purposes – overshadowing scientific concerns – determined its assessment up to now, degrading it from a positivistic method of the era of nationalized science to a suspicious, opportunistic practice. Though opportunistic tendencies and the positivistic attitude behind the ethnic maps are hardly separable from each other, there existed a firm belief that ethnographic maps promoted somehow “justice” and “development”.<sup>3</sup>

Due to these concerns, the literature on ethnic mapping covers a broad range. The early researchers of the history of ethnic maps did not focus on the problems outlined above. Wilkinson in the 1950s used a simple comparative approach – collecting a vast amount of material – to investigate the conceptual differences and the temporal changes in views, and the political and territorial aspirations accompanying them.<sup>4</sup> Geographers of the era focused rather on technical problems of visualization that could leave room for manipulations as well.<sup>5</sup> Nationalist geographers between the two world

- 1 For the term, see: Gyáni: *Kulturális nacionalizmus és a tudományok*. Similar tendencies recur nowadays in East-Central and Southeastern Europe.
- 2 Though from the stance of 20th c. science, it was not scientific. Yosmaoğlu: *Blood Ties*, 88.
- 3 Joerg: *New Boundaries of the Balkan States*, 829–30.
- 4 Wilkinson: *Maps and Politics*.
- 5 *Romanian Ethnographical Maps and Their Value*; Jócsik: *A magyarság a cseh és szlovák néprajzi térképeken*. Criticism was often in service of the national politics of resentment between the two world wars.

wars were still convinced that ethnic mapping was a scientific method, ignoring their personal engagement and partiality. It was only the historians of the next generation, like Benedict Anderson or Denis Wood, who emphasized the symbolic meaning of such maps – an aspect important for geographers too – and their contribution to national thought and nationalist politics.<sup>6</sup> But contrary to geographers, whose criticism involved only the reliability of raw data and their appropriate visualization,<sup>7</sup> historians tried to look beyond these concerns. By considering maps as representations of notions or paradigms infiltrating into scientific disciplines, they analyzed the impact of these political ideas on mapping, and also investigated the impact of maps on ideas and societies. This approach diffused later to critical geography as well, as discussed below.<sup>8</sup> The latest works (e.g. by Ipek Yosmaoğlu) try to reveal the political background of ethnographic maps through numerous case studies<sup>9</sup> and trace their history in order to unveil their underlying agendas. Others, such as Ottomanist Justin McCarthy, pay attention to the evaluation of statistical data, because data interpretation plays a crucial role not only in reconstructing population history, but also in creating ethnic maps.<sup>10</sup> So, ethnic maps offer multiple approaches and can be interpreted also as an important historical source for the study of nationalist politics and their justification of territorial aspirations through the ethnic symbolization of space – not only as a subject of geographical investigations.

However, the question might be evident: what new findings can a book like this one add to the results already achieved by previous research? As ethnic mapping is not simply a scientific method for decision-making, but a propaganda tool and also an instrument of nation-making, thus have numerous “layers”, interpretations focusing on only one of these can be misleading and even harmful. The goal of this study is partly to reveal the numerous manipulations in the past, as evident in such maps, and draw the

- 6 Wood/Fels: *The Power of Maps*; Wood: *Rethinking the Power of Maps*; Anderson: *Imagined Communities*.
- 7 Monmonier: *How to Lie with Maps*. His work was inspired by another famous one, which is also relevant for our topic: Huff: *How to Lie with Statistics*.
- 8 See the debate between the Hungarian geographer, Károly Kocsis and Wolfgang Aschauer. Aschauer: *Etnikai térképezés és etnopolitika*; Kocsis: *Vélemény*.
- 9 Yosmaoğlu: *Blood Ties*.
- 10 McCarthy: *Population History*. Yosmaoğlu even states that the marriage of new style (thematic) cartography to statistics led to the “rise” of ethnography. Yosmaoğlu: *Blood Ties*, 87–8.

attention to the still prevailing misinterpretations in the present. Therefore, we tried to collect and evaluate available datasets (including some unpublished manuscripts), census methods and visualization techniques in order to compare them and check their relevance. We also tried to pair up the datasets and maps (but sometimes new maps were compiled from existing older ones instead of visualizing statistical data). These all point to the fact that data integrity and reliability in the nineteenth century Balkans was extremely weak. In other words our investigation does not give an answer to the question how many Turks or Serbs, etc., lived in certain regions – because an impartial and objective answer is impossible – but it highlights the question of how contemporaneous people and scholars thought about the significance of such questions, and how they rendered their answers visible. This leads to the legitimate question, whether it makes any sense to search further for “ethnic” numbers or not. One might even say that under these circumstances ethnic mapping was not a viable enterprise at all – except for those with a nationalist agenda; however, the high number of maps suggests that ethnic maps were considered significant by many historical actors and played some functions – albeit supposedly not scientific – which conferred relevance to them.

So why is our book necessary? In our judgement, first, recent works by East-Central and Southeast European authors still vindicate the importance of old ethnic maps, considering them scientifically established; it also seems that publishers expect an affective reaction from readers to these maps.<sup>11</sup> Second, the application of old, fuzzy categories – such as transforming religious to ethnic categories or simply ignoring that the meaning of such a descriptive term can change – is still observable today.<sup>12</sup> Third, these authors usually

- 11 See the ethnic map (App. 76) in: Markov: *Balgariya i Balkanskiya sayuz sreshu Osmanskata Imperiya, 1911–1913*. See also a recent Turkish map on the web (App. 81) advertising strong Muslim presence in the Peninsula prior to 1914. “Muslims in Lesvos”, posted by TITAN, [http://www.allempires.com/Forum/forum\\_posts.asp?TID=33601&OB=DESC&PN=2](http://www.allempires.com/Forum/forum_posts.asp?TID=33601&OB=DESC&PN=2) (last accessed December 14, 2020). For a revival of ethnic mapping in Serbia see: Vemić: *Serbs in Kosovo and Metohija*.
- 12 Kruja: *Në historinë Shqiptare*. This recently published manuscript of the supporter of prince Wied is a good example of how contemporary statesmen of newborn states created the boundaries of a nation on a map by manipulating the terms and using fuzzy categories. In his map the Muslims in Albania and its surroundings are always considered ethnic Albanians. Ethnically fuzzy

refer to pre-selected statistical data chosen as proof confirming their own views, neglecting the fact that there are many other statistics that would lead to the opposite results.<sup>13</sup> Hence, the study of ethnic maps and their history is a relevant effort,<sup>14</sup> because contemporary scholarly work in Southeastern Europe makes use of such maps and attributed meaning to them. Nationalism is still widespread in Southeastern Europe and shapes some of its salient conflicts between countries; and maps are one means often used by nationalist actors to justify their claims in these conflicts.<sup>15</sup>

The present work investigates the role of ethnic mapping in a peculiar region, the Balkan Peninsula in the nineteenth century. It covers the decreasing territory of the Ottoman Europe, focusing on official Ottoman censuses or conscriptions carried out by non-Ottoman organizations on Ottoman

categories also appear in modern works that are confusing and misleading. See: Fodor: *Kisebbségek az Oszmán Birodalomban*. (Minorities in the Ottoman Empire), 30–4. See the map by Béla Nagy on page 33. The term ‘minority’ in the title suggests impartiality and neutrality as it does not make distinction between ethnic and religious categories. However, in that way the map and the categories applied suggest that the state-constituting entity (relative majority) is composed of Muslims in all Balkan provinces.

- 13 The phenomenon of publishing old data without any revision or source criticism is still abundant. Even as late as 1988, ethnic data on Kosovo of the Serbian consulate from 1905 (stating that there were 390,000 Albanized Serbs and only 20,000 ethnic Albanians) was simply published without any real critical remarks on the reliability of sources. Peruničić: *Svedočanstvo o Kosovu, 1901–1913*. See a recent Serbian example: *Etnička karta dela stare Srbije prema putopisu Miloša S. Milojevića od 1871–1877. godine*, <https://fbreporter.org/2018/07/09/etnicka-karta-dela-stare-srbije-prema-putopisu-milosa-s-milojevica-od-1871-1877-godine/> (September 14, 2020); see also: *Evropske karte srpska tapija za Kosmet*, <https://tamodaleko.co.rs/evropske-karte-srpska-tapija-za-kosmet/> (September 14, 2020).
- 14 In Hungary numerous unknown sources have been published within the “Trianon 100” project of the HAS. Glant/Tibor (ed.): *Az Egyesült Államok útja Trianonhoz*; Simon: *Csehszlovák iratok a magyar–szlovák államhatár kijelöléséhez (1918–1920)*. See for more the website *Trianon 19/2020*, <https://trianon100.hu/> (September 14, 2020)
- 15 The topic of historical ethnic mapping is still popular, see the catalogue “Books about Macedonia,” <http://www.promacedonia.org/> (December 14, 2020) or the dozens of ethnic maps evaluated by Segyevy: *Szerb törekvések és Jovan Cvijić etnikai térképei*, in: (September 14, 2020); Segyevy: *Romania reflected in ethnic maps*. For a vast collection of Balkan maps see: “Historical Maps of Ethnic Groups in the Balkans”, in: *Wikimedia* (September 14, 2020).

terrain. We are interested mainly in a special aspect of ethnic mapping: the focus is neither on the history of ethnic mapping nor on the ideas and notions behind these maps. Neither is it a general theoretical work despite the exploration of the methods and statistics used by the inventors of the investigated maps. We rather propose a methodological experiment focusing on the critical analysis of the reliability of nineteenth century ethnic maps – including both the visualization techniques and their raw data –, realized through the deconstruction (to basic data) and re-construction (in a different manner) of the maps. At the same time, besides testing our new method, the study also discusses general problems in connection with mapping methods, which still seem to be neglected in recent works in the region.

The selection of the spatial and temporal dimension of our research as well as of the applied methods – unconventional for historians and, to a lesser extent, for geographers<sup>16</sup> – all need some explanation. Though the subjects of the present investigation are the products of geography, it is evident that their historical context cannot be neglected. Neglecting the background of ethnic maps (their origin, the purpose behind them, the ideas they represent, or they were influenced by) would reduce our work to the level of descriptive geographical analysis. Abandoning other interpretative frames would be akin to talking about a painting by analyzing only its colours and the applied technique, but without mentioning the circumstances of its creation and the personality its author or neglecting what it symbolizes. In his 1988 essay “Maps, knowledge, and power,” John Brian Harley claimed that maps are cultural products – a socially constructed form of knowledge –, which have different layers of meaning. Maps are never to be seen only as the mere presentation of geographical features, but rather must be read as a form of manipulated knowledge.<sup>17</sup> From this aspect not only ethnographic maps, but even other forms, like topographic mapping, served political interests in the era of nationalized science.<sup>18</sup> In this book we try to interpret ethnic maps in

16 A re-edition of a map is accepted as a method, if the original method of illustration is suspected to be inappropriateness such as distorting or manipulating reality. See: Monmonier: *Lying with Maps*, 215–22; Monmonier: *How to Lie with Maps*.

17 Harley: *Maps, knowledge, and power*.

18 Felix Kanitz sold his maps drawn during his tour in Ottoman Bulgaria to the Russians just before the outbreak of the Russian–Ottoman war in 1877. Simov: *Mapping Enemy’s Land*.

such a comprehensive manner, considering them as products of the era, that is, as imprints of the politics and scientific thought of that time, and not separating them from the environment that influenced their creation. In other words, we consider ethnic maps more than mere products of geography, and therefore a complex, interdisciplinary approach was used to analyze them in order to get a more established and balanced picture.

From the above mentioned it is clear that ethnic mapping is a complex and sensitive question, which can be examined from different methodological and political aspects too. The classical geographical approach claimed that ethnic mapping was more or less a scientific, and not a political method that tries to capture the spatial diversity of ethnic identity.<sup>19</sup> Representatives of critical geography<sup>20</sup> – among them the authors of this book –, however, contend state that an ethnic map cannot be regarded an “objective” representation of an underlying demographic reality. Thus, it is not a scientific method at all, because ethnic mapping is also a representation of political thoughts that reflects ideologies, so it is not “value-free” (in a Weberian sense). Ethnic mapping turned from a descriptive method into a tool to realize political goals, as ethnic maps did not only purportedly serve to describe a situation, but actually invented the nation and its space; furthermore, the problematic relationship between ethnic maps as representations and the represented space is also related to the tendency of these maps to neglect the complexity of collective identities and focus on one (arbitrarily) selected dimension, i.e., ethnicity.

Those who argue against the attitude of critical geography state that thematic mapping is generally accepted as a scientific method to illustrate the spatial diversity of different socio-economic phenomena. Thus, ethnic mapping – as a kind of thematic mapping<sup>21</sup> – also has relevance and legitimacy.

It was military and economic reasons that promote mapping of the unknown – and not scientific curiosity. Military mappers accompanying railway engineers during the great construction works in the Ottoman Empire contributed to the military mapping of the Balkans. 3rd Military Mapping Survey of Austria-Hungary, [ishm.elte.hu/hun/digkonyv/topo/3felmeres.htm](http://ishm.elte.hu/hun/digkonyv/topo/3felmeres.htm) (September 14, 2020), Demeter: A politikai érdekek hatása az iszlámról és a Török Birodalomról alkotott képre a 19. században.

19 Cf. Yosmaoğlu: Blood Ties, 88.

20 Postcolonial thought is partly aimed at the deconstruction of the ethnocentric approach. Gyáni: Kulturális nacionalizmus.

21 Yosmaoğlu: Blood Ties, 88.

However, this argument is flawed, as it fails to make a difference between ethnic maps as products and ethnic categories as features to be mapped. While the process of visualization itself can be methodologically correct (geographers usually focused on this aspect in their analyses), the illustrated features – ethnicity – are abstract and often fuzzy categories.<sup>22</sup> Thus, any claim at objectivity is doubtful from the very beginning. In other words, while some socio-demographic indicators, like “crude birth rate” are adequate and unambiguous terms to be visualized through thematic maps, “nation” is definitely not. Besides these, any thematic map inherently distorts reality, because its original goal is to emphasize certain phenomenon over others.

To sum up the difference between the approaches of critical geography, which is heavily influenced by postcolonial thinking, and the traditional approach, it is worth citing historian Ipek Yosmaoğlu, from her work on Ottoman Macedonia:

I am not arguing that the ethnographic map is a “fiction” because of my distrust in the data collected by ethnographers such as Cvijić. Nor am I suggesting that ethnographers and cartographers were all motivated by nefarious motives of territorial domination...<sup>23</sup> Ethnographic maps and the statistical data they are based on “flatten and enclose” people. This is hardly the ideal medium to capture the essence of a concept as fluid, as contingent, and as changing as ethnicity – especially ethnicity in Ottoman Macedonia at the turn of the twentieth century.<sup>24</sup>

Earlier scholars who criticized the practice of ethnic mapping focused on the way it had been conducted and not its essence. As Yosmaoğlu highlights, when Wilkinson wrote his famous work, he “also subscribed to the assumption common to all these maps and their creators – the assumption that there is a better way to draw an ethnographic map, that ethnicity can be objectively

- 22 But for contemporary nationalists, “nation” was not simply an abstract term or a descriptive group-category, but also an existing reality (an organism, indeed) with its own will and actions pointing to the same direction. Brubaker: Nationalism reframed.
- 23 Yosmaoğlu: Blood Ties, 128–9. Wilkinson and his followers thought that if these problems were overcome, objective ethnic maps could be produced. Yosmaoğlu challenges this with the next sentence citing Appadurai.
- 24 Yosmaoğlu cites Appadurai: Numbers in the Colonial Imagination, 329.

identified, enumerated, and depicted in two dimensions.” And this is what was refused by Yosmaoğlu and other authors stressing the ambiguity, fluidity, and political nature of ethnic identities.<sup>25</sup>

The question is, who is right in this debate? The elusiveness or arbitrary interpretation of the illustrated ethnic categories – like, for example, who is to be considered “Bulgarian” in Ottoman Macedonia – put ethnic mapping in a hopeless situation from the beginning. But despite all this, the visualization of available data still could have been done in a professional way, free of distortions or manipulations. A map might be “correct” in the sense of being a fair visual translation of available data into the spatial dimension, regardless of the question in how far the data were problematic. The question is: was this really the case of the investigated maps, and which maps fail to comply this criterion? In the latter case, we would arrive at a decisive argument against the idea claiming ethnic mapping to be a scientific method, because it would mean that even those parts of the work that could have been carried out by a professional approach, were not.<sup>26</sup>

So, if we prove that ethnic maps of the investigated era did not meet the standards of the science of the day from a methodological point of view, in other words they could have been designed and visualized in a better manner (but were not), this implies that scientific criteria were subjected to other goals and considerations by the authors and publishers of the maps. Methodological mistakes of visualization, namely, could have been avoided, while the inherent obscurity or arbitrariness of ethnic categories were hardly eliminable by a map editor, who did not participate in the production the underlying demographic data. Of course, this does not decrease the responsibility of map-makers (given that ethnic maps easily drew the attention of masses because of their special features), among whom many were ‘amateurs’ or dilettanti. (The latter fact did not necessarily mean their maps were *ab ovo* more tendentious or politicized). On the other hand, a map meeting the scientific standards from the aspect of visualization, as accepted at that time, would still not automatically mean that it is objective, because the credibility and the selection criteria of data also need to be taken into account.

25 Yosmaoğlu: Blood Ties, 128–9.

26 For this argument see the work of Monmonier: How to Lie with Maps. Our method is based on Popper’s falsification theory and not on verification (as the latter is impossible).

That is why we decided to deconstruct the historical ethnographic maps to their building bricks (data) and then to rebuild them using a different visualization method, which we thought to be more proper to illustrate ethnic proportions (see details later). A comparison of more than 50 old maps with our redrawn maps highlights the above outlined problems of reliability better and helps identify those maps and datasets that suffered insignificant distortion during the visualization process. Works focusing on the reliability of maps rarely analyzed the question whether the ethnic map in question distorts reality ‘only’ because of its inherent features (due to the fuzzy and elusive nature of the underlying indicators of ethnicity which were liable to biased interpretations), or because of the intentional manipulation of data or in the visualization.

In general, the role of deconstruction is acknowledged by scholars, whereas Harley’s statement “Maps are too important to be left to cartographers alone”<sup>27</sup> justifies the participation of other disciplines besides geography in the process of evaluation. These disciplines use a different approach: works based on the “technical” deconstruction of maps are quite rare in recent literature.<sup>28</sup> Focusing on technical deconstruction would naturally imply that we accept Wilkinson’s stance that ethnicity is mappable, if circumstances are objective and the method is professional. This does not mean that we deny Yosmaoğlu’s statement on the multidimensional character of ethnicity, which is flattened by maps. That is why we include ethnic maps attempting to illustrate multiple identities into the examined set of maps.

As to the selected region, the Balkan Peninsula (or better to say, European Turkey) is special in several aspects: nations – and their geographical and virtual boundaries – were unconsolidated here at that time, compared to western Europe; external influence had evident impact on the course of events; data on ethnicity and confessions were unreliable due to the unsophisticated census methods of the Ottoman Empire; the terminology applied in Ottoman censuses also differed from those in the West, offering space for arbitrary interpretations. The nation-concepts (and the main distinctive features of the nations), approved and legitimized by the new-born national states and used in their own censuses and enumerations of people

27 Harley: *Deconstructing the Map* (1989); Harley: *Deconstructing the Map* (1992).

28 Though even Wilkinson tried something like that, when he decided to use the same outcrop and scaling for the maps he analyzed to promote comparison.

on Ottoman territory, also differed from one another, creating further confusion in delimiting and mapping nations. Besides these problems, the nineteenth century Balkan region also offers a great possibility to study the effects of important ideologies of that time – like nationalism or Darwinism – on the evolution of science and politics. Many Western scholars, therefore, considered the Balkans as a field of experiments, a terrain where the complex dissolution of empires could be observed parallel to the emergence of nation states – a process which contemporaneous observers often considered a positive and natural outcome of events confirming the applicability of Darwinist theory to historical processes.<sup>29</sup>

***A note on the maps in this book:***

This book includes 61 maps redrawn by the authors, based on data distilled from approximately 100 historical ethnographic maps and from statistical information. These maps are listed above and referenced in the text as “Maps.” The original, historical maps are not included in this book, since they have already been published. A list of all those maps that served as sources for our analysis and the redrawing of maps is provided at the end of the volume. These maps are referenced in the text as “App.” and listed in the Appendix. They are accessible online at this web address: [www.balkanethnicmaps.hu](http://www.balkanethnicmaps.hu).

29 For details see Mishkova: Beyond Balkanism, Chapter 1.

## Chapter 1. Introduction

Before discussing the reliability of ethnic maps, several questions have to be addressed: What tasks were assigned to ethnic mapping, and were these political or scientific? Was ethnic mapping an appropriate tool for achieving these goals, or would other forms of publications fit better to the purpose? Who were the target groups of maps? Were these aimed at mainly influencing public opinion, or politicians? What were the practical advantages of maps compared to other instruments of propaganda, and why could ethnographic maps become so popular? There are other, more general questions too. What was the ideological background that made the emergence of ethnic mapping possible? Was ethnic mapping in and of the Balkan Peninsula differed from that of other regions? How did western scientific circles treat this region and how did ethnic mapping relate to the emerging ideologies or to other scientific disciplines targeting the Balkans?

### **(a) Ethnic maps as instruments and their different roles – a general overview**

The nineteenth century brought about significant changes in hearts and minds, and, as a result, in the frontiers of Europe. It was the age of the so-called national revival (*risorgimento*, *vāzrazhdane*, *preporod*, *rilindja*, etc.) culminating in the fight between the traditional concept of the state as empire and the new idea of the nation state. The adaptation of Darwinism and terms like “competition of races”, or “natural selection” in social science and history resulted in a new and teleological concept of historical development. It claimed that there is a natural evolution towards nation and nation state, which were also considered the most developed social formations and political entities. This also implied that fighting for survival or competition between the nations was considered a natural phenomenon, such as the endeavour to unite everyone belonging to the same nation into one state having ‘natural boundaries’ (not in physical-geographical but in political geographical terms). These ideas manifested in political nationalism, which considered empire an obsolete formation. These ideas gradually penetrated into the Balkan Peninsula too, which is in the focus of our investigation. Thus, nationalism became one of the main driving forces in the struggle for inde-

pendence beside hopes for social emancipation and the critique of economic backwardness of the Ottoman Empire.

A new ideology always needs new argumentation to legitimize its existence and aspirations linked with it. It also requires new instruments to serve these purposes. Nationalism as a paradigm implies that a brand new system of reference is created, one that cannot be challenged on the basis of argument and the logic of old ideologies and reference systems. Among these, ethnic mapping became a very special and important method of nation-building and of justifying national aspirations. Ethnic maps had an influence on decision-making but probably even more on the dissemination of nationalist thought and the acceptance of self-determination as a principle. Together with the fabrication of the historical past (a task attributed to the historians), ethnic mapping (a task designated for geographers and cartographers) was an excellent instrument to advertise national goals and desires (and even to externalize internal problems): maps were cheaper than establishing or maintaining schools, while being able to influence minds through their visibility and publicity. Just an example: 1,000 copies of a map or a brochure cost 2,200 francs,<sup>1</sup> and from this amount all Greek schools in Macedonia could be supplied with effective propaganda material. By comparison, the annual expenses of the Greek lycée in Salonica were 70,000 francs, while the Greek government supported the educational and other efforts of the Patriarchate altogether with 1.5 million francs per year.<sup>2</sup> Weapons, another important means of asserting nationalist claims, were also more costly than maps.<sup>3</sup> Compared to these maps could be produced, reproduced and disseminated, and smuggled, easily. Though map-reading also requires some skills, teachers could easily transmit the message of maps to the 'illiterate' masses. Furthermore, pictures – and ethnic maps can be interpreted like this – are perceived and processed more easily by the human mind than printed texts. It is not surprising that flags and coats of arms and even paint-

- 1 Tokay/Küneralp (eds.): *Ottoman Diplomatic Documents on the Origins of World War One, IV, The Macedonian Issue, 1879–1912. Part 2. 1905–1912.* (ODD) Nr. 1426. 15, Nov. 1906.
- 2 Yosmaoğlu: *Blood Ties*, 66, 71–8.
- 3 The cheapest rifle (another adequate instrument to exert pressure on minds), an obsolete Werndl, was 6 francs at the time, while a good Martini cost as much as 10–15 pounds sterling (220–300 francs). ODD IV/1. Nr. 357 (1902).

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ings of heroic efforts also became adequate symbols to enhance and advertise group-consciousness.<sup>4</sup>

The same convictions were shared by the Greek leaders, such as Konstantinos Paparrigopoulos,<sup>5</sup> of the Syllogos (an organization supporting Hellenization in Macedonia) when they ordered and disseminated Kiepert's 'ethnocratic' map<sup>6</sup> to all Greek schools in Macedonia. The map in question – which, in complete contrast to the cartographer's former work used by the Congress of Berlin, was favourable to the Greek cause – was targeted so as to convince not the decision makers, but the masses.<sup>7</sup> The fact that the same author even produced contradictory maps eroded the scientific credibility of mapping in general.

Maps could become symbols as well, as they carried special messages beyond their original content – even for 'illiterate' people who were unable to 'read' their content properly. This often led to misinterpretations. In Croatia, the cadastral land surveys in connection with the planned tax reforms in 1883 resulted in an anti-modernist mass movement and the burning of cadastral and other maps as a form of peasant protest against government measures.<sup>8</sup> Maps, provoking the anger of struggling peasants, symbolized the centralizing state power. Other maps, such as those shown by Hungary at the Paris Exhibition in 1900, rather served as convenient representations of civilizational achievements – confirming Anderson's and Appadurai's idea about the functions of maps.<sup>9</sup> Another example shows that govern-

4 School statistics in favor of the Greeks were initially published in the form of statistical tables, but soon were visualised, as the visual impact of a map is usually stronger. See Yosmaoğlu: *Blood Ties*, 98.

5 A prominent Greek historian, who had a strong impact on the Greek state and Greek identity by integrating both Macedonia and Byzantium into the modern Greek history and political thought. Without his books, Macedonia would not have been turned necessarily into the object of Greek national desires, as ancient Macedonians were not considered Greek prior to the 1870s. Jovanovski: *Konstantinos Paparrigopoulos i Makedonija*. For the affair between Kiepert and Paparrigopoulos, see: *Francuski dokumenti za istorijata na makedonskijot narod 1877–1878*.

6 Kiepert: *Tableau Ethnocratique des pays du sud-est de l'Europe* (App. 43).

7 For this see Harley: *Maps, knowledge, and power*, 277–8.

8 HR-HDA-Pr.Zv. (Hrvatski Državni Arhiv, Predsjedništvo Zemaljske Vlade) 78. fond, 181. box: 6 3356/1883.

9 The *Annales de Géographie* wrote that the Hungarians brought huge amount of cartographic material that symbolized the taming and nationalization of the

ment authorities were well aware of the effect of maps on public opinion: during the London Exhibition of the Balkan States (1906), the Ottoman delegation objected to the appearance of a map showing Bulgaria as a sovereign country together with Eastern Rumelia – a nuance, but at that time still a *de jure* mistake.<sup>10</sup>

Figure 1. Propaganda map from the era of WWI created by Hungarian authorities, illustrating the supposed territorial aspirations of the enemies<sup>11</sup>



Source: National Széchényi Library, www.dspace.hu.

wilderness. While the accounts on the other 28 countries' maps were not longer than a paragraph each, the list of Hungarian maps constituted more than two pages, the second longest enumeration after Russia's. The maps represented the tremendous civilizatoric activity of the central power in discovering, regulating ruling and transforming the landscape. Eszik: A magyar-horvát tenger-mellék, mint nemzetiesített táj.

- 10 ODD, IV/2. Nr. 1440. 7 Dec. 1906. The British refused to withdraw the map from the Pavilions, claiming that the “Exhibition was a private event on which His Majesty had no influence”.
- 11 Flottaegyesület: “1916 Ekkép akarták ellenségeink Európát a háború után alakítani,” in: <https://www.mutargy.com/egyeb-mutargy/1916-ekepp-akartak-ellensegeink-europat-a-haboru-utan-alakitani> (December 14, 2020).

(a) Ethnic maps as instruments and their different roles

Ethnic maps (and statistical data) became integral parts of the ‘mass media’ influencing public opinion, and played such an important role in mass communication that a demonstration in Greece in 1903 demanded a ban on maps that were unfavourable to the Greek cause<sup>12</sup> and even urged for a governmental counter-offensive. Sometimes state intervention decided which maps to be considered to be carrying the correct message: in Hungary, Greek Catholic priests and school-teachers speaking the Romanian language were sued because they used unauthorized maps with content forbidden by the state.<sup>13</sup>

Propaganda purposes were often very evident as maps were used to stimulate and modify the public opinion.<sup>14</sup> During the First World War, numerous fake maps came into circulation illustrating how the ‘enemy’ wants to re-establish order by mutilating or dismembering states after the war (Figure 1). This was done in order to increase the morale of troops or inhabitants of the ‘hinterland’. Maps were also published in journals and newspapers<sup>15</sup> because these were available for everybody, and the articles were short and often bombastic. Even politically unrecognized communities tried to inform – beyond their ‘own folk’ – decision-makers about their views by using maps appearing in daily press. During the Balkan Wars, for example, a geographic and ethnographic map of Macedonia made by Dimitrija Pavle-Čupovski in Macedonian language and printed in colour in March of 1913 in St. Petersburg, was sent to the Conference of the Ambassadors in London and to the diplomatic representatives of European States in Russia, as well as to the Russian press.<sup>16</sup> Daily press was thought to enhance their chances to influence decision-making through the influence on foreign public opinion.

12 Yosmaoğlu: Blood ties, 94.

13 Arhivele Nationale, Cluj Prefectura, Judetului Satu Mare, Acte Comitet Administrativ (ACSM) Comisia Silvica vol. 1907. 445/3.

14 It would be unwise to underestimate the role of propaganda in the 19th century: Gladstone himself published a pamphlet of 200,000 copies at his own cost in order to disseminate knowledge on the Ottoman atrocities against Bulgarians in 1876 (while atrocities against Muslims were not emphasized in this document), that way earning political capital. Gladstone: Bulgarian Horrors and the Question of the East. Compare its 39 pages with the lengthy book on the same topic by More: Under the Balkans.

15 See for example the first issue of Journal ‘Vardar’ edited by K. Misirkov (confiscated by Russian authorities in 1905).

16 Ristovska-Josifovska: Makedonskiot identitet i istoriskite Proučavanja. And also: Ristovski/Ristovska-Josifovska (eds.): Macedonian album, 79.

Maps targeting decision makers – although usually looking more professional than those created for the masses – were often similarly unreliable constructions. McCarthy proved that Greek statistics of Polybios and the map of Soteriades (App. 3) were not only based on manipulated data, but even the source they used did not exist in the form referenced by them.<sup>17</sup>

Books on history could also target and reach many people, but maps had certain advantages. Compared to long and ‘boring’ books, ethnic maps were cheap and practical. Paparrigopoulos was given 6,000 francs for the translation of his books into French in order to disseminate them in the West, influencing public opinion there too.<sup>18</sup> At the same time, the dissemination of Kiepert’s “ethnocratic” map containing the compression of Paparrigopoulos’s thoughts on Greek history would cost only 2,000 francs. Since much information was compressed on one page and at the same time these were very illustrative, ethnic maps could reach illiterate masses as well as schools and experts. Decision-makers, either driven by pragmatism and ‘Realpolitik’ or by the acceptance of the national idea, who scarcely had time to read long essays with obscure argumentation on national questions, found maps (together with short pamphlets) a useful instrument for official propaganda purposes.<sup>19</sup>

While books required substantial time and money to be created (and to be read), ethnic data was always reusable to create newer and newer maps and interpretations. These maps often lacked thorough methodological analysis on how the data was selected and interpreted. This decreased their ‘vulnerability’ to criticism, while the ‘professional outlook’ increased their credibility. A good example of reinterpreting the same data is Jovan Cvijić: the famous Serbian geographer created several maps with different interpretations based on the same data, according to changing political demands.<sup>20</sup> Despite these problems, ethnic mapping was considered a scientific and reliable

17 McCarthy: Greek Statistics on Ottoman Greek Population.

18 Jovanovski: Konstantinos Paparrigopoulos i Makedonija, 191.

19 For example, the map of Stanford in 1877 contained short explanatory remarks ranging to 34 pages. Stanford: An Ethnological Map of European Turkey and Greece, 32. Or see Cvijić: Remarks on Ethnography of the Macedonian Slavs, 36. Synvet’s essay on Ottoman ethnography was also short (approx. 60 pages, including statistical tables). Synvet: La Carte Ethnographique de la Turquie d’Europe et Denombrement de l’Empire Ottoman.

20 The statistics by K. Misirkov published in the journal ‘Vardar’ is also a good example of the different interpretations of the same dataset.

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endeavour at that time, which is confirmed by the fact that their content was not always checked.<sup>21</sup> Some, however, were considered more or less as manifestations of a political idea from the beginning despite the seemingly professional approach.<sup>22</sup>

The scientific community tried to overcome the advantage enjoyed by maps compared to books and introduced the book review as a genre. These were short interpretations or critiques of longer works, compressing the content in a similar way as maps did. Unlike pamphlets, reviews targeted mostly experts or politicians as readers, but definitely not the undereducated masses. Contrary to pamphlets, reviews seemed to be scientific and purportedly lacked emotional content. However, the argumentation used in these reviews sometimes fell short of impartiality: together with pamphlets and brochures, they were filtered or biased representations of reality, and thus were able to manipulate the reader, similarly to maps. A good example of disseminating – sometimes distorted – knowledge about the Balkans through reviews, and of the over-representation of ethnographic, linguistic, cartographic, and economic material in the geographic literature of the time is the *Pregled geografske literature o Balkanskom Poluostrvu* (Review of the geographic Literature on the Balkan Peninsula) edited by the famous Serbian geographer Jovan Cvijić. Volume 4 of this series contains the excerpts of more than 140 works from 1898–90 of which only 33% related to natural sciences (geology, meteorology and physical geography).<sup>23</sup>

But despite this evolution, pictures – including paintings,<sup>24</sup> postcards and cartoons, in addition to maps<sup>25</sup> – were still considered to be more appropriate propaganda material than anything based on letters.

The trust in the ‘omnipotence’ and legitimizing authority of science had grown so big by that time that the statements of scholars were often approved without critique or verification. When in a study celebrating the end of the

21 McCarthy and Yosmaoğlu cite a number of examples. This is true, for example, for Polybios or Soteriadis.

22 See Gopčević (detailed later, App. 12b, and 91).

23 Beograd 1901. Compared to this there were ca. 10 reviews on maps, a further 15 on works in connection with the ethnic question, 17 travelogues and approx. 10 works on economic development.

24 Baleva/Brunnbauer (eds.): Batak kato mjesto na pametta; Todev: Batak 1876–mit ili istoriya.

25 Alkan: Karikatürle Sultan II. Abdülhamid.

Balkan Wars and the victory of reason, the geographer W.L.G. Joerg<sup>26</sup> expressed his satisfaction that “the political boundaries on the Balkans finally coincided with the racial boundaries” (implicitly revealing of what geographers thought to be the real task of ethnic mapping at that time), he did not recognize that his opinion was driven by the *a priori* assumption that Cvijić’s views were correct; he totally neglected the possibility that an ethnic map can propagate political views instead of “pure justice”.

Joerg’s study is a good example of the influence of illusive maps: positivistic belief in progress accompanied with the uncritical acceptance of the views of “authorities”. And Joerg’s case was not unique, sometimes even decision-makers were driven by such assumptions and accepted the submitted material – trusting in the experts impartiality. However, neither were the ethnic maps handed to Woodrow Wilson in 1917, before he came out with his famous 14 points, based on purely scientific principles: hidden behind a general scientific approach, the members of the advisory board (including Cvijić again) were given a free hand in certain cases when drawing the maps, as Crampton has proved in his analysis.<sup>27</sup> Propaganda and science became inseparable by then, while the public was still convinced that scientific approach was applied in ethnic mapping resting on the fundament of objectivity and the authority of science. Therefore, ethnic mapping was rarely, if ever, seen as a method to conceal or verify exaggerated political aspirations.

Whereas politics influenced mappers, maps also influenced politicians, and this duality caused problems when assessing the reliability of ethnic maps. The second (so-called “ethnocratic”) map of Kiepert was, for example, ordered and indeed drawn by Greek nationalists, who wanted to advertise their stance by hiding behind the name of the most respected geographer with unchallengeable scientific authority. Behind the so-called English

26 Joerg: *The New Boundaries of the Balkan States and Their Significance*, 829–30.

27 In Washington, more than 150 experts were working under the leadership of Edward M. House from 1917; this was the so-called ‘Inquiry’. Crampton: *The cartographic calculation of space. The map of Cvijić, published in 1918 in the Geographical Review*, turned out to be the most influential of the time: it served as a blueprint for marking national boundaries during the Paris Peace Conference of 1919. The *Geographical Review* was to advertise the ideas of geographers around the Inquiry. Glant: *Az Egyesült Államok útja Trianonhoz*, 20–3, 220–1 (see the 26 thematic maps used during decision-making).

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map of Stanford, we found another Greek, Ioannis Gennadios, the Greek ambassador to London.<sup>28</sup>

The next example probably highlights the shift in the functions of ethnic maps. While early ethnographic maps focusing on the situation of Christians in Turkey were created to influence the foreign politics of Britain, Russia, or Austria-Hungary, maps published decades later were created by the encouragement of these governments to legitimize their foreign policies. Though it is hard to separate the two tendencies even in the case of the early maps, the fact that some of them were created by amateurs (Irby and MacKenzie) or scholars from different disciplines, who were (supposedly) not in the service of the Great Powers (unlike Boué or Hahn, for example), may support the assumption that these maps were not encouraged by governments. However, this is hard to check. Just an example: in the case of the first maps created by the “Czechs” (Šafarik) it is hardly clear whether these maps were influenced by the central government, or rather the map-makers wanted to influence the policy of the Habsburgs, or whether they indicate patterns of Panslavism, as external impact. Thus, the idea was either inspired by, or was to inspire, Russia. In this case the particular interests coincided with the state interest.

All these examples show that the ‘power of maps’ (similar to that of statistics<sup>29</sup>) is undeniable.<sup>30</sup> Ethnic maps are more than just the territory and population they claim to depict: they represent power, desires, aspirations, or opposition.<sup>31</sup> As they are able to manipulate and distort reality, they should not be considered as impartial sources, but rather as political tools or as the representations of politicized ideas. They were an excellent means to advertise the national idea, because they could fulfil their function as propaganda material and academic material, influencing both political decision-making and the ‘masses’, without transferring extra burdens onto society. And although our work tries to keep certain distance from the nationalist discourse

28 Yosmaoğlu: Blood ties, 110–23.

29 Official statistics, the building bricks of maps, have their own magic power. When in 1919 the Greek Metropolitan of Trabzon, referring to an Ottoman salname from 1908, stated that there were half a million Greeks in the region, no one decided to check the data. However, no such salname existed from that year, and the last one from 1905 mentioned only 200,000 Greeks. See: McCarthy: Population History, 239.

30 Wood: The Power of Maps.

31 Yosmaoğlu: Blood Ties, 83.

by expressing a criticism to ethnic mapping when we try to reveal the distorted interpretations and manipulations, we still believe that a different reading of ethnic maps – focusing not on what is inside, but what is behind the map – can be an instrument to highlight the persistent problems of the historiographies and ethnic tensions in the examined region. Events of the last decades in the Balkan Peninsula and East-Central Europe proved that nationalism is still a strong sentiment and that political decisions are influenced by ethnic considerations. There is also a recent trend in the national historiographies to re-evaluate ethnic statistics based on source criticism and comparative statistical approaches and that way challenge misconceptions coming, for example, from neighbouring countries.<sup>32</sup> But while on the one hand these works now apply professional methods, on the other hand the questions addressed still remain within the frames of national historiographies, thus their result is not more than the revival of the old rivalry: who constituted the majority, whose statistics are more reliable, whose dominance was justifiable, etc.

## **(b) Methods of investigation**

Chapter 2 of this study contains a historiographic overview and a methodological analysis of the maps created by the Great Powers and the Balkan states between the 1840s and the 1920s that served to illustrate ethnic (or ethnoreligious) population proportions in the Balkan Peninsula. Our goal was to reveal the political background and the hidden stories of the maps

32 For example, in Bulgaria, historical demography recently became a matter of interest again as the works of Kiel or Arkadiev testify this. Arkadiev: *Izmenenya v broya na naselenieto po bălgarskite zemi i sàstava na osmanskata imperiya*. In Turkey, following the path marked by McCarthy, Şaşmaz and Koyuncu are re-evaluating old and new sources. Koyuncu: *1877–78 Osmanlı-Rus Harbi Öncesinde Şarkî Rumeli Nüfusu*; Koyuncu: *Tuna vilâyeti'nde nüfus ve demografi (1864–1877)*; Şaşmaz: *The Distortion of the Population Data for National Causes by the Greeks, Bulgarians and Armenian in the Late 19th and Early 20th Centuries*; Şaşmaz: *The Ottoman Censuses and the Registration Systems in the Nineteenth and Early Twentieth Centuries*; Şaşmaz: *Analysis of the Population Table of the Census of Salonica of 1903–4*; Mutlu: *Late Ottoman Population and Its Ethnic Distribution*. For an early summary: Karpat: *Ottoman population, 1830–1914*.

and explain why the chosen visualization method was used. In the next step we tried to deconstruct these maps into their basic elements (data level), and then reconstruct them using a different visualization method. By analyzing the reliability of data and the appropriateness of visualization methods, we tried to make distinctions between those maps that were *ab ovo* aimed at manipulating the final image and those that simply used inappropriate methods leading to interpretations liable to generate misunderstandings.

Our method includes (1) the collection of original data (going back to the manuscript level, if available); (2) then we compared raw data with the officially published numbers evaluating their reliability. This was followed (3) by the comparison of data with the published maps (to trace any difference between raw and visualized data); and finally we (4) redrew the old maps using the original data, but selecting the pie chart method instead of the more generally used patch maps,<sup>33</sup> in order to check the reliability of maps. To make the maps comparable with each other, we used similar scaling, projection systems and legends (see Figure 2). Some contemporary datasets which had not been published in the form of maps were also visualized by us to compare the picture they suggest with the existing maps.

The idea to compare maps based on the same (or similar) data, but using a different visualization technique came from the observation that the first ethnographic patch maps (Boué, 1847, App. 28, or Šafarik, App. 31)<sup>34</sup> neglected the illustration of Muslims. However, recent literature puts their share of population at 30–45% in the Balkans relying on – partly deficient – eighteenth century tax registers (*defter*).<sup>35</sup> The picture we obtained by illustrating the data of the first Ottoman census (1831, Map 14) on pie chart maps was significantly different from that of the early Western patch maps and confirmed the

33 Patch maps use solid colour fill to illustrate the dominance of ethnic groups on a certain area. These may illustrate the territorial extension of ethnic groups well, but are unable to illustrate population density and ethnic proportions. Pie chart maps are better, if the goal is the illustration of heterogeneity and population numbers or population density, while this map-type is inapt to delimit boundaries or homogeneous territories.

34 Lejean (1861) and Habenicht were the first who tried to illustrate Muslims with patches. This happened not earlier than the Crimean War, when the Ottoman Empire for the first time in the 19th century became an ally of the European Powers, so political circumstances had an influence on mapping practices.

35 Minkov: Conversion to Islam in the Balkans; See also: McGowan: Economic Life in Ottoman Europe, 80–114.

impression from eighteenth century head tax registers (*cizye defters*). Three reasons can explain the difference. First, the Ottoman census might distort in favor of Muslims, and therefore early Western mappers, being aware of this fact, refrained from using them. This possibility is discussed thoroughly in the book. Second, Western mappers were unable to obtain and/or read the Ottoman census data (of course, this raises the question to what extent can these maps be considered as scientific products, and the answer is unfavorable). Third, they considered their maps as tools to highlight a problem (that millions of Christians live under Ottoman rule), which explains the overemphasis on the Christian/Slavic character of the peninsula. In the latter case the scientific character of ethnic mapping can be questioned *ab ovo*.

As to the first possibility, the simple comparison of the pie chart map based on the 1831 Ottoman census data with pie chart map based on the Ottoman statistical data 40 years later<sup>36</sup> denied the presumption that Ottoman data was completely useless.<sup>37</sup> Ethnic proportions are quite similar in the 1831 dataset to the picture in the 1870s, even if numbers do not match. Thus, our pie charts relying on the original Ottoman data still offer a more realistic picture than the first generation of Western patch maps.<sup>38</sup> Generally speaking, if the two visualization methods (patch maps and pie chart maps) show similar pictures from the same era, this means that the results are independent from the method, and thus old maps can be considered reliable.

- 36 The Ottomans did not create such maps using their own census data. Therefore, up to now no one tried to compare the western picture with the image suggested by the official Ottoman data.
- 37 For example, in 1877 at a meeting of the Statistical Society in London, Ravenstein accused Ottoman data collection of being below the standards. He acknowledged that the Ottomans systematically collected ethno-religious data, but he claimed that without further adjustments these are worthless. He relied on the data and maps of Sax, Helle von Samo and consular reports, and thus he advised using Western and indirect sources. Yosmaoğlu: *Blood Ties*, 132. Ernst Georg Ravenstein (1834–1913) was a German-English geographer-cartographer. As a geographer he was less of a traveller than a researcher. He was in the service of the Topographical Department of the British War Office for 20 years (1855–75).
- 38 Western maps from the 1860s and the picture gained through the illustration of Ottoman data from the 1870s were much closer to each other regarding the territorial patterns, than they had been in the 1840s (despite the negative opinion of Ravenstein on Ottoman data).

If the results differ, this means that either distortions or intentional manipulations occurred during the process of visualization, questioning the reliability of the map. Nonetheless, this does not automatically mean that it is always the old maps that are flawed.

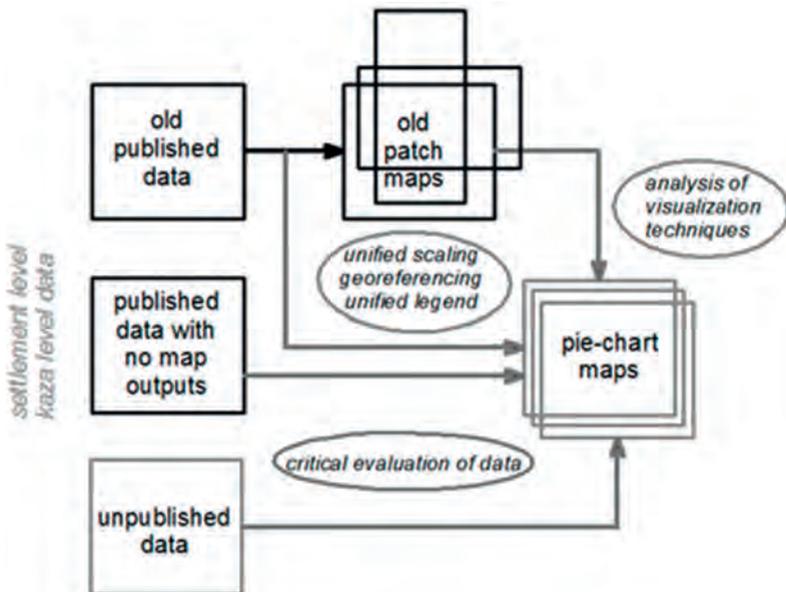
However, this method is only able to handle cartographic problems – those arising during the visualization process. But distortions (unintentional) and manipulations (intentional) may occur not only during visualization, but already at the level of the applied categories (depending on the interpretation of the ‘nation’, see section d of this chapter) and at the level of numbers too. The deconstruction and reconstruction of maps cannot handle these. Therefore, in a separate chapter we analyze the reliability of data (chapter 3) and we also discuss the problems of interpretation of ethnic categories. As neither the concepts of ethnicity nor ethnic categories used in Ottoman censuses match the European ones, this provided broad space for (mis)interpretations among contemporary mappers. Furthermore, nations are imagined communities, rather than the categorization of something existing as real, and identity often cannot be described by one feature (not in a way that contemporary ethnic maps tried to do). This questions not only the relevance of a selected method, but even the general applicability of ethnic mapping from the beginning. In fact, it is the modern ‘nation state’ that tries to get rid of the fuzzy or multiple identity forms that do not fit into its imagined schemes – with the aid of censuses and ethnic maps – by overemphasizing one selected element of the multidimensional identity.<sup>39</sup> Thus, ethnographic maps usually offer a limited and specific interpretation of the nation. In fact, ethnographic maps contributed to the creation of the nations by simplifying and flattening different dimensions of identity into one that was considered predominant, rather than “depicting” them. To illustrate these problems and examine the possibilities of data selection and compilation in detail, we will trace the process of making a map from sporadic data of different origin on the example of the Austrian archival material.

So, ethnic maps of the investigated region can be contradictory for numerous reasons: beside the differences in the interpretations of identity and the perceptions of self-consciousness, which are burdened by manipulative intentions, one may further add the constant evolution in cartographic methods and other administrative reasons (territorial changes are as important

39 See Anderson: *Imagined Communities*, 163–87.

as the shifts in the categories used in censuses). While chapter 2 investigates the political and ideological background of ethnographic maps, in chapter 3 the problems of creating ethnic maps are discussed from data reliability to visualization techniques. Chapter 4 contains the reconstructed maps relying on Ottoman censuses, on Exarchist and Patriarchist conscriptions, Austrian consular reports (from the HHStA archive) or from published but not visualized datasets. The deconstructed original historical ethnic maps discussed in the study can be found in the Appendix.

Figure 2. Methods and work phases



### (c) The region examined

One may ask why the Balkan Peninsula with its political complexity and fuzzy identity patterns was chosen to illustrate the success of ethnic mapping as a political instrument and the failure of ethnic mapping as a scientific method. The reason is exactly the above mentioned: the Balkan Peninsula between roughly 1840–1920 is a perfect terrain to study the opposition and clash of national and imperial thought, to study the influence of national-Darwinism

on scientific thought, and how these influenced (and were influenced by) politics and the evolution of nation states and nations. It is a perfect place to study the complexity and multidimensional character of national identity and to trace their overlaps; to illustrate the diversity of thinking about national categories, evident in the coexistence of numerous different – inclusive and exclusive – ethnic reference systems within a small area. These processes led to nations (and fault lines between nations) defined primarily on religion (see the Serbian-Croatian differentiation), on language (the Albanian nation) or regional identifications (the Macedonians). This diversity rendered the delimitation of nations more difficult, with apparent consequences for ethnic mapping, which is an important tool to showcase these limits.

The selection of the upper boundary of the timeframe can be justified by the following considerations. The original ethnic diversity decreased after 1920 as homogenizing nation states consolidated their boundaries and interregional migration, deportation and forced migration (“ethnic cleansing”) modified the picture. This means that the discrepancy between what nation-builders desired and illustrated with maps and the ethno-demographic realities began to fade away with time. As these processes were analyzed in detail by Justin McCarthy for the timeframe between the two world wars, we do not need to go into details here.<sup>40</sup>

There are other reasons – beyond the direct interference of the Great Powers, which makes the target area specific – that explain the selection of the peninsula as a study area. Some scholars, like Rogers Brubaker, consider the nineteenth century Balkans (and East-Central Europe) as the best place to study the problems of nationalism because of its inherent features.<sup>41</sup> There is a methodological aspect too: the relevance of scientific methods (in this case ethnic mapping) depends on its performance/applicability in the most complicated situations. And the Balkan Peninsula was an excellent “laboratory” for Western scholars of the nineteenth century to test the relevance of national Darwinism, for example, but on the other hand, it was an “impossibly complex and unfriendly terrain.”<sup>42</sup> The failure of ethnic mapping as a method is testified by the fact that ethnographic maps were not only unable

40 McCarthy: *Population History*.

41 Brubaker: *Nationalism reframed*, Introduction and Part I, Chapter 1.

42 The opinion of Reclus – and not only in physical geographical terms. See: Yosmaoğlu: *Blood Ties*, 107.

to depict the exact situation (numerous competing “scientifically verified” variants existed), but these maps in fact contributed to the further complication of the situation. Instead of analyzing a phenomenon for which a method is usually developed, the method itself contributed to the creation of the subject of its investigations, the nation.

Social phenomena usually have spatial patterns, but in order to map them a mutually accepted interpretation of the phenomenon, in our case the nation and ethnicity, is required *a priori*: who belongs to certain nations, what are the indicators or criteria of belonging to a community? Such a consensus was missing in the case of the Balkans at the time. Both neighbouring Balkan countries and Great Powers considered different attributes as determinative factors of belonging to a nation. This is partly because the so-called “belated” and “congested” evolution of nations and societies under the umbrella of empire in the Balkan Peninsula resulted in unconsolidated identity patterns. The next section will briefly present contemporaneous perception(s) of nationality in the Peninsula, which formed the basis of the ethnic maps.

#### **(d) The perception(s) of nationality in the Balkan Peninsula**

Given that ethnic maps are both transmitters of national ideology and proponents of the national consciousness at the same time, it is worth discussing the different approaches of contemporary observers to the nation, the subject of ethnic mapping itself, and their criteria for attributing a certain ethnicity/nationality to persons.

The nations as they were imagined in the Balkans were defined differently; nation-builders emphasized different distinctive features for defining the nation and thus deciding who belonged to it and who not; as result, the same person and group often found themselves claimed by different nations. One important definition of the nation emphasized collective cultural experience, which relied on the invented past: the revitalized memory of medieval states (considered as predecessors). When in the nineteenth century the Orthodox Slav national ideas defined themselves against the Greek *Megali Idea* and the Orthodox Patriarchate in Constantinople, it is evident that the old and common Byzantine heritage was denied too, and instead medieval Slavic states were chosen as predecessors of the modern national state. Yet since the traditional historical argumentation could refer only to local states or short-lived empires with overlapping boundaries, the emerging and

competing nationalistic ideas were of regional and particularistic character, thus could mobilize only some parts of the population in the region. As the so-called “cradles” of the nation had shifting centres and core areas, as reference points they were only able to create further confusion and generate debates over the expropriation and monopolization of the historical past, at the same time setting overlapping spheres of influence.

Among the most frequently used distinctive features that could serve as a basis for the definition of a nation by contemporary scholars were language, religious affiliation, and traditional customs.<sup>43</sup> Such widespread ethnographic phenomena like celebrating the *Slava* (ancestor worship), or the abundance of tribal organization among the Albanians and Montenegrins did not coincide with languages and state borders. One feature was thus often not enough to circumscribe a nation. Language could serve as a distinctive feature in the case of the Albanian nation, but the latter is divided regarding religion. Muslim Albanians usually tolerated other Muslims speaking Slavic or Turkish language. The concept of an Albanian nation based on language emerged only at the beginning of the twentieth century, under the auspices of Hungarian scholars (Ludwig von Thallóczy, the secretary of Benjámín Kállay) adapting the Hungarian model (the Hungarian nation is a linguistic nation divided along religious lines).<sup>44</sup> In this case the attempt was successful on the long run<sup>45</sup> (despite the different dialects of Tosks and Ghegs). In the case of Bosnia, Kállay’s original plan of creating a regional, supra-confessional Bosniak identity based on the common language ended in failure, and eventually gave way to the creation of the Bosniak nation in a narrower sense (based on religion, focusing on the Muslim Slavs of the region).<sup>46</sup> Religion and historical past became the main distinctive character for the future Croatians, Bosniaks and Serbs, all speaking similar languages, despite

43 We use here a British classification from the late 19th century cited also by Yosmaoğlu: *Blood Ties*, 141–2.

44 Csaplár-Degovics: *Lajos von Thallóczy und die Historiographie Albanien*.

45 Though the Catholic Albanian tradition considered Muslim Albanian-speakers as part of the same people (Molnár: *The Catholic Missions and the Origins of Albanian Nation-Building*), nation-building was not finished until the anti-religious tendencies of the communist regime made religious differences of secondary importance.

46 The Albanian attempt might have been successful because there were no ‘fatherlands’ around, unlike in the case of Bosnia (Serbia, Croatia). The lack of ‘fatherlands’ later also helped Muslim Bosnians to create a nation.

other contemporary efforts to create an inclusive “Southern Slavic” nation (Illyrism, Austro-Yugoslavism). Sometimes differences in social status were also determining features (such as the peasant-landlord opposition in the Serb–Bosniak relation, or the tension between Albanian-speaking pastoralists and Orthodox Slavic peasants in Kosovo).

The nation-concept that considered language of secondary importance emphasized that most of the southern Slavs were part of a ‘continuum of dialects’, where the differences in spoken language between neighbouring groups were negligible, thus a proper delimitation was almost impossible. Nonetheless, this argument of linguistics could also serve territorial aspirations: on the basis of customs (the celebration of Slava), the boundary between the Serbs and Bulgarians would lie near Sofia, as Belić claimed in the beginning of the twentieth century (Map 7); whereas in terms of linguistic differences and similarities, this boundary could be moved to Niš.

In other words, territorial demands overlapped because – beyond the overlaps in the appropriation of history – there were also conceptual differences in the interpretation of the ‘nation’. Greeks considered Hellenes a different set of people than others did: their inclusive definition of nation was bound to the Orthodox religion (*Orthodox = Greek*; later modified to *patriarchist = Greek* after the secession of the Bulgarian Exarchists and the independence of the Serb church), and not to language.<sup>47</sup> Serbs also used inclusive terms when defining the Serbian nation: the broad interpretation of Serbdom was bound to linguistic terms that overrode religious differences when they ‘incorporated’ Catholic Croats<sup>48</sup> or when they considered all Patriarchist Slavs as Serbs. The classification was sometimes inconsequent: Slavic-speaking Muslims in Kosovo and the *Sanjak* of Novi Pazar were considered Serbs on the manipulative maps of Gopčević and Cvijić, while Slavic-speaking

47 Greeks considered all subjects of the Patriarchate as Greeks, regardless of their Slavic or Albanian language. A good example of this approach is shown in App. 4, where the surroundings of Bitola-Monastir are considered Greek on a map from the 1910s.

48 When the Serb Vuk Karadžić wanted to standardize his mother dialect (the ‘ije’ version of the što-dialect) through the translation of the Holy Bible, the Croatian Ljudjevit Gaj tried to propagate the dialect spoken in Dubrovnik as a Croatian standard, which was also an ‘ije’ version of the što-dialect, despite the fact that most of the Catholic Croatians speak an ‘i’ version of the štokavstina. The two selected dialects were very close to each other allowing to promote the birth of a common nation. See: Sokcsevits: Horvátország története.

(d) The perception(s) of nationality in the Balkan Peninsula

Bosnian Muslims rarely were. Soon Croats were also omitted from Serbdom, but because of political reasons, when Illyrism lost support and Austria-Hungary became an arch-enemy.

So arguments were flexible, and the determinative features, as well as composition of the 'nation' varied in space and changed over time. Even the Bulgarians' religiously exclusive self-definition (bound to the limits of the Exarchate) was not the only one in use. There existed an inclusive linguistic one as well. Patriarchist Slavs in Macedonia and Bulgarian-speaking Muslims (Pomaks) were included in the Bulgarian nation based on their spoken language. Religious minority groups with weak (and mostly religion-based) national consciousness, but speaking Slavic dialects, diversify the picture further (Pomaks, Torbesh, Gorans). So the presumed confines of every nation were fuzzy, but not only in a geographical sense.

These multitude of "official" classifications was accompanied by a multitude of self-identifications of individuals and groups, who in the late Ottoman Balkans often displayed what Tara Zahra has famously called "national indifference."<sup>49</sup> Yet the unstable political and socio-economic environment of that time made national indifference as a strategy not a viable long-term option.<sup>50</sup> It could have been a good solution under a stable Ottoman government which did not attribute significance to ethnicity, but in this "fight of everyone against everyone" it could not work. In the age of institutionalized violence, the notion of belonging to somewhere became the precondition of the right to be defended from 'those others.'<sup>51</sup> Therefore mimicry or quick adoption to new national consciousness(es) were better adaptation strategies for ordinary people than indifference, but these made ethnic maps unstable because people could swiftly change national identities as a response to new threats and opportunities.<sup>52</sup> Ethnic identity was so unstable and interchangeable in many regions (especially when selection was rationalized

49 Zahra: *Imagined Noncommunities*, 94; Zahra: *Kidnapped Souls*.

50 For a detailed analysis see: Demeter/Csaplár-Degovics: *A Study in the Theory and Practice*.

51 *Ibid.*

52 An often cited example of this is given by Branislav Nusić quoted by Terzić: "The church is Greek, the school is Exarchist, the two priests are 'Serbomans' ... In the house of the priest Serbian books are hidden in a basement, periodicals from Sofia are on the table, one son is a student in Belgrade, the second son is the teacher of the Exarchate in Skopje, the third son is a former student

by certain advantages), as affiliation to modern political parties in the modern Western world is. In fact, nations and affiliation to nations at that time should be considered as similar to the commitment to modern political parties.

These are all reasons why a lot of ethnic maps show different patterns. An additional reason is that many ethnic maps tended to illustrate only one dimension of identity – for political reasons or in order to make ethnic patterns more comprehensible (flattened maps) – and these distort reality from the outset, even without applying any intentional manipulative visualization techniques.

*Table 1. Simplified correspondence table of different interpretations of nations, as used by Austrian cartographers*

<b>Denomination Language</b>	<b>Catholics</b>	<b>Orthodox Exarchist</b>	<b>Orthodox Patriarchists</b>	<b>Muslims</b>
Turkish			Gagauz	Turks
Albanian	Albanians		Albanians	Albanians
Greek			Greeks	Vallahides
Serb/Slavic	Croatians	Macedo-Slavs	Serbs	Bosniaks
Bulgarian	Chiprovci	Macedonian Bulgars	Macedonians	Pomaks

A dark background indicates a dominant feature; a light-gray colour indicates a subordinate feature. The columns represent the Ottoman and Greek point of view of ‘nationality’, based on religion, while the rows represent the ideas of Young Turks, the Prizren League, Bulgarians, etc., based on linguistic features.

To understand the concepts of “nation” and the function of ethnic maps it is necessary to take a look on the general ideas determining scientific thinking about these issues at that time. Western scholars (including geographers) were mainly influenced by the ideas of Ratzel and Darwin and this determined how they approached to nationalism in the Balkan Peninsula; eth-

of the Austrian Catholic mission, and two children are attending the elementary school of the Exarchate.” Terzić: *Konsulat Kraljevine Srbije u Bitolju (1889–1897)*, 338–9; Volarić: *Between the Ottoman and Serbian State*.

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nic mapping followed suit. Ratzel claimed (adapting Darwin's theory) that a general evolutionary trend can be observed also in the 'life' of societies towards the formation of the nation state, which is considered the most developed stage of statehood.<sup>53</sup> This implies that empires are obsolete formations, and the nation should be considered as a primordial organic entity, and that state boundaries should be defined according to the boundaries of the nation and not conversely. Borders integrating the whole nation were considered more 'natural' than borders determined by physical geographical units (rivers, mountain chains) or delimited artificially. In other words, borders referring to ethnic boundaries were the only ones to correspond with scientific criteria. Also based on Darwin's terminology, Haeckel interprets the connection between political power, territory and geography as a struggle for survival, ultimately manifesting in a struggle for '*Lebensraum*'.<sup>54</sup> And as national states are the final, most developed stage of evolution, the achievement of 'natural' borders would also imply the end of fighting for survival (as the reasons for this disappear), predicting a more peaceful era of tamed nationalism.

That ethnic boundaries were considered as natural (and scientifically justified) borders (of the state) is confirmed by the philological analysis of expressions used by "experts", who wrote (in a critical response to the British Blue Book of 1889) that "The administrative division of Turkey is not scientific, that is to say, that it has not as a basis natural boundaries, nor it is stable". Brailsford (as member of the Relief Mission after 1903) also uses the same term "natural boundaries" when advising an administrative reform for the Macedonian *vilayets* according to ethnic boundaries, as present boundaries neither correspond to the ethnic zones nor to the geographical limits of Macedonia.<sup>55</sup>

53 A contemporary source, the Encyclopaedia Britannica in 1910 depicts Ratzel's concept on the same basis. The tools for the observation of the stages of development were ethnography, anthropology and ethnology. Anthropology as a discipline was applied when it was used to describe the savage people (societies at the initial stage of development), while ethnography was applied to the half-civilized regions which were just reaching the stage of the nationhood (like the Balkans). Yosmaoğlu: Blood Ties, 90.

54 Haeckel: The History of Creation, 429. The term was used by Ratzel (*Lebensraum*, 1901) and Karl Ritter too in its original meaning. However, it later underwent changes.

55 Yosmaoğlu: Blood Ties, 109–11.

The significance attributed to ethnic borders would also manifest itself in visualization techniques. Instead of using *choropleths* shaded gradually, which offer a more balanced approach (especially if more features are indicated on one map) for ethnic contact zones, early ethnographers used patches of solid colours that clearly delimit areas, that way refraining from the illustration of ethnically mixed or unclassifiable areas.

These Western ideas were transmitted to the Balkan elite too, as it was usually trained at European universities (Vienna, Zagreb, Leipzig, or Odessa and St. Petersburg). But not even the similar ideological background meant that the perception of the Balkan Peninsula or the interpretation of the “nationality question” was the same for everyone. Remarkable differences did exist within the scientific circles, partly due to political reasons. Firstly, science (especially history and geography) was considered to serve the nation’s welfare, and therefore could not get rid of the influence of the particular state politics.<sup>56</sup> Secondly, not everybody shared Ratzel’s concept of evolution (or national Darwinism). For Russia or Austria-Hungary, as empires, such a “natural” tendency toward the nation state would have disastrous consequences, and so these ideas were considered centrifugal and retrograde by many. This may explain the differences in the concept of ethnic mapping in Austria-Hungary (where a multi-dimensional approach of the national identity prevailed represented by Sax)<sup>57</sup> and in Germany, where the linguistic approach dominated (Kiepert) in the 1870s.

The disciple of Carl Ritter, the anarchist French geographer, Elisée Reclus, confronting with the Ratzelian thought (and the standpoint of the French geography), thought that the application of any natural (either in geographical or in Ratzelian sense) borders in the Balkans was simply impossible because of the mixture of populations of different origin and culture – which is owing also to the physical-geographical circumstances of the Balkans. In political terms, this meant that he supported the opinion of those groups who demanded Macedonian self-governance instead of the dismemberment of the region. Thus for him the basis of the nation was a geographical area – though

56 Critical geography or anticolonial approach in general is in opposition to the nationalized or imperial(istic) geography.

57 His two-dimensional approach included both language and religion. It can be interpreted as a reconciliation of old and new categorizations. Nonetheless, besides the seemingly impartial attitude, there was an ulterior motive in the claim that the ethnic distributions were too complicated to draw up justifiable borders and therefore to create nation states.

(e) The influence of Western science and political goals

with disputed boundaries – and national consciousness had to be based on regional identities. This further coloured the palette of interpretations.

As ethnic mapping was neither a purely scientific question, nor free of the influence of other disciplines, it is also worth examining how the different political goals of the Great Powers in the Balkans diversified the scientific approaches and made imprints on ethnic mapping.

### **(e) The influence of Western science and political goals**

For Western scholars ethnic mapping was (at least seemingly) just another element – among many others, like Slavistics, Linguistics, Ethnography and Oriental Studies, or even geology – to describe, explore and categorize this unknown region. Though this sounds quite ‘neutral’, these scholars were not free of certain political or emotional prejudices. The investigation of the land of the ‘savage’ implies asymmetric relations and some kind of paternalistic attitude stemming from the idea of superiority, overprinted by the rivalry among the Powers. The significance of the region for France in the crucial years of the 1870s was summarized by Leon Léger, who considered the Slavs as France’s most faithful allies, because they are in constant fight with the Germans, repeated later in the Serbian Prime Minister, Nikola Pašić’s work too.<sup>58</sup> Leon Lamouche considered the Balkans as a scene of the progressive fight for nationhood and as an ideal experimental field (in a Darwinian sense) to study the birth of modern nations. Reclus claimed that existing political borders were illegitimate because they were fixed by the power relations between empires and that only the national borders could be legitimate.<sup>59</sup> From the 1890s onwards the group of Slavists in France became divided, like in Britain, between partisans of different nations: Lamouche and Laveye backed the Bulgarian solution in the Macedonian question, the historian Victor Bérard spoke about a Macedonian identity and a Macedonian federation, Elisée Reclus envisaged a Yugoslavia centered on Croatia, while the geographer Gaston Gravier advertised the Serbian cause.<sup>60</sup> This splintering had its imprint on French ethnic mapping too (see later).

58 Szegh: Gazdasági feladataink Albániában, 792.

59 Mishkova: Beyond Balkanism, 32.

60 Ibidem, 33. Reclus envisioned a centralized big state in Central Europe (including Turks).

According to Mishkova, British scholars mixed scholarly analysis with the pursuit of moralistic ideals (liberal thoughts of Gladstone) and political concerns.<sup>61</sup> Thus, the boundary between scholarly analysis and pamphleteering was blurred: utilizing their established social networks Bouchier, Seton-Watson, Brailsford, Buxton, etc. reached the circles of decision-makers., etc.<sup>62</sup> They emphasized that the only remedy to the inter-ethnic, economic, social and cultural problems of the Ottoman Empire would be the establishment of progressive independent nation states instead of structural reforms in the Empire.<sup>63</sup>

The Russian consuls serving on the Peninsula were professionals in creating “statistical descriptions” (like Teplov, whose map served as a basis for the conference in Constantinople, App. 79, or Rostkovsky in Monastir).<sup>64</sup> Their paternalistic approach towards the Slavs stemmed from their imagined superiority (as imperial citizens) over the “noble savage” (a term inherited from the West), whose degradation was merely the result of the inimical oppression by the Ottoman Empire. Consequently, liberty would bring blossoms. But Vlachs and Albanians were considered simply “barbarians” representing the corrupt “East”. Promoting, as Mishkova points out, a “conservative Slav utopia as an antithesis of ‘Europe,’”<sup>65</sup> Slavophiles had the financial and organizational resources and also the interest to establish cultural connection with and a political protectorate over the Slavs of the Peninsula.<sup>66</sup> Russian imperialism – under the aegis of Slavophilia – also contributed to the development of ethnic identity in the Balkans and its depiction.

In Austria Slavic Studies was also of key importance in securing scholarly connection to the area. Jagić, Miklosich (Miklošič), and Jireček as leading

61 “History and politics are one,” stated Edward Freeman, who wrote the history of *The Ottoman Power in Europe* (1877) from the presumption that “the rule of the Turk should be got rid of.” Cited by Mishkova: *Beyond Balkanism*, 18. (This approach soon became general).

62 See the activity of the Balkan Committee. Ilchev (ed.): *Balkanskiyat komitet v London*.

63 Mishkova: *Beyond Balkanism*, 33.

64 Roskowski: *Die Bevölkerung des Wilajets von Monastir*; Teplov: *Materiali dlja statistikii Bolgariii, Thrakii i Makedonii*.

65 Mishkova: *Beyond Balkanism*, 27.

66 Bataković: *Dečansko pitanje*; Demeter/Csaplár-Degovics: *A Study in the Theory and Practice*.

linguists indirectly provided material for political movements, like Austro-Yugoslavism, which implicitly proposed the penetration of the Habsburg Monarchy into the Balkan Peninsula to strengthen and restructure the state (in favor of “imperial Slavs”) – and for ethnic mapping too, as the influence of Slavists on Šafarik’s Erben’s and Bradaška’s ethnic maps proves. Early wars of the nineteenth century highlighted the lack of relevant topographic maps – the Habsburg Monarchy mapped only Wallachia by 1812. The Russians started to map the region in 1830. In fact topographic mapping (a form of penetration) triggered by economic needs and military purposes went always hand in hand with ethnic mapping of the Balkans, as ethnographic features (the separation of friendly and inimical population, communication purposes, etc.) could gain significance in case of war.<sup>67</sup> International scientific projects were sometimes even good pretexts for soldiers: the Russians lacked proper maps of the Balkans, therefore in 1867 Count Ignatiev, the Russian Ambassador to Constantinople suggested to organize a wide-scale expedition in European Turkey under the pretext of measuring the arc of the meridian (Struve Geodetic measures).<sup>68</sup> So, geographical and historical research of the region intertwined with foreign politics: the numerous “explorations” were often financed by the state authorities or by industrial capital beside the official geographical societies. Not surprisingly, even “civilian” travellers, beside scientific work, provided material useful for foreign politics.

There were numerous examples on “joint ventures”. The *Geographische Gesellschaft in Wien*, which encouraged and supported the research of Karl Peters on Dobrudzha in 1867 or of Felix Kanitz in Serbia and Bulgaria also invited engineers of industrial investments as members, not only scholars, in order to increase knowledge over the region. Wilhelm von Pressel, one of

67 For the latter see the example of Kanitz below, or the Russian ethnic map of North-Bulgaria map from 1877 (Map 55), created by staff officer Nikolay Obruchev as a by-product of topographic mapping and other explorations of the area. By the turn of the century, the Austro-Hungarian military mapping covered the whole Balkans (and large areas in Russia) at 1:200,000 scale. Military Mapping, in: [ishm.elte.hu/hun/digkonyv/topo/3felmeres.htm](http://ishm.elte.hu/hun/digkonyv/topo/3felmeres.htm) (September 14, 2020).

68 Simov: *Mapping Enemy’s Land*, 59–60. The idea of the Artamonov-Bobrikov expedition (both were military officers) was approved by Istanbul, because the Russians promised to give copies of the maps created by the expedition. The Russians soon recognized that the Shipka Pass is trespassable. Artamonov became the head of Intelligence Service in the war of 1877–78.

the leaders of the Balkan railway construction was also invited, and Hochstetter's geological map was one of the results of this joint venture. The society also supported the publication of ethnic maps.<sup>69</sup> Other examples of cooperation between science and politics: Kanitz (also collecting ethnic data among many other) received secret financial support from and reported to the state, after his skills had been tested personally by Benjámín Kállay, then consul at Belgrade.<sup>70</sup> His maps created for Austria-Hungary were also sold to Russia in 1877 in 1000 copies for 20,000 roubles.<sup>71</sup> The explorations of Boué and Hahn were commissioned not only by the geographical societies, but also by the Austrian government too,<sup>72</sup> on behalf of its plans for railway construction in the region. The pro-Ottoman geographer, Erődi-Harrach mentions how military mappers working at the railway constructions in Ottoman Bulgaria tried to influence the railway lines on field according to the strategic interest of Austria-Hungary.<sup>73</sup> The exploration of the Balkans also intertwined with an internal rivalry between the major nations in the Habsburg Monarchy: while Czechs counted on the transformation of the Habsburg Monarchy in favour of the “imperial Slavs” as the result of the political penetration into the Balkans<sup>74</sup> – beyond finding a new market for Czech industrial goods –, the Hungarians (Kállay and Andrassy) wanted to hinder this shift in internal power relation.<sup>75</sup>

69 Kretschmer: Frühe ethnographische Karten Südosteuropas aus Wien, 260–6. Czoernig's ethnic map of the Habsburg Monarchy or the map of Sax on the Balkan Peninsula was also supported and published by them, but the first ethno-religious map after the occupation of Bosnia-Herzegovina was also among the products.

70 His yearly support was equal to that of a minister. Röss: A kormányzati hírszolgálat átalakulása az Osztrák–Magyar Monarchiában a kiegyezés után 1867–1875; Demeter: Az utazó és az ügynök.

71 Simov: Mapping Enemy's Land, 63–5. Kanitz's map indicated more settlements and had better resolution too, and he also provided his ethnographical map indicating all nahije and sanjak boundaries. The fact that Kanitz provided 1,000 copies for that price, assumes that Austrian authorities were aware of what was going on.

72 Hassinger: Österreichs Anteil an der Erforschung der Erde, 131. See also Kretschmer, Frühe ethnographische Karten, 260–6.

73 Demeter: A politikai érdekek hatása.

74 Boué's and Šafarik's pro-Slavic map of the Balkans fitted into the scheme of propagating Austro-Yugoslavism.

75 Röss: A kormányzati hírszolgálat.

(e) The influence of Western science and political goals

The ethnic map of Gopčević (1889) serving firstly as a tool of Austrian diplomacy to strengthen and direct Serbian nationalism against Macedonia, was also a government initiative. In 1897 a “Commission for the Balkan Peninsula” at the Vienna Academy of Sciences was established, followed by the creation of a “Bosnian-Herzegovinian Institute for Balkan Research” in Sarajevo in 1904 – an institute suggesting that Austria has to take over the leading role in Balkan studies.<sup>76</sup> As Mishkova points out, the way these academic institutions carried out their research did not differ from that of colonial Powers. “The cartography and archaeology they employed were those that the French used in Indochina.”<sup>77</sup>

So, knowledge centres did not manage to remain independent from national politics. But on the other hand, the influence of these centres (Vienna, Leipzig, etc.), extended well beyond state borders. Almost all Bulgarian philologists and ethnographers in the period preceding World War One were students of the German Leskien or Weigand, whereas almost all prominent Serbian historians before and after the Great War were trained at the University of Vienna. Sometimes this induced processes that were against the interests of the ‘host state’ in the long run: the ethnic map of Gopčević utilized by the Serbs ultimately resulted in the weakening of Austrian influence over Serbia and the Balkan Peninsula.

Summing it up, Great Power interest was a significant influencing factor in the Balkan space, but as these interests were diverging or opposing, this contributed to the formation of competing identities instead of promoting the birth of an inclusive one. As Mishkova summarized the differences between the scientific approach of the Great Powers to the Balkan Peninsula, Austro-Hungarian scholarship in the region intertwined with the prospects of expansion to the peninsula, and at the same time tried to give an answer to the question of what the proximity of the “resurrecting homeland” meant for the minority groups in the Dual Monarchy. Russian interventionism was driven by strategic interests, whereas the French approach was mostly defensive, seeking to prevent German hegemony in this part of Europe.<sup>78</sup> In most of the cases (even in imperial Russia) the emergence of nation states was ad-

76 Mishkova: *Beyond Balkanism*, 30.

77 Mishkova: *Beyond Balkanism*, 31 citing Proebst: *Deutsch-südosteuropäische Berührung*.

78 *Ibidem*, 33.

vertised as an inherently progressive phenomenon representing a better future even for the continent as a whole. The Balkan nations were perceived as “valuable”, and their deficiencies were neglected, or were treated as a result of the detrimental external conditions forced upon them. But studying the Balkans was not free of preconceptions determined by the home conditions and, of course, interactions also had a feedback on the latter (like the pressure of the “nationality question” in Austria-Hungary, or the debates on Russian identity and Russia’s relations to “the West”).

## **Chapter 2.**

### **Ethnic Maps and their Background (1840s–1920s)**

This chapter tries to give an insight into the development of ethnic mapping and the changing role of ethnic maps. Though it is done in a chronological order, the general development of methodology, the changes in the political background and ideology and their influence on mapping, the connections between the mapping activity of the different states and their interactions, rivalries are in focus within each part. Maps are evaluated and compared to each other regarding their contents, messages, visualization techniques, background data and background ideology. The lineage of maps – the influence of older maps on newer ones and of key personalities on ethnic mapping – are also traced.

#### **(a) The first generation of ethnic maps (1840s–1870s) – the emergence of Slavs**

As ideas on the dimensions and determinative factors of national consciousness evolved and changed, so did ethnic mapping. The religious maps composed in the 1840s in the initial phase of ethnographic mapping were soon overshadowed by maps where linguistic categories became predominant. Nonetheless, as language was not the only determining feature of ethnicity in the Balkans, the opponents of this theory created their counter-maps based on other features. Three of these are worth mentioning (as well as the fact that ethnic maps based on religion did not disappear completely). First, some used complex classifications, using two or more features (such as religion and language). Second, abstract maps appeared as well, using the even more ambiguous and obscure categories of ‘historical arguments’ and ‘cultural affiliation’. Finally, linguistic maps illustrating the differences and transitions of dialects would complicate the situation further. In practical terms this meant that very often mixed (hybrid) categories were used in the legends of maps (Greek Orthodox vs. Serb; Muslim vs. Bulgarian, for example); while, in visualization, transition zones and cross-hatching appeared along with the proper delimitation of patches (choropleths), etc.

The reasons for this diversity in approaches and internal inconsistency of the maps are numerous: besides the increasing political demand of competing elites the improvement of scientific methods also contributed to the

occurrence of newer and newer approaches, while the statistical basis did not develop at the same pace. One should not forget that maps discussed here were created by Western and not Ottoman scholars, and thus reflect the Western standpoint(s) regarding both the applied terms and the visualized ethnic patterns. In other words, Western maps used ethnic categories that were non-existing in Ottoman terminology prior to the twentieth century, as Ottoman censuses used a different approach to classify population. Furthermore, most of the Western scholars were unable to read Osmanli. Thus, they did not use the original source, just their interpretations and translations.<sup>1</sup> This intermediary step increased the possibilities of misinterpretations. This also meant that sometimes they used obsolete sources too. For example, the otherwise detailed and reliable work of Vital Cuinet,<sup>2</sup> the only one containing Ottoman population figures for Asia based on real Ottoman censuses, was still in use (and abuse) in the 1920s by map-makers, though it relied on data published before the 1890s.<sup>3</sup> None of the well-known maps contained references to original Ottoman works and statistics in their bibliography.<sup>4</sup> Even such famous works, like the report of the Carnegie Endowment from 1914,<sup>5</sup> contained some mistakes, stating that Ottoman censuses only count males (which is not true for the late nineteenth century censuses).<sup>6</sup>

Thus, Western maps were either based on the reinterpretation of ethnic data (offering space for manipulation and fantasy) or did not use them at all – more or less they, were ‘invented maps’. This also explains their versatility in content and outlook. With this we do not intend to say that Ottoman statistics were flawless, but that Western interpretations did not help clarify the situation. The predominance of the patch maps is observable among these ethnographic maps for two reasons. Early travellers were unable to obtain Ottoman census data (in the era between the 1830s and 1873) and correct settlement level maps were also missing. This did not allow these travellers

- 1 McCarthy: *The Population of Ottoman Europe*.
- 2 Cuinet: *La Turquie d'Asie*.
- 3 McCarthy: *Greek Statistics on Ottoman Greek Population*. In: *Population History*, 237
- 4 McCarthy: *The Population of Ottoman Europe*, 118.
- 5 *Report of the International Commission to Inquire about the Causes and Conduct of the Balkan Wars*. Published by the Carnegie Endowment for International Peace. Washington D. C 1914. See maps published here. For the latest evaluation: Akhund-Lange: *The Two Carnegie Reports*.
- 6 McCarthy: *The Population of Ottoman Europe*, 117.

(a) The first generation of ethnic maps (1840s–1870s)

to create detailed maps with good resolution, illustrating ethnic minorities besides the majority group. And later cartographers simply did not want to abandon this method (despite the fact that they knew more advanced and sophisticated methods, as some experiments and archival manuscripts testify), because it was illustrative and at the same time promoted the national goals by a proper (though disputed) delineation of the nation.

One of the first ethnic maps based on languages was created by a Slav, *Pavol Šafarik* (1795–1861), and it is not accidental. During that time, the Christian Slavs of the Ottoman Empire suffered from being secondary subjects (we are prior to the Hatt-i Hümayun of 1856) in the empire and also in the Orthodox Church (the Patriarchate was dominated by Greeks who had already started to evolve their national idea). Slavs also constituted a significant proportion of the Habsburg Monarchy with no political power. The editor of the map, a friend of František Palacký and Konstantin Jireček, was a professor at the Serbian Lyceum of Novi Sad (then Újvidék, Hungary) for a period of 14 years. His origins and social connections turned him towards Slavic philology and the Balkan Peninsula. His map (1842) does not go into details (as he did not have field experience); his merit, however, consists in his being the first who – besides emphasizing the kinship of Slavs and the Slavic character of the Balkan Peninsula – very exactly delimited the Bulgarians from their neighbours, the Serbians, Romanians, Greeks, and Albanians. The ethnic terms he used became the standard for his successors, though he did not have access to Ottoman census data (the Ottoman conscription in 1831 only made a distinction between Muslims and non-Muslims; therefore it was useless for such purposes, like delimiting Orthodox nations from each other). According to Šafarik, nearly the whole of Macedonia, the region of Niš, the whole of Dobrudja, and even a part of Bessarabia was inhabited by Bulgarians. Kosovo was considered Serbian, with the exception of the surroundings of Ipek (Peč/Peja). The map gave plenty of space to Greeks in the South, while Muslims appeared only as isolated patches (App. 31). In this respect his map is in contradiction to Ottoman census data from 1831 (Map 14).

Though nationalist history-writing usually considers the appearance of Šafarik and the Czech school as signs of an anti-Hungarian and pro-Russian turn of the Czech national movement, another interpretation is also plausible. Pan-Slavism was not necessarily pro-Russian from the beginning: Šafarik's circle could be interpreted in the context of Austro-Yugoslavism, which offered an alternative to the Hungarian "Ausgleich" prior to 1867, putting the emphasis on the appeasement between Germans and Slavs of the Empire,

also propagating Balkan expansion based on cooperation with the local Slavs (in order to hinder the awakening of nationalism and territorial pretensions of Serbia and Russian penetration). However the “Ausgleich” outmanoeuvred these Czech and South Slavic efforts, but they – both the more radical 48-ers and the “conformist” Austro-Slavists) played a crucial role in the organization of the new Balkan states (Zach, Jireček).

As Šafarik published his work (*Slovansky národopis*) in Czech, it had an effect only on professional linguists, the ‘Illyrians’ (propagators of Southern Slavic unity) and on pan-Slavist circles in Russia, but its impact did not reach the western part of Europe. It was *Ami Boué*, five years later, who drew the attention of the Western public opinion to the ethnic question and the Slavic predominance in the Balkans. In fact, the series of maps indicating Bulgarian predominance over the peninsula (a tendency remaining dominant until the 1880s) starts with Boué. Being a geologist (and not an ethnographer), he was among the first men trained for scientific fieldwork<sup>7</sup> to explore the Balkan Peninsula in 1836–38.<sup>8</sup> His attempt to separate Albanian tribes based on religion and dialects is remarkable, but his map contains major mistakes: the Albanian ethnos extends to the Bay of Arta in Greece, and the Ottomans are underrepresented in Macedonia.<sup>9</sup> These mistakes ruined the reputation of the whole map. Compared to Šafarik’s work, the map of Boué (published in 1847 in Berghaus’s atlas) indicates fewer Greeks in Thrace and more Albanians in Kosovo and indicates the Vlachs separately in the Pindos Mountains. This map also underestimated the Turkish/Muslim presence in north-eastern Bulgaria and in Thrace (App. 28).<sup>10</sup> It is noteworthy that Boué was also supported by the Austrian government in his endeavour.<sup>11</sup>

7 The French consul Cousinéry (1747–1833) was a remarkable archaeologist, and also worked on human geography, but his published works did not contain ethnic maps. Cousinéry: *Voyage dans la Macédoine*.

8 Boué: *La Turquie d’Europe*; Boué: *Recueil d’Itinéraires dans la Turquie d’Europe*.

9 He also fails to mention Romanians in Serbia.

10 On the other hand, between 1854 and 1860, ca. 300,000 Muslim immigrants and refugees arrived to the Ottoman Empire, one-third of them targeting the Balkan Peninsula. Between 1860–64, this grew to 800,000: again one-third reached the Balkans, after the creation of Boué’s map. But even if we take this into consideration, the territorial extension of Muslims in Bulgaria is still too small: Boué’s map fails to illustrate even those Ottomans who appear in the census of 1831.

11 Hassinger: *Österreichs Anteil*, 131. Practically speaking, there is not much difference between the concept of Šafarik and Boué with the exception of their

(a) The first generation of ethnic maps (1840s–1870s)

It is not surprising that both maps were important references for Bulgarian propaganda from the 1870s until the early 20th century (the maps of Ishirkov and Ivanov or the so-called Rizov atlas published to influence peace talks in Neuilly were based on this point of view).<sup>12</sup> Boué, however, did not want to challenge the authority of the Ottoman Empire with his map. On the contrary, his writings urged for reforms and modernization, but not for the dismemberment of the Empire.<sup>13</sup> The reason for the Bulgarian appropriation was that these maps (and some others, Irby–MacKenzie and Lejean) drew the boundaries of the Bulgarian nation similarly to the territorial extent of Exarchate, but well prior to the establishment of the latter.<sup>14</sup> Thus, these maps were considered by the Bulgarians as “independent proofs” and confirmation for their stance.

The map of *Guillaume Lejean* also served as a basis for the legitimization of Bulgarian aspirations (App. 30).<sup>15</sup> Traveling the Ottoman Balkans in 1858–9, the consul pointed out in the introduction of his work (1861) that studying ethnographic relations is no longer an “object of purely scientific curiosity”, but a political issue as well, implicitly stating that science cannot remain neutral in its attitudes toward the national question. He separated himself from the previous ethnographers, claiming that language alone is not an adequate criterion for determining nationality in a region where “religious hatred and political inequality” overwrite original patterns, and people adopt languages that did not correspond to their “race”.<sup>16</sup> Instead he

target groups. Both served Austrian imperial interests: the former advertised Austro-Yugoslavism for the inland (Slavs), while the latter was to disseminate this concept for the Western publicity, hiding imperial aspirations behind the sympathy towards the oppressed Slavs.

- 12 Rizoff: *Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen*.
- 13 See Yosmaoğlu: *Blood Ties*, 92.
- 14 Yosmaoğlu: *Blood Ties*, 97.
- 15 Guillaume Lejean (1828–71) was one of the most studious French explorers. Twice he travelled in European Turkey (1857–58 and 1867–69) as appointed French Vice-Consul. The purpose of his enterprise, undertaken by order of the French Government, was to prepare a map of European Turkey; Lejean's early death prevented the completion of this work; he succeeded, however, in publishing very important geographical and ethnological essays. Lejean: *Ethnographie de la Turquie d'Europe*.
- 16 Yosmaoğlu: *Blood Ties*, 93. Lejean: *Ethnographie de la Turquie d'Europe*.

advised the use of historical evidence to determine nationality. This is why he indicated small Serbian patches around Lake Ohrid, confirming their existence by using historical arguments (in the ninth century, the whole area as far as Durazzo was Slavic; a local saint – Jovan Vladislav of Duklja – was well-known to Serbs and was executed by a Bulgarian ruler in the 11th century; the neighbouring patriarchate of Ipek was a ‘Serbian’ one).<sup>17</sup> Although he was the first to use historical documents to prove his statements, he committed two serious errors: he confused arguments from history with the contemporary situation; secondly, the southern limits of the Albanian nation were wrongly drawn. Apart from the different methodology, the map was remarkably similar to Boué’s map, with the shocking (but indeed realistic) exception that in Dobrudja, he indicated a Muslim majority in a huge area. Among ethnic mappers he was the first to do so. Thus, his map is closer to the picture offered by the Ottoman census in 1831.

Compared to Boué, *August Heinrich Petermann’s* map of 1854<sup>18</sup> (created for officers participating in the Crimean War) limits the abundance of Albanians to present-day Albania, leaving most of Kosovo to the Slavs, and accepts that Thrace is mostly inhabited by Greeks.<sup>19</sup> Unlike the scholars and travellers we have already mentioned, Petermann was a trained and skilled cartographer and geographer, but not a real traveller; he contributed to the spread of knowledge through his atlases and the ‘*Mitteilungen*’ (PGM), where many of the ethnic maps were published (App. 34).

Petermann established a school which had inevitable merit in spreading the maps based on the patch technique.<sup>20</sup> The technique itself was not new (Boué’s map from the 1840s was also a patch map, whereas Šafarik only used outline colours), but as these colourful maps were easily interpretable

17 This tended to mean Orthodox Slavic (not Greek) that time.

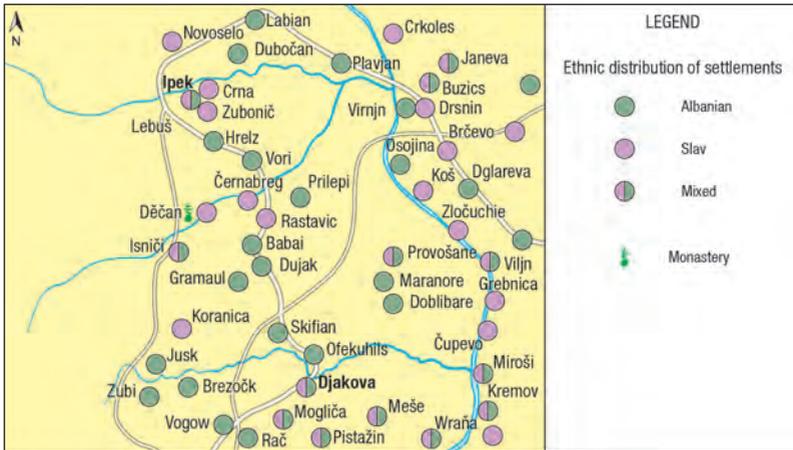
18 University of Chicago: Ethnographic Maps of the 19th Century, in: [www.lib.uchicago.edu/e/collections/maps/ethnographic/](http://www.lib.uchicago.edu/e/collections/maps/ethnographic/) (September 14, 2020).

19 The later map of Habenicht from 1869 (*Die Ausdehnung der Slaven in der Türkei...*) also underestimated the presence of Ottomans in Central-Macedonia (App. 45) although indicated them separately (and in this regard was unique). See also Petermann’s and Habenicht’s map for the article of Stein (1876). Stein: *Die Vorgänge der Türkei in ihrer ethnographischen und geschichtlichen Begründung*, 241–5 (September 14, 2020).

20 Among his apprentices one may find Ernst Georg Ravenstein (App. 44), who later served in the Topographical Department of the British War Office, and Hermann Habenicht: both were known as ethnic mappers of the Balkans.

(a) The first generation of ethnic maps (1840s–1870s)

Map 1. A part of Müller's sketch map: purple fill represents the Slavs (Serbs), and green fill the Albanians in Kosovo



Source: Müller, Joseph: Albanien, Rumelien und die österreichisch-montenegrische Grenze. Prague 1844.

for the masses, this visualization technique soon became predominant. It is interesting that the earlier mappers of the Balkans, like *Josef Müller* or *Johann Georg von Hahn*, who were not trained cartographers, created more informative and detailed, but less colourful ethnographic maps, containing settlement-level ethnic data. However, these maps were not appreciated by the broader masses partly because such maps would have required so much space that they could not fit into atlas pages. Most of the published maps we analyse here were “Übersichtskarten”,<sup>21</sup> general maps with low resolution. So, paradoxically, as cartography developed, it turned towards more spectacular, but at the same time more shallow and generalizing visualization techniques to serve the masses.<sup>22</sup>

*Josef Müller*, an Austrian doctor, later mayor of Prague, and a contemporary of Šafarik, published his travel notes early in 1844; in these, he regarded

- 21 Some of the maps even contain this in their title: see Kiepert's map from 1876, the scale of which was only 1:3,000,000. Compared to this topographical maps, like the “Grosse Karte der Türkei und Balkanstaaten” by Prof. W. Liebenow, or the “Karte der Balkanländer” (Flemmings Kriegskarte, Nr. 10) from 1914 had better resolutions (1:1,250,000 and 1:1,700,000 respectively).
- 22 Kaza-level pie charts could have been used, for example, but were not.

the Slavic population of Macedonia as Serbian (supported in his views by Šafarik, then University librarian in Prague), which was a unique stance at the time (Map 1).<sup>23</sup> Thus Müller's map and description became a reference work for for *Milojević*, a generation later and for Serbian scholars of the twentieth century. (In fact, Müller was the Western founder of the *arnautaši* thesis, which claimed that many Serbs were Islamized and later assimilated by Albanians in the Peć district.)<sup>24</sup> As Müller gave Serbian majority in Prizren for the 1840s,<sup>25</sup> based on this work, in 2012 Bataković came to the conclusion that ethnic replacement in Kosovo has taken place only during the Great Eastern Crisis.<sup>26</sup> However, we have documents from the late 1860s which hardly indicated any Serbs in this region,<sup>27</sup> suggesting that ethnic replacement might have taken place earlier due to the settling policy of the Serbian principality as pull factor. Even the Serbian traveller and nationalist Miloš Milojević, who was the first known proponent of the *arnautaši* concept in Serbia, indicated an „Islamized Serb” majority in Prizren early in 1871.<sup>28</sup> But there are other solutions: Clewing states that Müller's description is simply inaccurate, and thus underestimated the Muslim population.<sup>29</sup> Our statistics based on Ottoman tax-conscriptions (which mentioned religion for each tax-head) rated the proportion of Christians in Priština at 25% and 40% for Vučitrn early

- 23 That is why he was later appreciated even by Cvijić. Müller: Albanien, Rumelien und die österreichisch-montenegriscbe Grenze.
- 24 However, his source, the Orthodox metropolitan in Prizren cannot be considered impartial. Boué also mentions “mixed race” in the 1840s. Malcolm: Kosovo, 198–9.
- 25 He mentions 6,000 houses, 4,000 Muslim, 18,800 orthodox inhabitants and 2,150 Catholics according to the 1838 tax-conscription (80% Serbs, 16% Albanians, 8% Aromuns and 600 ‘Gypsies’). Müller: Albanien, Rumelien und die österreichisch-montenegriscbe Grenze, 82. Cited by: Clewing: Mythen und Fakten zur Ethnostruktur in Kosovo, 36.
- 26 Bataković: Serbia's Kosovo Drama.
- 27 Djurković: Albanija. Crte o zemlji i narodu, 81–2. He mentions in Prizren and its neighborhood 12,000 houses, which implies great immigration, but despite this only 1000 Serbs were mentioned beside the 36,000 Muslims, 6,000 Greeks, Bulgarians and Aromuns.
- 28 Vemić: Serbs in Kosovo and Metohija, 259.
- 29 Hahn in the 1860s also indicated a Muslim majority for the Prizren region. Out of the 46,000 inhabitants, 36,000 were Muslims (p. 79). Cited by Clewing: Mythen und Fakten, 34–8.

(a) The first generation of ethnic maps (1840s–1870s)

in the 1840s.<sup>30</sup> (And it was not higher, 10% and 35–40%, respectively, in the 1870s according to the Serb Milojević). These data and their diverse historical interpretation all drove us to the conclusion that besides maps, statistics also have to be analysed carefully.

Despite Müller's description, prior to the occupation of Bosnia in 1878, Serbian foreign policy rarely questioned the ethnic affinities of territories south of the Šar Planina (or mentioned only Skopje and Kumanovo as Serbian regions), and even acknowledged that mostly “Bulgarian” is spoken in Macedonia.

It might be interesting to trace the evolution of thoughts in the example of a small state, as not only ethnic maps had direct influence on the imagined “idealistic” boundaries, but geographical maps in general played an important role on the development of political ideas prior to the era of thematic ethnographic maps.<sup>31</sup> In the newly liberated small Principality of Serbia geography was introduced into the curriculum of the Great School in 1808 based on the prevailing concept now called „geographical romanticism”.<sup>32</sup> Sava Tekelija<sup>33</sup> was recognized as the first Serb to compile the first map of Serbian countries in Vienna in 1805.<sup>34</sup> The map was made in 1:1,000,000 scale and printed in 2,000 copies. A part of the circulation was sent to assist the Serbians in the fight against the Turks, in order to help to orient themselves. As on former European geographical maps, “geographical” Serbia – a term that does not necessarily mean ethnographically Serb areas – included Prizren, Priština, Vučitrn, Skopje, Kratovo, Pirot, Caribrod and Kjustendil. Tekelija's map of Serbia was created by compilation from various maps, such as the maps of Carl Schutz from 1788 and 1802.<sup>35</sup>

30 Osmanlı Arşiv Belgelerinde. Kosova vilayeti. Istanbul 2007, 363–413. Nr. 15477, Nr. 15465 *temettuat defters*.

31 We relied on Grčić: Development.

32 An overview of maps of Serbia in the first half of the 19<sup>th</sup> century was given by Felix Kanitz in “Beiträge zur Kartographie des Fustenthums Serben”, published in the Journal of the Academy of Sciences in Vienna in 1863. Then, Petar Matković published the paper “Најновија картографија о југословјенских земљах” (The Latest Cartography on Yugoslav Countries) in magazine “Književnik” 1/1866

33 Born Popović, Arad, 1761 – Pest, 1842. See: Grčić: Development, 28.

34 Zeml'obražennie Srbske, Bosne, Dalmacie, Dubrovne, Crngore i ograničnih predal.

35 Neueste Karte der Koenigreiche Bosnien, Servien, Croatien und Slavonien samt den angrenzenden Provinzen.

But the authority of maps made in Austria was soon challenged. When the Austrian Captain Weingarten published a map on Serbia in 1820, illustrating areas beyond the boundaries of the Belgrade Pashalik as belonging to the geographical term of Serbia, it was criticized by the famous poet and enlightener, Vuk Karadžić, because the Austrian omitted Metohija (where Prizren, Peć, and Djakovica are located) from these geographical (not yet ethnographic) regions.<sup>36</sup> Vuk's geographical concept on the extension of Serbia<sup>37</sup> (written in his Geographical Dictionary first published in 1818 and again in 1852) became a part of the “national canon” and gain a new, broadened interpretation: regions where Serbians live.<sup>38</sup>

This story symbolizes how terms with geographical meaning (Serbia) could be transformed into political ones, which implies that the Serbian state should naturally extend to and incorporate territories described as “Serbian”.

In Serbia it was Dimitrije Davidović (b. in Zemun, 1789 – d. in Smederevo, 1838), who published the first ethnographic map in 1821 – very early in fact.<sup>39</sup> A second map under the same title (re)appeared in the 1846 edition of his book, “The History of the Serbian Nation“. Guided mainly by the native language as a criterion for ethnic identity, Davidović indicated in green the areas populated by Serbs: Gorski Kotar, Lika, Banija and Kordun, Slavonia with Srem, Bačka, Western Banat, Bosnia and Herzegovina, Dalmatia, Montenegro and Serbia including Sandžak and Kosovo. South Pomoravlje and Ponišavlje, part of Metohija with Prizren, the coast around Bar and Ulcinj were omitted. Dashed lines and yellow indicate national and

36 Later Jovan Bugarski's map of Serbian lands was criticized by Cvijić because of the inaccuracies in areas beyond the “pashalik”. See the map and critics in: Radojčić: *Geografsko znanje o Srbiji početkom 19. veka*.

37 He stated that the towns of Djakovica and Dečani, Niš, Novi Pazar and Prizren, and the Lab River were a part of Serbia. In the second edition of the “Rječnik” from 1852, Vuk placed Tetovo, Prilep, River Vardar, Kačanik and Polog, Peć and Čičavica in Old Serbia (he was the first to use this term) and Prizren, Rožaj, Šar Planina, Vranje and Novi Pazar in Serbia. He placed Debar and Skopje in Macedonia. Grčić: *Development*, 29.

38 The same happens to the term “Greece”, where the envisioned political entity is realized based on geographical extension of the term (Pinkerton: *Map of Turkey in Europe*, in: [https://commons.wikimedia.org/wiki/File:1818\\_Pinkerton\\_Map\\_of\\_Turkey\\_in\\_Europe,\\_Greece\\_andamp,\\_the\\_Balkans\\_-\\_Geographicus\\_-\\_TurkeyEurope2-pinkerton-1818.jpg](https://commons.wikimedia.org/wiki/File:1818_Pinkerton_Map_of_Turkey_in_Europe,_Greece_andamp,_the_Balkans_-_Geographicus_-_TurkeyEurope2-pinkerton-1818.jpg) (September 14, 2020)).

39 Davidović: *Zemlje u kojima prebivaju Srbi*.

(a) The first generation of ethnic maps (1840s–1870s)

administrative borders.<sup>40</sup> The Viennese cartographer professor Desjardins (1787–1876) published in Belgrade a map based on Davidović in 1853.<sup>41</sup> It was he, too, who produced the first Serbian school map.<sup>42</sup> It is evident that Davidović's first map influenced Šafarik, while his second map was influenced by Šafarik (App. 8). The fact that Davidović's work was published at the expense of the Serbian state and was translated into French means his work bore the full approval of the Serbian government of the time – so argued the Bulgarians in the so-called “Rizov Atlas”.<sup>43</sup> Macedonia, as well as the towns of Niš, Leskovac, Vranja, and Pirot, was also situated outside the boundaries of the Serbian race.

The map of *Desjardins* (1853) confining Serbians to a limited area north of Šar Planina represented the realm of the Serbian language just as scholars who had not been influenced by Pan-Serbianism regarded it in the middle of the century.<sup>44</sup> The Serbian newspaper, *Srbske Narodne Novine*<sup>45</sup> describes the towns of Niš, Leskovac, Pirot, and Vranja as lying in Bulgaria, and describes their inhabitants as Bulgarians. One may wonder whether the inhabitants were real ethnic Bulgarians or whether they were classified as Bulgari-

- 40 See: Grčić, *Development*, 34. In light of the above mentioned, it is not surprising that the first thematic map of Serbia was the first Serbian ethnographic.
- 41 Srbiya y zemlŕy u koyma se serbskiy hovory sa nekym chastyma pohranych-niy zemalya.
- 42 Školska mapa Knŕžestva Stare i Vojvodine Srbije, Bosne, Hercegovine i Crne-gore, Slavonie, Hrvatske i Dalmacie s’ nekim častima drugi Austrijski oblastij, Albanie, Makedonie, Bugarske, Vlaške, in medium size [1: 655,000].
- 43 Rizoff: *Die Bulgaren in ihren historischen, ethnographischen und politi-schen Grenzen*.
- 44 According to the Serbian authors Janković and Gruić, the following districts were deemed to be Serbian: (i) Vojvodina (Banat, Sylvania, and Batschka); (2) Slavonia; (3) Dalmatia; (4) Istria; (5) Ragusa (Dubrovnik); (6) Cattaro; (7) Montenegro; (8) Metohia; (9) Bosnia; (10) Herzegovina; (11) Serbia (then a principality). See “Slaves du Sud” by the above authors, published in Paris, 1853. Around the middle of the 19th century, the Serbian Government dispatched S. Verković, one of its officials, on a tour of investigation through Macedonia and Old Serbia. In 1860, soon after his return, Verković published 335 national songs, collected from various places throughout Macedonia, entitled “National Songs of the Bulgarian Macedonians”. The author sets the Šar Mountains as the ethnographic boundary between the Bulgarians and the Serbs. See: Misheff: *The Truth about Macedonia*.
- 45 Year IV, May 4 and 7, 1841, pp. 138 and 141–3.

ans owing to the fact that the above mentioned territory was the part of *Tuna vilayet* together with other Bulgarian lands.

Müller’s map was one of earliest works using the settlement-level approach. The map of *Johann Georg von Hahn* (1811–1869), Austrian consul in Greece and the founder of modern Albanology, was to follow its approach. Hahn’s map is a sketch map of a journey published in 1861, where settlements along the Bulgarian and Serbian language border are marked with the letters A, B and S, referring to the language spoken by the majority (App. 6, Map 2). Although it was primitive in its visualization technique and less colourful than the early patch maps with weaker resolution, it was a settlement-level ethnic map – the first after Müller’s travel sketch. According to the map, Bulgarian dwelling places predominated in the Morava basin from the source of the stream as far as Niš, also appearing in the basins of the rivers Sitniza and Neredimka in Kosovo, while not a single Serbian dwelling place is marked south of the Morava. The map was perfected by his travel companion, the Czech *F. Zach*,<sup>46</sup> at that time director of the Serbian Military Academy; thus, it shows the opinion of official Serbia at the time, even satisfying Vuk Karadžić’s ideas.<sup>47</sup> As Hahn’s endeavour enjoyed the official support of Austria (which was then in friendly relationship with Serbia), the map also reflects the official Austrian point of view. The route was originally focusing on the possibility of constructing a railway in the Morava-Vardar valley.<sup>48</sup> On the other hand, being undertaken by military authorities, Zach’s and Hahn’ map should not be considered as a map primarily focusing on the ethnic question and nation building; it rather served state security issues with its great circumstantiality (it was a field map in fact) and by classifying” inhabitants of the frontier zone into unreliable (non-Christians), reliable (Serbs), and friendly (Bulgarian) – which would allow future penetration into the Peninsula beyond its primary object. Despite the presence of Czechs with “revolutionary traditions”, scientific slavistics and Slavophilia did not necessarily

46 Zach was of Czech origin participating in the French Revolution of 1848. Later he became a general of the Serbian troops in 1876 in the war against the Ottoman Empire, but failed to capture the sanjak of Novipazar and Kosovo.

47 See: The Correspondence of Wuk Karadjitsch. Vuk Karadžić (1814) considered Bulgarian the language of the Macedonians. The wife of the later Serb minister to Britain, Mme. Mijatović, in her “History of Modern Serbia”, described the Niš revolt of 1842 as a “rebellion of Bulgarian peasants”. See: Tsanoff: Bulgaria’s Case.

48 Bradaška: Die Slaven in der Türkei (September 14, 2020).

(a) The first generation of ethnic maps (1840s–1870s)

mean Russophilism *ab ovo*.<sup>49</sup> Their intentions could contribute to the political goals of Austria (Zach was accompanied by Hahn and the latter was definitely in Austrian service).

This indifference of Serbian politics towards Macedonia is not unique. *Pypin and Spasović* (1879) assigned to the Serb ethnic area Serbia, Montenegro, Bosnia, Herzegovina, Croatia, Dalmatia, part of Istria, Slavonia, Bačka, Banat, but not Macedonia. This attitude of Serbians is emphasized not only by Bulgarian scholars, or revisionists, who collected the evidence from travelogues,<sup>50</sup> but by Wilkinson as well.

However, Cvijić and Belić later argued that the travellers, Boué and Lejean did not know Slavic languages well enough to make these distinctions correctly, while others like Desjardins simply lacked field experience.<sup>51</sup> From this critique evolved a new branch of ethnic mapping that used dialects and

49 Gotovska-Henze: Kirilskijät kod.

50 Misheff: *The Truth about Macedonia*. For more detail see: Ubcini: “Divided by the Balkans, the Bulgarians ... extend on the west as far as Albania and reach the Danube on the north from Kladovo to Silistra.” Ubcini: *L’Empire Ottoman*, 634. V. Grigorovitch: “The villages between Salonica and Enidje-Vardar are inhabited chiefly by Bulgarians. The villages in the districts of Enidje-Vardar, Voden, Lerin, Bitolia, as well as those between Bitolia and Ochrida, are inhabited exclusively by Bulgarians, intermingled here and there with Koutzo-Wallachs and Turks.” Grigorovitch: *Esquisse de voyage dans la Turquie d’Europe* 107–9. Hilferding: “Shar Mountain stops the further movement of the Serbian element and serves as a frontier line between Serbians and Bulgarians. The latter have crossed the South–eastern mountains and occupied Macedonia and part of Albania.” Hilferding: *Oeuvres completes*. Vol. III, 141. Pouqueville: “In the valley of Prespa there are about 46 Bulgarian villages. In the district of Ressen are 26 Bulgarian villages.” Pouqueville: *Voyage de la Grece*, Vol. 2. 517, Vol. 3. 59, 71, and 73. Boué: “The Bulgarians compose the main kernel of the population of Macedonia, with the exception of the south-western part, from Costour (Castoria) and Bistritza.” Boué: *La Turquie d’Europe*, 5. The same sentence is repeated by Cyprien: *Les Slaves de Turquie*, 230. Lejean: “To-day the Bulgarian people is almost bounded by the Danube, the river Timok, with a line passing by the towns of Nish, Prizren, Ochrida... The Bulgarians occupy almost the whole of Macedonia and their compact mass gradually pushes the Greeks to the sea...” Lejean, *Ethnographie de la Turquie d’Europe*, 12–29.

51 Even Victor Grigorovich, who both had field experience and spoke Slavic as mother tongue, was also labelled incompetent by the Serbs. See: Misheff: *The Truth about Macedonia*. As there were evident mistakes in all of the mentioned maps, it was easy to question their relevance regarding other elements of their content.

grammatical phenomena instead of languages (the Serbian Belić, the Czech Niederle<sup>52</sup> and the French Chataigneau in 1924), and another branch that focused on ethnographic-cultural features. The Serbian Verković was among the first to classify nations based on folklore, but still considered the Slavs of Macedonia to be Bulgarians, the result of which was later challenged by Cvijić using the same method focusing on elements of folklore. The criticism on Western scholars might be true, but Cvijić himself was unable to speak Albanian. Thus, his approach was also one-sided.<sup>53</sup>

*Map 2. Parts of the sketch map of Hahn (1861)*

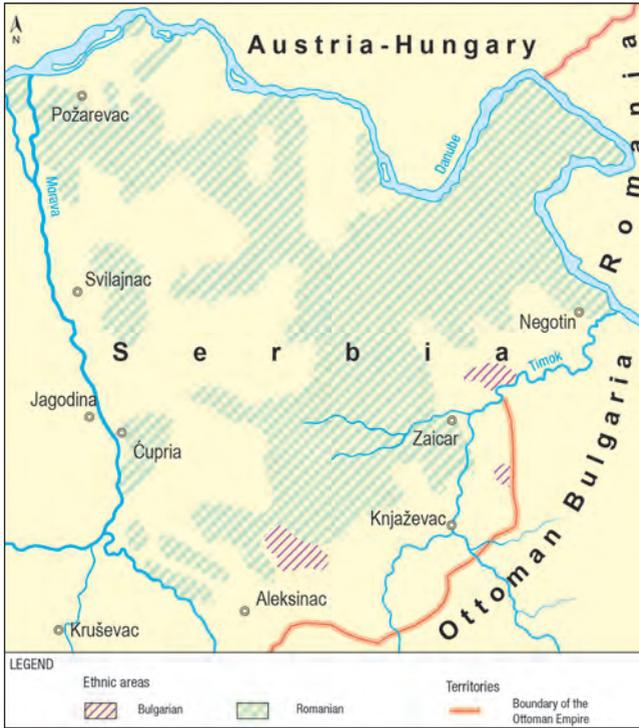


Source: Teodoroff-Balan: *The Balkan Question Library*. Sofia 1917.

- 52 Niederle: *Ethnographic Map of Slavs*, in: [https://commons.wikimedia.org/wiki/File:Ethnographic\\_map\\_of\\_Slavs,\\_Lubor\\_Niederle.JPG](https://commons.wikimedia.org/wiki/File:Ethnographic_map_of_Slavs,_Lubor_Niederle.JPG) (September 14, 2020)
- 53 See Clewing: *Mythen und Fakten*.

(a) The first generation of ethnic maps (1840s–1870s)

Map 3. Romanians in Serbia (1866)



Source: [https://commons.wikimedia.org/wiki/File:Ethnic\\_groups\\_in\\_Easternmost\\_Serbia,\\_1866.jpg](https://commons.wikimedia.org/wiki/File:Ethnic_groups_in_Easternmost_Serbia,_1866.jpg)

So, the early stage of ethnic mapping can be characterized rather as a Pro-Bulgarian phase. As the memory of the Crimean War faded (when the Great Powers defended the Ottomans against Russia), the number of maps referring to the multiethnicity of Ottoman Balkans began to grow. Slavophile tendencies in this were only halted by the threat of Russian advance in the 1870s (compare the two British maps of Irby and MacKenzie from the 1860s and that of Standord, 1877, see App. 2 and 29).<sup>54</sup>

54 Nevertheless the evaluation of Russian policy depended on the political ideas and the pendulum politics of the conservative and liberal governments in Britain. While the liberals of Gladstone accepted the idea of the independence of Balkan Slavs, conservatives (Disraeli, Salisbury) feared the establishment of Russian domination over the Peninsula.

The exaggeration of language as the sole determinative factor also made Austrian cartographers elaborate a new, complex method reintroducing religion as a factor again. This method would dominate Austrian cartography for the next thirty years, as a counterstep to the domination of the purely linguistic approach. This resulted in the multiplication of categories, and thus formerly transparent maps became more and more fragmented (see Sax, App. 18). The preponderance of ethnic maps based on language as a distinctive feature forced even *Kiepert*, a master of language-based ethnic mapping and the expert of the Berlin Congress, to revise his former ideas (App. 42): he turned to cultural traditions and historical affinity, when creating a brand new map (App. 43). This looked similar to the map of *Synvet* and *Stanford* (App. 1–2), and confirmed the Greek stance over the peninsula (North Macedonia was still indicated as Bulgarian).<sup>55</sup> Both *Stanford*'s and *Kiepert*'s maps relied on old geographical traditions observable, for example, in *Pinkerton*'s map from 1818, which delimited “geographical Greece” similarly to the Greek zones of cultural influence on *Stanford*'s and *Kiepert*'s maps.<sup>56</sup> Besides the term “Serbia”, this is another good example demonstrating how a geographical term gains broadened (political) meaning or ethnic character.

The Bulgarophile map created by women travellers *Irby* and *Mackenzie* in 1867 did not differ from earlier ones in its content (App. 29). Almost the whole of Macedonia (reaching to the river Černi Drin in the west and the Gramos mountain to the south-west), as well as the whole district of Niš, Dobrudja and a part of southern Bessarabia, are included within the boundaries of the Bulgarian people. Though this map is merely a reproduction of *Lejean*'s and *Fröhlich*'s map, and was not based on separate studies, it is much more reliable regarding Albanians in Kosovo and Turks in Dobrudja compared to the works previously mentioned. Their book was translated into Serbian by well-known Serbian statesman and academic Čedomil Mijatović,<sup>57</sup> who did not object that Macedonia and the district of Niš were shown as Bulgarian. Their main merit was that their work attracted the attention of Gladstone and the British on the Balkan Peninsula (*Salisbury*'s and *Disraeli*'s conservative government was hesitant to interfere in Ottoman affairs), while the maps mentioned ear-

55 *Stanford: An Ethnological Map of European Turkey and Greece*, 32.

56 *Pinkerton: Map of Turkey in Europe, Greece and the Balkans – Geographicus 1818*.

57 He also served several times as Serbian minister and as Serbian ambassador in London.

(a) The first generation of ethnic maps (1840s–1870s)

lier served as the basis for Russian Count Ignatiev to argue for the necessity of Greater Bulgaria: the maps of Boué, Lejean and Irby indicated a more or less homogeneous Slavic territory there, while ignoring a Muslim presence.

Despite the emergence of ethnographic mapping, it was not evident that the Powers of Europe all agreed on the principle of nationality for the future of the Balkans. The Russian Ignatiev wanted to create a great and Russophile state (Serbia was neither big, nor so Russophile at the time), under the pretext of promoting national goals. A Slavic buffer state could be used as a springboard for further Russian penetration of the Balkans. For the multi-ethnic Austria-Hungary, the principle of nationality was obviously dangerous (a destabilizing factor indeed), and so was the possible Russophile orientation of any large state in the Balkans. Therefore the interests of Austria-Hungary lay rather in the creation of many competing small states mutually limiting each other's aspirations, and the task of Austrian ethnic mapping was to support this idea. While the British reaction to the idea of a Russophile Greater Bulgaria was the propagation of the Greek standpoint and the acceptance of the broader (culturally determined) interpretation of ethnicity, abandoning the purely linguistic approach, Austria-Hungary elaborated the complex approach in order to prove the heterogeneity of Macedonia. The usage of religious categories beside ethnic was also logical if someone wanted to make a map comparable of the Ottoman raw data. Later, the Habsburg Monarchy even accepted the idea that Macedonia was inhabited by Serbs, just to prevent Bulgarian aspirations and the creation of Greater Bulgaria. This effort was supported by improved scientific techniques: the map of *Spiridon Gopčević* had the greatest resolution of any map created up to then due to the military mapping efforts mentioned earlier.

The first decades of ethnic mapping evidently showed a pro-Slavic attitude concurrent with the similar phenomenon observable in other scientific disciplines. But within this the supposed idealistic unity of the Slavic world began to disappear among the Austro-Hungarian Slavists (even Russophile pan-Slavists abandoned the idea of unity on their maps – see *Mirkovich*, 1867 or *Zarjan-ko*, 1890 App. 25 and 27). The southern Slavic community was split into Bulgarians and Serbo-Illyrians on maps – compare Šafarik and *Bradaška* (1869)<sup>58</sup>

58 Even the map of the (anyway Slav) *Bradaška*, illustrating southern Slavs with the same colour (1869) depicts the Balkan situation as supposing two major Slavic patches hardly joining each other (due to the Albanization of Kosovo).

stressing the unity, with the map of *Jaromir Erben*, 1868 – and their delimitation was in tight connection with the political reality (Bulgarians = Slavs under Ottoman rule; Serbo-Illyrians = independent, or Southern Slavs under the influence of Vienna) and with certain aspirations. Illyrism and Austro-Yugoslavism left an imprint on Western ethnographic mapping too, which is why Croatians and Bosnian Slavs were illustrated using the same colour together with the Serbians on earlier maps (Lejean in 1861 as well as Mackenzie and Irby used the same colour, while Bulgarians were illustrated using a different hue). Nevertheless, the acceptance of this concept implicitly meant the acceptance of Serbian or/and Austrian political aspirations and alliance policy of that time.

Concerning the Macedonian regions, ethnic mapping in the 1860s turned in favour of the Bulgarians. It was not until the 1880s, when the above outlined situation changed, but this had political, rather than scientific reasons: the policy of Austria-Hungary after the Treaty of San Stefano (1878) made the realization of Serbian claims on Bosnia impossible, at the same time the alienation of Serbia ruined the reality of Austro-Yugoslavism. This meant that the homogeneity of the “western” Southern Slavs was abandoned on many ethnographic maps, while the Serbian nation was extended into Macedonia. Ethnic maps reacted to the political changes quickly by modifying the boundaries of the nations.

Many of the maps of the 1860s looked quite similar at first sight and did not show signs of methodological development: they were merely compilations of previous works. For example, the map of the Bohemian historian and Slavist *Jaromir Erben* (a colleague of Palacký at the National History Museum) in 1868 was based on Šafarik, Czoernig, Lejean and Mirković; thus it was quite conventional, not original (App. 32).<sup>59</sup> (On the other hand he abandoned the idea of the unity of a South Slavic world compared to his predecessor, Šafarik). However, at one point it defied the tradition of the Boué-Lejean-Irby lineage and described the situation in Kosovo in a way favourable to the Serbs (while even the map based on the Serbian census in 1924 admitted that Albanians constituted the majority in the region). The last map to do so was published 14 years before by Petermann. Erben also drew the ethnic boundary of the Albanians erroneously in Epiros.

59 Jaromir Erben (1811–70), was a good authority on Slavic language, history and mythology, but his map “Mapa Slovanského Světa” is not authentic.

(a) The first generation of ethnic maps (1840s–1870s)

Another Slavist, the Russian *L. F. Mirkovič*, had one innovation (App. 25): the Muslim zone in northeastern Bulgaria, formerly indicated as a homogeneous patch, was dismembered and depicted as a mixed region using the technique of cross-hatching (in one of its earliest implementations). Furthermore, he expanded the boundaries of the Bulgarian nation in Thrace beyond Adrianople. In this way the Slavic preponderance on the peninsula became more obvious.<sup>60</sup> This was another Bulgarophile map, serving as the basis of the Slavic Congress in 1867,<sup>61</sup> and it was later sharply criticised by Cvijić because it depicted an unfavourable situation for the Serbs. Unfortunately, Mirkovič accepted Boué's idea that Albanians are abundant west of the Pindos Mountains down to the Gulf of Arta, for which the whole map was also labelled 'unreliable' in regard to its other content and ethnic boundaries. Present-day Albanian scholars also criticize Mirkovič (but, unlike Cvijić's activity, this had fewer immediate consequences): from their point of view, Mirkovich underestimated Albanians in North Albania,<sup>62</sup> while other maps, like that of Lejean, indicated the ethnic boundary in North Albania quite realistically, but did not account for ethnic Albanians around Resen, Skopje and Bitola. Albanian scholars also admit that the presence of Albanians is exaggerated in Peja, Djakova, Prizren, and Prishtina.<sup>63</sup>

The map of the Russian duke *Cherkassky* from 1877 also used the aforementioned sources alongside the maps of Hahn, Dejardin, Erben, etc. when proposing the creation of a Greater Bulgaria even bigger than the Exarchate or Bulgaria proposed at San Stefano. Among other compilations, one may mention the map of *Elisée Reclus* (1876) based on Lejean, the Austrian *Felix Kanitz* and *Karl Czoernig*, probably with scientific impartiality. It shows the southern boundary of the Albanian nation more or less precisely, but suppos-

60 Erben's map is the only one at that time that accepted this modification.

61 The "Slavic Exhibition" had been arranged at the instigation of the Russian Slavophiles in Moscow and a Russian ethnographic map of all the Slavic "races", entitled "Ethnological Map of the Slavic Peoples" was created. This map was approved by all delegates present, and up to 1877, it appeared in three editions, serving as a basis for national demands.

62 Gashi/Nikolli/Meha/Kabashi: Cartographic Overview about Albanian Territory, 13–7.

63 On the other hand, recent studies claim that the Albanian presence in today's Skopje is more likely the result of the Albanization of Ottoman Muslims after 1914, and that prior to this the Albanian factor was only one among many Muslim groups.

es a great number of Greeks in Thrace (App. 35).<sup>64</sup> Czoernig's ethnographic map of the Balkan Peninsula (App. 17b) was not a sophisticated one, especially compared to his masterpiece, the ethnographic map of the Habsburg Monarchy from the 1850s (App. 17c), because it was too general, and it lacked roads and other connections between the patches (these are key elements on his map of the Habsburg Monarchy). So, using this map was not a good choice by Reclus. He might have thought that Austrian maps are better because of the closeness to the investigation area, but the map of Sax, another Austrian, was more detailed, unfortunately it was published a bit later than the map of Reclus.<sup>65</sup>

The predominance of Slavs on these maps was due to the activity of Croatian professor *Bradaška* at Zagreb (1869), who drew attention to the fact that Ottoman censuses count Muslim Slavs and Muslim Albanians together with Turks; without them, the Muslim (Turk) supremacy of numbers and patches was illusory (App. 33).<sup>66</sup> His approach was adopted in the maps of *Petermann*, then followed by *Kiepert*<sup>67</sup> (App. 42), who illustrated mixed Bulgarian-Turkish and Bulgarian-Albanian contact zones with rough-and-ready cross-hatching instead of patches: this often resulted in the predominance of

- 64 The reliability and impartiality of his maps can be challenged: Kanitz's numerical data were contradictory even for Bulgaria (see Chapter 3), a region which he knew well. (Kanitz's travels were close in time to the creation of Reclus's map, but his routes did not include Macedonia, just Serbia and Bulgaria). Lejean's maps were at least 20 years old.
- 65 If this work of Reclus is as precise as his late (1918) map of the Romanian nation, on which the Hungarian language border was distorted in favour of the Romanians (App. 39), it means low reliability in fact regarding his Balkan ethnic maps. The map illustrating Romania was anyway based on Kiepert's general map from 1876. The Romanian maps of Murgoci (1903) and Istrate and Popa (1916) looked similar, and de Martonne's map from 1920 was also based on these mentioned maps (App. 39b: Martonne: *Essai de carte ethnographique des pays roumains*).
- 66 He accepted the data of von Reden that Ottomans among the Muslims of the Balkans did not exceed 1 million, while others, classifying all Muslims as Ottoman, put their number to 6 million. *Bradaška*: *Die Slaven in der Türkei*.
- 67 Heinrich Kiepert (1818–99) was still young when he became famous for his 'Atlas von Hellas' (1846); afterwards he published maps of Asia Minor and Palestine, working locally. His map of the Balkans corrected many mistakes of former ethnological maps by indicating Turkish and Albanian dwelling places.

(a) The first generation of ethnic maps (1840s–1870s)

Bulgarians over other nationalities. Cross-hatching to illustrate ethnically mixed areas also appeared in the work of Bradaška (1869), who extended the Albanian-Slavic contact zone to Bitola on his map (see also Mirkovich in 1867 for Dobrudzha). Another specific feature of Kiepert's and Bradaška's maps is that these also colour sparsely inhabited and uninhabited areas, enlarging the territorial extent of patches. Before Sax (1877/78), everybody indicated Macedonia as relatively homogeneous, without significant Muslim settlement (even the map created by *Ravenstein* after 1878 did so).

Bradaška came from the same environs as Šafarik, Zach, Verković or later Jagić, in the sense that he represented the – anyway politically diverse – standpoint of the Slavs in Austria-Hungary. Bradaška, while focusing on the delimitation of Albanian and Slavic ethnic settlement areas following the way of Šafarik (in order to illustrate and widen the thin physical-geographical connection between Serbo-Croats and Bulgarians)<sup>68</sup> also dealt with the revision of earlier works and data distortions in them in his article published in the *PGM*. He drew attention to Cyprien Robert's statement that Slavs in Thrace were bilingual, able to understand Greek.<sup>69</sup> This statement was later utilized by Greek propaganda to strengthen Greece's territorial claims on Thrace and Eastern Rumelia. Bradaška also expressed criticism on Hahn's settlement level data,<sup>70</sup> because he cited numerous settlements several times with different population numbers and ethnographic proportions. Bradaška's work is a good summary on the opinion of Boué, Lejean, et al., regarding Bulgarian and Albanian settlement zones – containing even comparative tables on ethnic distribution of towns.<sup>71</sup> The comparative statistical approach should be considered as one of the most positivistic endeavours of that time, as it at least highlighted the evident controversies (Figure 3). Bradaška gave a positive example and encourages us to compare available settlement level and kaza-level statistics in this volume, which many contemporaries have failed to do.<sup>72</sup>

68 That is why Hahn's and Müller's journey was often cited in his work

69 Robert: *Les Slaves de Turquie*, 193.

70 Hahn: *Reise von Belgrad nach Salonik*.

71 Bradaška: *Die Slaven in der Türkei*, 458.

72 Therefore a comparison was made between Gopčević and the *Extrait*; the *Extrait* and Verković in Patriarchist-Exarchist relation and between Ottoman and Exarchist/patriarchist data in the forthcoming pages (*Extrait* = *Etnographie des vilayets d'Adrinople, de Monastir et de Salonique. Extrait du Courier d'Orient. Constantinople 1878*).

Figure 3. An example of the comparative approach applied when delimiting ethnic boundaries on patch maps

Stadt (Ort)	Autor	E i n w o h n e r			Gesamtwahl und verschiedene Anmerkungen.
		Slaven	Süptaren	Anderer Stämme	
Novipazar	Ami Boné	im Allgemeinen eine Slavische Stadt	wenige	—	—
	Hilfeding	—	—	—	12.000 Einwohner, ca. 20.000 Einwohner.
	Jukié	—	—	—	—
Yaditra	Brachelli(Wajpaka)	—	—	—	n 15.000 " "
	Jukié	sehr wenige	fast ausschließlich mohammed. Süptaren	—	n 8.900 " (f)
Pristina	Mackenzie u. Irby	200 christliche u. 400 bis 500 mohammedische(armenische) Häuser	ein Theil	—	7- bis 8000 " "
	A. Boné	—	—	—	1500 Häus., davon 1200 mohammed. (ein Theil Slavisch) und 300 Griech.-Orient ca. 12.000 Einwohner.
Novo Brdo	Hilfeding	bedingt ein Drittel	zwei Drittel	wenige Zinzaren	—
	Brachelli	ein Theil	ein Theil	wenige Türken	n 10.000 " "
Morava (Gülan)	A. Boné	ein Christklaus	alle	—	—
	Hahn	—	—	15 Türk. (Osman.) Häus.	—
Morava (Gülan)	Hahn	—	viele	—	—
	Dr. Müller	ein Theil 1860	3150 katholische, 4000 mohammedanische	ein Theil Osmanen 2000 Neger (?), 600 Zinzaren und sehr wenige Osmanen	—
	Hilfeding	—	—	—	Ami Boné zweifelt, dass es hier so viele Slaven gebe.
Prizren	Hilfeding	—	—	—	3000 mohammedanische, meist Süptarenische Häuser, 100 kath.-Süpt. und 800 Griechisch-Orientalische, darunter Serbische, dann Zinzar, Bulgar. und Griechische Häuser. Mithalliche Einwohner ca. 12.000.
	Jukié	—	—	—	ca. 12.000 Einw., wovon der grössere Theil Griechischer Religion.
	Brachelli	viele Griechisch-Orientalische	ein Theil kathol. und mohammedanische	einige Zinzaren, Türken und Zinzaren	Über 25.000 Einwohner.
Prizren	Hahn	—	—	—	25.000 Einwohner und zwar 20.000 mohammed., 4200 Griech.-Orient. und 800 katholisch. — In seinem Berichte über die Reise vom Jahre 1863 führt er für Prizren 46.000 Einw. an, worunter 36.000 mohamm., 8000 Griechisch (Dalgaren u. Walschen) und 2000 katholisch. Die Mehrzahl der Einwohner spricht Türkisch, Dalgarisch, Süptarenisch und Walschisch. (Quellenschrift der K. K. Akad. der Wissenschaften in Wien, 15. Bd., 2. Abth., SS. 77—80).
	Mackenzie u. Irby	12.000 Griech.-Oriental.	—	—	46.000 Einw., davon 32.000 mohammedisch, zum grösseren Theil Süptarenisch, zum kleineren Slavisch, und 12.000 katholisch. Obgleich die Sektens in der Minorität sind, so ist ihre Sprache doch die herrschende. „Eine Süptarenische Stadt“.
	Hilfeding	60 Griechisch-Oriental. Slavische Häuser	3500 mohammedan., 60 christliche	—	—
Djakova	Jukié	—	—	—	ca. 20.000 Einw., davon 2300 Griechisch-Oriental., 450 kath., die übrigen fast alle mohamm. Süptaren.
	Brachelli	ein Theil	ein Theil (moh. u. kath.)	—	Über 8000 Einwohner.
Poi (Ipek)	Mackenzie u. Irby	zur 15 bis 16 Serb. Häus. der grössere Theil	100 Familien (nach Dr. Müller)	82 Türk. 28 Zinz. Famil. (nach Dr. Müller)	7- bis 8000 Einwohner.
	Hilfeding	800 Häuser	4000 (?) Häuser	—	„Auch die Serben können grösseren Theils Süptarenisch“.
Poi (Ipek)	Brachelli	Über 8000 Griech.-Or.	—	—	—

Bradaška: Die Slaven in der Türkei, 458.

Later, during the Great Eastern Crisis in an article Bradaška also expressed criticism on the reliability of Ottoman tax-conscriptions (which we will discuss in details later).<sup>73</sup> He published the data collection of Verković on the ethnic relation of the Seres sanjak in 1878.<sup>74</sup> Verković's collection from the early 1860s' was mainly based on the data of the Patriarchate, and therefore in some cases (in Seres and Zikhna kazas for example) the number of Muslims was not given. In other cases, when it was given, it can be compared to

- 73 Scholars tried to define population number based on the taxes paid and the number of households.
- 74 Bradaška: Statistisch-ethnographische Daten des Sandschaks Seres.

## (a) The first generation of ethnic maps (1840s–1870s)

the data of the Extrait<sup>75</sup> from 1873 (Table 2 and 3). Verković's data suggest that Slavs were in majority in the region of Seres and Drama in the 1840s, despite Cyprien Robert's statement a decade earlier that Bulgarians of the region could speak Greek too.

*Table 2. Examples of comparable data pairs of Verković (Patriarchate, 1860s) and the Extrait (1873)*

Nevrokop kaza, 1860s VERKOVIĆ	Bulgarian Houses	Couples	Nufus (taxable male population above 15 yrs)	Muslim Houses	Couples	Nufus	Muslims, in %	Total households 1860s	Nufus/ household, 1860s
Vjezme	52	65	<b>91</b>	60	80	<b>130</b>	<b>58.82</b>	112	1.97
Belatinci	255	280	<b>390</b>	29	36	<b>48</b>	<b>10.96</b>	284	1.54
Butim	45	50	<b>80</b>				<b>0.00</b>	45	1.78
Livadista	37	49	<b>64</b>				<b>0.00</b>	37	1.73
Zernovo	269	283	<b>409</b>	27	33	<b>47</b>	<b>10.31</b>	296	1.54
Lisa	35	44	<b>58</b>	80	110	<b>161</b>	<b>73.52</b>	115	1.90
Komanich	74	85	<b>118</b>				<b>0.00</b>	74	1.59
Starchitsa	194	264	<b>388</b>	75	112	<b>134</b>	<b>25.67</b>	269	1.94
Dolné Brodi	108	113	<b>184</b>	70	101	<b>130</b>	<b>41.40</b>	178	1.76
Terlich	250	318	<b>473</b>	90	130	<b>180</b>	<b>27.57</b>	340	1.92
Monas- tirdjik	163	198	<b>331</b>				<b>0.00</b>	163	2.03
Lovcha	96	149	<b>204</b>				<b>0.00</b>	96	2.13
Paril	37	39	<b>86</b>				<b>0.00</b>	37	2.32
Teshjevo	123	166	<b>205</b>	23	36	<b>48</b>	<b>18.97</b>	146	1.73
Gajtaninovo	105	158	<b>265</b>				<b>0.00</b>	105	2.52
Lika	58	68	<b>109</b>	18	27	<b>39</b>	<b>26.35</b>	76	1.95
Sadovo	34	40	<b>56</b>	24	31	<b>42</b>	<b>42.86</b>	58	1.69
Gorna Sengartia	37	42	<b>67</b>	12	14	<b>21</b>	<b>23.86</b>	49	1.80
Dolna Sengartia	36	38	<b>61</b>	24	34	<b>45</b>	<b>42.45</b>	60	1.77
Koprivljan	15	18	<b>29</b>	28	36	<b>47</b>	<b>61.84</b>	43	1.77

75 Ethnographie des vilayets d'Adrianople, de Monastir et de Salonique.

## Chapter 2. Ethnic Maps and their Background (1840s–1920s)

Nevrokop kaza, EXTRAIT, 1873	Households, 1873	Muslim males	Bulgarian males	Vlach	Muslims, in %	Male/household	Increase in number of households within 10 years in (1860s–1873)
Vjezme	125	130	220		37.14	2.80	1.12
Belatinci	294	70	900		7.22	3.30	1.04
Butim	65		230		0.00	3.54	1.44
Livadista	52		180		0.00	3.46	1.41
Zernovo	317	62	900	40	6.19	3.16	1.07
Lisa	115	180	140		56.25	2.78	1.00
Komanich	84		280		0.00	3.33	1.14
Starchitsa	325	180	880	25	16.59	3.34	1.21
Dolné Brodi	203	180	480		27.27	3.25	1.14
Terlich	380	190	1060		15.20	3.29	1.12
Monastirdjik	190		650		0.00	3.42	1.17
Lovcha	125		450		0.00	3.60	1.30
Paril	35		130		0.00	3.71	0.95
Teshjevo	159	65	470		12.15	3.36	1.09
Gajtaninovo	180		640		0.00	3.56	1.71
Lika	81	40	230		14,81	3.33	1.07
Sadovo	78	65	200		24,53	3.40	1.34
Gorna Sengartia	59	28	170		14,14	3.36	1.20
Dolna Sengartia	70	55	165		25,00	3.14	1.17
Koprivljan	50	60	80		42,86	2.80	1.16

\* Increase in number of households might be reasoned by population increase as well as by differences in the basis of conscription.

(a) The first generation of ethnic maps (1840s–1870s)

Table 3. Incomparable data pairs of Verković (Patriarchate, 1860s) and the Extrait (1873, p. 144)

	Verković, number of Greek and Bulgarian houses 1860s	Extrait, number of Muslim, Greek and Bulgarian houses, 1873	Household number of Verković in the 1860s, measured to 1873 (%)	Muslim population according to the Extrait
Kalapot	160	328	49	
Karlekova	80	231	35	43%
Rassilova	27	137	20	48%
Gornitsa	104	148	70	
Egridere	97	172	56	15%
Serijevo	134	240	56	
Klepoushna	92	140	66	
Zikhna	16	38	42	

\* The indicated settlements also had Muslim population according to the Extrait, which was not given by Verković, that's why the great difference in household numbers.

Verković's data collection is worth showcasing for several reasons. First, it was based on the Patriarchate's data before the establishment of the Exarchate and it contains data on the Bulgarian (Slavic-speaking) population. This is important because after the establishment of the Exarchate, the Patriarchate's interest was to depress the number of Slavic-speakers (therefore, the Patriarchate's late compilations should be handled with care). So by comparing Verković's data and the later collections of the Patriarchate, one may check whether the latter tried to manipulate data on Slavs or it can be considered correct.

Second, Verković's settlement level data from the 1860s can be compared to the enumeration of the Extrait of 1873. Both give household numbers. Thus, population growth within ten years can be assessed, if we suppose that both are accurate conscriptions. (Of course, this can be debated). However, in the next columns, Verković gives *nufus* number (tax payers above

15 years), while the *Extrait* gives the number of males, therefore there is a slight difference between the basis of population count. If we calculate *nufus*/household for the 1860s and male population/house for each settlement, the result will be significantly different (Table 2), which confirms that the basis of conscription was also different. And this makes the handling of Ottoman statistics very difficult, as different multipliers were used by authors of different origin to calculate the population number and ethnic proportions too. (They even applied different multipliers for the different *millets* or regions – very often deliberately, without any scientifically justified reasons). It even reduces our chances to reconstruct temporal changes in population number and ethnic proportions. However, there is one chance. Both Verković and the *Extrait* gave the number of Muslim *nufus*/males; thus, it can be compared to the total numbers and at least the share of Muslims can be approximately given. We compared some 20 settlements of the Nevrokop kaza. Our conclusion was that though the proportion of Muslims changed (which could happen due to migration processes, differences in reproduction rate, or due to the different basis of the conscriptions too sudden turns were not observed. Settlement without Muslim inhabitants in the 1860s remained so in 1870, which means that immigration of Muslims did not take place there, and on the other hand, Muslim minorities in settlements with Slavic majority did not disappear, though their share did not remain constant. This means, on the one hand, that these years were relatively peaceful concerning ethnic migration processes. On the other hand, the average 10–15% of decrease in the proportion of Muslims within ten years highlights that temporal comparisons are futile in the case of data with a different basis of enumeration. It warns us that ethnic maps based on the one and the other might show a significantly different picture, even if illustration methods are considered correct.

Third, calculating *nufus*/household, etc. values from Verković's data compilation gives approximately 1.5–2 *nufus*/household, which could be extended to other regions, while the *Extrait*'s gives values between 2.8 and 3.3 (that is why we think the *Extrait* includes more people). If all males are included, this means that family size varied between 5.6 and 6.6 persons in this region. We also tried to investigate the difference between the size of Christian households and Muslim households. In case of fully Christian villages the number of males/household was 3.4, for settlements with more than 25% Muslim minority it was only 3.0, and for the whole set of settlements it was 3.3 in 1873. So, it seems that Muslims did have smaller

## (b) The second generation

household size (the correlation coefficient was -0,87 between the share of Muslim minority and household size). But we cannot assume that it was a general phenomenon. Todorova's research on Bulgaria and our research done on Dobrudzha in the 1860s (see Chapter 3) did not confirm that it was a general phenomenon (see later). So, all these statisticians who considered it as a general feature were mistaken when they applied different multipliers for the whole *millet*.

Another question is, can these conscriptions be considered reliable – at least relatively to each other (if mistakes occur, then these are abundant in both data compilations). The number of houses also increased by 0–15% (which seems to be a reasonable population growth value in order to accept both conscriptions as reliable in this regard). Of course, an increase in number of compared settlements might give more accurate answers to these important questions.

So, this is probably the maximum we can gain from the comparison of these sources. Our opinion is that well-established conclusions on ethnic proportions, population increase, and differences in household size would require huge datasets to be analyzed in this manner. Unfortunately, such compilations do not always exist – Verković compiled data for the Seres sanjak, while the Extrait covers most of Macedonia and Thrace. The comparison of the Extrait from 1873 with Gopčević's data used in his map of 1889 (analyzed later) would highlight that there was a inconsistency in his approach – sometimes he used the Extrait's data, but for some *kazas* he used another source.

## **(b) The second generation – growing rivalry and diversifying approaches during the Great Eastern Crisis**

After the evaluation of the first generation of the Western maps and the contribution of the Slavists (and Panslavists) to ethnic mapping in relatively peaceful circumstances, when ethnic maps had no direct influence on the outcome of events, we take a closer look on ethnic maps created in a different political situation, during the turmoil of the Great Eastern Crisis, which made ethnic mapping more valuable and relevant. Were ethnic map able to realize what they advertise, were they able to influence decision-making?

We have already mentioned that the crisis forced the Powers to re-evaluate their Balkan policy and attitude towards the Balkan people and this

change was observable in the methods of ethnic mapping. Austria-Hungary turned to the multidimensional approach of identity to protect its interests and to prove the versatility of the peninsula and hinder the establishment of Greater Bulgaria under Russian aegis, Great Britain supported the Greek stance on “cultural determination” in order to do the same, while Heinrich Kiepert and the Russians remained on the basis of one-dimensional linguistic approach to promote decision-making. It is worth discussing these tendencies in detail.

*Kiepert* was taught by the historian Ranke, and worked together with Karl Ritter, the founder of modern geography. Thus, the intertwining of these two disciplines – both often accused of political motivations and inclination – was characteristic of his career (and of many others). Kiepert’s ethnographic map (1876)<sup>76</sup> was based on the data of Jireček, Kanitz, Bradaška, and Jakšić, and he made use of the map of Lejean and Hahn. Although his map (App. 42) became famous as the one used at the Berlin Congress,<sup>77</sup> it was not the only one, and it received serious criticism by other authors, like the polyglot Hungarian geographer Béla Erődi-Harrach (in *Földrajzi Közlemények* – Geographical Bulletin).<sup>78</sup> Erődi claimed that there were many mistakes on Kiepert’s map. According to Erődi’s thesis, for Muslims religion was still a stronger tie than ethnicity defined by spoken language: a Bosniak or Pomak would rather choose the Ottoman Empire and “Turks” (considering them as their real compatriots) over their Slavic-speaking brethren. Thus the overemphasis of language as the main determinative factor of ethnicity on Kiepert’s map has the side-effect of diminishing the Muslim character of the Empire.<sup>79</sup>

In his criticism – driven of course by political goals and personal sentiments – Erődi recognized and tried to stop the tendency that began in the 1840s with Šafarik: until 1878, every mapper focused on proving the Slavic/Christian character of the peninsula.<sup>80</sup> In Erődi’s opinion, the map of Crete in 1866 was a real example of creating good ethnic maps, as it indicates reli-

76 Not to be confused with his ethnocratic map mentioned earlier.

77 For more detail, see: Yosmaoğlu: Blood ties, 101.

78 Erődi: Kartografia, 341–4.

79 Erődi: Földrajzi és népismereti tanulmányaim európai Törökországban az 1869-iki felvétel alkalmával.

80 In reality approx. 35–40% of the population was Muslim in the Balkans at the end of the 18th century.

(b) The second generation

gious differences as well as linguistic ones.<sup>81</sup> Cross-hatching, applied by Kiepert, also came under criticism for not being able to illustrate ethnic proportions in the applied way, not to mention the fact that Kiepert forgot to indicate some 309,000 Muslim Bosniaks and 250,000 Circassians between Niš and Kosovo as separate sub-groups on his map (not even indicating them by hatching).<sup>82</sup> The same happened to the 485,000 Muslims of Macedonia (many were incorporated into a Slavic ethnic group based on their spoken language), while he also failed to indicate 124,000 Muslims in the *vilayet* of Selanik and the same amount in Yanya. According to the Hungarian scholar, that is, Kiepert's map was too pro-Slavic.

On the other hand, when judging Erödi's endeavours, one should not forget that he was a declared Turkophile academic<sup>83</sup> as well as a Bulgarophile; he even wrote a pro-Turkish book during World War I, while a Bulgarian scholar wrote a book on his contribution to Bulgarian ethnography.<sup>84</sup> This – at first glance paradoxical – behaviour stemmed from his fear of Pan-Slavism (manifested in his Russophobia), a characteristic feature of the Hungarian political elite after 1848 (just think of the foreign policy principles of Count Andrassy who wrote in 1872 that Russia would attack Hungary or the Balkans within a few years).

However, it was not only Kiepert in that era who created a map directly to support decision-making. The Russian Teplov's map was also more than political propaganda or the expression of sympathy towards one of the races in the Ottoman Empire, as it functioned as an aide-material in the conference of Constantinople (in 1876, prior to the Berlin Congress) to promote Russian interests. But it was completely different from Kiepert's map. First,

81 Petermann/Habenicht: Ethnographische Karte von Kandia oder Kreta, in: [https://zs.thulb.uni-jena.de/receive/jportal\\_jpvolume\\_00141252](https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00141252) (September 14, 2020).

82 This was "solved" after 1878: the Circassians fled. Grassi: A New Homeland.

83 Erödi was encouraged by the famous Ármin Vámbéry to study Eastern languages. He learnt Ottoman, Bulgarian, Greek, Hebrew, English, German, Italian, French, Persian and Serbo-Croatian. He travelled through Asia Minor, Albania and Macedonia in 1868–70, becoming an interpreter for the railway construction companies in Bulgaria. After his return he was appointed as interpreter for the Ottoman envoy Tahir bey, returning the Corvinas in 1877 (King Matthias Corvinus's library had been taken away by the Ottomans after the fall of Buda in 1541); for this service he was awarded the Ottoman Medsidie medal.

84 Radev: Bela Erödi i Adolf Straus za bălgarskata narodna kultura.

it was a choropleth map indicating two groups at the same time, thus it indicated the proportions with colour tones. Second, it contained religious and not ethnic classification. Though in another material Teplov also tried to give ethnic data, like Kiepert, at least for the Bulgarians, using the conscriptions of the Exarchate, these did not show overwhelming Bulgarian majority at all, while a huge number of non-Exarchist Christians were also indicated. Furthermore, the number and proportion of Muslims was too small compared to other Western and Ottoman statistics. So, it is not surprising the other data series based on the Ottoman conscription of 1873 was used and not this one (see details later). Third, it also indicated population numbers (males, in fact), which patch maps failed to do. So, Teplov's map was methodologically more sophisticated than Kiepert's, despite the numerous mistakes. Teplov's map did not distort the relations radically in favour of Christians in Bulgaria (especially if we compare it to the suggested preliminary boundaries of Bulgaria), nor did he claim that the new state would be dominantly Bulgarian as some language-based patch maps (like the map of Kiepert) suggested.

Compared to this, Kiepert's map was less elaborated, and even Kiepert himself admitted that the colours he used would not claim rigidly that the constituent parts of each section are occupied exclusively by a single race – it would only indicate the race that would be preponderant there.<sup>85</sup> In other words, it rather depicted political desires than linguistic (ethnic) reality. Yosmaoğlu's statement is appropriate: maps are not depictions of something that already exists, but predictions of it.<sup>86</sup> And whose pretensions were depicted this way? It was again the Russians, who were behind the project and sponsored Kiepert.<sup>87</sup> As western Powers defied the results achieved in Constantinople in 1876, the Russians decided to create something that would promote their interests in Berlin by abandoning numbers and mixed zones using a simplified approach, and at the same time fits better to the traditions of the western cartography (the use of ethnic categories).

The British chose another way to solve the “Bulgarian problem” (grown into the “Russian problem” in Great Power diplomacy): they gave up the purely linguistic approach, which seemed then to favour the Bulgarian cause. Thus, their first reaction to Kiepert's map was a map published by the Brit-

85 Kiepert: *Notice Explicative sur la Carte Ethnographique des pays Helleniques, Slaves, Albanais et Roumains*, 5.

86 Yosmaoğlu: *Blood Ties*, 83–4.

87 Karpat: *Ottoman Population*, 26.

(b) The second generation

ish *Stanford*, which redrew the ethnic pattern of the peninsula according to Greek interests in order to hinder the justification of Greater Bulgaria (it was still anti-Turkish, nonetheless, confirming Greek claims on Ottoman territories). As recent research has proven, the map was indeed suggested by *Joannis Gennadios*, the Greek ambassador to London, who provided the British with information from the accounts and registers of the Greek Patriarchate – also reproduced in this book (see Maps 37 and 38, discussed later). This map was thus mainly based on the denominational aspect of identity. The map failed to grab the attention of Western politicians, but Gennadios had another target group: the Greek elite. He wanted to show a way to cope with the general Slavophilism by wielding the weapon of cultural and racial superiority of ancient Greece, the cradle of European culture.<sup>88</sup>

Attempts in a similar vein were later made by *Nikolaides* (1899) (Map 30), *Phokas Cosmetatos* and *Colocotronis* (1919) (App. 4); even Kiepert himself revised his earlier views in this manner. The basic thesis of these maps was that Bulgarophone patriarchists and orthodox Albanians were indeed Greek in their sentiments (in contradiction to Boué's map). *Stanford's* map (App. 2, Table 4) confirmed the statement that the urban population of Macedonia was entirely Greek, whereas the peasantry was of mixed, Bulgarian-Greek origin, with Greek identity, but "had not yet mastered" the Greek language. Greeks and Philhellenes claimed that Macedonia had always been inhabited by Greeks, but that Bulgarian barbarians, after invading the country, had enforced their language upon them. However, the theory of Bulgarian-speaking Greeks (e.g. by Cyprien Robert) was challenged by the Bulgarian compilation of maps created by *Zlatarski* and *Ishirkov* for Kaiser Wilhelm in 1917,<sup>89</sup> later used as an argument at the Neuilly Peace Treaty.<sup>90</sup>

88 Yosmaoğlu: Blood Ties, 120.

89 "Is it possible, asked the Bulgarians, that uncultivated people impose a barbarian language upon a cultured nation speaking the language of Socrates and Demosthenes? 'In the course of five centuries the Turks have not succeeded to enforce their language on those nations that have been subjugated by them in Europe, not even on those Christians that have gone over to the Mohamedan faith; and all the world knows that the Mohamedan Greeks of Epirus speak Greek, the Mohamedan Servians of Bosnia and Herzegovina speak Servian.'" Rizoff: Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen, [http://macedonia.kroraia.com/en/dr/index\\_de.html](http://macedonia.kroraia.com/en/dr/index_de.html) (14.09.2020).

90 The so-called "Rizov Atlas" in Wilkinson's work: Die Bulgaren. The Bulgarians replied by citing statistics that prove Bulgarian preponderance over the Greeks

Table 4. The data behind Stanford's map (left) on the ethnic composition of Greater Bulgaria, and the Russian version (right)

Stanford's data	Chris-tian	Muslim	Jew	Total	San Stefano	Chris-tian	Muslim	Jew	Total
<i>In thousands</i>									
Bulgarian	1,032	149		1,181	Bulgarian	1,030	149		1,178
'Turk'	4.2	<b>495</b>		500	'Turk'	4.2	<b>408</b>		413
Greek	214	14.3		229	Greek	73	1		74
Albanian	9.5	<b>119</b>		129	Albanian	25.5	<b>156</b>		182
Vlach	77.2	3.5		80.7	Vlach	55.4	3.5		59
Jew			67.8	67.8	Jew			12.3	12
'Gypsy'	19.5	35		54.5	'Gypsy'	18	31		49
<i>Total</i>	<i>1,370</i>	<i>819</i>	<i>68</i>	<i>2,258</i>	<i>All</i>	<i>1,207</i>	<i>751</i>		<i>1,971</i>

HHStA, PA XII, Türkei, Kt. 272. 50–55. Dr. Murko: Stanford's map. Major differences are indicated by bold letters. Only males are indicated.

(they forgot to mention the numbers of Muslims, however). In 1877, the Russian Teploff published a comparative table of the Christian population of Macedonia. In 26 of the 46 Macedonian kazas, Teploff found 940,000 Bulgars and 2,616 Greeks. Rittich's statistics, published in St. Petersburg in 1885, pointed out that Macedonia (whatever this term meant, as interpretations were different) had 59,833 Greeks as against 1,121,288 Bulgars. Gaston Routier in 1903 estimated the Greeks in Macedonia to number 322,000, as compared with 1,136,000 Bulgars. According to Turkish statistics, published in *Le Temps* in 1905, in Macedonia there were 270,000 Greeks against 1,210,000 Bulgars. Meyer's *Grosses Konversations-Lexikon* finds, on the basis of Peucker's statistics, 240,000 Greeks in Macedonia against 1,355,000 Slavs. *La Grande Encyclopédie* states that the Greeks in Macedonia number 266,000, against 1,000,000 Slavs. According to Brancoff's statistics, Macedonia has 190,047 Greeks against 1,172,136 Bulgars, of whom 897,160 recognized the religious authority of the Bulgarian Exarch. The British Brailsford (*Macedonia, Its Races and Their Future*) also wrote about Slavic preponderance. Three kazas (Karaferia, Naslich, and Athos) are mainly Greek: 34,194 Greeks, 9,924 Bulgars. One, Salonica, has 33,120 Bulgars against 37,265 Greeks. But in fifteen kazas the Bulgars predominate (Ohrida, Monastir, Fiorina, Kayalar, Kastoria, Dolna Reka, Petrich, Demir-Hissar, Vodena, Melnik,

(b) The second generation

Beyond the British map inspired by the Greeks, the map of *Bianconi* from France (1877) was also favorable for the Hellenes (it even considered Bitola-Monastir to be Greek).<sup>91</sup> It looked very similar to *Synvet's* or *Stanford's* map (App. 1–2 and App. 2b) which is not surprising, as the data he used can also be traced back to *Gennadios*.

The Greek *Roukis's* ethnographic data pointed to a different direction – instead of the Bulgarian–Greek debate it focused on the boundaries between the Albanian and Greek nations.<sup>92</sup> In this respect he was more moderate than *Synvet*, *Stanford* or *Bianconi*. His data collection on Albania and *Novipazar* (1884) is also worth mentioning in the context of a comparison with Austrian data on the same sanjak (1878, Map 16), the Ottoman data (Map 46) and Maps 57–59 based on *Kruja's* imagination concerning the boundaries of the Albanian nation. *Roukis* indicated more Slavs (in percentage share) in Kosovo and *Novipazar* than the three data series of *Kruja* after the turn of the century (see *Priština* and *Ipek*) and a higher share of Muslim Slavs in *Prizren* compared to the Austrian data from the same era (see Map 16 and Map 60).

Comparing his work with *Kiepert's* third map compiled from the data of *Aravandinos*<sup>93</sup> (App. 41) one may come to the conclusion that despite the fact that *Roukis* used a *kaza* level approach (Map 60), his data are not worse than the data of *Aravandinos* and *Kiepert*, which are illustrated on a more detailed, settlement level map (which also used fuzzy categories of “mixed Greek and Albanians”). From the methodological point of view this is a good verification of our method, since we were often unable to go below *kaza* level resolution. In other words, the distortion in *kaza* level pie chart maps is not greater than that of the fine-resolution settlement-level maps. Both App. 41 and the map based on *Roukis's* percentage data are in concordance with the data from the 1910s found in *HHStA* and illustrated on Map 56. This is quite

Ghevgheli, Lagadino, Serres, Zihna, and Drama), with 76,668 Greeks against 512,426 Bulgars. The remaining twenty-two kazas of Macedonia are purely Bulgar (Kukush, Doiran, Jenidje-Vardar, Tikvesh, Strumitsa, Razlog, Gorna-Djumaya, Nevrokop, Uskub, Veles, Tetovo, Kumanovo, Kratovo, Kotchana, Shtip, Radovish, Preshevo, Egri-Palanka, Prilep, Pehtchevo, Dibra, Kichevo): 390 Greeks, 616,046 Bulgars. However, these works fail to mention other ethnicities (Muslims) in these comparisons rendering them completely useless.

91 National Historical Museum, Greece, App. 2b.

92 *Roukis*: *Ethnographische und Statistische Mitteilungen über Albanien*.

93 Published in: *Zeitschrift der Gesellschaft für Erdkunde*, 1878.

rare in such an ethnoreligiously mixed sub-region, especially compared to the situation in Central-Macedonia (Maps 28–31). As even patch maps from the same era illustrating the same area at the same scale, initiated by the same state did remarkably differ (compare Aravandinos and Kohlmann, 1880),<sup>94</sup> especially in the contact zones, this also confirms our decision that settlement-level approach does not always work and thus pie chart maps (where colours and numbers are assigned to a territorial entity, larger than a settlement) would be a better solution.<sup>95</sup>

This settlement level third map of Kiepert was more detailed than his earlier works and it was also created for politicians in order to advertise Greek desires (data were delivered by Greeks, in fact). However, in 1881 the new boundaries of Greece were drawn south of the investigated area. Despite this “failure”, the map is interesting because of illustrating Vlachs and the mixed Greek-Albanian zone (similar to Sax) in a detailed way compared to his earlier map.

From the methodological aspect, one should mention one more pro-Greek map, the map (1877) by *Synvet* (1877, Synvet was a French professor at the Ottoman Lyceum of Constantinople), in which the Greek-Bulgarian language boundary is veiled by the hatch symbolizing the (underestimated) Muslims (App. 1). The southern, Orthodox Albanian territories, as well as the coast of the Black Sea, were indicated as Greek.<sup>96</sup> While trying to be moderate (he indicated huge territories as ethnically mixed), his map, with its thick and dense cross-hatching, seems more or less useless. (Later, choropleths were implemented to solve this problem).<sup>97</sup>

94 National Historical Museum, Greece and <https://www.searchculture.gr/aggregator/edm/EIM/000042-354610> (April 14, 2021), “Carte Glottologique de L’Epire”. Glossologikós chár̄tis tis V. Ipeirou schediasménos apó ton N. Fountoúli kai typtoménos sto lithografeío tou G. Kohlmann, Athen 1880. For more Greek maps see: Ιστορική & Εθνολογική Εταιρεία της Ελλάδος (EIM), [www.omnia.ie](http://www.omnia.ie).

95 Nonetheless, this does not mean that pie chart maps from the same era, on the same area would be the same, as it depends on the data.

96 Compare it with Boué or Mirkovich (App. 25 and 28), where the shore is indicated as Albanian down to the Gulf of Arta.

97 Synvet: La Carte Ethnographique de la Turquie d’Europe et Denombrement de l’Empire Ottoman. He adjusted the numbers produced by community registers by referring to the records of Greek syllogues. These were higher than the values recorded in the Ottoman census of 1881/82–1893 which gave the first comprehensive account of the Greek population. Synvet considered all students studying in Greek school as Greeks. Karpat: Ottoman Population, 49.

## (b) The second generation

Figure 4. A page from Synvet's booklet (p. 55)

VILAY	SANDJAKS	POPULATION MASCULINE		OBSERVATIONS
		Non-Musulmane	Musulmane	
ÉDIRNÉ	ÉDIRNÉ	421380	57093	Le vilayet d'Édirné et le district de Constantinople (1,200,000habitants) forment la Thrace.
	Filibé	462516	93329	
	Islimié	46961	37200	
	Guelibolou	39181	29718	
	Tékir-Dagh	31090	18217	
	Total	401158	255557	
TOUNA	ROUSTCHOUK	429659	437889	Les vilayets de Touna et de Sophia forment la Bulgarie.
	Toultcha	44147	56724	
	Varna	46651	46861	
	Tirnova	134123	62091	
	Viddin	438441	47761	
	Total	466996	821426	
SOPHIA	SOPHIA	31736	447851	(Nouvellement constitué).
	Nich	410386	46027	
	Total	442122	493881	
OSVA	SÉRAYÉVO	28286	35188	Le vilayet de Bosna est à peu près la Bosnie.
	Svornik	60480	63661	
	Yeni-bazar	31337	59526	
	Travnik	49121	43187	

Figure 5. A page from the 'Ethnographie des Vilayets d'Adrinople' (p. 53)

CAZA DE DEBRE. Noms des villages.	Maisons.	Albanais Musulm.	Albanais orthodox.	Pomaks	Bulgares
Report. . . . .	5339	7060		4051	4957
Doleni . . . . .	40			53	94
Yablanitza . . . . .	420			48	348
Tikoupchtina . . . . .	30				94
Bezeo . . . . .	40				418
Nérézi . . . . .	40				423
Loucovo . . . . .	400				292
Modritch . . . . .	60				452
Drenock . . . . .	450				470
Trabichta . . . . .	965			4350	4030
Ghinevitz . . . . .	90			418	434
Cléné . . . . .	400			420	496
Stébléo . . . . .	450			200	470
Ostrénié . . . . .	463			345	408
Verbnitza . . . . .	30				97

In order to challenge the ideas of Synvet, whose stance was much too pro-Greek, the Bulgarians decided to publish the ‘Ethnographie des Vilayets Adrinople, De Monastir et de Salonique’,<sup>98</sup> with its settlement-level data (Synvet’s booklet supplementing his map contained only sanjak level figures. Figure 4–5.). Therefore, this volume focused on the Bulgarian-Greek (at the time rather Exarchist–Patriarchist) rivalry. In other words, the number of Muslims was of secondary importance (though indicated), despite the fact that the conscription used was an original Ottoman source, the tax-conscription of *bedel-i askeriye* (this was paid by Christians, while Muslims were the subject of compulsory military service; therefore, both were enumerated). In order to evaluate the significance of this work for the “Bulgarian cause” we have to be aware that the book was published before the Great Eastern Crisis (in 1873). This not only meant that the numbers are not burdened by refugees or war devastations – therefore representing an “unspoilt, original” picture according to the Bulgarians –, but also that the Bulgarian state did not exist. Therefore, the Exarchate was the only institution that could serve the interest of the non-Patriarchist Orthodox population. In other words, as the Exarchate functioned as a proto-state, or at least the Bulgarians considered it as such, joining to the Exarchate for them would almost mean a “confession of Bulgarianness”. Of course, the opponents of this standpoint may argue that since it was the only Orthodox community besides the Patriarchate, belonging to the Exarchate could also represent simple opposition to the Patriarchate, but this did not necessarily require any specific ethnic self-consciousness. Cheaper schooling offered by the Exarchate, for example, in addition to the nepotism and corruption of Patriarchist priests, could be as a significant factor as the common language. One thing is for sure: in the next decades Exarchists were often considered Bulgarian not only by Bulgarians, but by Greeks and Ottomans too. In this respect Ottoman sources are precise. (The problem with them is that Bulgarians considered Muslim and Patriarchist Slavs as Bulgarians too). However, the Bulgarians fell in the trap of anachronism, when they re-utilized this source in 1919, preparing for the peace treaty, and this ruined the credibility of their efforts.

Up to now we analyzed the contemporary maps created during the crisis and the contemporary reactions to them. As these British and French works

98 Ethnographie des vilayets d’Adrinople, de Monastir et de Salonique. Extrait du Courier d’Orient (cited hereinafter as Extrait).

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represented a brand new tendency with their Pro-Greek sentiments compared to Slavophilia predominant prior to the 1870s, it is worth investigating the reliability of these maps and comparing them to our pie chart maps, which were also based on 'official' British and French data<sup>99</sup> from 1873 and 1877 (Maps 15 and 17).<sup>100</sup> These latter two maps still emphasize the dominance of the Slavic element, and thus contradict the standpoint of Stanford, Synvet and Bianconi, but these were never printed. This case confirms that political intentions often prevailed over the picture derived from official statistics (no matter how reliable these were).

If these maps are compared to our other two pie chart maps (Maps 37–38) which were also created based on the religious data of the Patriarchate, the similarity between them and the patch maps published by Bianconi, Synvet and Stanford became evident. Synvet originally used the Greek memorandum based on the religious data provided by the Patriarchate,<sup>101</sup> and these were supplemented by the data of the Syllagos.<sup>102</sup> The others accessed them indirectly, through the 'mediation' of others. The strange appearance (cross-hatching) of Synvet's map can also be explained by the particular nature of his sources. Neither the Patriarchate nor the Syllagos provided detailed data on the numbers and territorial distribution of Muslims (only *sanjak*-level summaries were given), as these institutions focused on the Greek-Bulgarian rivalry.<sup>103</sup> Greek scholars also tended to omit the Muslim population in Macedonia in their tables. Muslims were not even considered indigenous on the peninsula by Western scholars, who accepted the historical interpretations of Balkan scholars claiming that Muslims are newcomers, rather than converted local populations. It is also worth mentioning that while the Ottoman data of *bedel-i askeriye* from 1873 (which was still more

99 The data is in fact of Ottoman origin.

100 Turkey, No. 15. Correspondence respecting the New Law for the European Provinces of Turkey. Presented to both Houses of Parliament by Command of Her Majesty. London, 1880. Lord E. Fitzmaurice to Earl Granville, Büyükdere, June 12, 1880. Part I. IV–161.

101 These contained the number of patriarchist households for collecting the tithe. Turkey, No. 31. Correspondence respecting the Objections raised by Populations inhabiting Turkish Provinces against the territorial changes proposed in the Preliminary Treaty signed at San Stefano. Presented to both Houses of Parliament by Command of Her Majesty. 1878, London, Harrison and sons. 16–38.

102 An organization to support the Hellenes and Hellenization of Macedonia.

103 Şaşmaz: The Distortion of the Population Data.

favourable for Slavs than data by the Constantinople Patriarchate) was available for politicians<sup>104</sup> and was published even at settlement level for Macedonia, this data was not used on these pro-Greek maps at all. This reveals their real intentions of not taking any sources unfavourable for the Greek cause into consideration.

But the tendencies for the future were quite alarming for the Greeks, even if we look only at the Greek data (compare Maps 37–38): the predominance of the Patriarchate was vanishing. The Greeks were about to lose the war of numbers, and therefore had to find out something to strengthen their position.

As linguistic data was not favourable for the Greeks, and the prevalence of old forms of loyalty and identity (i.e. denominational) was questioned even by the Western Powers,<sup>105</sup> the Greeks – adding a new ingredient to the witches’ cauldron, and thereby complicating the situation further – introduced ethnic maps based on schooling data. As such, Synvet managed to raise the number of ‘Greeks’ from 474,000 (the Patriarchate’s religious data) to 587,000 within a year by considering anyone attending a Greek school to be Greek (the data of the Syllogos included schooling data).<sup>106</sup> But this was favourable for them only until the turn of the century (see Map 26–27; App. 86–89).<sup>107</sup>

104 Turkey, No. 15. Correspondence, Part II. 161–292.

105 The British in 1889 distinguished four fundamental elements determining national affiliation – language, religion, consciousness, aspirations – and, as we have seen, these did not necessarily point in the same direction, but this sophisticated approach rather complicated the situation.

106 Later this would also be utilized by the Bulgarians, when the war of numbers turned in their favour – Kanchov’s map was also based on schooling data.

107 Yosmaoğlu: *Blood Ties*, 141–2. One of the first Greeks, who used school schematisms to prove Greek predominance, was N. Vlachos, who compared the Patriarchate’s and Exarchate’s statistics for the 1901–2 schoolyear. In the kazas of Drama, Zichna, Serres, Demirhisar (Siderokastro), Gevgeli, Vodena, Langaza and Saloniki, the Greek were in majority but there were no Greek pupils in Tikvesh (Kavadartsi) and Razlog kazas. In Gorna Dzhoumaya, Melnik, Petrich, Doiran, Strumitsa and Avrethisar, there were 40 Greek schools with 2,007 students and 185 Bulgarian institutions with 6,802 students. There were no Bulgarian schools in the south, in Ellassona, Kozani, Servia, Anaselitsa, Grevena, Starovo, Kolonia and Koritsa, while there were no Greek schools in the kazas of Kichevo, Debar and Dolna Reka. Bulgarians were the majority in Prilep, Ohrid and Kayalar (Ptolemaida) kazas, where there were 25 Greek schools with 778 pupils and 81 Bulgarian schools with 5914 pupils. Vacalopoulos: *A Modern History of Macedonia*, 178.

(b) The second generation

The problem with the Greek method is the following: (1) identity should be based on self-determination according to the Western concept, while choosing school is not (it reflects the customs of the societies or of the parents); (2) Muslims and Muslim schools are not indicated in these maps, and therefore their numbers are distorted. (3) The symbols are not proportional (schools with more than 500 or fewer than 50 pupils have the same colour and size). (4) The school system was not stable: there were numerous changes within the space of a few years, if we compare the official reports of the consuls and the original manuscripts from 1903,<sup>108</sup> or the numerous changes after 1910 (the ecclesiastic and school reform of the CUP, during which many empty schools were closed down, and many changed sides between the Exarchate and the Patriarchate).<sup>109</sup> (5) Schools were underrepresented in the case of some ethnicities (Albanian Muslims attending Muslim schools were not indicated, while the number of Christian schools in Albania was disproportionately low), and this distorts the original situation further. (6) The selection between Greek and Exarchist schools was also a social question, not purely an ethnic one.

This counteroffensive of the pro-Greeks against language-based ethnic mapping also helped make Kiepert change his mind and create his new 'ethnocratic' map for the peninsula, based on several factors that play a role in national consciousness, like the historical past, religion, physical geographical boundaries and the spheres of economic interests (1878). In this new map, in contrast to his previous works, Eastern Rumelia became part of the Greek sphere of influence, together with south Macedonia, while north Macedonia remained 'Bulgarian'. But Kiepert's ethnocratic map was in fact encouraged and financed by the leader of the Syllagos, Konstantinos Paparrigopoulos. Their correspondence proves that Kiepert gradually changed his mind in favor of Greek claims which raises doubts about his academic integrity. Though at first Kiepert refused to put the exaggerated claims of the Greeks on the map, he later let himself be convinced, even agreeing to put his name on the map.<sup>110</sup> Paparrigopoulos's activities indirectly demonstrated that ethnographic mapping is not scientific, and that, even in the case of the greatest

108 ÖStA HHStA, PA XII, Türkei, Kt. 273. For Üsküp: HHStA, PA XII, Kt. 272. Consul Pára an Goluchowski, Skopje, 1901, and HHStA, PA XII, Kt. 272. 21.12.1902. Handschrift, Consul Pára an Goluchowski.

109 CDA, f. 331k, op. 1. a.e. 309, pp. 28–31, 3538, 74–5.

110 Yosmaoğlu: Blood Ties, 123.

cartographers, it can serve political interests (the Greeks did not interfere in the Great Eastern Crisis and feared the whole region would be lost to them – this is why they tried to influence the most influential cartographer of the time). And if the authenticity or the content of one map can be challenged, then the same suspicion would fall on other maps drawn by the same author. Furthermore, Paparrigopoulos even published his correspondence with Kiepert, thus discrediting the cartographer, revealing that the expert did not believe himself in what he drew. This map was not targeted to convince the decision makers<sup>111</sup> – its intention was to deceive the masses through providing all Macedonian schools with this ethnocratic map: it was a good example of a propaganda instrument influencing mass culture. Despite this pro-Greek background, Cvijić probably unwittingly also created a map illustrating cultural zones in 1918 to emphasize the unity of the South Slavs (App. 43b).<sup>112</sup>

In order to illustrate the above mentioned, especially the difference and similarities between ethnic patch maps based on extended (extrapolated) data of students and the distribution of schools, we have provided the original dot maps indicating non-Muslim ecclesiastic schools (Maps 26–27).

So, after the Great Eastern Crisis the picture suggested by ethnic maps changed and became more versatile. While prior to the physical interference of Russia in the Balkan problem, ethnic mapping had dominantly been in favour of Bulgarians, from 1877 on, as a result of British (accommodating the Greek stance) and Austro-Hungarian pressure (in favour initially of the Serbs), this slowly changed. Bulgarophile maps did not disappear totally, but the picture became more diverse. The estimate of the Pro-Bulgarian *Emile de Laveleye*,<sup>113</sup> for which even Gladstone wrote introductory remarks, is at odds with the map of Gennadios and Stanford (Table 4–5), confirming that even the official British point of view was not unequivocal and depended on which party was in power.

While British and Austrian ethnic mapping showed remarkable changes, Russian political activity did not result in new ethnic maps after the Great Eastern Crisis. They continued to use Lejean's version in 1876 and republished the map of Mirkovich and Rittich indicating Thasos as Bulgarian.

111 Though Eastern Rumelia was detached from North Bulgaria in 1878, this map was to advertise that “Hellenized” Eastern Rumelia should not unify with Bulgaria.

112 Cvijić: Zones of civilization of the Balkan Peninsula.

113 Laveleye: The Balkan Peninsula.

## (b) The second generation

*Table 5. The population of Macedonia, according to Laveleye, c. 1868.*

<b>Vilayet</b>	<b>Bulgarian</b>	<b>Greek</b>	<b>Ottoman</b>
	<i>In thousands</i>		
Saloniki, 11 <i>kazas</i>	302	30	96
Seres, 8 <i>kazas</i>	232	29	107
Skopje, 7 <i>kazas</i>	209	0	77
Bitola, 7 <i>kazas</i>	381	1	80
Total	1,124	60	360

Cherkassky's map was more renowned for its planned boundaries than for its ethnic content. The map of Zarjanko and Komarov (App. 27) was published in 1890, still indicating a Bulgarian majority. As the political circumstances did not favor this approach – the Bulgarian-Russian relations deteriorated between 1885 and 1894 after the resignation of Alexander Battenberg and the invitation of the new prince, Ferdinand, who had tight connections with Kaiser Wilhelm and Austria-Hungary as well – it was re-edited and published one year later, now indicating Macedonian Slavs in Macedonia instead of Bulgarians.

The other outstanding personality beside Kiepert, the Austrian Sax – a diplomat and consul to Ruse and Adrianople – was unsatisfied with Kiepert's linguistic approach: as a result of which, Croats and Serbs were usually illustrated with the same color,<sup>114</sup> which was an adequate instrument to propagate Austro-Yugoslavism and Illyrism. But neither was Sax purely driven by a scientific approach, when he turned against the biased linguistic approach and decided to map ethnic groups based on double criteria,<sup>115</sup> the combination of religion and language as determinative features of national identity. Using the works of Boué, Lejean, von Hahn, Kanitz and Kiepert, his goal was to undermine the legitimacy of efforts pursuing the creation of a Greater Bulgaria, which was seen as directed against the interests of Austria-

114 "Ethnographic Map of Austrian Monarchy", in: Wikimedia, [https://commons.wikimedia.org/wiki/File:Ethnographic\\_map\\_of\\_austrian\\_monarchy\\_czoernig\\_1855.jpg](https://commons.wikimedia.org/wiki/File:Ethnographic_map_of_austrian_monarchy_czoernig_1855.jpg) (September 14, 2020).

115 See also Kretschmer: Frühe ethnographische Karten, 260–6.

Hungary and Serbia, at that time a close ally of the Dual Monarchy. Sax's double categorization created seven other Slavic groups in addition to the Bulgarians and the Serbs (App. 18 and Map 21). The total number of distinct ethnic groups thus reached twenty! By creating the group of "Muslim Slavs", he successfully created a geographic-demographic divide between the Bosnian Serbs and those in Kosovo, and also between the Montenegrins and Serbia; furthermore, his hatching applied to Turks proved the ethnic diversity of Macedonia, though he still acknowledged Macedonian Slavs as Bulgars.<sup>116</sup>

From a methodological aspect his idea of questioning the simplistic racial-linguistic approach was an excellent one: he considered ethnicity as a complex, multidimensional phenomenon, developing a special colour code for the Balkans. Sax was also influenced by Karl von Czoernig and his pupil, Adolf Ficker, who were of the same general opinion. Still, even his contemporaries accused him of serving Austrian political aims. Thus, the first Austrian ethnic map of the Balkans available to the wider public was of excellent quality,<sup>117</sup> but definitely not impartial. He produced his map to be used in the Berlin Congress instead of Kiepert's, which is why it was published in 1878.<sup>118</sup> Cvijić later claimed that "Sax's Austrian bureaucratism tore nations into atoms." Yosmaoğlu claims that the map resembled a Kokoschka painting.<sup>119</sup> Up to then ethnic maps favouring one particular group were the "norm" and this partly continued after 1877.<sup>120</sup> But, with the advent of Sax, the Macedonian 'ethnic salad' was invented on maps – and Austria-Hungary would continue to use this approach in the future. And, in fact, it was the

116 *Ethnographische Karte der europäischen Türkei und ihrer Dependenzien zur Zeit des Beginns des Krieges von 1877* von Karl Sax, K. und K. Österreich-ungarischer Konsul in Adrianopel.

117 We wrote that Czoernig's map of the Balkans was very simplistic. Kanitz also published ethnic data at settlement level, and the Hungarian statistician Elek Fényes provided a list in 1854 at the vilayet level – App. 17 – but the ethnic map itself was not prepared.

118 Sax: *Ethnographische Karte der europäischen Türkei*. The map was published with the support of the k.k. Geographische Gesellschaft, so it represented the official opinion of the state. This society published not only thematic maps for the economy and topographic maps and several ethnographic maps, such as after the occupation of Bosnia: *Uebersichtskarte der Vertheilung der Religionsbekenntnisse in ihrem gegenseitigen Dichtigkeitsverhältnisse in jedem Bezirke von Bosnien und der Hercegowina*.

119 Yosmaoğlu: *Blood Ties*, 95, citing also Cvijić's opinion.

120 *Ibidem*, 94.

(b) The second generation

typical practice of imperial mapping contrary to the homogenizing tendencies of the ethnic maps of nation states.

To illustrate this method, we include the ethnic distribution of Kosovo *vilayet* in 1876 (a larger area than present-day Kosovo), based on the data provided by Eva Frantz (App. 83 – original; Table 6, Map 16). Note that Bulgarians are indicated in Pirot, Niš and Skopje (so Austro-Hungarian diplomacy was aware of this fact when it offered the first two of these districts to compensate Serbia in 1878). Even in the Prishtina sanjak the majority of Slavs were then considered Bulgarian-Exarchist, and the proportion of Christians then reached 50%, decreasing to 35% by 1911. At the same time, 50% of the *vilayet* population was Muslim. This crept up to 60% by 1906, after the resettlement of refugees mainly from Bosnia and the administrative reorganization and reshaping of the area (in Map 46, *muhadjirs* are indicated as separate group in 1881).

It is evident that such a complex and sophisticated map could only be useful for experts, not for the broader public (compare App. 83 and our version: Map 16). Although Sax's attempt was repeated at the turn of the century (compare Map 21 to App. 21 and Map 22), even the official paper of the Hungarian military officer corps published a map with a more simplified approach in 1913 (Map 6, App. 20).<sup>121</sup>

It is also worth discussing how and when the classification of Slavs in Macedonia changed. Apart from *Thiers'* map from 1862 – indicating Stefan Dušan's Empire and Bulgaria as inhabited only by Serbs, and even mutilating North Albania (App. 9) – many of the Western publications still tended to claim Macedonian Slavs as Bulgarians: in 1906, *Brailsford* acknowledged the Bulgarian character of Macedonian Slavs (Map 5),<sup>122</sup> and the map in the *Encyclopaedia Britannica* in 1911 did so too (App. 56). Even early Serbian official maps (Davidović, Desjardin, 1853, Hahn-Zach, 1861)<sup>123</sup> did not question the Bulgarian character of the Macedonian Slavs. We have seen that partly political considerations were the reason for doing this. But the subsequent

121 Here the Bosnians (and even Croatians) are all labelled as Serbs, but there are no Serbs indicated east of the Morava river, just Bulgarians and Romanians; Macedonian Slavs are indicated separately, and numerous Albanians are indicated around Athens; the contact zone between Greeks and Albanians around Janina is simplified and in favour of Greece. Magyar Katonai Közlöny, 1913, April.

122 Brailsford: Macedonia.

123 See Rizoff: Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen.

maps of *Milojević* (App. 11 in 1873),<sup>124</sup> Colonel Dragašević (1875) and Veselinović (1886) claimed these lands to be inhabited by Serbians, indoctrinating the expansion southwards after the Austrian occupation of Bosnia, the initial target of Serbia.

The first map (after Müller) to claim that Macedonia is inhabited by Serbs and which received broad publicity in Western countries was created by another Austrian (although Serbian in origin), *Spiridon Gopčević* in 1889. Though the map had a bad reputation and was considered a propagandistic work, his initial claim gave a new impetus to reclassifications. Soon the Russians changed their minds and reclassified the Bulgarians of Macedonia as Macedonian Slavs; they were followed in this by Austria-Hungary ten years after Sax (App. 12 and 19). The reason for the gradual change in the classification of Macedonian Slavs on Austrian maps is mainly political. Prior to 1878, Austria-Hungary accepted Macedonian Slavs as ‘Bulgarians’, but the threat of San Stefano, that a Russophile Greater Bulgaria might cut Austria from the Aegean Sea, forced politicians to rethink their position. Furthermore, the Austro-Hungarian occupation of Bosnia in 1878 redirected Serbia’s ambitions towards Macedonia. The secret Austrian–Serbian treaty of 1881 gave Serbia a free hand regarding propaganda in Macedonia in order to compensate this disillusioned ally of Austria-Hungary. Soon Serbian episcopates were established, with Ottoman consent, to weaken Bulgarian propaganda. The map of Sax, with its “ethnic salad”, was a prelude to this change, which would culminate in the work of *Gopčević*, showing a more homogeneous picture.

Not surprisingly, in parallel with these changes in Austrian foreign policy, Serbian pretensions also started to grow and to influence ethnic mapping. The map of *Miloš Milojević*<sup>125</sup> illustrates Serbian dreams of a Greater Serbia in the event of victory in the Ottoman–Serbian war (App. 11). Future Serbia

124 His map represented the Serbian dreams released free after the murder of the pro-Austrian prince, Mihajlo (1867).

125 Miloš Milojević (1840–97), studied as a “national cadet” at Moscow University from 1862–65. Milojević became a teacher in Belgrade, who organized a school for Kosovo Serbs and refugees, whom he later led in battle against the Ottomans. He produced a map “Историско етнографско географска мапа Срба и српских (југословенских) земаља у Турској и Аустрији” (Historical and Ethnographic Geographical Map of Serbs and Serbian (Yugoslav) Countries in Turkey and Austria) [1:2,000,000], issued in Belgrade in 1873 with a total size of 153 x 118 cm. It was appreciated by supporters of Pan-Slavism in Austria-Hungary, but it also provoked Serbophobic interpretations as “Greater

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Table 6. Austrian statistics on Kosovo vilayet in 1876

Sanjak	Muslim Albanian	Catholic Albanian	Orthodox Bulgarian	Muslim Bulgarian	Orthodox Serb	Muslim Serb	Catholic Serb	Other Muslims	Circassian	Muslim 'Gypsy'	Total
	In thousands										
Prizren sanjak	189	13	27	4	34	15		3		8	296
Priştina sanjak	95	2	60		49		1	1	7	7	223
Novipazar sanjak	20				80	35				1	136
Nish sanjak	50		77		11			10	4	4	157
Pirot sanjak			75								75
Skopje sanjak	35		123	5				58	2	4	229
<b>Kosovo vilayet</b>	389	15	361	9	174	50	1	74	13	23	1,115

Frantz: Gewalt und Koexistenz, 55–57. See also: Table 46, Map 16 and 46 and also App. 83 and 16b, the latter used by Cvijić.

Table 7. Ethnic proportions in the reorganized Kosovo vilayet in 1910 based on Ottoman sources

Sanjak	Muslim	Greek	Bulgarian	Catholic	Jewish	Kosovo vilayet total
	In thousands					
Yenipazar	98		67			168
Taşlica	38	32				71
İpek	95.7	28		5		128.7
Üsküp	215.5	13.2	272.2		2.3	505
Priştina	239.6		127.6	6		374
Prizren	271.3	18.9	64	3.6		358
Total	959	92.5	531.4	14.9	3.3	1,603

McCarthy: Population History, 120–22. Original data from 1896 [1896 (Hicri 1314). Kosova Vilayeti Salnamesi (Üsküp, Priştine, Prizren, İpek, Yenipazar, Taşlica). Istanbul (reprint)] are recalculated and adjusted to 1911. The territories of the investigations also differ. See: Table 46, Map 12 and 46.

included not only the territory of future Bulgaria (according to legend, Serbian was spoken in Sofia), but Albania and Macedonia as well. This plan was a direct descendant of *Garašanin's* dream of the first Balkan League (1867),<sup>126</sup> in which a 'federal' Yugoslavian state to include Greater Bulgaria was proposed, at first based on the principle of parity and equity,<sup>127</sup> but with later versions regarding all Bulgarians as ethnically Serb (Thiers: App. 9). The latter, centralized version of this concept reappeared in the 1870s.

In addition to *Garašanin's* idea, there had earlier been plans proposing the dismemberment of existing structures. Such was the idea of the Russian general, Isaev in 1806, during the Serbian uprising, in which he proposed the incorporation of Croatia and Vojvodina and Temeschwar for the Serbs, while allied Romania would receive Transylvania, thus creating a buffer zone against the Habsburgs. The French Polignac's plan in 1828 was some kind of revival of this concept now involving North Bulgaria and Bosnia as well, but leaving Croatia and Transylvania out of the calculations. As these partitions were not based on ethnic maps, they are not discussed here. The plans of Capodistrias (1828), Mazzini (1832) and Blackwell (1840s) all aimed to create a South Slavic state (in order to stop Habsburgs or Romanovs, etc.), but none contained territories south of the Šar planina. *Garašanin's* plan (1844), that would deprive Hungary of Slovakia and Vojvodina, did not mention territorial pretensions to the south, either. One may enumerate Dandolo's, Bonneau's or Rattos's plan after 1853, and even the accord between Kállay and Jovan Ristić aimed at the partition of Bosnia: no plans envisioned any acquisition of Macedonia by the Serbs until the plan of Thiers in 1862 and that of Garibaldi in 1873. The only early exception is given in *Hrestomatiya po novoy istorii*<sup>128</sup> in which a giant Serbian state (in-

Serbian" propaganda (Wilkinson). See "Miloš Milojević", in: Wikipedia, [http://en.wikipedia.org/wiki/Milo%C5%A1\\_Milojevi%C4%87](http://en.wikipedia.org/wiki/Milo%C5%A1_Milojevi%C4%87) (September 14, 2020).

126 Not to be confused with the original proposal of *Garašanin*, the older, in 1844 for the future boundaries of Serbia (then excluding Croatia and Macedonia, but including Niš, the Novi Pazar sanjak, Bosnia and Vojvodina).

127 During the negotiations the term 'Bulgaria' was explicitly defined as designating Bulgaria proper, Thrace, and Macedonia. *Garašanin* in his reply on May 22, 1867, agreed to the Bulgarian proposals. According to the Serbian paper *Vidov Dan* (No. 38, March 29, 1862), the Bulgarian national frontiers extended from the Danube to the Aegean, and from the Black Sea to the lower Morava River and the Black Drin River.

128 *Hrestomatiya po novoy istorii*, vol 2, 298–9.



lution (1:300,000) map.<sup>131</sup> This confirmed to us that our approach explicated in the introduction was reasonable. Out of the 895 investigated settlements, Milojević found 244 Serbian, 130 Muslim Slavs (called “Islamicized Serbs” by Milojević, who was one of the founders of the *arnautaši* thesis) and 109 mixed, while the number of Muslim Albanian settlements was 69 and 21 Catholic only 21. Milojević definitely considered all Muslim Slavs as Serbs who had been Islamicized. The question, then, is, can we consider Milojević a reliable source – because his statements challenged, for example, Hahn’s description? Theoretically, if crypto-Catholics did exist – and even Austrian maps illustrate them (App. 83) – then Albanianized Serbs could also exist (compare App. 16b).<sup>132</sup>

For all this, the greatest mapping contribution to the Serbian cause – prior to Cvijić – was made by *Gopčević* (1855–1928),<sup>133</sup> because his patch map – dominated by the yellow colour assigned to Serbs, and where all Macedonian Slavs and Muslim Slavs were indicated as Serbs – was also printed in German, in *Petermanns Geographische Mitteilungen*, and thus it became widely known. Both his argument and his map deserve further analysis: in his opinion, the maps of non-Slavic cartographers were not adequate, since they cannot fully appreciate the difference between dialects (this argument reappears in Cvijić); he also contended that the resolution of their maps was poor (lower than 1:500,000), and they did not use the settlement-level approach – although, had they done so, this would have produced the same errors, since their topographic base maps were full of mistakes. *Gopčević* corrected the Austrian maps in many topographic details in order to make his work appear more scientific and credible, veiling its propagandistic character. He further argued that the name *Bugari* (Bulgarians),<sup>134</sup> used by the Slavic inhabitants of Macedonia to refer to themselves, simply meant ‘*reayah*’ – peasant Christians – and in no instance was it affiliated to Bulgarian ethnicity. Beyond the scientific merit of correcting the location of many places

131 Ibidem.

132 In 1872, Milojević came up with the theory that all Gheg Albanians were Albanized Serbs, but this theory was challenged by the Serbian Stojan Novaković. Even Cvijić called him a propagandist, but later he would apply his theory on the origin of *arnautaši* to some of his maps.

133 Ethnographic Maps of the 19th Century, in: University of Chicago, <http://www.lib.uchicago.edu/e/collections/maps/ethnographic/> (September 14, 2020).

134 Cvijić also considered the word “Bugari” simply as a pejorative term used by the ruling class without real ethnic affiliation.

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on the map, one should not forget that Gopčević's book was translated into German at Belgrade's expense.<sup>135</sup>

This map is not without antecedents: in 1887, Karić published a map, where not only Croatians were indicated by the same yellow colour as Serbs, but the Slavs of Macedonia too (App. 12c), drawing up again the Great-Serbian aspirations.<sup>136</sup> One should also not forget that the creation of Gopčević's map coincided with the 500th anniversary of the first battle of Kosovo Polje (1389), and was closely related to the renewal of the Austrian alliance treaty with Serbia, concluded in 1881.<sup>137</sup> This agreement allowed Serbian propaganda to the South as a compensation for the Austrian occupation of Bosnia. So, the content of Gopčević's map was not contrary to Austria-Hungary's political aims at the time, unlike the content of Karić's map, which suggested that the Serbs did not renounce from Bosnia, while demanding Macedonia. Gopčević, who was educated at the Theresianum in Vienna, participated in the Balkan revolt in 1875, entered the Serbian diplomatic service, met Gladstone, became Serbia's ambassador to Vienna (1887–90), then went back to the family estates in Austrian Trieste (1891), and was finally imprisoned for writing against Austria-Hungary, was the perfect person for the task of drawing a map: official documents were available to him, and he was a blend of adventurer and explorer. The fact that his map appeared under the auspices of the Military Geographical Institute in Vienna, indicates that he served Austrian interests as much as Serbian interests that time.<sup>138</sup>

As mentioned earlier, following Bradaška's path, we decided to compare available statistics serving as basis of the maps. Our analysis proved that

135 Under the pretence of accuracy, he hinted the ideas of Milojević, claiming that the Albanians of Kosovo and even the Ghegs were Albanized Serbs.

136 Karić: *Srbija, opis zemlje, naroda i države*. This was a low-scale map indicating Prekmurje as Serbian, confining Bulgarians to River Struma, applying cross-hatching in ethnic contact zones between Serb and Albanians; Serbs and Greeks.

137 For the coincidence and the renewal of alliance see Heppner: *Serbien im Jahre 1889*. Promitzer claims that Gopčević "published an allegedly scientific, but for all intents and purposes, Serbian nationalist monograph (...) which is not the result of authentic experiences (...) Gopčević's monograph represents a singular attempt to combine sympathies for the cultural development of the Serbian nation with the aspirations of Austria-Hungary as a Great Power in the Balkans." Promitzer: *Austria and the Balkans*, 204–5.

138 Grčić: *Development*, 36.

*Gopčević* used a compilation, a mixture in fact. The data given by the *Extrait* and those that *Gopčević* used in his *Makedonien und Altserbien* are very similar: sometimes even the number of tax-heads are the same, despite the ten-year difference and the impact of the Great Eastern Crisis on the demographic patterns. Sometimes even the enumeration of the settlements coincides. But in other cases he uses a different data source (Figure 7–8). So his source base was not coherent.

Figure 7. Two similar pages from *Gopčević's* work and from the *Extrait*

**Avret Hisar (Žensko).**

Ortsnamen	Häuser	Steuerköpfe			
		christl.	musl.	Türken	Zigeuner
		Serben			
Kukus (Klkie) *)	905 1470	5325	205	50	30
Janeſevo	100	484	—	—	—
Arsevo (Rzili?)	80	424	—	—	—
*Krondirei	80	389	—	—	—
Dobrovei	15	52	—	—	—
Vladja	70	264	—	—	—
*Batarci	25	116	—	—	—
Čingmei	60	208	—	—	—
*Šekerlija	20	70	—	—	—
Selemlija	15	—	54	—	—
*Bujuklija	25	—	93	—	—

\*) Außerdem 15 zinzarische Steuerköpfe.

**Caza d'Avret-Hissar (1)**

Noms des villages	Maisons	Musulm.	Bulgares	Tzinganes
Coucouche	1170	155	5325	40
Janechevo	100		484	
Aruvo	80		424	
Cron dirtzi	80		389	
Dobrov tzi	5		22	
Vladya	50		264	
Batartzi	25		116	
Tchigountzi	70		368	
Bekerlia	15	50*		
Selemlia	15	54*		
Bouiuklia	25	93*		

*Extrait*, 160; and *Gopčević*, 364–5.

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Figure 8. Two different pages from *Gopčević's work* and from the *Extrait*

<b>Salonik.</b>					
Ortsnamen	Häuser	Steuerköpfe			
		christl.	moham.	Türken	Griechen
		Serben			
Salonik (Solun) . . . . .	14000	3900	—	12400	5600
Pajzanovo (Čirečkōj) . . . . .	700	2658	—	—	55
Dudular . . . . .	30	140	—	—	—
Limbet . . . . .	12	—	—	—	50
*Tritchana . . . . .	15	58	—	—	—
Araplije . . . . .	20	68	—	—	—
Šaulije . . . . .	10	48	—	—	—
Kara Izim . . . . .	14	60	—	—	—
*Pigilovo . . . . .	40	185	—	—	—
*Ingili . . . . .	30	130	—	—	—
Saramurovo . . . . .	25	120	—	—	—
Akbnar . . . . .	15	65	—	—	—

<b>SANDJAQ DE SALONIQUE</b>				
Caza de Salonique Noms des villages	Maisons	Musulm.	Bulgares	Grecs
Soloun (Salonique)	15000	5716	3390	2352
Payzanovo (Kiretchkeui)	700		3158	
Dondoularé	30		140	
Cimbet	10			
Pritlé-Hana	10		50	
Araplie	15		58	
Chamlié	10		48	
Cara Isim	8		40	
Pigilovo	30		145	
Ingiliz	20		110	
Saramourovo	25		120	
Ac Bounar	8		35	

Gopčević, 361; and Extrait, 150.

Despite this evident neglect, Gopčević's articles were using scientific argumentation of his era.<sup>139</sup> Based on linguistic and ethnographic arguments,

139 Gopčević: Die ethnographische Verhältnisse Makedoniens und Altserbiens.

he stated that Macedonian Slavs are more likely Serbians than Bulgarians. He recorded that grammatical tenses in Macedonian were more similar to Serbian than to Bulgarian, that definite articles were missing as in Serbian, that the inflection of words was also similar to Serbian, etc., all of which was true. He mentioned ten parallelisms between the two languages but none of those that resembled the Bulgarian. In this respect, Cvijić was more correct: he also enumerated the similarities with Bulgarian and stated that language alone cannot define ethnicity. Gopčević even emphasized that Exarchist priests and teachers tried to modify those traditions of local people that were similar to the Serbian customs. At the end of his article, he enumerated more than twenty mistakes on the earlier maps of Kiepert and Sax, his predecessors (Figure 9).

*Figure 9. Mistakes on early ethnographic maps according to Gopčević (selection)*

6. Um Kostur (Kastoria) verzeichnen Sax und Kiepert fast ausschliesslich Albanesen, während diese nur Oasen in der serbischen Bevölkerung bilden.
7. Zwischen Ohrid und Kaljar, wo es keine einzige griechische Kolonie gibt, zieht Sax 6 dicke blaue Striche.
8. Zwischen Bitolj und Hlerin (Florina) benutzen Sax und Kiepert das Vorhandensein einiger türkischer Dörfer, um die ganze Ebene mit Türken zu bevölkern!
9. Westlich von Veria, wo es nur Griechen und einige Serben gibt, verzeichnet Sax Pomaken (!) und Türken.
10. Kiepert dehnt die griechische Völkergrenze bis Voden aus, Sax gar bis Gjev gjeli (!), während thatsächlich Niausta (östlich welcher Stadt das serbische Element überwiegt) und Vardar die nördlichste Grenze des griechischen Elements bilden. Von den serbischen Oasen zwischen Veria und Klidi ist beiden nichts bekannt.

With this, he tried to make these maps unreliable regarding their full content (including that these maps did not consider Macedonia as inhabited by a Serbian speaking population). His other article from 1880 on the inhabitants of Northern Albania, so-called Mirdites and Malisors, also has its own merits and meets the standards of the scientific criteria of his

era.<sup>140</sup> Nevertheless, Gopčević's map was also a warning to the Greeks, and made Cleanthes Nikolaides publish his version of Macedonia. Of course, Bulgarians or Bulgarophile scholars also activated themselves as the situation in Macedonia became more and more critical (Vasil Kănchov, Jordan Ivanov, Richard von Mach, etc. Map 29–30 and 33).

So, the intensifying conflict over Macedonia also intensified efforts to portray its population in a way to support the political goals of the states – Great Powers such as Austria participated in that by producing maps helpful of their shifting foreign policy goals and alliances with Balkan states.

When Austria-Hungary had once again established good relations with Bulgaria, after the Russian-Bulgarian conflict and the Serb-Bulgarian war of 1885, it again accepted the idea that Macedonian Slavs were Bulgarians. Maps were soon released that took this into consideration (see Peucker and Meinhard's map in *Deutsche Rundschau für Geographie*, App. 21). After the forthcoming deterioration of Austrian-Bulgarian relations, owing to Russian-Bulgarian appeasement following the fall of the Stambolov government in the mid-1890s, and the secret Serb-Bulgarian agreement on the division of Macedonia in 1897, Austria-Hungary, in order to secure the route to the Aegean, once again tried to restrict Bulgarian influence over Macedonia by denying its Bulgarian character. This implicitly meant that Austria-Hungary again refused to consider the Slavs of Macedonia as 'Bulgarians' on ethnic maps. Hungarian academic and non-academic maps also adopted this view at the turn of the century (App. 19–20 in 1897 and in 1913). By this time, ethnic mapping served strictly political goals and could no longer be considered impartial (and thus scientific).

As by this period Serbia also became untrustworthy in the eyes of Austria-Hungary (after the coup d'état, 1903), its military circles decided to reach Salonika through the *sanjak* of Novi Pazar bypassing Serbia; thus the concept of autonomous Macedonia from 1876–7 reappeared in 1896–7. Such a Macedonia was designed as an Austrian satellite state, as indicated on the map of Calice (1896), ambassador at Constantinople, or on that of Beck, then chief of staff (1895).<sup>141</sup> Maps created to support the Mürzsteg process (1903) still indicated Macedonian Slavs (not Serbs and not Bulgarians) beyond the Struma River (Map 22) in order to challenge the right of Bulgarians to interfere.

140 Gopčević: Ethnographische Studien in Ober-Albanien.

141 Demeter: Expansionism or Self-Defence, 127–31.

The work of Gopčević soon became obsolete for Austria, as Serbia turned against the Austrian foreign political concept following the 1903 coup d'état, but his linguistic approach was further developed by the linguist *Aleksandar Belić* (App. 13). Belić labelled the local dialects of Macedonia and the Šop dialect along the periphery of Serbia as Serbian, claiming that the Serbian nation extended to West Bulgaria as well.<sup>142</sup> This linguistic research later served as a basis for Cvijić to redraw his map in line with growing Serbian aspirations. Less extreme than Gopčević, Cvijić and Belić claimed that 'only' the northern Macedonian Slavs were Serbian, whereas those of southern Macedonia were identified as 'Macedonian Slavs', an amorphous Slavic mass that was neither Bulgarian nor Serbian, but could become either Bulgarian or Serbian if the respective people were to rule the region.

Bulgarian preponderance was still observable on the maps of the Serbian *Verković* (1889) and of the Russian *Zarjanko* (1890). The latter is unreliable, first because it illustrates huge patches with one single colour (only the majority is indicated), totally eliminating the existing diversity (App. 27), and second, because a newer edition came out within a year, indicating Macedonian Slavs instead of Bulgarians in Macedonia.<sup>143</sup> The map provided by the Serbian High School of Belgrade in 1891 claimed that Macedonia was Serb and homogeneous. Albanians in Kosovo and even North Albania were indi-

142 Previously this had already been marked on Milojević's map (1870s) and in the plans of 1848 without any scientific argumentation.

143 The 'Map of the Slavic Peoples', edited by N. C. Zarjanko and published by V. V. Komarov, was the work of the Slavic Beneficent Society of Petrograd. It was designed under the auspices of professors of Slavic studies who were members of the society. The authors used the works of Grigorovich, Hilferding and Teplov (who for a long time was an official at the Russian Embassy in Constantinople), and the rich material found in the Russian Foreign Office, at the Russian Embassies in Constantinople and Vienna, and in the Russian General Staff. This map contains corrections compared to the former Russian map of 1867, in connection with the expansion of the Bulgarians in South Thracia, Deli-Orman, and the Dobrudja. It is similar to a Russian map by A. F. Rittich, 'Map of the Western and Southern Slavs', published in Petrograd. On the appearance of the map, G. Simić, at that time Serbian Ambassador in Petrograd, protested against the designation of Macedonia as a Bulgarian country on the map. The Slavic Beneficent Society had to publish a second edition, on which the Bulgarian colouring of Macedonia had been removed and substituted by 'Macedonic Slavs', but forgot to indicate this with a different colour! See: Rizoff: Die Bulgaren.

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Map 4. The plan of Calice (Austrian ambassador to Constantinople) from 1896



cated only by hatching, revealing the Serbian aspirations towards the Adriatic. Another interesting change is observable on Zarjanko's map: unlike in previous maps, the boundary of the Bulgarian nation now coincided with the state border with Serbia (Niš and Pirot are considered Serb), while on the map of the Serbian High School, the people in Sofia and its surroundings spoke Serbian.

The other Powers also continued the production of ethnic maps. Compared to Kiepert, the German *Weigand* (1895) gave more space to Greeks in Epirus around Delvino and Konica, but shrank their territory in the region of Vodena-Edessa in favour of Bulgaro-Slavs (this modification was later accepted by everyone except Greek cartographers) (App. 46 and 48).

The French *Vidal de la Blache* also published a map in 1897, repeating the old concept of the extent of the Bulgarian dialect between Niš and Saloniki, limiting Greek preponderance to the seashore, but regarding North Epiros as Greek and Kosovo as Albanian. He also indicated the major ridges that served as communication lines for Vlachs who still practiced transhumance. According to Vidal de La Blache, this explains their scattered pattern and also their persistence (App. 36).

As a response to these above mentioned pro-Bulgarian maps, the Greek *Nikolaides* created yet another map in which the Greek settlement area reaches Bitola, with Bulgarians limited to the eastern confines of Macedonia (to the present border of Bulgaria). All the other Slavs were considered to be Serbs, regardless of religion. This was the greatest concession to the Serbs ever made by a non-Slav author other than Thiers (1862). Another “merit” of this map is that it limited the area of Macedonia, which was a notoriously fuzzy geographic category,<sup>144</sup> which made it easier for cartographers to ‘prove’ the domination of Slavs or of Greeks, as the Muslims of Thrace and Albanians did not spoil the picture any more. In this particular case it meant that Nikolaides successfully proved the dominance of the Greeks over the Slavs, who were divided into four sub-groups (Serbs, Bulgars, the mixed Albanian-Slav zone, and the Hellenized Slavs around Bitola).

In that same year (1899), a map was created for the same territory by the Austrian *Meinhard*, who was director of the Bulgarian railway in Sofia. This map, defying Nikolaides’s statement, showed a Bulgarian preponderance in Macedonia (App. 21).<sup>145</sup> Serbs were indicated by hatching with uncertain territorial extent. The repudiation of Gopčević’s heritage was not only the result of the author’s pro-Bulgarian sentiments, but also the product of deterioration in Austrian–Serbian relations. But this map stayed out of the limelight, being very similar to that of the Bulgarian *Känchov*, a school inspector in Macedonia, released almost at the same time, in 1900, which became more widespread after the Bulgarophile Russian politician Pavel Miliukov published it in his atlas (App. 22). Furthermore, his statistics were translated into French and their reception in the West was also excellent. Both maps relied on the material of the Exarchate and the settlement-level dot map of the commercial agencies (1899–1901, App. 84–85, 94).<sup>146</sup>

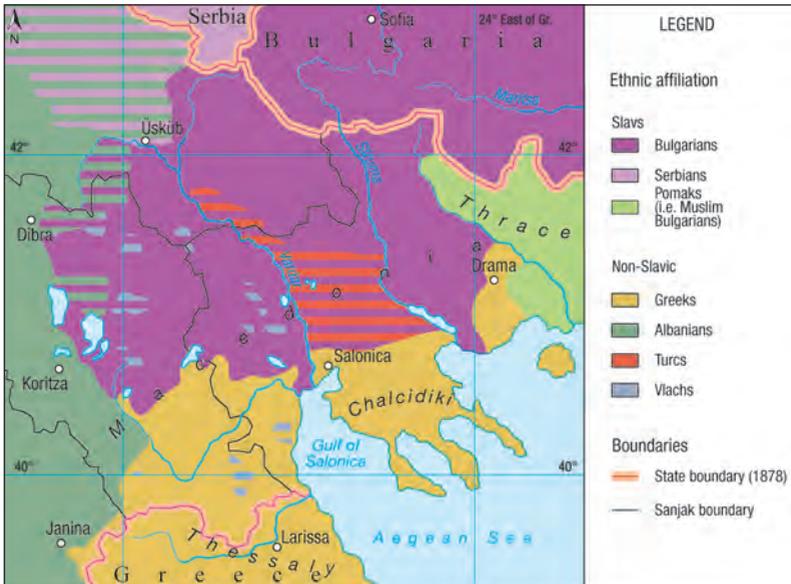
144 See: McCarthy: Population History, 123.

145 Deutsche Rundschau für Geographie und Statistik 21 (1899), no. 10.

146 This map was published again as the annex of the Carnegie Report in 1914.

(c) From the turn of the century to the First World War

Map 5. Ethnographic distribution of the population of Macedonia



Source: Brailsford, H. N.: Macedonia. Its Races and Future. London: Methuen 1906.

### (c) From the turn of the century to the First World War – from science to propaganda

As introduced above, at the turn of the century, ethnic mapping experienced something of a revival, owing to the acuteness of the Macedonian question. This not only meant new waves of maps, but new methods as well. Maps from this era increasingly relied on the spatial distribution of schools as a proxy for official statistics (which, despite significant improvements, were thought to be unreliable), because they offered an easy (but not unambiguous) way to classify the population based on the language taught (see the Bulgarian school inspector Kānčov's map). Though this could have offered a more sophisticated way to delimit contact (or contested) zones – by the illustration of intermingling zones of churches belonging to different denominations and schools with different teaching languages – such an approach rarely appeared on maps (see Amadori-Virgili, Phocas-Cosmetatos: App. 86–89, Map 27).

Maps focusing on the delimitation only of uncontested regions were also rare. Not surprisingly, these maps contained more empty or white patches – where there was no absolute majority or the area was scarcely populated – than coloured ones (see Map 32). Among the cartographers from the small states, the opposite tendency could be observed: they tried to avoid leaving empty spaces or indications that referred to uncertainty. As their goal was to eliminate minorities and to create homogeneous areas for ‘living space’ on these ‘flattened’ maps, it is evident that simplistic approaches (like patch maps with a small number of categories) were preferred by the proponents of these theories. The opponents of this concept – usually from the ‘imperial schools’ – applied other techniques, such as the multi-faceted approach, pie chart approach, choropleths or patch maps with routes indicated and mountains unfilled, sometimes cross-hatching, transition colours, etc.

The new (and improved) Ottoman imperial conscriptions (1903/1906) also gave a new impetus to ethnic mapping. Settlement-level maps became more frequent. Beside the simple dot maps (App. 84–85) which did not indicate population numbers, settlement-level maps referring to population numbers also appeared (Ivanov, 1912, Map 52). However, their use was confined to scientific and diplomatic circles, while the public’s growing interest was still satisfied by old-style patch maps. Certain development trends were undeniable, however. The solid patches were first substituted with choropleths (indicating proportions or density using different hues of the same colour, see App. 68b or 79, by Teplov as one of the first instances); then by pie chart diagrams, able to illustrate absolute numbers and proportions, including minorities. Some even used transient colours in the case of the continuum of dialects instead of hatching, in order to illustrate the complexity and fuzziness of the ethnic patterns in the Balkans. Linguists tried to map and overlay as many linguistic phenomena as possible, creating complex maps. While the composition of such maps could be justified and considered scientific, the arbitrarily simplified classification of grammatical and phonetic features into languages was less objective. Political motifs and sympathies prevailed here.

One of the reformers was the Austrian engineer *Peucker*, who published a map in 1903 that marked more settlement names than ever. He refrained from the delimitation of language and ethnic boundaries; rather, he put significant cultural institutions on the map (schools, religious centres, etc.), proving that the spheres of interests did indeed overlap, and nations could still not be delimited properly, as the fight for hearts and minds was still go-

ing on. Peucker used Cvijić as a reference, while Peucker in turn became a reference for the Ottomans (App. 21b).<sup>147</sup>

In 1899, and again in 1905, the Bulgarian *Brankov* applied small diagrams on his *kaza*-level map to illustrate not only the ethnic proportions in Macedonia (with Bulgarian dominance, of course), but absolute population numbers as well. This is the main merit of this map, as former patch maps were unable to illustrate density or population numbers. The ethnic distribution of students in elementary schools was also illustrated on maps, using the same method. The main differences between our method as applied in this volume and his standpoint were that Brankov used only four categories (while we have continued to rely on Sax's double classification), and he did not indicate Muslims (constituting 33–50% of the population, according to different estimates) at all. The result was a more homogeneous map, despite the fine resolution and method. Nonetheless, the sophisticated method did not veil the problems of data interpretation.<sup>148</sup> *Brailsford's* map from 1906 was even more weighted in favour of the Bulgarian cause, as this meant that a foreign MP and member of the Bulgarophile pressure group of the Balkan Committee acknowledged the Bulgarian ethnic character of Macedonia (and significantly decreased the territories inhabited by Turks, compared even to Kānčov's map).<sup>149</sup> This was the second zenith for pro-Bulgarian sentiments after the 1870s (as a by-product of the Macedonian reform movement, 1903–8).<sup>150</sup>

The classification applied by *Sax* (the double criteria for ethnicity) prevailed in Austrian cartography after the Mürzsteg Agreement (1903). In order to promote the practical realization of the agreement and to enhance

147 For one of his maps see: "Königreich Bulgarien", in: [https://www.europeana.eu/portal/hu/record/9200352/\\_object\\_info\\_id\\_12133.html](https://www.europeana.eu/portal/hu/record/9200352/_object_info_id_12133.html) (September 14, 2020).

148 For example, Brankov claimed that there were 500,000 Bulgarians, 400,000 Muslims and 150,000 Greeks in Saloniki vilajet. The Greeks claimed that there were 400,000 Greeks, 450,000 Muslims and less than 200,000 Bulgarians. The differences are so great, that no simple adjustment of numbers makes it possible to find out the truth. Brancoff: *Le Macédoine et sa population chrétienne*. (Dimitar Misheff is supposed to hide under the pseudonym Brancoff). For the Greek stance, see Justice for Greece Committee: *The Hellenic Character of Northern Epirus*.

149 Wilkinson: *Maps and Politics*, 140.

150 The representatives of the Balkan states were convinced that the Mürzsteg reforms would promote the readjustment of administrative distribution of the Macedonian vilayets according to the ethnic proportions.

knowledge of the coexistence of different nations, a huge effort was made by Austrian officials at the turn of the century, collecting and sorting data on religion and ethnicity in Macedonia, and ultimately putting them on maps again. Numerical data can be found at HHStA, Wien, in Nachlass Szapáry, and among the reports of Consul *August Kral*,<sup>151</sup> while several patch maps based on settlement-level dot maps of the Bulgarian commercial agencies (App. 83–85: a settlement-level ethnic map of the Bitola and Kosovo *vilayets*)<sup>152</sup> are deposited at the *Kartensammlung of the HHStA*.<sup>153</sup> These patch maps were fitted to the same projection system and redrawn by us in order to create a GIS-aided database to make them comparable (Maps 21–23). Furthermore, based on the raw data of consuls *Kral* and *Ippen*, we produced new pie chart maps indicating the proportion of different ethnicities, which had previously been neglected when using homogeneous patches (Maps 24–25). It is also noteworthy that the Greeks in Constantinople released a similar map in 1904.<sup>154</sup>

The significance of Kral's data collection for Bitola was acknowledged by Tomoski in 1969, who published Kral's settlement-level data for 1897 (Figure 10).<sup>155</sup> Kral admits that it was Goluchowski who ordered the population count in 1895, because the Austrians considered information provided by the Ottoman administration to be very unreliable. However, even Kral admitted that he had to use an Ottoman *salname* besides the Slavic sources. He warned the politicians that the involvement of Slavic data sources made these statistics favourable for the Slavs compared to other nations in the Bitola vilayet. He reported a difference of 50,000 people in two different sources in case of Aromanians in the Bitola region and he was quite aware of the fact that his

151 HHStA, AB XIX/84. Nachlass Kral, Kt. 2. and HHStA, Nachlass Szapáry, Kt. 3 b. See copies also: HHStA, PA XII, Türkei, Kt. 272 and 273. Some of the maps were published by Teodora Toleva in her 2012 book (Toleva: *Vliyanieto na Avstro-Ungariya za sązdavaneto na albanskiya natsiya, 1896–1908, 540–4*), but in such bad resolution that neither the legend nor the settlement names are readable.

152 Carte ethnographique de vilayet de Bitolia (Monastir).

153 The detailed description is available at HHStA, PA XII, Türkei, Kt. 272–3. See App. 84.

154 Kontogiánnis: Nationalitäten Karte der Vilajete Kosovo, Saloniki, Scutari, Jannina und Monastir. Ethnografikós chártis tis Makedonias, apó ton lochagó Kontogiánni, Konstantinoúpoli 1904. (EL). <https://www.searchculture.gr/aggregator/edm/EIM/000042-354603?language=en> (April 14, 2021).

155 Tomoski: *Naselenieto na Bitolskiot sanjak vo 1897*.

(c) From the turn of the century to the First World War

Figure 10. The settlement-level conscription of Bitola by consul August Kral (1897)

REVOLKERUNGS — AUSWEIS DES WILAJETES MONASTIR NACH RELIGIONEN UND NATIONALITÄTEN (Ende 1897)																								
Mutesariflik Bitolja																								
Kaza Bitolja		Einwohnerzahl																						
Nahija Bitolja	Hauszahl	Türken	Osmanen	Albaner	Gegen	Albaner	Tosken	Albaner	Christen	(fr. orth.)	Slaven	Exarchisten	Slaven	Patriarchisten	Slaven	Nobanen	Griechen	Christian.	Griechen	Mohamed.	Walachen	Juden	Zusammen	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Bitolja	5.389	7.500	7.990	—	—	5.500	2.500	—	—	—	6.500	4.270	34.060											
Starakosovo	49					209							269											269
Suhodol	61					313							313											313
Kudretino	5					52							52											52
Krajova	3					44							44											44
Strugovo	33					249							249											249
Zadgorca	13					80							80											80
Utovo	6					55							55											55
Obednik	61		208			160							160											308
Subogro	7					58							58											58
Staro Smilevo	11					78							78											78
Novo Smilevo	248					1.371							1.371											1.371
Bela Cerkva	48					441							441											441
Obersani	49					435							435											435
Paskino Rufea	51					483							483											483
Vodeni	21					169							169											169
Prišle	64		305			97							97											402
Tenovci	91		645																					645
Sveti Todor	22					220							220											220

local agents reported distorted data depending on which nation they represented. On the other hand, his data are more detailed than the Extrait concerning the kaza of Bitola. The number of houses indicates great population changes within 20 years. In Ehla (Resen), the number of houses grew from 38 to 63 (105 Bulgars, 218 Exarchist Slavs), in Ezereni (Resen) from 25 to 34 respectively (70 Bulgars and 112 Exarchists), in Krushie it decreased from 132 to 60.<sup>156</sup> His description was also more detailed than the Englishman Blunt's, who did not make distinction between Patriarchist and Exarchist Slavs. As a document from 1905 testifies,<sup>157</sup> Kral himself in his data collections did not use the term Macedo-Slav,<sup>158</sup> so it was put on the maps by higher command

- 156 This may be either due to demography or the differences in the reliability of statistics. As the enumeration of villages differs from that of the Extrait or Gopčević, it is evident that Kral did not simply reproduce and modified these older statistics, but in fact carried out own research.
- 157 Detailbeschreibung von Makedonien 1905; Statistische Daten über Nationalitäten und Religionen, p. 80. For later dates see: Pro Memoria, HHStA, PA XII, Türkei, Liasse XXVII, Generalkonsulat Salonik, Nr. 74. June 24, 1914.
- 158 Unofficially, Kral also used the term Macedonian Slavs: HHStA, PA XII, Türkei, Liasse XXV, 1897–1902. Kt. 272. Letter to Mateja Murko in March 1901.

(Maps 21–23).<sup>159</sup> After this first attempt, data collection and correction remained continuous until 1903.

One difference between the patch maps (Vidal de la Blache, Leon Niox, etc.) mentioned above and Sax's map is evident: the Austrians decided to use the category of Macedonian Slavs (alongside with the terms Bulgarian and Serbian) (compare Map 21 and 22). This was not the only time that Austria-Hungary refused to acknowledge Macedonia as Bulgarian (or Serbian): the Pallas lexicon (App. 19)<sup>160</sup> and a school atlas from 1897 also indicated Macedonian Slavs as separate from the Bulgarian and Serbian nations.

The term 'Macedonian Slavs' was used by scholars and publicists with three general meanings: (1) as a politically convenient term to define the Slavs of Macedonia without offending Serbian and Bulgarian nationalism; (2) as a distinct group of Slavs, different from both Serbs and Bulgarians, yet closer to the Bulgarians and with predominantly Bulgarian ethnical and political affinities (an Austrian point of view); (3) as a distinct group of Slavs, different from both Serbs and Bulgarians, with no developed national consciousness and no hard and definite ethnic and political affinities (according to the definition of Cvijić). Between 1878 and 1918, independent sources in Europe generally tended to view the Slavic population of Macedonia in two ways: as Bulgarians and as Macedonian Slavs, but rarely as Serbians (Thiers, Mijatović). With his *Ethnography of Macedonia* (1924, written in 1919)<sup>161</sup> and to a lesser extent with *The Aromanians* (1905), the German scholar Gustav Weigand was one of the most prominent representatives of the first trend. The British journalist Brailsford in 1906 defined the dialect of Macedonia as neither Serbian nor Bulgarian, yet closer to the latter, and used the terms 'Macedonian Slavs' and 'Bulgarians', and the 'Slavic language' and the 'Bulgarian language', synonymously and simultaneously. The British Shephard's map from 1911 also accepted the Bulgarian point of view on Macedonia (App. 55). Before 1915, practically all Western scholars tended to accept that the affinities of the majority tied Macedonians to the Bulgarian cause. The 1914 Carnegie Commission report states that the Serbs and Greeks classified

159 As the map was found in the Nachlass Kral, we may refer to it as a map of Kral, though it was a compilation of several consular reports (Ippen, Pára).

160 The Hungarian "Encyclopaedia Britannica" of the era.

161 Weigand abandoned the 'flat' one-dimensional approach of Kiepert (1876–78) and applied the method of the Austrian Sax in this work, when highlighting the enormous ethnic and linguistic diversity of Macedonia.

the Slavs of Macedonia as a distinct group, ‘Slav–Macedonians’, for political purposes, and that this term is a “political euphemism” designed to conceal the existence of Bulgarians in Macedonia.<sup>162</sup>

*Niederle* (1910) from the Czech school of Slavists tried to solve the uncertainties of mapping ethnic boundaries by indicating the distribution of dialects and other grammatical phenomena. Cleverly enough, he refrained from classifying dialects into languages, using the same colour for all Slavs, as Cvijić had done on his first map in 1906. The same method was used also by *Belić*, who, unlike *Niederle*, decided to classify these dialects by their distance from Serbian. He considered Macedonia and Bulgaria to the River Iskär as the home of Serbian dialects. Their epigone, the French *Chateigneau*, used *e, je, šop*, West Bulgarian and Macedonian as categories on his map in 1924.

The Italian *Amadori-Virgili* and the Greek *Phocas-Cosmetatos* (1908, 1912, 1919) described only South Macedonia (the zone of Greek aspirations) on a detailed settlement-level map (App. 4, compare App. 86–87).<sup>163</sup> Muslim territories reached their greatest extent on his map compared to others, because the Italians grouped the Pomaks, Albanians and Ottomans together. (The Romanian *Atanasiu* would produce a similar map in 1919). *Amadori Virgili* also treated Greek Orthodoxy as one single category – integrating numerous Patriarchist Slavs, Greeks and Albanians together. The remainder of the Slavs were grouped into schismatic Exarchists and Serbo-philites, just to weaken the representation of the Slavic element in the map, as he considered religion as the most determinative element of ethnicity. But unlike *Sax*, who used a full-scale two-dimensional classification creating a matrix, the Italian author instead mixed religious categories with a linguistic approach, and, in doing so, his map was similar to that of the Greek *Nikolaides*.<sup>164</sup> Another Italian, *Barbarich*, produced an ethnic map of Albania in 1905, with very realistic language borders in the North, but which was very rough in the South.

162 “Demographic History of Macedonia”, in: Wikipedia, [http://en.wikipedia.org/wiki/Demographic\\_history\\_of\\_Macedonia](http://en.wikipedia.org/wiki/Demographic_history_of_Macedonia) (September 14, 2020).

163 *Phocas-Cosmetatos*: *La Macédoine. Son passé et son présent*; *Amadori-Virgili*: *La questione rumeliota (Macedonia – Vecchia Serbia – Albania – Epiro) e la politica italiana*.

164 *Verković* in 1889 also applied mixed (hybrid) categories, some referring to religion and language at the same time.

Map 6. A simplified ethnic map of the Balkans for Hungarian military officers



Source: Magyar Katonai Közlöny, 1913, Apr.

The cartography of *Cvijić*, the most influential Serbian geographer – and probably one of the most influential geographers in Europe at the time –, is also worth detailed discussion, as it went through several stages (Map 8). On his first map in 1906, he refrained from classifying Slavs further. Using a linguistic approach, he applied one and the same colour to all Slavs. However, he indicated Slavic preponderance in Kosovo and even in North Albania. This could not be reliable, because in this region the dominant religion was

(c) From the turn of the century to the First World War

Map 7. The linguistic map of Belić in the Balkans



Catholic, and Catholic Serbs were very rare.<sup>165</sup> The reason for this misinterpretation was that he used geography as a tool to propagate Serbian geopolitical goals. The area in question coincided with the never realized Serbian railway plans to reach the Adriatic,<sup>166</sup> binding Russia, Romania and Serbia to-

165 Nevertheless, their existence cannot be denied to a lesser extent. Crypto-Catholics are indicated, for example, even on Austrian maps after 1877 (see App. 83). For Austria-Hungary this had special significance, because practising a cultural protectorate over Balkan Catholics gave a good pretext to interfere into Balkan affairs.

166 See also later: Cvijić: Der Zugang Serbiens zur Adria.

gether in order to mitigate the pressure of the customs war with Austria-Hungary and to increase the independence of the state by finding new markets for Serbian products expelled from Austrian markets (the date of the map coincided with the year of the ‘pig war’). The reaction of Austria-Hungary was the elaboration of the so-called *Sanjak* railway plan in 1908. Surprisingly Cvijić did not indicate any Muslim Slavs in the *sanjak* of Novipazar, which, after Sax’s map, seems bold in the extreme.

His second map from 1909 (App. 14b)<sup>167</sup> separates Macedonian Slavs from Bulgarians, leaving the surroundings of Skopje to the Serbs. White claims in his book that the distinction between Serbo-Croats and Bulgarians was evidence for the exclusion of the latter from the Yugoslav movement and the Serbs’ aspirations towards Croatia and Dalmatia.<sup>168</sup> Wilkinson and White are mistaken when they claim that Cvijić was the first to separate Macedo-Slavs from Bulgarians – the Russians did so early in 1891, and Cvijić could also rely on the practice of the cartographers of Austria-Hungary, but also on Karić (1887, App. 12c). The latter even considered them Serbs. But his innovation was to put part of the Macedonian Slavs “under Greek influence”, further destabilizing the view of the region and creating a political vacuum (to be filled by Serbia). In Kosovo, Albanians were indicated only by hatching in a limited area. A similar visualization was applied by him to the transitional zone between Macedonian Slavs and Albanians or between Bulgarians and Greeks (the Vlorra-Monastir line). His map from 1912 does indeed reveal the aspirations of Serbia concerning Albania and the Adriatic coast by indicating the proposed Prishtina-Prizren-Durazzo and Dibra-Durazzo railway lines and delimiting the sphere of influence of Adriatic trade along the Prishtina-Skopje-Veles-Monastir line. And as these areas constitute a single economic unit, they should be incorporated into the same state – so goes his argument.

As a consequence of this idea, his third ethnic map, created in 1913 during the Balkan Wars reduced the Albanian presence in North Albania even further. Up to then, only Albanians living north and east of the river Drin were neglected in Serbophile maps, but Cvijić went further. Furthermore, while he used patches in the periphery (Kosovo), the core areas of the Albanian nation were indicated by hatching (App. 14), that way veiling Serbia’s territorial aspirations towards the Adriatic. So, from the methodological aspect, this map is untenable, despite his efforts (applied transient colours in Mac-

167 Cvijić: Carte ethnographique de la nation Serbe, 70.

168 White: Nationalism and Territory, 236.

edonian-Serbian respect, used linguistic approach to limit Bulgarian presence west of the Struma, etc.).<sup>169</sup> (In this map, published in the *Petermanns Geographische Mitteilungen* with a long description on the delimitation of ethnic boundaries and the scientific methods,<sup>170</sup> Cvijić acknowledged the existence of the Macedonian language based on the arguments of Vatroslav Jagić (a Croatian linguist in Austria-Hungary, who stated that Macedonian is between Serbian and Bulgarian). However, he also emphasized that language was not the only determining factor of a nation, and he even accepted the existence of national indifference (“neutrality”), because it suited well to his concept in that very case.<sup>171</sup>

But soon, Cvijić abandoned this approach: Macedo-Slavs disappeared from his map and Macedonia became divided between the Bulgarian and Serb nations. The latter ethnic map reveals Serbia’s geopolitical aims and reflects the secret agreement in 1913 with the Greeks, and against its former ally, Bulgaria, on the dismemberment of Macedonia. The indicated boundaries of the Bulgarian nation on the map coincided – not surprisingly – with the actual demarcation line between the allied forces (the Vardar line),<sup>172</sup> proposed as a preliminary border for Bulgaria. The Bulgarians, as we know, refused to accept this offer which led to the Second Balkan War.

Finally, Cvijić’s map of 1918 – which was used at the Paris peace negotiations – was similar to the last one published in 1913. It shows further Serbian aspirations for Vidin, which is indicated as Serb, while Vraca and Kjustendil are mixed, and the Bulgarian language boundary has shifted from the Vardar-Struma watershed towards the Struma River in the east. The Slavs of Macedonia were now considered by him Serb, as was North Albania. The map was published in the *American Geographical Review* and in *Annales de Géographie*, securing a wide international reception. By the first census of the new Kingdom of SHS, the Macedonian Slav language was merely considered a dialect of Serbian (see App. 14–16, and Map 8).<sup>173</sup>

169 The strange category of Albanian-speaking Orthodox Serbs also illustrates this. He extended the category of Serbdom to Muslims by creating new groups (and incorporating them into the Serbs) as Sax did, whom he sharply criticized.

170 Cvijić: *Die ethnographische Abgrenzung*, 113–8.

171 *Ibidem*, 186.

172 And not with the line along River Struma as indicated on Austrian maps, for example.

173 For a detailed discussion (with maps) on Cvijić see: Segyevy: *Szerb törekvések és Jovan Cvijić etnikai térképei*.

Though he used scientific argumentation, Cvijić in fact selected these in order to underline his stance. He used historical argumentation to confirm Serbia's right to the sea outlet,<sup>174</sup> but in other cases he referred to language. We also saw that sometimes he even denied the significance of the latter in determining national consciousness. He criticized Sax's multidimensional approach, but he accepted the idea of mixed races, i.e. Albanized Serbs, when it was favourable for the Serbian cause. Despite his strict focus on a linguistic approach, Cvijić did not speak Albanian, and therefore his studies were one-sided relying on Serbian customs, myths, etc. He did not even observe Albanians from a closer vantage point because of this deficiency, and he needed an Austrian passport to enter Albanian areas safely.<sup>175</sup> When dealing with ethnic mapping, Cvijić evidently nationalized his field of study – which he did not do when studying the geomorphologic cycle in the Karst. His objectivity when discussing physical geographical processes made his statements in other fields credible.

We have seen that Cvijić's views were not only inconsistent: neither were they constant. It is interesting how an ethnic map can be created based on “personal knowledge” in a country where settlement-level ethnic data were not published at all (this pertains to Serbia in 1913).<sup>176</sup> Therefore, as Cvijić admits, he did not use census data for this purpose. Although he emphasized the role of mass migrations and the complexity of the situation in order to explain the changing patterns and the modification of his views,<sup>177</sup> the following example illustrates that he was rather a good example of a trained and skilled scholar who used his knowledge to support political aims. Although in the October 1912 edition of the British magazine *Review of Reviews*, Cvijić claimed only the northern boroughs of the Skopje district (the towns Skopje, Kumanovo and Tetovo), with a small part of north-west Macedonia (the towns Debar and Struga) for Serbia, which coincided with the delimitation of spheres of interest in the secret treaty of 1912 between the Serbs and the Bulgarians, he changed his mind within a few months. Soon after the victorious invasion of Serbian troops against the Ottomans in the First

174 Cvijić: Die ethnographische Abgrenzung, 244. He also found two Slavic-speaking villages referred by Müller. Cvijić: Der Zugang Serbiens zur Adria.

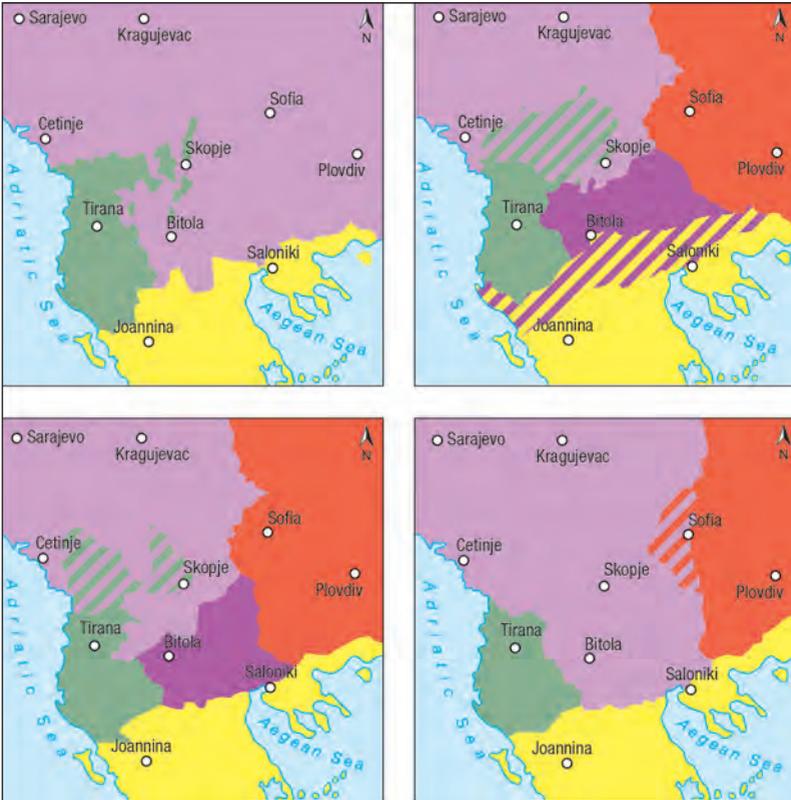
175 That is why he was added to the list of confidentials. See: HHStA, PA I, Allgemeines, 9 Personalia, Kt. 766.

176 Cvijić: Die ethnographische Abgrenzung, 185.

177 Ibidem, 113.

(c) From the turn of the century to the First World War

Map 8. A simplified sketch map of the evolution of Cvijić's ideas



Source: White, George, B.: *Nationalism and Territory: Constructing Group Identity in Southeastern Europe*. Boulder 2000.

Balkan War, he published his new ethnographic map in the German journal *Petermanns Geographische Mitteilungen* in March 1913. In this map, half of Macedonia was marked by the blue Serbian colour, and the rest of the Slavs (were proclaimed as “Macedonian Slavs”, except for the inhabitants of the eastern frontier who were identified as Bulgarians.

There were also other foreign proponents of Cvijić's thesis on Macedonia (beside Austria-Hungary mentioning earlier). Alfred Stead's ethnographic map from 1909 published in London (App. 64c) also illustrates the Macedonians as a separate nation. He also accepted the idea of Albanized Serbs, which was rare among Western cartographers. But this work is also worth

mentioning from other aspects: it is one of the best examples to illustrate uncertainties with different visualization methods at the same time. On the one hand, he used cross-hatching for the whole of Kosovo illustrating Albanians, Serbs and Albanized Serbs at the same time, and on the other he also illustrated the “Greek zones of influence” together with the spoken local language.

The Albanian problem was not only a Serbian, but a Greek problem too. As Greek claims on southern Albania had to be justified during the First World War, the former map of Nikolaides (1899) underwent some modifications by 1918. On the map of the Greek *Soteriades* (1918) Macedonian Slavs also appeared as a separate category (App. 3). In this map, the whole Orthodox population was indicated as Greek up to the Devoli river and Lake Ohrid (including 316,000 ‘Greeks’ and only 154,000 Turks) – and the Entente soon offered these territories to Greece if it joined the First World War on their side. Thrace was indicated as mixed Turkish–Greek territory, with 500,000 Turks, 400,000 Greeks and only 100,000 Bulgarians.

A more general problem with Soteriades’s map,<sup>178</sup> is the fact, as highlighted by Justin McCarthy, that it relied on fake sources:<sup>179</sup> the author used the old data of Cuinet (1894) and simply modified the number of Greeks and Muslims, while leaving the number of Bulgarians, Jews and Armenians intact. The problem is that even if Soteriades claimed that he recalculated the twenty-year-old data in order to handle migration and net reproduction (defending the scientific credibility of his method), it would not explain why he forgot to do the same for other minorities. Neither does it explain why adding up Muslims and Greeks at Soteriadis always results in Cuinet’s numbers (in other words, the number of Muslims were decreased, that of Greeks were increased, and others stagnated). Furthermore, the enumeration of the *kazas* in the two documents are exactly the same: in other words, the so-called Patriarchate Statistics, to which Soteriades referred as “source”, were not given for the administrative districts existing in 1912, but for the earlier, obsolete boundaries given by Cuinet – and such practice is highly improbable. McCarthy adds that had Soteriades decided to manipulate the Bulgarian and Armenian numbers, no one would have ever recognized his trick. This case

178 Generally it could happen on a territorial basis, because Ottoman sources did not make a distinction between them, and used the category of Bulgarian millet (Exarchists).

179 McCarthy: Population History, 236–8.

creates another problem – if the data of the Patriarchate from the 1910s are fake or manipulated, why would data used by the British in 1878, e.g. in the map of Stanford, be better? (See also Map 37 and 38).

The response to Soteriades from the Bulgarian *Ishirkov* and *Ivanov* repeated the same old Bulgarian stereotypes and views envisioning Macedonia and Niš as Bulgarian-speaking regions (App. 74–75, and 77). But at least the territorial distribution of Muslims was marked correctly (App. 77). The sources of the map were those foreigners whom Cvijić had indicated as untrustworthy: Griesebach, Pouqueville, Kanitz, Boué, and von Hahn from among the travellers, Eneholm and Obruchev from among the Russian military officers,<sup>180</sup> and Lejean, Mirkovich, and Petermann from among the cartographers.<sup>181</sup> They were claimed to be impartial observers by the Bulgarians, as most of them were not influenced by national rivalries, and as these scholars and travellers published their works before the two great alliance systems were created. But on the other hand, besides travelling through one or two districts, they did not have substantial knowledge of the whole peninsula and did not have access to official Ottoman data. Furthermore, von Hahn, Boué and Kanitz obviously served the political goals of Austria-Hungary, while most of the mentioned persons were not professional cartographers or ethnographers. However, *Ishirkov* claimed that for Cvijić ethnic question is not a scientific question, but a question of nationalist politics that is the sole reason why he found some travellers reliable and others not.

But not only Greeks and Serbs tended to manipulate maps. *Ivanov* himself, in his previous work of 1913, also did this when he used illustrative colours for the Slavs and no colours for the rest, whom he only indicated with letters (App. 75 – see also *Erben's* map). In doing so he tried to decrease the amount of patches not inhabited by Slavs. His map definitely looked similar to the attempt of *Erben*, forty years earlier (App. 32).

Distortions also occur in the material created to support Bulgarian claims at the peace negotiation in Paris.<sup>182</sup> While criticizing Cvijić and Šafarik, who had never travelled to the Balkans, the Bulgarians committed similar falla-

180 Obruchev: *Voenno-statisticheskiy sbornik na 1868 god.*, 349; Moshnin: *Pri-Dunayskaya Bolgariya (Dunayskiy vilayet). Statistiko-ekonomicheskiy ocherk*, 346–404 (Map 53 and 55); Mihov: *Naselenieto na Turtsija i Bălgarija prez XVIII i XIX*, 94–6.

181 Their maps appear in the so-called *Rizov Atlas* too.

182 *Ivanoff: Les Bulgares devant le Congrès de la Paix.*

cies. For example, Ishirkov refers to Paisij Hilendarski from the 18th century (certainly not an exact scientist) and Pouqueville when describing Bulgarian settlement area in 1915 on the pages of the *PGM*.<sup>183</sup> Besides using Teplov,<sup>184</sup> who committed a serious statistical mistake in his use of “second-hand data,” (see later in details) they tried to use and interpret out-of-date pro-Bulgarian publications as well as official Ottoman census data in order to convince the decision-makers in Paris about the necessity of a Greater Bulgaria. Ivanov used the ethnic data published in the *Extrait de Courier d’Orient* – from 1873 (many of those who were enumerated then were not alive any more by 1920, not to mention migration). These statistics indicated, for example, not any Muslims in the Tekirdağ *sanjak* in 1878 (Table 8), while finding 16,205 Bulgarians and 10,476 Greeks there.<sup>185</sup> Contrary to this, official Ottoman sources cited 81,600 Muslims and 6,224 Bulgarians.<sup>186</sup> One may argue that the method of the Bulgarians was very similar to that of the Patriarchate in 1878–81, which also failed to mention Muslims while focusing on Bulgarian-Greek (Exarchist-Patriarchist) rivalry.

*Table 8. Parts from Ivanov’s statistics relying on the 1873 data*

<i>Sanjak</i>	Muslims	Bulgarians	Greeks
Edirne	60,991	181,396	58,319
Tekirdağ	0	16,285	10,476
Gelibolu	0	21,647	5,819
Total	60,991	219,198	74,614

Ivanoff: *Les Bulgares devant le Congrès de la Paix*, 74.

183 Ischirkoff: *Ethnographische Karte des Bulgarentums auf dem Balkanhalbinsel im Jahre 1912*, 339–42. Ivanov and Miletich also contributed to this map in question.

184 Teploff: *Die griechisch-bulgarische Kirchenfrage nach unveröffentlichen Quellen*.

185 Not even the new edition (*Makedoniya i Odrinsko. Statistika na naselenieto ot 1873g.*) did correct the missing numbers. In other cases, the number of Muslims was deconstructed to settlement level, but neither do these always coincide with Ottoman data. Muslims were undercounted in Edirne, too.

186 McCarthy: *Population History*, 117.

Another problem is the place of the publication of the map seen in App. 77. The *PGM* was supposed to be a “neutral” scientific organ prior to WWI, but in 1915, it was a journal published in Bulgaria’s main war ally, Germany, and this fact ruins the merits and credibility of Ishirkov’s, Ivanov’s and Miletic’s map.

We have analyzed the maps of the Great Powers and the Small States, all having aspirations to a certain part of the Peninsula, but we have not yet analyzed the ethnic maps created by the local people or by the Ottoman Empire, the actual sovereign over these areas, and how they related to each other. During our stay in Istanbul, we were unable to locate detailed ethnographic maps of The Balkans created by civilian Ottoman authorities. This does not mean that Ottomans did not make any ethnic maps<sup>187</sup> or were not aware of their significance, because some copies of Western or Balkan ethnographic maps and their own compilations are available in the Başbakanlık Osmanlı Arşivleri.<sup>188</sup> Furthermore, the German Andreas Mordtmann (Osman Bey) had already implemented the results of Western ethnography on Ottoman lands in the 1850s.<sup>189</sup> But on the other hand, even from 1914 (the year of the last Ottoman census) only sanjak or vilayet level statistics and ethnographic maps were found at the archives,<sup>190</sup> although in general, Ottoman mapping was well developed by that time compared to the 1860s.<sup>191</sup> But the main driver for expanding cartographic knowledge continued to be the military, rather than provincial administration. In fact, Ottoman cartographers were trained exclusively by the army. Existing but low-scale ethnic maps from the era of the First World War were also created by military officers.<sup>192</sup>

187 For Thrace see: BOA, HRT h 00234a (App. 97); for Anatolia see: BOA HRT h 00408a (M. Salih 1914).

188 Like the one created by Peucker: BOA, HRT 251. See other western maps: HRT h 00408b,c,e,f (Armenians). Compare the latter to McCarthy: *Population History*, 294. See also: FO 371/7833, *Proportions des populations musulmanes, grecques et arméniennes en Asie-Mineure d’Après la statistique du Livre Jeune*.

189 Okay: *Etnografya’nın Türkiye’ye Girişi ve İlm-i Ahval-i Akvam*. This means that Ottomans knew about the different nation concepts of the European states.

190 Like this one about Thrace: BOA, HRT h 00234a.

191 The idea of Artamonov’s expedition under the pretext of global science was approved by the Sultan, because he wanted the obtain the maps created by the Russian officers – as Ottomans lacked any. See: Simov: *Mapping Enemy’s Land*.

192 Illustrating the situation in Palestine as discussed by Nick Danforth (Georgetown Univ.) and Zach Foster. [https://farm6.staticflickr.com/5452/9881561535\\_8c0cc1feed\\_o.jpg](https://farm6.staticflickr.com/5452/9881561535_8c0cc1feed_o.jpg) (September 14, 2020). It was published in *Filastin Risalesi*, an

Only in 1909 was a separate map commission established under the general staff's Fourth Department, which was presumably to take on the task of surveying the empire. An army colonel was sent to Paris to purchase the necessary equipment.<sup>193</sup>

Thus, throughout the late nineteenth century, Ottoman officials imported and translated maps produced by European geographers (including Kiepert), and used them in classrooms of public schools as well as the army college, but did not evolve their own thematic mapping until the 1910s. Due to political reasons they abandoned some of the European practices – they displayed the entire territories of their empire on one unbroken sheet and not by continents –, inscriptions were checked and substituted if necessary – e.g. imported European maps usually used Armenia as a geographic term instead of Anatolia; the term Macedonia was also not tolerated in Istanbul –, but no genuine native breakthrough was made.

The existing few examples show that Ottomans were well aware of the detailed ethnic proportions and the significance of the ethnographic maps in politics, but refrained from drawing detailed, settlement-level maps – we assume, intentionally. A map too detailed would provide opportunity for their enemies to urge for the redrawing of administrative boundaries and to create districts where Greeks or Exarchists (groups accepted by Ottoman authorities too) would be predominant with the aid of gerrymandering. The Ottoman Empire consciously refrained from executing administrative reforms of this kind.<sup>194</sup>

Though the Ottomans also used patch maps, they preferred columns or pie charts. They never considered the Empire as homogeneous, therefore for them it was unnecessary to prove the opposite in patch maps.<sup>195</sup> Any

official publication of the Ottoman army intended to be used as an officer's manual for the Palestine region. Maps of Palestine, <http://www.midafteernoonmap.com/2013/07/ottoman-and-arab-maps-of-palestine.html> (September 14, 2020).

193 Yosmaoğlu: Blood Ties, 103.

194 Ibidem, 105. This was a reasonable fear: even the Balkan states were convinced that the Müzzsteg reform process will – soon or later – result in the modification of the administrative area in order to create a unit Macedonia with a Slavic majority.

195 It is highly probable that their few patch maps with French inscriptions were intended to aim at an international audience, suitable to serve as a visual aid at a European peace conference. See maps for Anatolia, [https://farm6.staticflickr.com/5548/9937360803\\_2411d3415a\\_o.jpg](https://farm6.staticflickr.com/5548/9937360803_2411d3415a_o.jpg) and [https://farm8.staticflickr.com/5548/9937360803\\_2411d3415a\\_o.jpg](https://farm8.staticflickr.com/5548/9937360803_2411d3415a_o.jpg)

way, they also used the large-scale maps of the foreigners: for example a settlement-level ethnic map on Kosovo created by the Bulgarians around 1900 using the data from the Exarchate is available in the BOA (App. 85).<sup>196</sup> The often changing sanjak and kaza boundaries also indicate the fact that Ottomans were also aware of the significance of administrative manipulation (gerrymandering).<sup>197</sup> Ottomans were also aware of the advantages of not using Western ethnic categories and the symbolism of names.<sup>198</sup> The lack of Ottoman ethnographic maps can be taken as a sign that Sultan Abdülhamid II did not have any desire to transform the empire into a nation-state.<sup>199</sup>

Despite the lack of detailed settlement-level maps, some sanjak-level general maps did exist. The map of Thrace for example emphasized overwhelming Muslim majority in 1914 (App. 97), by avoiding terms matching the Western national categories (and as a result of forced migration during the Balkan Wars. We also found a vilayet-level map created for the members of the national assembly in 1914, illustrating the Armenian question on pie charts (App. 99).<sup>200</sup> Only during World War One, in 1917, did the Ottomans decide to create a detailed map of Thrace with French inscription (probably as preparation for an international audience against the Greek claims). Its peculiarity is that it did not indicate any Bulgarians, only Greeks and Muslims. If we compare this map (App. 80)<sup>201</sup> with App. 73 from 1912, the difference is evident: the Bulgarians disappear, probably either because of expulsion in 1913 and migration, or because of the intentional distortions in the map.

com/7310/9935744615\_d82c67ec52\_o.jpg (September 14, 2020). The Balkan Peninsula was not illustrated on ethnic patch maps by Ottomans, partly because by the time these appeared, they had already lost the bulk of the Balkans.

196 BOA, HRT h 00302.

197 For changing boundaries, examples were provided by Yosmaoğlu: Blood Ties, 109. Here a presumably Greek observer states that the Ottomans attached areas (Veles) to the Saloniki vilayet under Russian pressure in order to strengthen the Slavic element.

198 The Ottomans prohibited the official usage of terms, like Macedonia. Gjorgiev: Zabranetoto Ime.

199 Yosmaoğlu: Blood Ties, 106.

200 BOA HRT h 00408e.

201 “Maps as Propaganda”, <http://www.midafternoonmap.com/2013/10/ethnographic-maps-as-propaganda.html> (September 14, 2020).

McCarthy tried to give a reconstruction of ethnic proportions in Ottoman Europe for the 1900s based solely on original Ottoman sources.<sup>202</sup> He managed to use registers (*salname*) from six different years for the seven vilayets, and he adjusted the data to the year 1910 by calculating hypothetical population increase. We put his data on a map, which – at first sight – assumes that the decisions of Ottomans (using aggregated data at sanjak level, refraining from adjusting administrative boundaries to ethnic boundaries and applying religious terms) were reasonable, as the map generally suggests Muslim majority almost everywhere (Map 61).

Driven from different purposes than the Ottoman government, the Macedonian elite propagating autonomy or independence put emphasis on the dissemination of its ideas on the supposed boundaries of the Macedonian nation. The first issue of the journal *Vardar* printed in Odessa in 1905 by *Krste Misirkov* contains a list of settlements in southern Macedonia asserting their ethnographic and social character and size. Most of the Slavic settlements are indicated – uniformly and uniquely – as Macedonian (Figure 11). First, this sheds light on the extension of Macedonia as local people may have defined it (this did not coincide with the Greek concept). What is more important from the methodological point of view is that the data originated from a field trip of two persons, who gave two different interpretations of the same data series – one indicating Macedonians, while the other one refrained from doing this. It is not surprising that the journal was prohibited and confiscated by the Russian authorities and only three copies were left intact, because its content was in contradiction with the official Russian point of view.<sup>203</sup> Eight years later during the Balkan Wars a new geographic and ethnographic map of Macedonia was made by *Dimitrija Pavle-Čupovski*, in the Macedonian language and printed in colour under the title “Map of Macedonia according to the Program of the Macedonian People” in St. Petersburg in March of 1913.<sup>204</sup> It was sent to the Conference of the Ambassadors in London and to the diplomatic representatives of the European states in Russia, as well as to the central Russian press. A version of this map was also published on the front page of the journal *Makedonskij Golos*.<sup>205</sup>

202 See McCarthy: Population History, 120–32.

203 See Ristovska-Josifovska: Makedonskiot identitet and Macedonian album.

204 Karta Makedonija po programa na makedonskite narodnici.

205 Makedonskij golos 1, no. 1, 9th June 1913, 1. See: Macedonian album.

(c) From the turn of the century to the First World War

Figure 11. A detailed ethnic description of villages in Macedonia from a Macedonian viewpoint

Список села од јужна Македонија (Пазарцко, Солунцко, Гевг'елицко и Нукушко) *					
I. Селата одваде (од десно, на запад) од Вардар:					
№	Името на селото	Жастиат	Числа или занимата селца	Колку кук'в	Казна
1	Даучево .....	турци	селца	15	солунцка
2	Ковачево .....	»	»	15	»
3	Илидџијево .....	македонци	чифлик	30	»
4	Долната Мала .....	»	»	100	»
5	Стрѣдната Мала .....	»	»	25	»
6	Горно Куфалово .....	»	»	200	»
7	Ливадица .....	»	»	25	пазарцка
8	Рашиќ .....	»	»	20	»
9	Бозец .....	»	»	103	»
10	Петрево .....	»	»	110	»

Ristovski/Ristovska-Josifovska, Macedonian album, 79.

Like previously, also during the First World War, Macedonia became a major bone of contention between the belligerents in the Balkans, with their Great Power allies to promise it to those whom they wanted to support. This triggered ferocious map-making efforts. Ethnic maps reached broad masses due to propaganda realized in the press. These maps would play an important role for attributing territories after the war.

The map of the Italian *Dardano* from 1916 accepted the Bulgarian stance (App. 65) although the two nations were enemies in the First World War. Many of the British historians, J. A. R. Mariott, Arnold Toynbee and the map of *Neville Forbes* from 1915 considered Skopje to be Bulgarian. In order to defend the interests of Serbia (as an ally of Britain), the ethnic pattern of Kosovo was indicated only roughly, and to win Greece for the Entente the category of 'Albanophone Greeks' was also used in these British maps. There were even British designs to compensate Albania with Ipek in return for North Epiros (*Barnes*).

The 1916 ethnic map illustrating the whole of Europe by *Dietrich Schaefer* (App. 50) was a patch map that also confirmed Bulgarian views by indicating

Bulgarians in Macedonia and around Niš. Cross-hatching as a sign of uncertainty or mixed population was in the Balkans only applied to Thrace. He tried to discern the major nationalities even in Kosovo. The Bulgarian map of Ivanov in 1915 probably served as a basis for this German map. This was a patch map very similar to Känchov's approach (App. 74).<sup>206</sup>

Contrary to all of this, the Serbian *Županić* indicated all Macedonian Slavs as Serbs (as Gopčević had done a generation earlier). The map of the *French Ministry of War* from 1915, though refusing Serbian and Greek aspirations for Albania, indicated Macedonian Slavs in Macedonia (the region south of Skopje is indicated as Serbian as far as the Vardar river, where it changes to Bulgarian). *Taylor* also distinguished three Slavic nations in Macedonia, and the Royal Navy (1944) used an old ethnographic map that illustrated Macedonians separately (App. 59b). *Seton-Watson* finally accepted the arguments of Cvijić and described Macedonian Slavs as an ethnically neutral people, as the course of war made the Entente do so, too. The gradual shift of standpoints in accordance with the growing military superiority of the Entente was indicated on the maps of *Gross*<sup>207</sup> and of the British *Headquarters*, both of which claimed Skopje to be Serbian, contrary to Neville Forbes (App. 57–59). The French (*Gallois*) argued that Niš had already been part of the exarchate when it was attached to Serbia in 1878 and that no one (including local people) objected to this decision, and therefore that the Exarchist Macedonians could be attached to Serbia as well: being Exarchist does not, as the Bulgarians claimed, equal being Bulgarian. The French *Georges Devas* (1918) also accepted Cvijić and indicated Serbs in Macedonia, mixed Serbo-Albanian in North Albania and Serbo-Bulgarian groups in West Bulgaria, using cross-hatching (App. 40).<sup>208</sup>

Unlike in the 1890s (App. 46 and 48), when Macedonia was considered Bulgarian, after the Great War even German maps published in Leipzig in 1924 referring to the situation in 1912–18 recognized the existence of the Macedonian nation,<sup>209</sup> such as that of the Albanians in Greece, and indicated the šop dialect separately between Serbian and Bulgarian (App. 51).

206 Schäfer: Länder- und Völkerkarte Europas; Ivanov: Etnografska karta na Makedonija.

207 Races of Eastern Europe by Alexander Gross, published in *The Daily Telegraph*, 1918.

208 Devas: *La nouvelle Serbie*.

209 Pro-Bulgarian approach also prevailed, see the mentioned work of Weigand.

By 1933, the German standpoint had changed again, indicating Macedonia as a mixed area (App. 52), and the territorial extent of other national minorities in Greece was decreasing. The last German map from 1940 (App. 54) used hatching combined with percentage values (which appeared in line width) – but this method was not efficient enough to delimit and separate ethnic areas.

Visualization also underwent changes. The use of explicit patches became rare, especially in the contact zones. French map from 1918, *Carte ethnographique de l'Europe centrale et des états Balkaniques* (App. 16), used transient colours and cross-hatch instead of patches with explicit borders in the Balkans, while in the case of Hungarians and Romanians this method – casting a veil as it did over the uncertainty of statistics and the interpretation of identities – was not used. The overestimation of Pindos Vlachs can be seen in the maps of Romanians *Noe* (1913) and *Densusianu and Atanasiu* in 1919, with the latter highly exaggerating the territorial distribution of Turks and Vlachs.<sup>210</sup> Even Orthodox Albanians around Berat were considered Vlachs on this map (App. 68).

After 1922–3, significant ethnic changes took place in the region of Macedonia because of refugees arriving from Asia Minor after the Lausanne Peace Treaty (App. 72–72b), and this once again created a revival of ethnic mapping. According to A. Angelopoulos, writing in the *Journal of Balkan Studies*, Greek Macedonia's national make-up in 1913 was 44.2% Greek, 38.9% Muslim, 8.7% Bulgarian and 8.2% others, which is definitely a too small proportion attributed to the Bulgarians, probably equalling only the number of Exarchists. Two decades later this percentage values became reality, as hundreds of thousands of Greek refugees from Asia Minor were settled in Macedonia and Thrace, while the Muslims had to leave, and many Slavs decided to depart as well. Despite this population influx, the northern part of Greek Macedonia was still characterized by population decline, as hundreds of thousands of 'Macedonians' were expatriated. According to Greek statistical data, only the district of Florina showed a Slavic majority in 1925 (34,000 out of a total population 59,000); and their proportion was similarly high only around Granitsa from among the other districts

210 He relied on the 'old' Lejean, Kiepert and Weigand, refreshing his concept with the findings of cartographers of Romanian origin like Abeleanu, Boga and Noe, for whom only the Vlach population was interesting, and therefore tended to be less precise in other cases

(22,000 out of 48,000). App. 72b illustrates this remarkable change with its diagrams.<sup>211</sup>

There were also Serbian plans on colonizing Macedonia after 1918. The map (App. 96) illustrating the dislocation of Serbians, Albanians and Turks (separating the two Muslim categories), while not mentioning Macedonians or Bulgarians at all, marks the territory to be settled by black stripes and the proposed settlements.

As the above outline suggests, the historical and political circumstances were reflected in the outlook of maps – their colours, visualization methods, etc. – and the ethnic categories they use. In the next chapter we try to highlight how these motives can be traced and discovered: how the selection of visualization techniques can influence the results, and what practices of data manipulation can be identified. In order to draw the attention to data misinterpretation still occurring in historical studies, recent literature concerning the ethnic question in the Balkan Peninsula will also be involved in the discussion.

211 Carte ethnographique de la Macédoine Hellénique, [https://www.flickr.com/photos/athens\\_greece/33556493151](https://www.flickr.com/photos/athens_greece/33556493151) (September 14, 2020).

## Chapter 3.

# Data Reliability and Visualization Methods

The different approaches to the nationality question – which became inseparable from political aspirations – rendered the (re)production and interpretation of ethnic maps difficult. Aside from these technical problems, distortions or manipulations could also occur during the visualization. First, the reliability of accessible raw data in the Ottoman Empire in the 1870s was questionable; secondly, the terms used in official Ottoman enumerations of population gave a broad space for different interpretations; thirdly, changes of administrative territories – as a result of historical events or internal re-organization – complicated the situation further;<sup>1</sup> and finally, the technique of visualization itself was able to influence the results. These could lead to completely contradictory maps based on the same data.

Thus, in the following we analyze the broad possibilities for data interpretation applied by the opposing communities in order to justify their differing national goals. In doing this we not only compare data from different eras referring to the same area and the variety of approaches for the same dataset resulting in differing synchronous maps; but we also investigate the methods of data collection and of selection and manipulation, thus we de-construct the existing maps. In some cases we also trace the original manuscripts of published statistics as there are numerous variants of these with differing data.

Furthermore, as an additional goal, in order to check the reliability of the mapping activity of competing nations, we re-construct and redraw many of the maps using the same data, while applying a different method to visualize them.<sup>2</sup> We have also created new maps based on well-known but for some reason not mapped, or on only recently discovered statistics.<sup>3</sup> Existing

- 1 For example the Niš sanjak, was part of the Prizren vilayet between 1869 and 1874. Sofia and Niš sanjaks were annexed to Adrianople and Kosovo vilayets respectively in 1877. Koyuncu: “Tuna vilâyeti’nde nüfus”, 676.
- 2 This process included the georeferencing of data, fitting map parts together, eliminating distortions, applying a common projection system, common legend and common reference unit /kzas/ for the maps in order to obtain the same resolution and to compare the end-products. (For this, ArcGIS 10.0 was used).
- 3 For the latter, see the maps based on the data of consul Kral (Appendix). HHStA, AB XIX/84. Nachlass Kral, Kt. 2 and HHStA, Nachlass Szapáry, Kt. 3 b.

but unpublished maps are also traced. We will start with an analysis of that part of the production process of maps, which gives them their unique visual quality, that is, the visualization techniques. Contemporary (original) maps discussed here can be found in the Appendix.

### (a) Visualization techniques

Beyond the manipulation of raw data, visualization techniques – including technical methods and territorial scales – can be responsible for the distortion of ethnic proportions.<sup>4</sup> As this has been much discussed in previous examples, here we give only a general summary.

Patch maps tell us nothing about population numbers and density or about proportions. Thus, a certain population group can easily and misleadingly appear to be a majority within a territorial unit, while, for example, urban dwellers of different origin may exceed them in numbers but appear only as a smaller patch. Furthermore, scarcely populated areas, like mountains, indicated with a solid colour fill, may also distort ethnic patterns. Patches can bind together spaces, which lack real connections, e.g. roads. Such abuses supported, for example, the activity of the Czechoslovak peace delegation in 1919–20, when cartographers indicated fake connections (even recolouring some patches that indicated settlements) between settlements, thus manipulating the ethnic data of the so-called *Lexicon locorum* of 1773.<sup>5</sup> A correct patch map has to indicate routes and main directions of communication, and indicate scarcely populated regions as in the case of the map of Istria created by the Austrian Czoernig.<sup>6</sup> The main advantage of patch maps is the possibility of the proper delimitation of ethnic boundaries. But sometimes this is not so evident, for example in regions with mixed populations or people with unstable national identities, and

4 Monmonier: How to Lie with Maps.

5 Jócsik, A magyarság. The Hungarians used pie charts proportional to the population number and not dot or patch maps like the Romanians did between the two World Wars. According to the Hungarian stance, these distort the ethnographic patterns (small settlements are indicated with a dot of the same size as larger towns; patches tended to fuse and incorporate smaller patches referring to different ethnic groups). See: Roumanian Ethnographical Maps.

6 Czoernig: Ethnographie der österreichischen Monarchie.

in contact zones, and especially if there is no general consensus about the applied categories and their content. Comparing these maps in some cases (like Meinhard's map of Macedonia from *Deutsche Rundschau für Geographie und Statistik* and those from 1902–3, App. 21, App. 22, Map 22), the patches on maps have the same shape, supposing only low-scale changes, but are labelled differently in the legend.

This leads us to the question of the underlying political concepts of ethnic mapping. Patch maps are often used if the map is to be published as a part of a larger work, so in case of not having enough space (paper size is limited), because too many details would ruin the overall effect (so-called "Übersichtskarten").

A special type of patch map is the choropleth map, applying different hues of the same colour, which may refer to population density or ethnic proportions. Different colour tones are mostly applied to indicate the territorial coverage of one or two nations on maps, because when many intermingling/overlapping nations inhabit the same territorial units it is very difficult to illustrate this diversity by using colour tones<sup>7</sup> (sometimes cross-hatching may help). Furthermore, choropleth maps require well-delimited, identified territorial units, and even in this case manipulation cannot be excluded: a territorial unit indicating 30% and another showing 70% of the same ethnic group can be merged together, still indicating an ethnic proportion over 50% (over a larger area). In this case the ethnic group will still be shown as a majority in that region where its original proportion was under 30%. Therefore, the optimal resolution (scaling) of these maps is always a crucial question. Settlement-level maps may be more objective than maps illustrating ethnic patterns at district level, but the scale of the map always influences the visualization technique. A settlement-level ethnic map of a whole country takes up a large area, which books, unlike wall maps, usually lack.

Cross-hatching may help in illustrating contact zones; in this case the width of cross-hatching may reflect ethnic proportions. Another special form of patch map applies transient colours to illustrate uncertainties in ethnic distribution or a continuum of dialects. This rather stresses the fuzziness of the situation (often closer to the reality); furthermore, this technique of illustration can also be manipulated when setting the tones of the transient colours – like adding darker tones (instead of transparent, light tones) to

7 See App. 79 as an example.

relatively low percentage values. This type of manipulation can also be applied to choropleths.

Thus, despite their methodological advantages by avoiding fixed borders, transient colours (e.g. Cvijić, App. 16) and cross-hatching (e.g. Sax, 1877) were in part used to veil the uncertainty of both statistics and interpretation of identities in the Balkans. Patch maps in general are still valued among Serbian geographers, while Croatians criticize this practice, using the same arguments as we do.<sup>8</sup> The debate between the two parties also reveals two different traditions of visualization.

Contrary to the aforementioned type(s), maps using pie charts may properly represent ethnic proportions and even total numbers on a territorial unit, but in this case the delimitation of distinct, homogeneous patches becomes difficult (which patch maps support). This map type requires well-identified territorial units (unlike patch maps) and neither do these differentiate between sparsely and densely populated areas. Resolution/Scale can cause a problem here as well: larger territorial units (*vilayets, sanjaks*) are unsuitable if the goal is to justify partition plans or to separate communities from each other. Another technique to indicate population level includes the use of small dots or squares, where the colour of the signs refer to ethnicity and the size refers to population number. Such a map was created by Ivanov in 1912 (Map 52) and during the delimitation of southern Albania (App. 5: compare differences relative to the patch map in the book of Chekrezi of the same area, Map 9, or the patch map by Weigand).

Since *kaza-* or *nahiye-*level official Ottoman census data were not always available for the creators of the maps, most patch maps were based on personal experience, or were the compilation and modification of older (field)work. It also means that a patch map from the 1900s often contained parts from the 1880s with data unrefreshed, since the author was unable to visit all parts of the investigated area. Therefore, he had to rely on reports from diplomats, data provided by local priests and teachers, and secondary sources. From a methodological perspective this not only meant that data was distorted owing to temporal differences, or that data was filtered through the partiality of those people serving as data sources; it also implied that the maps showing extended areas were composed of parts based on different methods. This phenomenon was also recognised by *Wilkin-*

8 Klemenčić: Ethnic Maps.

son,<sup>9</sup> mentioning the *Boué–Lejean–Irby* lineage, and that the map of Erben (1868) relied on *Mirković* and *Lejean*. Such a map not only gives a fake picture, but also renders the identification of mistakes and corrections difficult. A map like *Kānchov’s* ethnic map of Macedonia may certainly distort the territorial extension of the Bulgarian nation at the cost of Serbs or Greeks, but at least it is methodologically consistent, as it is based on homogeneous sources (reports of schools and priests), compared to other maps that are based on heterogeneous and not always synchronous data sources.

In lucky instances, settlement-level data was available – as in the case of the Bitola and Kosovo *vilayets* (1900–01, App. 84–85). Of course, this may also display nationalistic tendencies, even if it is based on official data, but it can at least serve as the basis for a generalized patch map. For this process of generalization, a good example is provided by the patch map in the book of *Chekrezi (N. Lako)*,<sup>10</sup> indicating separate settlements, in addition to patches with colour fill (App. 64). Most of the dot diagrams did not indicate settlement size separately even if ethnic proportions are illustrated, like the map of *Schultze* (1927) and *Hasluck* (1930) in Macedonia (Map 10–11). Contrary to this, *Bátky* and *Kogutowitz* (Hungary, 1919) used settlement-level dot maps, where dot size symbolizes the density and number of population.<sup>11</sup> Combined or complex maps also appeared: the Bulgarian population census in 1892 (App. 82) was illustrated on patch maps indicating the total population as well as the ethnic majority. The choropleth maps of Bosnia by *Asbóth* indicate religious proportions and social situation – combining two different phenomena (App. 61–62).

Colours may also be indicative. In the beginning, ethnic maps of the Balkans did not tend to decrease the territory inhabited by different nations by using illustrative colours or dark tones to overemphasize the significance of a

9 Wilkinson: Maps and Politics.

10 Çekrezi: Albania. Past and Present. Map by N. Lako.

11 Created for the peace negotiations of Paris: “Map of Hungary”, in: Wikimedia, [https://upload.wikimedia.org/wikipedia/commons/d/d9/Zsigmond\\_Batky\\_Karoly\\_Kogutowicz\\_The\\_ethnographical\\_map\\_of\\_Hungary\\_%281918%29.jpg](https://upload.wikimedia.org/wikipedia/commons/d/d9/Zsigmond_Batky_Karoly_Kogutowicz_The_ethnographical_map_of_Hungary_%281918%29.jpg) and “Anyanyelvek” (Mother tongue), in: Mapire.eu, [https://mapire.eu/en/map/magyarország\\_1910-etnikai](https://mapire.eu/en/map/magyarország_1910-etnikai). For the religious distribution see: “Vallások”, in: mapire.eu, [https://mapire.eu/hu/map/magyarország\\_1910-felekezeti](https://mapire.eu/hu/map/magyarország_1910-felekezeti) (September 14, 2020).

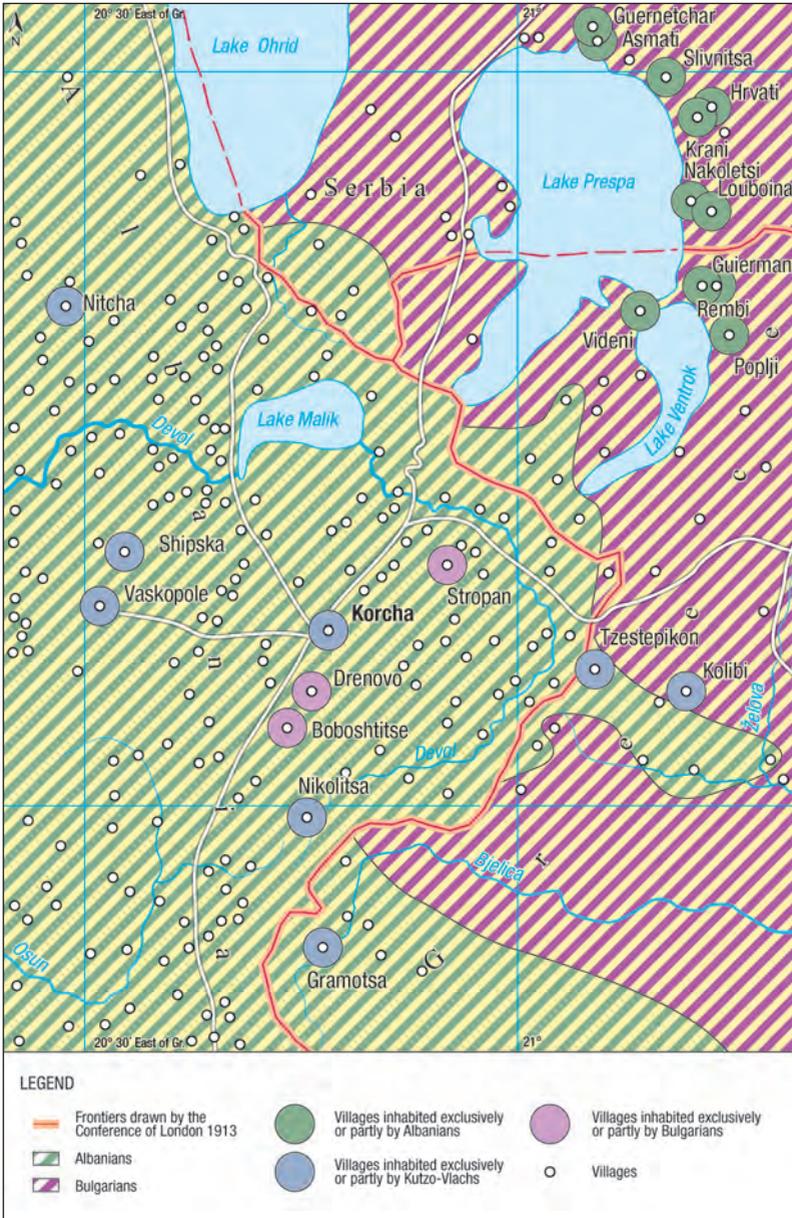
single nation. *Gopčević* indicated Serbian dominance with yellow (App. 12). Even after the turn of the century the Bulgarian *Jordan Ivanov* used green to indicate Bulgarians, the Greek *Phocas-Cosmetatos* applied yellow for Greeks, also using green for Bulgarians. *Cvijić* (App. 16) and *Georges Devas* (1918, App. 40) used dark colours for both Serbians and Bulgarians (i.e. transition colours between blue and green in 1918). The population census of Bosnia in 1910 still indicated all three major ethnic constituents with clearly discernible colours (App. 60), while also using cross-hatching with different line-width to illustrate the ethnic proportions of minorities and of mixed areas.<sup>12</sup> The use of illustrative colours to exaggerate the predominance of a nation appeared in Hungarian cartography on the so-called ‘carte rouge’ of *Pál Teleki* (the colouring itself was proposed by the Albanologist-adventurer-geologist *Ferenc Nopcsa*),<sup>13</sup> and this technique was also applied by the Romanians early in 1919 (*Atanasiu*, App. 68) and by *Cvijić* in 1919 (App. 16c),<sup>14</sup> as well as in the Hungarian-Romanian negotiations on Transylvania in 1940. However, we can trace back the “career” of red to *Czoernig* (1855), who indicated Germans in Vojvodina with this colour (App. 17). The German cartographers in Vol 1. of *Handwörterbuch des Ausland- und Grenzdeutschtums*, published in 1933, also used this approach, indicating Germans in red, and combining patches and pie charts. Some maps focusing on only one ethnic element (like *Ivanov* in 1913, App. 75, or *Bradaška* in 1869, App. 33) also made use of this technique: patches illustrated the emphasized nation, while other nationalities remained blank.

The available statistical data (see criticism on their reliability later) – as these were referring to territorial units – made it possible to create pie chart maps. Compared to patch maps, which were unable to illustrate population numbers and density, thus tending to suppress minorities, pie chart maps illustrate the heterogeneity and diversity better. Our question was whether

- 12 Die Ergebnisse der Volkszählung in Bosnien und der Hercegovina vom 10. Oktober 1910. Sarajevo: Landesregierung für Bosnien u. d. Hercegovina, 1912. LXXVIII, 622.
- 13 This patch map illustrates nations in proportion to their numbers, not only their territorial extent.
- 14 *Cvijić*: Carte ethnographique des régions septentrionales Yugoslaves. See Segevevy: Szerb törekvések és Jovan Cvijić etnikai térképei, in: pangea.blog.hu, [https://pangea.blog.hu/2019/08/13/szerb\\_etnikai\\_terkepek\\_jovan\\_cviji](https://pangea.blog.hu/2019/08/13/szerb_etnikai_terkepek_jovan_cviji) (September 14, 2020).

(a) Visualization techniques

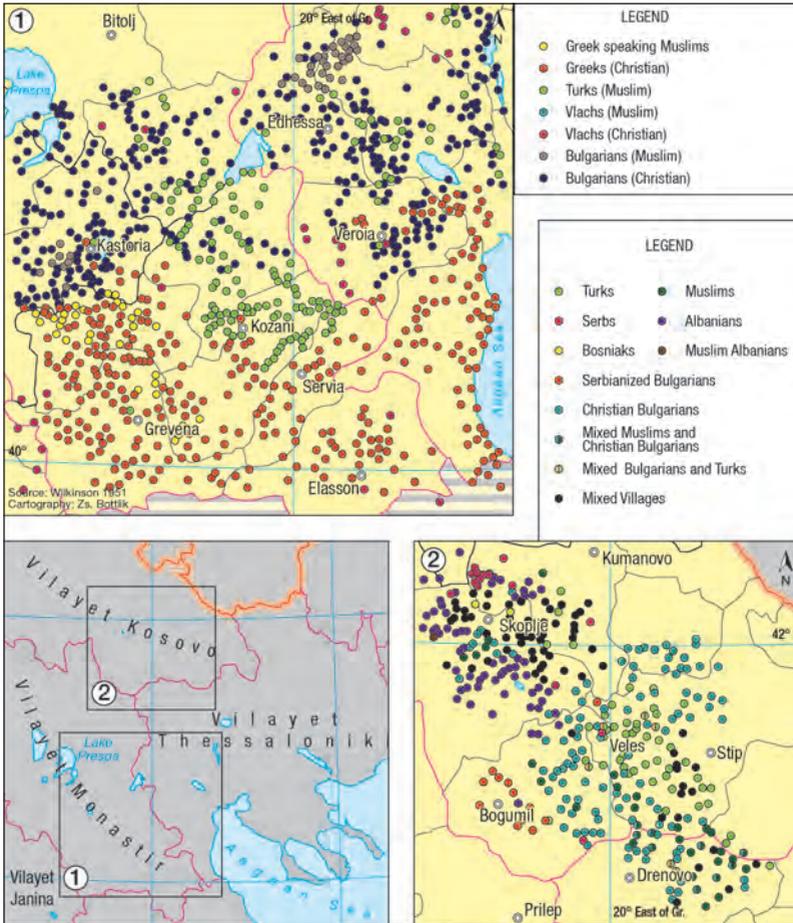
Map 9. The ethnic map of Chekrezi, on the southern border of Albania, in 1913



Source: Chekrezi, C.: Albania. Past and Present. New York 1919.

Map 10 (bottom). Schultze-Jena's map from the last years of Ottoman rule, published in 1927

Map 11 (top). Hasluck's map from 1930, showing ethnic diversity in Macedonia in 1923



Source: Wilkinson, Henry, R.: Maps and Politics. A Review of the Ethnographic Cartography of Macedonia. Liverpool 1951, 251 and 253.

pie chart maps suggested a different picture of the ethnic pattern of the Balkans compared to patch maps (or not), and why this technique remains un-

derrepresented among published maps in that time. It is evident that experts used them, as we have found numerous settlement-level pie chart maps among the *Nachlass* (legacy) of Austrian consuls and in the Politisches Archiv (Map 52), but they were generalized as patch maps for broader publicity, so it was usually the patch maps that really influenced public thinking.

A comparison of the original patch maps of *Ravenstein*, *Kiepert*, *Sax* etc. with our recently made pie chart maps using the same data first required the identification of data sets which these original patch maps were based on. As we could rely on the Ottoman tax-conscription of 1873 in Macedonia, the conscription of the Greek Patriarchate and the Ottoman census of the 1880s, it was only the source for the first-generation patch maps (Boué, Lejean, Irby, etc.) that was in doubt. Therefore, these were compared to the map illustrating the first Ottoman census of 1831.<sup>15</sup> However, this conscription was incomplete – see methodological problems later. The second-generation patch maps from the 1870s used the original or distorted and manipulated data of the mentioned census years (supplemented by the data of the Ottoman yearly registers, the *salname*), plus the protest data of the Patriarchate and the *Sylogos* from 1878, while the third-generation patch maps used either the official Ottoman census of 1905–6, or the Macedonian conscription prior to this (the so-called Hilmi Pasha statistics and some *salname*), or the settlement-level maps from 1899–1901, which were based on the Exarchate’s eparchial or school data.<sup>16</sup> These were based on different methods of quantification: total population, number of households, male taxpayers, and pupils.

Beyond comparing the original patch maps with their later incarnations, patch maps of the same nations were also compared to each other as well as to their lineage (discussed in Chapter 2).<sup>17</sup>

- 15 The next Ottoman census of 1844 is largely unknown for researchers; therefore, its impact on early mappers also remains in shade.
- 16 Western sources did not make use of the repeated conscriptions of the Exarchate in 1910, which was utilized by Bulgarians and Ottoman politicians during the religious reforms. Neither of the maps in question used the last Ottoman census in 1914 (see the problem of this census later).
- 17 Patch maps from a different era but using the same methodological approach were also compared in order to trace ethnic changes or possible manipulations.

As we pointed out, concepts of the ethnic pattern of the Balkan Peninsula started to diverge after the 1870s, despite the fact that statistics became more and more accurate and accessible by this time; and that settlement-level ethnic data on Ottoman Macedonia, for example, was published also in French, not only in Ottoman language. Not only patch maps, but also pie chart maps confirm this paradoxical situation. The explanation of this – a small number of data sets, but many maps – might be that ethnic mapping became politically influenced by this time, or that visualization methods and approaches to the ethnic question became more sophisticated.

Some examples of comparing the original patch maps with their *kaza*-level pie chart map version shed light on interesting phenomena, confirming that the reconstruction was not useless. Comparing Gopčević's *kaza*-level pie chart map with his original patch map (Map 28 vs. App. 12), the latter cannot be considered so obviously homogeneous as it seems to be. Furthermore, if we compare his data with that of Nikolaides (Map 30), for example, it becomes evident (besides the different ethnic patterns due to the different categorization methods), that he multiplied original *nüfus* numbers by 2.5 instead of 2. From a methodological point of view it draws our attention to an interesting and debated point – how to calculate real population from the number of tax-payers. Probably this is one of the numerous reasons why patch maps prevailed: this problem could be bypassed by using the territorial patterns, while pie chart maps would require proper numbers. Another reason is that statistics transformed into maps were not always homogeneous in terms of origin and the problems of their visualization could be eliminated that way.

The map of Nikolaides (Map 30 vs. App. 3), originally published in the form of a patch map in 1899) indicates all Patriarchists as Greeks in the South (as a further comparison with other maps proves), while he used the term 'Patriarchist' as a separate category in north Macedonia, as it was evident that the Slavic speakers living there could not be considered as Greeks. Thus, it is not surprising that the southern part of the region shows a relative Greek majority. All Muslims (Pomaks, Albanians) were grouped together under the category of "Turks" (and not Muslims, which clearly indicates the tendentious shift in terminology from religious to ethnic categories). Comparing his map to those created from the data of Känčov or Ivanov, it is evident that around half of the Patriarchists in South Macedonia were described as Bulgarians by the latter two authors. A comparison of the pie chart maps created based on the data of Nikolaides (1899) and Ivanov (1912, Map 31,

cf. App. 74) also reveals the gradual penetration of the influence of the Exarchate from the East into western Macedonia during those 10 years.<sup>18</sup> The mapping of the data provided by *R. von Mach* (1906, Map 33) regarding the ethnic distribution of Christians also confirms this phenomenon. Most of the followers of the Patriarchate were described as Bulgarian, according to this author, while Greeks were only abundant in the southernmost areas around Saloniki, Seres, Koritsa, etc.<sup>19</sup> It is also worth comparing Mach's map with our pie chart maps based on the data of the pro-Greek Syllagos and the Patriarchate (Map 37–38) from a different decade.

We have already mentioned that there were great differences comparing first generation patch maps with those created by us using the Ottoman census values from 1831. But comparing these results to the pie chart map based on the next Ottoman census in the 1870s, still before the Great Eastern Crisis (Map 14 vs. Map 34), one may come to the conclusion that the ethnic proportions are very similar, despite the elapsed 40 years and the great differences in numbers. (For example, Gümülcina is indicated by a larger circle than Hasköy in 1831, while in the 1870s the situation is just the opposite. This could be due to territorial changes or owing to the problems of the first Ottoman conscription, which will be discussed later in details.) No matter how unreliable the 1831 conscription was, it seems that there was some consistency in Ottoman datasets.

As Map 34 contains data only on Bulgaria and Thrace, in order to check the relevance of our results we compared the situation in Macedonia too (Map 14b, Map 15 and Map 17). Map 17, modified after the original Ottoman source (indicated on Map 15), reflects the British standpoint in the 1870s, so its relation to the picture obtained from the first Ottoman census is very important, as this time the relevance of the old Ottoman data is tested in an external reference system.

- 18 From another perspective, our pie chart map based on the data provided by Ivanov indicates a huge proportion of Albanians in Northwest-Macedonia, which was not so evident even on the earlier Bulgarian patch maps. The region of Skopje, Prilep and Monastir was characterized by greater population numbers in Ivanov's map from 1912 (compared to the Greek one in 1899), other peripheries (Koritsa, Katerini) showed a slight population decline, if data are reliable.
- 19 As Ottoman sources still made no distinction between patriarchist and exarchist Bulgarians. In doing so, Mach had to rely on Bulgarian religious statistics (which questions the impartiality of his data).

Comparing the two Ottomans sources (1831 and 1870s), the ethnic proportions also remained quite stable in Macedonia (Map 14b and Map 15). There were small modifications in the region: Orthodox became more predominant in Vodena and Florina, as well as in Strumica and Petrich in Map 15, but in most of the cases there were no great changes (there was no shift in proportions). The English map showed the same percentage values in Vodena, Petrich and Strumitsa as the 1831 census map, and differed from it (and from the map based on the Extrait) in Nevrokop and Avrethisar, in both cases indicating proportionally more Muslims than the map of the 1831 census and the map based on the Extrait did. But in the western parts of Macedonia the Muslim-Christian proportions were almost the same on Map 14b and Map 17. (In other words, Map 15 based on the Extrait, indicates more Christians in the west compared to Map 14b and uses the same proportions in the east as the 1831 census map does.) To sum it up, despite the remarkable differences between Maps 15 and 17<sup>20</sup> referring to the same era and area, these differences were not so significant if these two maps from the 1870s are compared to the situation 40 years before.<sup>21</sup> So, the proportions given on the pie chart map illustrating the religious distribution of the population in 1831 seem to be realistic (or at least not in contradiction with the later maps).<sup>22</sup> This also means that first generation Western patch maps fail

- 20 From the above mentioned, it is evident that British datasets indicated a smaller proportion of Christians compared to Map 15 based on the Extrait du Courrier d'Orient.
- 21 In Ahichelebi kaza, for example, 6,080 adult Muslim males and 4,107 Christians were recorded in 1831; in 1877, it was 6,040 and 4,500, respectively. Data cited by Brunnbauer: *Gebirgsgesellschaften auf dem Balkan*, 162. In Sultanjeri, 6,250 Muslim male adults were registered and hardly any Christians, in 1831 as in 1877. More: Under the Balkans. In Nevrokop kaza, 8,539 Muslims and 8,620 Orthodox Christians lived alongside the 740 Roma adult males in 1831 (Cf. Map 15). The whole area of Gümülcina-Komotini included 30,500 Muslim male adults, 5,340 Christians and 1,700 Roma.  
We may add further that, based on the patch map of Sax, and the subsequent Austrian patch map from c. 1900, found at HHStA, ethnic patterns regarding Muslims in Macedonia seemed to be unchanged between 1881 and 1900 in general. But as patch maps cannot indicate numbers, the changes in ethnic proportions and numbers cannot be traced.
- 22 In fact the census data of 1831 did not exaggerate the proportion of Muslims at all; thus, the ignorance shown by Western maps towards these data is unexplainable from a scientific point of view (unless these were not accessible).

to meet scientific criteria in their visualisation, thus – regardless of the intentions of their authors –, they are not scientific products.

It is also possible to compare the views of different nations in the same era. Pie chart maps of Macedonia and Thrace illustrate well the different approach of British, French and Greek diplomats (Maps 15, 17, 19, 37, 38, 49, 47). These maps are all from the era of the Great Eastern Crisis, referring to a very short time interval (1877–81). With two exceptions, the maps (and the data behind them) illustrate the ethnic distribution prior to the culmination of the conflict and the great migration wave of Muslims. Despite the relatively stable demographic situation, the maps still show remarkable diversity. The pie chart map, created from the data in *Etnographie des vilayets d'Adrianople, de Monastir et de Salonique. Constantinople, 1878 (Extrait de Courier d'Orient)*, shows a Bulgarian majority in Macedonia (Map 15), while the British version, which distinguishes between patriarchist and exarchist Bulgarians, shows a much more diverse picture (Map 17): in South Macedonia the Greeks are dominant, while Muslims are abundant almost everywhere. On these two maps, the districts of Kastoria and Dzhumaja-Kajalar are completely different in terms of both their ethnic composition and population numbers (both are based on the level of the male population). In Veles, Nevrokop and Strumica, the *Extrait* assigns a lower level to Muslims, in terms of both numbers and proportion. Not even the proportion of Jews in Salonika match on the two maps. While according to census data the ethnic proportions remained quite stable between 1831 and 1877, the pie chart map created from the data of Italian consul Hondros from 1881 indicates that there was a great decrease in the numbers of Muslims in Zikhna (3,062 households vs. 4,500 total inhabitants), Nevrokop (19,700 households vs. 19,500 total inhabitants) and Razlog (4,563 households vs. 3,500 total inhabitants)<sup>23</sup> in this decade (compare Map 15 and Map 47), or else he simply confused household-level and *nüfus* data.<sup>24</sup> On the other hand, it is also true

23 Contrary to Hondros, McCarthy calculates with increase. McCarthy: Population History, 114.

24 In other districts, one can arrive at the data cited by Hondros simply by multiplying the British data by two (the Sanjak of Seres has 276,000 inhabitants according to Hondros, while the other two data series on Maps 15 and 17 mention 142,000–156,000 males), but in the kazas mentioned above this method does not work, implying that many people are “missing” (either because of emigration or because of manipulation with data).

that the proportion of Muslims vs. Christians seems to have stabilized again after the Great Eastern Crisis, as the maps of Hondros and of the British Fitzmaurice indicate (Maps 47 and 49). It is also true that the two British maps – the detailed map with ethnic distribution, and the denominational map – are nearly the same in terms of religious percentage values (see Maps 17 and 49); this also means that originally an ethnoreligious classification served as the basis of the ethnic map.<sup>25</sup> The two maps in fact highlight how the “translation” of Ottoman terms to Western categories took place.

The two Greek maps on Thrace (Maps 37–38) are completely different in approach from those of their contemporaries. The data obtained from the Patriarchate focuses on the numbers of Greeks versus Bulgarians, and therefore the number of Muslims is often neglected (given only at *sanjak* level). There is a slight difference between the two maps – one of them also provides data on Grecophile Bulgarians (the patriarchist Slavic-speaking population). Although this decreases the level of the Greek population compared to the first map, the Slavic-speaking population still remains underestimated compared to the map based on the “Extrait” (Map 15), or to the British map from the same era (see Map 17). It is also remarkable that, without the Grecophile Bulgarians constituting 12%–27% of the population, the Greeks would lose their relative majority over Muslims in the Seres, Saloniki and Drama *sanjaks* (Table 11–12). Surprisingly, Grecophile Bulgarian majority is indicated (admitted) in Vodena and Yenidje districts in South Macedonia in these data series of the Patriarchate (Map 38), similarly to Map 15 (based on the Extrait), but contrary to the British version, Map 17). This was later denied until the 1890s on most of the patch maps. (These datasets of the Patriarchate were used on patch maps of Gennadios and Stanford as already discussed). Just to make the situation more complicated: not only are maps contradictory, but there are serious problems with the numbers and ethnic categories too, especially if data prior to and after the Great Eastern Crisis are compared. A good example of the differences in synchronous estimates is given by Duke Cherkassky, who puts the number of Greeks at about 124,000 thousand males in 1878 (the pro-Bulgarian “Extrait” gives 100,000 males), while the 1881 Turkish census counted only 23,000 Greek males. The Greeks, meanwhile, accounted for more than 300,000–400,000 people (*Bernardakis, Patriarchate etc.*,

25 The “Extrait” (Map 15) used the existing Ottoman categories (from 1870 on Bulgarians were indicated separately from the Greeks). Map 17 differed from this.

Table 9. Five estimates of the population of Macedonia

	Greek estimation in 1877 (prs)	Ottoman census in the 1880s (only males)	Extrait, 1873 (only males)		Romanian, 1905	Chalkiopoulos, 1913
In thousands						
Muslims	349 (25%)	185 (25%)	170 plus 2 Pomaks* (20%)	Muslim	1,030	618
Greeks	438 (33%)	23	100 (10%)	Greeks	193	661
Bulgars	337 (25%)	500 (66%)	590+22 Pomaks (61%)	Orthodox Bulgarians	512	313
Vlachs	70 (5%)	17 (2%)	20 (2%)	Vlachs	350	8.5
Jews		14	50 (5%)	Jews	65	88
Albanians			3	Christian Albanians	25	
Others	35	4	13	Serbs	21	4
Total	1329	745	970	Total	2,200	1,700

\* Regions between Nevrokop and Gümülcina (Daridere, Sari Şaban, Kavala, etc.) are not indicated, thus the number of Muslims is underestimated.  
See Map 20 before and 21 after the Great Eastern Crisis.

Table 9, Table 37). Less than three decades later, *R. von Mach* counted only 90,000 Greeks in 1906 in the three Macedonian *vilayets* (without Bulgaria and Thrace), while Ivanov puts their number between 230,000–300,000.

On the other hand, at least 150,000–200,000 Muslims are missing from the Macedonian data in 1881, if we compare it with the data of Duke Cherkassky from 1877 (Table 37), or if the Extrait and the census in the 1880s are compared. So one may assume that this decreased accounting of the population can be explained by subtracting those Muslims who fled during the Great Eastern Crisis. But upon further analysis of Table 9, we may see that the number of Muslims in the 1880s is very similar to that in the Greek statistics from 1877. Furthermore, McCarthy states that between 1875–85

Table 10. The Proportion of Muslims from total populace in 1876 and in the 1900s (% and 1,000 persons)

	Muslim, 1876	1876, %	Total in 1876	Muslim, 1882**	Muslim, 1911	1911, %*	Total in 1911	Without correction
Edirne	434	45	955	539	760	53	1,427	1,200
Selanik	367	39	941	302	605	45	1,348	1,145
Yanya	171	38	450	460	245	44	561	475
Manastir	143	26	554	163	456	43	1,065	900
Iskodra	151	62	243	211	218	62	349	300
Kosova	360	47	766	637	959	60	1,603	1,300
Total	1,626	42	3,909	2,312	3,242***	51	6,352	5,300

McCarthy: Population History, 145.

\* Data for 1911 are calculated by McCarthy using sources from different time horizon (in 1910 there was no population census). He calculated with a 15–20% population growth (using similar rates for each ethnic group), which may distort numbers, but even in that case the percentage values are realistic.

\*\* *Vilayet* borders of 1911.

\*\*\* Calculating backwards to 1900, this was altogether 2.6 million Muslims.

more than 600,000 Muslims were displaced (with)in the Balkans, and the Muslim population of the six remaining European *vilayets* in fact increased. In other words, resettling Muslim migrants contributed to the stagnation or even the increase of the proportion of Muslims in the remainder of European Turkey at the turn of the 20th century (Table 10) – a phenomenon that neither politicians nor cartographers dared believe.

These evident contradictions in numbers could also create confusion in mapping. Ethnic or demographic researches are often negligent in the respect that they fail to examine these and usually work with one pre-selected dataset/map without comparing it to another. This approach only allows flawed, biased conclusions, which are worse than not making any. The contradictions in ethnographic maps highlight that the problems of data reliability, data collection and classification should be discussed in detail too.

## (a) Visualization techniques

*Table 11. Greek kaza- and sanjak-level ethnic data on the population of Macedonia and Thrace I (rounded values)*

<i>Sanjaks</i>	Greek	Bulgarian	Muslim	Others	Total	Greek %	Bulgarian %	Muslim %	Others %
<b>Rodosto</b>	117,600	-	19,000	32,000	168,600	69.8	0	11.3	19
<b>Gallipoli</b>	98,900	-	35,000	10,000	143,900	68.7	0	24.3	6.9
<b>Adrianople</b>	171,000	78,320	125,000	35,000	409,320	41.8	19.1	30.5	8.6
<b>Sliven</b>	37,100	54,200	54,300	30,000	175,600	21.1	30.9	30.9	17.1
<b>Plovdiv</b>	32,000	180,000	120,000	38,000	370,000	8.6	48.6	32.4	10.3
<b>Drama</b>	42,000	1,000	35,000	30,000	108,000	38.9	0.9	32.4	27.8
<b>Saloniki</b>	210,500	59,500	140,000	70,000	480,000	43.9	12.4	29.2	14.6
<b>Seres</b>	175,000	20,000	84,000	15,000	294,000	59.5	6.8	28.6	5.1
<b>Bitola</b>	278,000	60,000	90,000	20,000	448,000	62.1	13.4	20.1	4.5

Turkey, No. 31. Correspondence respecting the Objections raised by Populations inhabiting Turkish Provinces against the territorial changes proposed in the Preliminary Treaty signed at San Stefano. Presented to both Houses of Parliament by Command of Her Majesty. London 1878, 16–38.

*Table 12. Greek kaza- and sanjak-level ethnic data on the population of Macedonia and Thrace II*

<i>Sanjaks</i>	Greek	Grecophile Bulgarian	Bulgarian	Muslim	Others	Greek, %	Grecophile Bulgarian %	Bulgarian %	Muslim, %	Others, %
<b>Rodosto</b>	108,100	9,500	-	19,000	32,000	64.12	5.63	0.00	11.27	18.98
<b>Gallipoli</b>	95,000	3,900	-	35,000	10,000	66.02	2.71	0.00	24.32	6.95
<b>Adrianople</b>	150,000	21,000	78,320	125,000	35,000	36.65	5.13	19.13	30.54	8.55
<b>Sliven</b>	30,100	7,000	54,200	54,300	30,000	17.14	3.99	30.87	30.92	17.08

<i>Sanjaks</i>	Greek	Grecophile Bulgarian	Bulgarian	Muslim	Others	Greek, %	Grecophile Bulgarian%	Bulgarian%	Muslim, %	Others, %
<b>Plovdiv</b>	32,000	-	180,000	120,000	38,000	8.65	0.00	48.65	32.43	10.27
<b>Drama</b>	28,500	13,400	1,000	35,000	30,000	26.41	12.42	0.93	32.44	27.80
<b>Saloniki</b>	136,500	74,000	59,500	140,000	70,000	28.44	15.42	12.40	29.17	14.58
<b>Seres</b>	95,000	80,000	20,000	84,000	15,000	32.31	27.21	6.80	28.57	5.10
<b>Bitola</b>	278,000		60,000	90,000	20,000	62.05	0.00	13.39	20.09	4.46

Turkey, No. 31. Correspondence respecting the Objections (see Table 11 above).

## (b) Criticism of data reliability and its interpretations

We have already touched the question of data reliability on examples, when we compared different datasets (Verković, Gopčević and the Extrait – see Table 2–3, Figure 7) to illustrate the obstacles when creating ethnic maps. In this part we try to give a systematic approach, a thorough outlook to the different origins of non-matching data, including the role of changing administrative system and the methodology and execution of the censuses. As said, when mapping data the contradictions and problems can stem both from low data reliability and from technical obstacles (apart from the technique of visualization already discussed). The former allowed the distortion or the intentional manipulation of data at a number of stages:

- The compilation of a census sheet (if the source was based on official conscription) always limited the number of ‘available’ categories.
- In these questionnaires, linguistic and religious terms and other dimensions of identity were often blurred.
- The methods of enumeration changed over time, constantly offering new categories, and rendering temporal comparisons difficult.
- The applied ethnic terms and their interpretation also varied in the conscriptions of different Balkan countries.
- In the Balkans, the reliability of conscription can be challenged: not everybody was enumerated, and the basic units of conscription would

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also change (ranging from households through taxpayers, males, towards the population as a whole).

- Beyond self-identification, governmental pressure or coercion from various groups and institutions (churches, guerrilla groups) was abundant, influencing the result.
- Not only the method of conscription (pre-defined categories, field-work, etc.) but also the raw data collected would often be manipulated before publication (as we will prove later).
- There were numerous data sources in addition to the official Ottoman ones, with different methods and results, but with the same low level of reliability.
- Finally, the process of mapping the data (either unintentionally distorted or intentionally manipulated) implied the possibilities of distortions.

Thus, temporal and spatial comparisons were rendered difficult because of changing categories and classification. Beyond these problems, there were even more obstacles. Technical problems, like changing administrative borders or names of territorial units, rendered comparison difficult. The Ottoman territorial administrative system was reformed in 1864, then again after 1878,<sup>26</sup> partly because of modernization, partly because of the changing foreign political circumstances, and partly in order to weaken internal political opponents. The methods of Ottoman censuses were also in constant change from 1831 to 1914. The early Ottoman censuses compiled local data of different origin (and reliability), lacking a unified method, without really counting the population as is usual in modern censuses.<sup>27</sup> This means that – though it was hard to draw even a static picture – the illustration of dynamic features (like population growth or changing proportions) requires huge efforts and a constant recalculation of data. Here we outline only some of these changes.

- 26 On the delimitation of kaza boundaries, see the work of Kornrumpf: *Territorialverwaltung*. Prior to the reforms, see also the map of Teplov (App. 79).
- 27 Owen: *The Middle East in the World Economy*, Introduction; Şaşmaz: *The Ottoman Censuses and the Registration Systems*.

*Table 13. The consequences of administrative reforms on territorial divisions (on the example of Danube vilayet)*

<b>Sanjak 1863</b>	<b>kaza and nahiye</b>	<b>Sanjak 1873</b>	<b>kaza and nahiye</b>
Vidin	Vidin, Lovech, Berkovitsa	Ruşçuk	Ruschuk, Shumla, Silistra, Razgrad, Niğbolu, Ziştova, Pleven, Djouma, Tutrakan
Niš	Niš, Kjustendil, Samokov, Sofia	Vidin	Vidin, Berkovitsa, Lom, Rahova, Adliye, Vratsa, Belogradchik
Silistra	Silistra, Tulcea, Razgrad, Shumla, Varna, Tirnova	Varna	Varna, Provadiya, Balchik, H. Pazardjik, Mangalia
		Tirnova	Tirново, Rahovitsa n., Bebrovo n., Elena n., Dryanovo n., Tryavna n., Lovech, Osman Pazar, Kazgan, n., Selvi, Gabrovo
		Tulça	Tulcea, Sünne, Babadağ, Machin, Kös-tendje, Hirşova, Mecidiye, Mahmudiye n., Isakça n., Kilia n.
		Sofia	Sofia, Kjustendil, Samokov, Dupnitsa, Radomir, Zlatitsa, Orhaniye, Djouma

Based on Koyuncu, Tuna vilâyeti'nde nüfus ve demografi; and Kornumpf, Die Territorialverwaltung im östlichen Teil der europäischen Türkei.

Census aims and census methods both determined the execution of these conscriptions and the applicability of censuses for ethnic mapping. The first Ottoman censuses were not carried out primarily and exclusively for ethnic purposes. The census of 1831 focused on land registry, the establishment of a new taxation system, and the implementation of a new military system in the new political order (after the showdown with the janissaries). For certain reasons, Muslims and Christians were treated separately. Though this initially marked a dividing line within the society, this did not mean the prevalence of an ethnic approach at that time, but rather a legal typifying. This implicitly also meant that the methods were not unified, and thus did not correspond with the criteria of a real census (in Western terms).<sup>28</sup>

28 Because of military service, Muslims were divided into age groups. However, the non-Muslim males were not subject to military service but instead paid the

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The censuses prior to 1881 gave only the size of the male population. Classifications based on household numbers and even ‘village-level’ classifications also prevailed in parallel (the conscription of the Patriarchate or the Exarchate used different units of measurement compared to the official census). As the cartographers also made use of these non-Ottoman sources, one map might contain data sets of different origin and methods, not to mention the different political concepts behind them.

As there were no set rules on how to convert the taxable population (males over 14 years of age) to total population numbers, this also left space for manipulation. Some used 2.5 as the multiplier, while some used 3.<sup>29</sup> The situation was further complicated by supposing different family sizes and reproduction rates for different nations and religions.<sup>30</sup> These arbitrary modifications (usually in favour of some or other ethnic groups) were generally accepted without any thorough statistical analysis of the phenomena. Therefore, different authors using the same raw data would have different results, in both an absolute and a relative sense, even if they used only two categories, namely Muslims and non-Muslims. Difficulties just increased further as the number of categories grew.

head-tax *cizye*. They were, therefore, divided into three categories according to wealth: highest, middle and lowest (*evşat, ala, edna*). The census was not executed in Egypt, Arabia, Albania, Bosnia and South-East Anatolia. Şaşmaz: The Ottoman Censuses and the Registration Systems, 290–1.

- 29 Recent demographic calculations gave the following results: if children under 14 are missing from population conscriptions (where only ‘adult’ males are indicated), this means that at least 20–25% should be added to the raw male population number (McCarthy found a child ratio of 40–45% in Anatolian Ottoman documents). McCarthy: Population History, 112. Todorova’s data also refer to the same in Ottoman Bulgaria. Todorova: Situating the family, 445. This number then should be doubled (to count women too). In other words, the male number should be multiplied by 2.5 to get a rough total population estimate in the case of an age pyramid with a broad bottom.
- 30 According to Todorova, using a sample of (only) 2,500 persons, the average Bulgarian and Muslim household size in towns was very similar, 4.4 and 4.7 persons respectively, while the average family size in Muslim villages reached 4.9. Todorova: Situating the family, 443–59. On the other hand, the number of children was a bit larger among Bulgarians, while elderly people were overrepresented among Muslims (compare her Figure 1 and Table 5). So, the average household size varied between the regions, thus extending any of the multipliers to the whole of the Ottoman Balkans is considered a mistake.

Another problem was that scholars did not agree whether Ottoman censuses under- or overestimated Muslims compared to non-Muslims. Shaw argues<sup>31</sup> that as early as in 1831 the state intention was to obtain a reliable picture both for Muslims – because of the planned compulsory military service after the destructions of the Janissary Corps in 1826 – and Christians – because of taxation purposes; as it was the basic interest of the state and this was the main reason for the population census itself.<sup>32</sup> However, the census was not carried out by state bureaucrats – because it was also under reorganization – but by religious authorities, regardless of their aptitude for the task. Christian authorities encouraged Christians to remain “invisible”, while Muslims also wanted to avoid compulsory military service. The result was that both the number of Christians and Muslims conscripted was significantly smaller than one would expect,<sup>33</sup> but one cannot decide which is more underestimated (or relatively overestimated to the other denomination). Altogether 3.75 million males were recorded, but Istanbul was not counted (it was exempted from military service and some taxes too at that time). Population changes were recorded from the 1830s and were summarized in reports in 1844 and 1857, but these were neither official censuses nor were they evaluated.<sup>34</sup>

During the 1870s the reorganized bureaucracy launched a new project to count the population on a new basis,<sup>35</sup> but these efforts were then hin-

31 Shaw: The Ottoman Census System.

32 Ibidem, 325.

33 We have already mentioned this problem earlier when comparing our pie chart maps for the two Ottoman censuses of 1831 and 1870s (Map 14 and Map 34).

34 Shaw: The Ottoman Census System, 327. Ubcini has used the figures of the census of 1844 with his own adjustments in *Lettres sur la Turquie*, (Paris, 1853), and Eugène Boré has also had access to the figures of this census in his work entitled by *Almanach de l'Empire Ottoman pour l'année 1849 et 1850* (Constantinople, 1849–50). Şaşmaz: The Ottoman Censuses and the Registration Systems, 291.

35 The administrative reorganization after the 1870s included the ways of data collection. Three types of registers were created: the basic register (*esas defter*), the summary register (*icmal*), and daily event register (*yevmiye-vukuat*). The basic register listed all males, their families and their numbers. It included columns for registering the individual's age and changes in his military and personal status. The summary register listed Christians according to their religious and ethnic affiliation and contained columns for the separate recording of Muslims, Greeks Bulgarians, Armenians, Jews and others. The event register recorded of births, deaths, migrations into and out of district and changes in

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dered by the Great Eastern Crisis, and the census was carried out only partially.<sup>36</sup> Male persons between three and fifteen years were also conscripted (this was a change compared to the old statistics), but those who were younger than three years were still not, and this still meant a 5–10% underestimation of male population.

This interrupted census was continued in the 1880s.<sup>37</sup> From methodological aspects it was the first real census (in Western terms) as the data was provided directly by the person involved and not by village leaders, officials, or family heads as previously done.<sup>38</sup> Special ID-s were issued for the conscripted which functioned as an official document for government and legal procedures (including selling property, for example). This encouraged the population to participate in the census, which therefore should be considered more reliable than the previous ones, but still did not reach the reliability level of Western censuses. Though women were also counted first in the 1880s, their number was reported based on the statement of the family head, and since they did not need ID, their number remained underestimated. (9.3 million males and 8 million females in 1885 and 11.2 million males and 9.7 million females in 1906, which implies a 20% and 13% female deficit respectively, and a 20% population increase, which seems to be realistic, if compared to the growth rate of other countries).<sup>39</sup>

Again under changing regulations (for example, the number of ethnic categories increased), a new empire-wide census was started in 1903 and finished in 1906.<sup>40</sup> And the final survey of 1914 was not based on the enu-

personal status. Şaşmaz: *The Ottoman Censuses and the Registration Systems*, 292; Karpas: *Ottoman population*, 29–30.

36 Midhat Paşa, governor of Tuna province, used the figures of the census of 1866 as bases for educational, economic, and social reforms, and also as arguments to the central government for the allocation of further funds to meet local needs, in particular that of settling the thousands of Muslim refugees. Şaşmaz: *The Ottoman Censuses and the Registration Systems*, 297.

37 And it ended in 1893!

38 Şaşmaz: *The Ottoman Censuses and the Registration Systems*, 301.

39 Shaw: *The Ottoman Census System*, 331.

40 The figures published in *Asr Gazetesi* (January 2, 1905), collected by the General Inspectorship of Three Vilayets, the so-called Hilmi Pasha statistics, were not extracted from the new census, but they were updated figures taken from the population registers of the three provinces: Selanik, Manastır and Üsküb. Şaşmaz: *The Ottoman Censuses and the Registration Systems*.

meration of population, but on the modifications of the 1906 census, using the registers containing yearly changes.

Prior to the turn of the 20th century, it was simply impossible to create ethnic maps (in the Western sense) with good territorial breakdown using official Ottoman sources, as the census of 1881/82 presented the population of *kazas*, *sanjaks* and provinces only by *millet* and not by ethnic groups (many of the categories used in the 1900s did not exist at all that time). Thus, Ottoman data first had to be “translated” by Western scholars.<sup>41</sup> Even *vilayet*-level separate conscriptions (the *salname*, which often also registered yearly births and deaths), which were independent from imperial censuses, used the same method. In practical terms it means that while the Bulgarian Exarchate was detached from the Greek Patriarchate and the new category soon appeared in the census, neither Serbs nor Vlachs formed a separate group in these enumerations.<sup>42</sup> The “Extrait” from 1873/78 thus contains Bulgarians and “Greeks” but not Serbs. The Serbs were acknowledged as *milliyet* only after 1900, so they officially appear first in the census of Macedonia in 1905, then in the imperial census in 1906. Vlachs were also separated from the Greeks after the turn of the century.<sup>43</sup> Thus, in order to trace these Christian sub-groups prior to the turn of the century, other sources had to be involved in investigation. And these were compiled using a different method: the eparchial conscriptions of the Patriarchate/Exarchate (Map 37–38) simply lacked numbers on Muslims. Thus, the parallel use of numerous conscriptions to produce a map corresponding to the Western terminology resulted in increased inconsistency instead of reliability.

41 In the census of 1831, the population was divided into five main groups: Muslims, Reaya, Gypsies, Jews and Armenians. In the nineteenth century the term ‘Reaya’ was officially applied in censuses to Orthodox Christians as a whole (formerly everybody who was not askeri, a member of the ruling class, was considered reayah, like Muslim peasants). In 1881, the non-Muslim population was divided into specific groups (Greeks, Armenians and Bulgarians – still millets, thus religious terms – were counted as separate groups). In 1905, the Macedonian population was classified by religion (Muslim and non-Muslim), and the non-Muslim group was divided into Greeks, Bulgarians, Vlachs and Serbs (published in *Asr Gazetesi*). The population of the imperial census of 1906 was presented according to religious groups. Şaşmaz: Analysis of the Population Table of the Census of Salonica.

42 Dakin: The Greek Struggle, 62.

43 Şaşmaz: Analysis of the Population Table of the Census of Salonica.

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Furthermore, the Ottoman censuses and conscriptions still tended to mix ethnic and religious categories, as Christians were gradually differentiated, but Muslims were not. Muslim Albanians, Circassians and Turks were not distinguished: on the one hand this is methodologically problematic, but on the other hand this may be the strength of the Ottoman censuses, as at least the number of Muslims remained comparable over time. The Balkan states rejected this method, however, claiming that while the Ottomans were splintering Christian groups (the number of Christian categories was growing constantly),<sup>44</sup> this allowed them to maintain the Muslim character of the Empire on paper. The Christians reacted the same way using a different dimension of identity: language; they tended to separate Pomaks (Slavic speaking Muslims) and Muslim Albanians from Muslims. The map of Gopčević from 1889 (Map 28) includes more than ten categories – his map is a good example of splintering categories in order to prove the dominance of the ‘chosen nation’. If we compare the statistics of Duke Cherkassky (1877) to those of Känchov in 1894 (Map 29, Table 37), we find the number of categories (serving as a basis for classification) multiplying.

This way both quarrelling ‘parties’ (anti-Ottoman and pro-Ottoman) managed to achieve a relative majority on paper. This practice became popular, for example, among Bulgarian cartographers and statisticians, while the Greeks tended to adhere to the religious approach. The Romanian estimate in 1905 and the Greek Chalkiopoulos used aggregated categories for Muslims (Table 9), amalgamating Muslim Albanians with Muslim Bulgarians and Turks in order to decrease the number of their ‘main’ rivals, the Bulgarians and Albanians.<sup>45</sup> In fact, it was the category of Muslim Slavs who were able to shift the balance: if they were counted as Muslims, a relative Muslim majority was observable in the Empire; if they were considered Slavs, a Slavic majority was the result. As not only the result, but the approach was different (one a religious categorization, the other linguistic), the results were incomparable and from a certain point of view are equally reasonable (or unreasonable). This is the paradox of Balkan ethnic mapping.

44 The Christian nations also insist on this, so it was not a unilateral Ottoman initiative.

45 The number of Greek or Romanian-speaking Muslims was small, so excluding them was not a substantial ‘loss’ from the Greek perspective, compared to the advantage that the ‘Ottomanization’ of the numerous Bulgarian-speaking Muslims represented.

Owing to their special ethno-religious approach, Ottoman conscriptions considered all Exarchists as Bulgarians, while all Patriarchists were considered Greeks (or Serbs, after the turn of the century), regardless of the language spoken. But these categories did not coincide with the linguistic approach propagated by the Bulgarians. The linguistic approach encouraged Bulgarian statisticians to consider many Patriarchist Slavs as Bulgarian. This happened not only in South Macedonia, where Patriarchist Slavs were often counted as Greeks, but also around Skopje, where Patriarchists were included in the Serbian ethnic group even by Ottoman censuses. The Bulgarian approach was also shared by some members of the Austro-Hungarian diplomatic corps (no matter what political idea was behind this), which also accepted the existence of patriarchist Bulgarians (see Hrupishta, Kastoria-Kostur, Vodena, Yenidje on Maps 18–19). For the results of the different (and changing) approaches of the Ottoman authorities, see Map 18, revealing a mixture of ethnic and religious terms for 1903/1904.

Thus, generally speaking, official Ottoman population censuses were not, prior to the 20th century, considered reliable as they did not meet the Western or Balkan standards, since they were based on religion, regardless of language, nationality, etc. Nonetheless, this type of conscription is at least bound to existing institutions and not to officially unacknowledged communities, and it is mappable without requiring the manipulation of raw data. It was at least a good defensive mechanism: Ottomans could falsify Western maps whenever they wanted, knowing that these are based on unreliable, manipulated data interpretations.

Besides the categories applied in the Ottoman censuses, the numbers cited were also rejected by many. We mentioned that neither do we know whether Christians or Muslims were over- and underestimated in the early censuses, nor how to modify the number of tax-payers to get real numbers. The statements regarding the tendencies of distortions are contradictory. Some (like Kemal Karpat or Douglas Dakin) say that it was the proportion of Christians that was overestimated to Muslims in these early conscriptions, as Christians were more important from the point of view of taxability, while Muslims were often omitted from these documents.<sup>46</sup> Cvijić defies this state-

46 Dakin: *The Greek Struggle*, 62. Dakin agrees with Shaw that the original purpose of early Ottoman conscriptions (1830s) was to estimate the taxable population, and this implies that the new army of the Tanzimat after 1826 was partly paid from the *cizye* of Christians. See also Karpat: *Ottoman population*.

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ment, claiming that “municipalities paid military tax according to the number of the male inhabitants, therefore every Christian prefect does his best to withhold the real number of Christians from Turkish statistics.”<sup>47</sup> It is even possible that both are true at the same time. If we accept both, it means the mutual underestimation of Muslims and Christians, and that these censuses reflected proportions rather than real numbers. Which means pie chart maps are more apt to visualize data than patch maps.<sup>48</sup> Another (disputable) argument why the number of Christians seemed to be ‘more’ underestimated in the early conscriptions states that prior to the 1860s, when the taxation system was changed, Christians tended to live in larger families (*zadruga*),<sup>49</sup> as the basis of taxation was the household in the 18th century and not the adult individual.<sup>50</sup> Nonetheless, this evidently contradicts Karpát’s assumption mentioned above. Furthermore, Dakin states that from the 1860s – after the implementation of compulsory military service – the conscription of Muslims (also) became more reliable, so Muslims became overrepresented in these documents in the second half of the century.<sup>51</sup>

Scholars were (and still are) constantly trying to ‘correct’ the Ottoman census numbers using ‘impartial and scientific’ statistical methods (Table 22). But there is no general remedy or multiplier for this. According to *Mutlu*, in the conscription of 1897 the correction can be as high as 28% of the enumerated population for Kosovo, while in Yanya it is only 9%.<sup>52</sup> This means that each locality has to be handled separately in recent reconstructions, and this does not contradict to the practice in the 19th century, when local *sal-names* were used for the different regions, but this does not promote the investigation of an overall picture. A similar method was applied by McCarthy when he tried to give a reconstruction for the ethnic distribution of popula-

47 Cvijić: Remarks on Ethnography, 36. This behaviour is also confirmed by Shaw.

48 However they are able to illustrate proportions, but the size of the pie charts (referring to total numbers in a territorial entity) does not reflect the reality.

49 In Serbia, 118,000 *zadrugas* existed with 1.7 million members in 1886, by 1903 their number had been halved. An average family was composed of 7 members in the 1870s in Croatia (Turopolje), while it was 14 in 1780. Grandits: Familie und sozialer Wandel, 90. Koyuncu also mentions extreme population number/hane in the Danube vilayet.

50 Demeter: A Balkán és az Oszmán Birodalom, 187.

51 Dakin: The Greek Struggle, 62.

52 Mutlu: Late Ottoman Population, 17. In Edirne vilayet it is 15%. The population of Manastir vilayet was underestimated by 10%.

tion based on Ottoman sources. Lacking data from the same year for all localities, he tried to adjust the numbers given in the sources.<sup>53</sup>

Computers and sophisticated methods did not bring a solution any closer over one hundred years. But one thing is for sure: the Ottomans did not deliberately underestimate non-Muslim subjects in the first half of the 19th century, since they were not driven by nationalistic sentiments, but rather for a *raison d'état*: undercounting Christians would mean sacrificing revenue, which was against the interests of the Empire, argues Şaşmaz, similarly to Karpát. He adds, if the Ottomans intended to use the population results for political purposes they would never allow the non-Muslims to keep holding the post of the General Directorate of the Statistics Department for a long time.<sup>54</sup>

But another observation seems to contradict Mutlu's assumption: according to the Russian consul, Teplov's data in the 1870s, 48,000 Muslims and 90,000 Christian males were living along the coast of Bulgaria, while the official *salname* of 1873 put the former to 55,000, and the latter to only 26,000. This means that data seemed to be more reliable regarding the number of Muslims (see also Table 26).<sup>55</sup>

Nevertheless, regarding the number of Christians one cannot decide which source is more reliable, Teplov's (who used the Exarchate's data from 1877) or the Ottoman. Therefore, we executed two experiments, first to examine the problem whether Christians or Muslims are more underrepresented in official Ottoman datasets, and second to examine whether Ottoman or non-Ottoman datasets are more reliable. For the first experiment we used the 1831 census data, while for the second a comparative analysis on the ethno-demographic characteristics of the Danube (Tuna) *vilayet* was carried out, using four different datasets. The selection of the location was reasoned by the fact that after the conscription in the 1830s, the first modern Ottoman census was carried out in the Danube *vilayet* in 1866.<sup>56</sup>

53 McCarthy: Population history, 132.

54 Şaşmaz: The Ottoman Censuses and the Registration Systems, 303; Karpát: Ottoman population. Dakin denies this, because the Ottomans deliberately grouped all Muslims together in population reports, regardless of language or ethnic ties (Turk, Arab, Albanian, Pomak, Kurd and Laz) while separating Christians by sect (though this happened in accordance with the will of the latter). Dakin: The Greek Struggle, 63.

55 Teplov: Materiali dlja statistikii Bolgarii, Thrakii i Makedonii, 159–60.

56 See Koyuncu's research on the topic: Koyuncu: Tuna vilâyeti'nde nüfus.

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In order to find an answer to the first question, the *kaza*-level data of the census in 1831 were mapped using the pie chart method, and the results were compared to the map based on the data of the 1870s (the *Extrait* and some *salname*). The hypothesis is that if the ethnic proportions are quite similar (there were no significant wars, expulsions, though the administrative division probably changed) it means that the two *millet*s were treated the same in the conscriptions. However, there are evident problems: in some cases only the Muslims were given in territorial breakdowns, suggesting the impossible, that in present day Central-Bulgaria the proportion of Muslims in the urbanized region reached 100%. This contradicts all known data from the 1870s. The number of Christians west of the Ergene river was also indicated with aggregate values, while the Muslims were indicated separately (similarly to the Niğbolu *sanjak*). What is evident in comparing Maps 34 and 14 is that – besides the size of the pie charts (representing the number of conscripted population) being inconsequent – the proportions seem to be more stable in places which were indicated in both maps. In other words and supposing similar migration tendencies and assimilation capacities of the two major denominations, one may conclude that none of the two religions was underrepresented against the other.<sup>57</sup> It seems that both Muslims and Christians tended to avoid the census owing to the mentioned problems.

For the second experiment the article of the Encyclopaedia Britannica (1876), Aubaret's and St. Claire's statistics and an Ottoman one published by Ismail Kemal in the Danube (Dunav) newspaper were used (Table 14). The latter was compared to the detailed statistics of Teplov (1876), and Stavrides, Jocelyn and Cherkassky (all prior to 1877, but these are based on religious and not ethnic categories). The goal was to identify the direction of information flow and the accompanying distortions.

Despite the similarity of total numbers, the four estimations on the Danube *vilayet* are different (the proportion of Bulgarians varied between 50% and 63%, and their number between 1.1 and 1.5 million), and those that indicate total population instead of male population, cannot be calculated directly from the latter, as the multiplying factor is not higher than 2. The territorial extension also differs, rendering these estimations incomparable. There are big differences even in the case of some small communities, which

57 There are only some exceptions like Ihtiman, where the proportions are switched, probably due to a mistake.

Table 14. Four different statistics on the ethnoreligious composition of the Danube Vilayet

Total population of the Danube Vilayet (excluding Niş sanjak) in 1876 estimated by the French counsel Aubaret		Male population of the Danube Vilayet (excluding Niş sanjak) in 1866–1873 according to the editor of the Danube newspaper Ismail Kemal.		Male Population of the Danube Vilayet (including Nis) in 1876 according to the Ottoman officer, Saint Clair		Total population of the Danube Vilayet (including Niş and Sofia sanjaks) according to the 1876 edition of Encyclopaedia Britannica:	
Group	Population	Group	Population	Group	Population	Group	Population
MUSLIMS	1,120,000 (48%)	MUSLIMS	481,798 (42%)	MUSLIMS		Bulgarians	1,500,000 (63%)
Turks	774,000 (33%)	Established Muslims	392,369 (34%)	Turk Muslims	457,018 (36%)	Turks	500,000 (21%)
Circassians	200,000 (8%)	Muslim settlers	64,398 (6%)	Other Muslims	104,639 (8%)	Tatars	100,000 (4%)
Tatars	110,000 (5%)	Muslim 'Gypsies'	25,031 (2%)	'Gypsies'	8,220 (1%)	Circassians	90,000 (4%)
'Gypsies'	35,000 (1%)	CHRISTIANS	646,215 (57%)	NON-MUSLIMS		Albanians	70,000 (3%)
NON-MUSLIMS	1,233,500 (52%)	Bulgarians	592,573 (52%)	Armenian Christians	2,128 (0%)	Vlachs	40,000 (2%)
Bulgarians	1,130,000 (48%)	Greeks	7,655 (1%)	Vlach and Greek Christians	56,647 (4%)	'Gypsies'	25,000 (1%)
'Gypsies'	12,000 (1%)	Armenians	2,128 (0%)	Bulgarian Christians	639,813 (50%)	Russians	10,000 (0%)
Greeks	12,000 (1%)	Catholics	3,556 (0%)	Jews	5,847 (0%)	Armenians	10,000 (0%)
Jews	12,000 (1%)	other Christians	40,303 (4%)			Jews	10,000 (0%)
Armenians	2,500 (0%)	JEWES	5,375 (0%)			Greeks	8,000 (0%)
Vlachs and others	65,000 (3%)	NON-MUSLIM 'Gypsies'	7,663 (1%)			Serbs	5,000 (0%)

Arkadiev, Izmenenya v broya na naselenieto po bălgarskite zemi.

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Table 15. Sanjak-level ethno-religious proportions of Danube Vilayet in 1874–75 according to Ottoman sources

Only males indicated	Bulgar Millet	Islam Millet	Circassian muhacirs	Muslim ‘Gypsies’	Non-Muslim ‘Gypsies’	Vlachs, Catholics, etc.	TOTAL
Ruşçuk sanjak	114,792 (37%)	164,455 (53%)	16,588 (5%)	9,579 (3%)	1,790 (1%)	500	309,797
Vidin sanjak	131,279 (73%)	20,492 (11%)	6,522 (4%)	2,783 (2%)	2,048 (1%)	14,690 (8%)	178,823
Varna sanjak	21,261 (25%)	52,742 (61%)	4,307 (5%)	2,825 (3%)	331 (0%)	0	85,805
Tırnova sanjak	148,713 (60%)	88,445 (36%)	0	6,545 (3%)	1,697 (1%)	0	245,894
Tulça sanjak	10,553 (12%)	53,059 (61%)	2,954 (3%)	139	356 (0%)	15,512 (18%)	87,455
Sofya sanjak	179,202 (84%)	27,001 (13%)	202	2,964 (1%)	1,437 (1%)	0	213,180
Danube Vilayet	605,800 (54%)	406,194 (36%)	30,573 (3%)	24,835 (2%)	7,659 (1%)	30,702 (3%)	1,120,954

Koyuncu: Tuna Vilâyeti’nde nüfus, 717; Salnâme-i Vilâyet-i Tuna, Defa 8, Sene 1292, s. 54a. Tuna Vilâyeti Salnâmesi’nde neşredilen Tahrir-i Cedid sonuçlarına göre Tuna Vilâyeti’nde erkek nüfus (1874).

one might think to be better quantifiable or less disputable, like Circassians – from 90,000 to 200,000 –, or Roma (‘Gypsies’), while the number of Tatars are similar in the different estimations. This highly ruins the credibility of these numbers. Some data suggest (Armenian Christians) that St. Clair and the Danube newspaper used a common source, but reclassified the data differently: the former uses ethnic, the latter social categories. The source might be the Ottoman *Tahrir-i Cedid* from 1874 (Table 15).<sup>58</sup>

All the other Western estimations of Jocelyn, the English *tercüman* Stavrides and Cherkassky (Table 18) correspond with the data of the Ottoman

58 Koyuncu: Tuna vilâyeti’nde nüfus.

data series in general (Table 15 and Table 17). Both the proportions and the numbers are similar. (The Ottoman datasets indicate males, whereas the Western use total population number. The multiplier is around 2, which is realistic from a methodological aspect). Differences may be explained by the application of different multipliers by different authors,<sup>59</sup> or by the selection of different Ottoman sources. For example, it is highly probable that Jocelyn's series (giving the lowest total number) was based on the register from 1873, while the others used the 1875 conscription, which gave higher numbers both for Christians and Muslims (Table 17–18).

So, the mentioned Western authors directly or indirectly relied on the data of Ottoman registers, *salname* with the exception of the statistics of the Encyclopaedia Britannica that cannot be directly derived from these Western, and thus, Ottoman statistics. It uses ethnic categories: the number of Bulgarians mentioned in the encyclopaedia can be derived from Ottoman raw numbers only if we multiply the latter by 2.5, but applying the same multiplier for Muslims would result in more than a million Muslims, while only 750,000 are indicated. In other words, the British dataset was either not based on Ottoman sources, or used a differentiated multiplier unreasonably.

As we saw, western compilations and thus ethnic maps made use of Ottoman sources (unlike the first generation of ethnic maps, as we proved earlier), and not only Christian ones. The question is, are these Ottoman sources, the *salname*, reliable? These usually recorded only the changes compared to the last year, and most of them were not based on the real counting of the population. And though we are lucky to have a data series from consecutive years, this is exactly what proves that not even these data are completely consistent. There is a huge increase in population numbers within ten years (1865–76) as indicated by the *Tahrir-i Cedid* (from 0.8 million males to 1.1 million, or +37%), which is too high to be considered as the result of natural reproduction (Table 17). This could question the reliability of the source, but on the other hand both Muslim and non-Muslim communities showed significant increase in numbers, thus causing the religious proportions to remain more

59 Women were not counted in the 1870s. Thus, the values should have been at least doubled, but since the conscription of the 1870s did not include children under the age of 3, even an extra 5–7% can be added to calculate the total population. Some Western interpretations were not aware of this situation and thought that all males under the age of 15 were omitted, thus prompting them to use a higher multiplier value.

## (b) Criticism of data reliability and its interpretations

or less constant. This means that unexplainable distortions did not occur (the sudden jump in numbers between 1869 and 1873 might be the result of the extension of census on males under the age of 15).

Table 16. The differences between Teplov's two datasets

	Muslims	Non-Muslims	Total	Muslims in %
	In thousands			
English consulates (total population)	1,694	1,976	3,670	46%
Teplov I, 1876/77 (total population)	1,057	2,745	3,802	28%
Teplov II (App. 79, males)	715	1,175	1,890	38%

Data from: Turan: The Turkish Minority in Bulgaria (1878–1908). Including Niş sanjak and Eastern Rumelia too.

Table 17. The male population of Danube Vilayet based on consecutive Ottoman registers (in thousands)

Males in 1000	Muslim	Non-Muslim	Muslim %
<i>1865</i>	<i>329</i>	<i>483</i>	<i>40.17</i>
<i>1868</i>	<i>357</i>	<i>510</i>	<i>41.22</i>
<i>1869</i>	<i>349</i>	<i>523</i>	<i>40.06</i>
<i>1873</i>	<i>409</i>	<i>605</i>	<i>40.34</i>
<b>1874</b>	<b>406</b>	<b>605</b>	<b>40.16</b>
<i>1875</i>	<i>461</i>	<i>659</i>	<i>41.16</i>
<i>1876</i>	<i>437</i>	<i>668</i>	<i>39.55</i>
Niş 1876	39	173	18.40
Niş 1869	29	131	18.21

Koyuncu: Tuna vilâyeti'nde nüfus.

Italic letters refer to data series in the old style, when males under 15 were not counted. Census year is indicated by bold (male population between 3 and 15 years is also conscripted).

Table 18. Some European data series based on Ottoman sources (in thousands)

Sanjak	Jocelyn (M)	Jocelyn (non-M)	Jocelyn (M %)	Stavrides (M)	Stavrides (B+G)	Stavrides (M %)
Ruşçuk	352	251	<b>58</b>	371	233	<b>60</b>
Vidin	70	314	<b>18</b>	60	266+31	<b>17</b>
Varna	89	35	<b>71</b>	120	37+15	69
Tirnova	150	231	<b>39</b>	199	301	<b>40</b>
Tulça	109	84	<b>56</b>	92	22+40	<b>60</b>
Sofia	48	292	<b>14</b>	63	328	<b>16</b>
<b>Total</b>	<b>818</b>	<b>1,207</b>	<b>40</b>	<b>905</b>	<b>1,285</b>	<b>41</b>
Niş	92	221	<b>29</b>	51	137	<b>27</b>
Eastern Rumelia	350	640	<b>35</b>	420	690	<b>37</b>
	<i>1873 (Ottoman)</i>			<i>1874 (Ottoman)</i>		

Sanjak	Cherkassky (M), in 1,000	Cherkassky (B), in 1,000	Cherkassky (Muslims in %)	Teplov (M), in 1,000	Teplov (non-M), in 1,000	Teplov (Muslims in %)	Muslims, 1874/75, in 1,000	Christians, 1874/75, in 1,000	Muslims in %
Ruşçuk	381	233	<b>61</b>	268	290	<b>48</b>	190	119	<b>61</b>
Vidin	60	246+31	<b>18</b>	40	333	<b>11</b>	30	149	<b>17</b>
Varna	120	43+9	<b>70</b>	64	45	<b>59</b>	60	26	<b>70</b>
Tirnova	190	300	<b>38</b>	68	328	<b>17</b>	95	150	<b>39</b>
Tulça	112	26+39	<b>63</b>	103	116	<b>47</b>	56	31	<b>64</b>
Sofia	60	362	<b>14</b>	58	429	<b>12</b>	30	183	<b>14</b>
<b>Total</b>	<b>923</b>	<b>1,310</b>	<b>41</b>	<b>601</b>	<b>1,541</b>	<b>28</b>	<b>461</b>	<b>658</b>	<b>41</b>
Niş	78	270	<b>22</b>	72	360	<b>17</b>			
	1874						only males		

Koyuncu: Tuna vilâyeti'nde nüfus. Jocelyn's data refer to the 1873 or pre-1873 situation.

M = Muslims, B = Bulgarian, G = Greek.

(b) Criticism of data reliability and its interpretations

When speaking about the reliability of Teplov's data (and comparing them to the Ottoman sources) one should be aware of the fact that Teplov provided (at least) two, completely different data series regarding numbers and percentages (Table 16). So the results depend on which one we use for comparison. The one giving higher numbers (indicating total population) did not correspond with the Western data series of Jocelyn, Cherkassky and Stavrides. This also implies that there are also significant differences between the data of Teplov and the 1874 Ottoman source. The Ottoman source gives the number of Muslim males as 400,000–460,000, while St. Clair spoke about 560,000 Muslim males, Teplov calculated only 670,000 Muslim persons, whereas the French Aubaret mentioned more than a million. Among the numerous existing foreign estimations, Teplov gives the lowest number and proportion for the Muslims (approx. 30%, even below other Russian estimations) while at the same time giving the highest number and proportion for non-Muslims (Table 16 and Table 18). Relying on the Exarchate's statistics he calculated with only 1.05 million Bulgarians,<sup>60</sup> which means that their proportion remained under 50%, and this also implied that there were at least one million non-Exarchist Christians in his statistics for the whole of Bulgaria (Table 20). Though this is suspicious at first sight, it does not necessarily mean that his source was unreliable, but simply that Ottoman sources were more frequently used by others than the Exarchate's statistics. This is reasonable given the fact that the Exarchist statistics did not bother with Muslims, and thus a complete picture is more difficult to be obtained through their data.

But how can we decide between the two sources and approaches? The above analyzed dataset of Teplov (I) is not identical with that he prepared for the conference in Constantinople (App. 79, Figure 12). For this Teplov provided another data series (II) – this implicitly means that he considered the latter more suitable for the purpose (whether submitted data were realistic or exaggerated). Not only are the numbers completely different at the *sanjak* level, but App. 79. indicates only male population, while his other dataset using the Exarchate's data on Bulgarian population refers to total numbers. Furthermore, the latter data series contains ethnic categories, whereas the former did not, while it gives a *kaza*-level territorial breakdown.

The question is how the two data series are related to each other: were they based on different sources – if yes, what was that and why was it nec-

60 Without the 280,000 Exarchists in Niš sanjak.

essary, which one is more realistic – or the same source was distorted with different methods (and what was the reason for making two calculations)? Before examining these questions it is also worth analysing further the numbers given in the previously examined data series.

Comparing the number of Muslims in Teplov's pre-war series (I) with the number of Muslims in 1884 in Bulgaria and Eastern Rumelia, one may see that less than 200,000 Muslims are "missing" (Table 19). If Ottoman sources are used, this value reaches 500,000. The question is, who is right? Accepting Teplov's data would not only mean that we deny mass migration and other losses caused by the Great Eastern Crisis, but also that the decrease in the number of Christians (250,000 souls) even exceeded Muslim losses, which is not plausible.<sup>61</sup>

So, Teplov's data series are important from two aspects: these may help assess the relevance of different scenarios on the extent of mass migration (which is still debated); and by giving insight into the Russian method of selection of sources used in decision-making it may help assessing the reliability of the Exarchate's data compared to other (Ottoman) sources.

One may argue that Teplov's data obtained from the Exarchate are still acceptable, despite he did not use it in Constantinople. First, one may say that he used distorted data more favourable for Christians, though one might wonder what data series can be more favourable for Christians, that the data of the Exarchate itself.

Second, regarding the strange situation illustrated in Table 14, one may state that neither post-war data are reliable, but rather tendentious (thus any comparison is worthless); or that in Plovdiv *sanjak* the number of Muslims did not decrease prior to 1885 (the unification with Bulgaria; Table 34 and 54), so, the previously mentioned relatively small decrease in the number of Muslims is not surprising at all.

The third possibility is that Ottoman conscriptions (and all Western interpretations based on these, like Jocelyn's and Stavrides's) did underestimate Christians, so it is not Teplov's data that are wrong. But the latter assumption still does not explain why the Ottomans were able to count Exarchist Bulgarians properly (the data are close to each other both in Ottoman and

61 Though atrocities were committed both by Muslims and Christians, the outcome of the conflicts and the distribution of lands implies that Muslim population losses either due to war or subsequent migration processes should be considered greater than Christian losses.



It is also true that sources do not calculate with a decrease in the number of Muslims in Plovdiv *sanjak*, but the same source for the neighbouring Sliven states that the number of Muslims fell from 44,000 males to 12,000 persons by 1880<sup>63</sup> and the Foreign Office calculates with a decrease of 130,000 Muslims for the whole of Eastern Rumelia.<sup>64</sup> (Thus, for the greater Danube *vilayet* with similar proportion of Muslims, the loss could be proportionately higher, exceeding the approximate number of 200 000 suggested by Teplov's data in Table 19). These calculations challenge the second assumption. In short, neither of the three possibilities can be verified.

So, it would be useful to examine and reconstruct, (1) how the two data series of Teplov relate to each other, because this may have influence on our knowledge of the losses and migration processes during the Great Eastern Crisis; (2) what sources was Teplov's map based on; (3) and why Teplov decided to use the latter and not the Exarchist approach (which was supposed to be the pro-Bulgarian one *ab ovo*) at the conference.

(1) Though the aggregated values in the dataset indicating total population number for Bulgaria in the 1870s are twice as high as in the other dataset (1.8 million males vs. 3.8 million inhabitants in Bulgaria, Niš and Eastern Rumelia), a detailed territorial and ethnoreligious breakdown would indicate that 2 as a multiplier cannot work in general (the first dataset records 602 thousand Muslims, while the other indicates 500,000 Muslim males for Bulgaria, Niš and Eastern Rumelia). Thus, it is evident that the two series were based on two different sources.

(2) In order to examine the relation between Teplov's *kaza*-level data series and the Muslim conscriptions, we carried out a comparative analysis. The territorial division used by Teplov coincides with those applied in the old Ottoman conscriptions prior to the 1870s: he did not make use of the new administrative division (for example, Sünne-Sulina *kaza* appearing in the 1873 *salname* is not indicated by Teplov, while he indicates Ihtiman, etc., Table 13). Thus, Teplov's map is also apt to illustrate the administrative division

statistics put the number of Greeks above 40,000. Neither can they be considered as non-exarchist Slavic speaking population, because in Eastern Rumelia there were 500,000 Bulgarians in 1880 after the liberation and 480,000 according to Teplov prior to it.

63 Gopčević: Bulgarien und Ostrumelien.

64 Foreign Office, 424/75. Drummond Wolff to Salisbury, 26.09.1878.

## (b) Criticism of data reliability and its interpretations

*Table 19. A comparison between Teplov's pre-war numbers (I) and the first post-war conscriptions*

	<b>Muslims</b>	<b>Non-Muslims</b>	<b>Total</b>	<b>Muslims in %</b>
Pre-war data of Teplov I (without Niš)	985,000	2,385,000	3,370,000	30%
Post-war Bulgaria and Eastern Rumelia, 1884	802,597	2,135,000	2,982,949	27%

Data from Turan: The Turkish Minority.

*Table 20. Two – contradictory – data series from Teplov*

<b>Sanjak (Teplov, 1876, persons)</b>	<b>Bulgarians</b>	<b>Non-Bulgarians</b>	<b>Non-Muslims</b>	<b>Muslims</b>
Rusçuk	201,025	354,324	290,626	<b>268,824</b>
Vidin	263,000	131,600	333,317	<b>39,723</b>
Varna	36,000	74,100	45,875	<b>64,621</b>
Tirnova	188,500	112,000	328,390	68,199
Tulça	40,570	188,930	116,203	<b>103,328</b>
Sofia	297,500	189,000	428,949	<b>57,789</b>
Niș	283,000	148,100	360,559	<b>72,188</b>
Islimiye	100,500	186,400	213,066	<b>64,459</b>
Philippopolis	382,500	564,600	628,770	<b>318,052</b>
<b>Total</b>	<b>1,793,695</b>	<b>1,949,054</b>	<b>2,745,755</b>	<b>1,057,183</b>
<b>Total (Danube)</b>	<b>1,309,595</b>	<b>1,198,054</b>	<b>1,903,919</b>	<b>674,672</b>
<b>Total without Niș</b>	<b>1,027,000<sup>65</sup></b>	<b>1,050,000</b>	<b>1,543,000</b>	<b>602,000<sup>66</sup></b>

65 The 1874/75 salname indicates 605,000 Bulgarian males.

66 The 1874/75 salname indicates 460,000 Muslim males.

Sanjak (Teplov, 1876, persons)	Christians (Teplov's map, males)	Muslims (Teplov's map, males)	Christian males, 1873	Muslim males, 1873	Christian males, 1874	Muslim males, 1874
Ruşuk	134,872	173,889	109,713	163,617	119,609	173,889
Vidin	184,461	29,617	156,957	34,995	138,411	27,761
Varna	21,517	44,878	16,801	45,553	16,701	44,878
Tirnova	183,858	62,072	116,810	75,387	138,128	62,091
Tulça	35,541	39,900	44,147	56,724	44,147	56,724
Sofia	208,323 (146,000)	147,832 (24,000)	<u>146,096</u>	<u>24,213</u>	<u>31,736</u>	<u>147,954</u>
Niş	140,100	40,000				
Islimiye	58,768	37,671				
Philip- opolis	208,292	139,661				
<b>Total</b>	<b>1,175,732</b>	<b>715,520</b>				
<b>Total (Danube)</b>	<b>908,672</b>	<b>538,188</b>				
<b>Total without Niş</b>	<b>768,572</b>	<b>498,188</b>	<b>590,524 (603,564)</b>	<b>400,489 (409,841)<sup>67</sup></b>	<b>488,732</b>	<b>513,297</b>

Dataset where the data of the Exarchate was incorporated into the first table, while the data of his map handed into the conference of Constantinople (1876) are in the second table. On the right the aggregated data of two Ottoman conscriptions can be seen (1873 and 74). The published data series in 1874 contains mistakes. Recalculated data in brackets. For explanation, see text.

Sources: Koyuncu: Osmanlı-Rus Harbi, 1978; Şimşir: Rumeli'den Türk Göçleri; Todorov: The Balkan City.

prior to the major changes. On the other hand, it is evident that Teplov used the ethnoreligious data of the 1873 and especially the 1874 registers as primary source. This is confirmed by numbers referring to the Muslim popu-

67 The emlak tax defter indicates 480,000 Muslims and 653,000 Christians.

lation (compare Figure 12 and Table 20): where the 1873 and 1874 data differed, he tended to use the latter. This also caused a serious problem (which, at the same time, made the identification of the sources easier): the 1874 *salname* erroneously registered the Christian population of the Sofia *sanjak* in the Muslim column (and the Muslims were indicated as Christians), but only here, predicting that way a Muslim majority. As it was well-known that this region had a Christian majority, Teplov tried to figure out new values for the Christians by multiplying their numbers (in fact, the Ottoman's numbers) in order to reach Christian majority. That is why his map shows only 50–60% for Christians in Sofia, Kjustendil, Dupnitsa and Radomir, etc., and that is why he used rounded values here, which are rare on his map. But, if we take a closer look on the former 1873 conscription, we may find that the data recorded in the Muslim column of the 1874 *salname* are indicated here correctly in the Christian column (and the proportion of Christians reaches 80–90% that way in these district). This also proves that Teplov did not have direct access to the original Ottoman data.<sup>68</sup>

(3) It is evident that despite the numerous mistakes, this data series of Teplov is still more appropriate than his one relying on the Exarchate's data. In the latter dataset the number and proportion of Muslims was too small compared to other, either Western or Ottoman statistics, while huge masses of non-Exarchist Christians were indicated inexplicably. It is not surprising that it was not this data series used in Constantinople, but the other one based on the Ottoman conscription of 1873 and 1874. In other words, even Teplov considered the Ottoman data more reliable than his "mixed" one. Though the Exarchate's data on Bulgarians may be realistic (it was not higher than that

68 However, there are other mistakes: the same switch between Muslims and non-Muslims appeared in Osmanpazar. The 1873 conscription also fails to calculate the urban population in Ruschuk sanjak. The missing numbers are included in the Dunav newspaper (1873), but not in the 1874 *salname*. In Vidin and Belogradchik Teplov adds some thousand Christians to the data indicated in 1873/74 modifying their proportions from 60% and 80% to 66% and 90% respectively. In Rahovo the number of Muslims is mistyped on the map, and the same value appears for Belogradchik (1,856 instead of 7,235). Teplov also arbitrarily increased the number of Christians in Varna, Provadiya, Dobrich, Silistra, and Djouma-i Atik by a few thousand, though none of the three Ottoman sources contain such numbers. In the cases of Plevna and Dzhoumaya, he also increased the number of Christians, but that time he relied on the Ottoman corrections committed in 1873.

given in Ottoman sources, 1.05 million persons vs. 605,000 males), Teplov's calculations of total population number and of non-Bulgarian Christians rendered his "mixed" statistics not credible.

In other words, our two investigations proved that Ottoman data are reliable at least regarding percentage values (absolute numbers may vary), and thus any distortion regarding the number and proportion of Muslim and Christians were similar and equalled themselves out. Neither were over- or underrepresented. Furthermore, we also proved that Ottoman statistics were used in decision-making (even to the detriment of Ottomans, which illustrates that these were considered more reliable than other data series as Teplov's case highlighted). Teplov's case also indicated that Ottoman sources, though indirectly and with full of mistakes, were accessible to European scholars unable to read Osmanli. Thus, the assumption of McCarthy that they usually neglected Ottoman data is not always true for the period after the 1870s (especially compared to the era between the 1830s and 1860s). Second, some of the mistakes can be explained exactly by this indirect access to original data – in other words, distortions were not always intentional, but rather the consequence of the endeavour to obtain original raw data. On the other hand, it also implies that many of the maps or data series not using Ottoman sources, either because they were supposed to be considered unreliable or because of the lack of access, remained methodologically superficial and not established, even if they seemed to be impartial.

Teplov's case also points to two more important conclusions: first, tracing the roots and the lineage of published data is not futile, and can help assess the reliability of a data series, as there were numerous concurrent, but often diverging, data series serving as indirect bases for other estimations getting broad publicity. For example, the above analyzed examples not only point to the sometimes remarkable difference between official material (see Teplov's map) and published datasets, but the case of Encyclopaedia Britannica also highlights that sometimes incorrect data became widespread and more accepted because of the greater "authority" of the publisher.

The second conclusion adverts our attention to other source-types besides Ottoman data. As one would expect higher numbers for Exarchists in an Exarchist conscription than in an Ottoman one (supposing tendentiousness and partiality from both parties), the surprising similarity of numbers regarding this group in Ottoman and Christian statistics implies that the Exarchate's data on the number of Bulgarians can be used for statistical calculations (contrary to the Patriarchate's data). So there is a possibility to combine

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data from different data sources mutually checking each other's reliability. However, as Exarchist conscriptions did not indicate the number of Muslims or only gave estimations, they cannot stand alone as a reliable source in this respect. But the fact that these data were integrated into the unreliable statistics of Teplov should not question the partial reliability of the original source itself.<sup>69</sup>

As we attempted to outline a method in the previous chapter of how ethnic proportions could have been illustrated in a more delicate way, we also try to give advice on how datasets could be – or could have been – handled in order to minimize distortions. Based upon the experience in connection with Teplov's data, we assume that an adequate way to assess ethnic proportions in the Balkan region is the combination of the reliable elements from the different source-types, applying the lowest acceptable values for each group. Nevertheless, this implies that the set of "unclassified" or "ambiguous, fuzzy" population will be significant, but probably this depicts the situation in the Balkans more properly than a classification that insists on classifying everyone into a one-dimensional group. Unfortunately, we do not know any statistics from the investigated era that was based on a similar concept, not to mention the problem of visualizing such data. Thus one should not only have to calculate the "unclassified" – which is sometimes really challenging if a *kaza*-level fine resolution breakdown is desired, but also have to locate them, which is a hard task too. Unfortunately, not all ecclesiastic conscriptions secured the same reliability (see the former analysis of the data of the Patriarchate (Map 37–38) and comparison of the Patriarchate and the Exarchate later in McCarthy's and Stoytcheva's approach). Thus, it limits the number of comparable sources. So, the solution outlined above cannot work in general, but rather has relevance in well-circumscribed specific cases.<sup>70</sup>

So, in spite of the fact that methods of conscription were improving, the number of useful sources remained low: after the conscription in the 1830s, the first modern census in 1866 was confined only to the administrative area

69 Nonetheless, if some elements of a work are unreliable, this ruins the credibility of the work itself. Yet, this does not mean that there are no reliable parts in it. In fact, labelling all elements to be unreliable, because some are, is a methodological mistake.

70 In our opinion, two maps could have been created using this method – combining data from institutions having different/opposing interests, mutually supporting or checking each other – one for the 1870s and one for the 1900s.

of the Danube *vilayet*. The general conscription in the empire in 1877 was based also on estimates and on local conscriptions. The next conscription in 1881 and 1893 served the interests of the army (taxation) and not those of civil administration.<sup>71</sup> This was refreshed in each year until the execution of the census in 1905. Thus, the maps based on these had their limits.

The introduction of personal identity cards in the Ottoman Empire for the census in 1905 changed the situation. From then on, this identification was needed in every interaction between state organizations and the civil population, thus the local population became interested in the participation at population censuses. These ‘*tezkeres*’ contained information also on ethnic affiliation, which could be the subject of numerous abuses.

Though the 1905–6 census was methodologically more sophisticated, political circumstances also made it unreliable. The problem with it was (1) that it was executed after the implementation of Mürzsteg reforms, and many thought that it was a part of it. And as the Mürzsteg Agreement originally contained the administrative reorganization of Macedonian *vilayets* partly based on ethno-religious affiliations which the Ottoman authorities tried to obstruct, it generated great rivalry among the local population and the Balkan national states that mobilized ‘their’ presumed ethnic brethren in the ‘correct’ national way. Thus, an originally neutral governmental measure became politicized, and the census eventually enhanced tensions.

Furthermore, as the new, ethnicized fault lines were not always parallel but often ‘perpendicular’ to the old religious ones, categories evolved such as Exarchist Serbs, Patriarchist Bulgarians, Muslim Slavs, Christian and Muslim Albanians, and ‘Christians’ in general; and the situation became more complicated when new official categories appeared. The Ottoman term for nationality was *milliyet*, stemming from the old word *millet*, but it had a different meaning. Nonetheless, the old *millet* designated not purely religious categories; for this, another term, *mezheb*, was used. These had different meanings, but were confused when applied on the census sheet. Soon not even Ottoman authorities would be sure what ethno-religious terms should be included on the census sheet, and therefore many inhabitants were unable to describe themselves properly, or had to choose one element from their complex identity. And finally, this invoked a conflict between the primacy of self-identification and external labelling by administrative organizations.

71 Yosmaoğlu: Blood Ties, 134.

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Due to these problems, many settlements often changed sides (like Valandovo). Sometimes guerrilla groups used coercive measures to influence the population; sometimes it was government officials, officers or the Church doing so. The reactions of local communities were also different, regardless of their language or affiliation. Sometimes they remained passive and silent when their self-identification was questioned by external factors; sometimes they resisted coercion or proclaimed petitions.<sup>72</sup> The scale was broad ranging from national indifference to fanaticism.

Besides official censuses and local salname, even Ottoman authorities tended to use other data series that were independent from state authorities and applied different methods of enumeration, also in their decision-making. For example, in 1910, during the last attempt by the Ottoman government to secure peace in Macedonia by means of implementing religious reform and the redistribution of ecclesiastic property between Exarchists and Patriarchists to decrease tensions, the conscription of the Exarchate was (also) used. At the same time, the population was still conscripted by household and based on religion and *millet* (Table 23). This implicitly means that the Ottoman government accepted the Exarchate data as relatively reliable, at least to differentiate Exarchists from other Christians.

But, in fact, neither of these was reliable.<sup>73</sup> As these ecclesiastic conscriptions did not give the proper numbers of Muslims (see the analyzed data of Brankov or the Greek Syllogos), it was easy to underestimate Muslim presence, while the number of Christians was usually distorted in favour of one Christian religious group. Despite these basic problems their approach was also accepted by Western powers who tended to neglect the Muslim factor for two reasons: first, the Powers adapted the historical construction of the small states, according to which Muslims were not even considered indigenous; second, due to the prevailing negative attitude towards the empire and its Muslim populations, Christian statistics were generally thought to be more reliable.<sup>74</sup>

72 Ibidem, 156–9.

73 Dakin: *The Greek Struggle*, 62: “Like the Eparchical lists made by the priests, the Turkish figures were also inaccurate (...) The Turks had no census comparable to that in Western countries, but for military and taxation purposes they drew up figures based on the Nufuz defteri, or books in which officials recorded births and deaths (salname).”

74 Yosmaoğlu: *Blood Ties*, 137.

Some examples regarding the utilization of Ottoman sources and the ecclesiastic conscriptions should be given in order to illustrate the above problems. A very good example of manipulated statistics was given by Justin McCarthy: the significance of this case is that no one from the scientific circles ever recognized and revealed it in the last 100 years, and this manipulation reached the highest ranks of decision-makers, who considered the results as reliable. The documents in question are the works of D. Kalopothakes (Polybios): *Greece Before the Conference*<sup>75</sup> and G. Soteriades: *An Ethnological Map Illustrating Hellenism in the Balkan Peninsula and Asia Minor*.<sup>76</sup> Both served as official documents to Greek claims over Ottoman territories, handed in to the Peace Conference at Paris. More than twenty-five politicians and scholars accepted their statements as facts in the last decades including Lord Curzon, Morgenthau, Venizelos, and through Venizelos it reached the historian Charles Jelavich too.<sup>77</sup> Polybios – under the pretext of methodological correctness – cited two sources that both confirm the number of 1.77 million Greeks living in the Ottoman Empire. McCarthy proved, however, that none of these sources existed in the form given by the Greeks. Polybios refers first to the Ottoman census in 1910, then to the statistics of the Greek Patriarchate: he used the Ottoman numbers to make Greek statistics credible and prove its impartiality. However, there was no Ottoman census executed in 1910 (only in 1914): Polybios deceitfully refers to a series of Ottoman data published in the *Almanach de Gotha* as census data.<sup>78</sup> Furthermore, in the almanac itself there is nothing about ethnic or religious affiliations, as it simply gives the total number of population in Ottoman provinces. Thus, Polybios simply created a series of fake ethnic data in order to confirm the results of the Patriarchate's conscription.

This ruins the credibility of Polybios, yet not of the Greek statistics itself. But upon taking a closer look at the Greek source used by Polybios, one realizes that data are taken from the work of Soteriades, who used the 20-year old data of Cuinet (1894, the only available Western source relying on Ottoman sources referring to Christians in Asia Minor), and simply modi-

75 Kalopothakes: *Greece Before the Conference*.

76 Soteriades: *An Ethnological Map Illustrating Hellenism in the Balkan Peninsula and Asia Minor*.

77 McCarthy: *Population history*, 241.

78 *Almanach de Gotha* 1914, 1187.

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fied them, stating that the data are from the Patriarchate (Table 21).<sup>79</sup> Thus, McCarthy draws the conclusion that hardly any Greek conscription existed at that time for Asia Minor. In other words, both sources, which gave the number of Greeks in Asia Minor with 1.77 million, are manipulative and invented. Obviously, they cannot confirm each other. Nonetheless, decision-makers failed to check the data and favoured the Greek stance in 1920, while the Ottoman census counted only 1.1 million Greeks in Asia Minor.

And this raises several methodological problems. We share the opinion of McCarthy, that manipulating data or neglecting Ottoman sources are both untenable practices, but on the other hand, neither will the exclusive usage of Ottoman sources and their original interpretation (the proposal of McCarthy) lead to unbiased results.

*Table 21. Greek data manipulation regarding the ethnic composition of Aydin vilayet*

<b>Year</b>	<b>Muslims</b>	<b>Greeks</b>	<b>Total</b>	<b>Greeks in %</b>
1905/6	1,314,989	267,997	1,728,391	15%
<i>1910 'official' Ottoman data</i>	<i>974,225</i>	<i>629,002</i>	<i>1,702,911</i>	<i>36%</i>
1914	1,437,983	319,020	1,891,616	17%

McCarthy: Population History, 242.

*Table 22. The ethnic pattern of Izmir sanjak, based on contemporary calculations and a modern one*

	<b>Muslims</b>	<b>Greeks</b>	<b>Total</b>
Official Ottoman census	378,883	214,686	640,757
Soteriadis (Greek)	219,494	449,044	754,046
corrected by Mutlu (modern Turkish)	472,703	268,521	800,246

Mutlu: Late Ottoman Population, 3–38.

79 McCarthy: Population History, 237–8. The manipulation is evident, because Soteriadis modified Cuinet's number regarding only Muslim–Greek relations, but he left numbers referring to Bulgarians, Jews, and Armenians unchanged.

Though McCarthy was basically right, there are several problems with his approach as well. He claims that all statistics used by Balkan or Western states are unreliable if they were not based on Ottoman sources, because only the Ottoman state carried out such detailed, systematic investigations. But this is not true, since Stoytcheva's research confirmed that the Bulgarian Exarchate did collect detailed eparchial data not only in the 1870s, but also in the 1890s, and again in 1906 and in 1910. And this was not simply a transcription of Ottoman sources such as in the Greek case above.<sup>80</sup> In fact, an eparchial conscription served as a basis for Vasil Kănchov's map on Macedonia and the settlement-level *vilayet* maps of Macedonia from 1901 (App. 83, 84, 85).<sup>81</sup> The latest ones were even used by the Young Turk authorities, when they tried to settle the eparchial question in 1910 by redrawing the boundary of the Exarchate as a consequence of the growing Greek-Bulgarian and Exarchist-Patriarchist rivalry.<sup>82</sup> However, Exarchist sources were quite unfavourable for the Greek cause.<sup>83</sup>

80 For the Bulgarian approach see the case of the Prespa region: CDA, f. 246k. op. 1, a.e. 297, 457; Stoytcheva/Marinovski: Ethnodemographic Characteristics, 103–110. Also: Stoytcheva: Стойтчева: Bŭlgarskata Ekzarkhiya za etnodemografskiya kharakter na Makedoniya, 294–95. Greek sources are available at: Historical Archives of Macedonia (Greece), Holy Metropolis Pelagoneias, f. 15 (Katalogos arrēnon tis ellinikis orthodoxis koinótitas Résnis). There was also a Serbian conscription from 1913 called “Prespanski srez” (the region was occupied by Serbs during the Balkan Wars). All conscriptions contradict each other.

81 Carte ethnographique de vilayet de Bitolia.

82 Nonetheless, this does not mean automatically that exarchist data were more proper than Patriarchist, but our experience confirms this assumption.

83 Though the first microcensus in the diocese mentions Patriarchists too in the Prespa region, by 1906 and 1911, there were 52 purely Bulgarian (Exarchist) localities registered, 18 mixed settlements (Bulgarians and Albanians or Turks), and two Albanian and one Wallachian village. As a counterstrike to influence Ottoman authorities, in 1910 the statistics of Athanasios Chalkiopoulos (a Greek diplomat in Skopje), a highly propagandistic document was compiled, which sets out the Greek claims to the Prespa region. This document deserves attention, not so much for the statistics, but as for its terminology for the Christian (Bulgarian, respectively) population of the area. (See: Chalkiopoulos: I Makedonía. Ethnologikí statistikí ton vilаетion Thessaloníkis kai Monastiriou. En Athínais, 78–80, 98–9). With the obvious aim to increase the number of “Orthodox Greeks”, Chalkiopoulos used two terms – “Bulgarized schismatics” and “Orthodox Greeks under Bulgarian terror from 1904 onwards” (the authority of the Exarchate was extended to the region by that time). But in early 1912,

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So, this would assume that a comparison of Exarchist and Ottoman conscriptions might be fruitful as it was in Teplov's case. As both conscriptions used the same (ethno-religious) term and were based on a real count of the population, it offers a possibility to check numbers. If these coincide in the case of the two parties with different-opposing political interests, they have to be considered acceptable. This means that we would be able to separate at least three groups with great probability: Muslims, Bulgarians (Exarchists) and others (Greek, Vlach and Serb Orthodox together) once again after Teplov's attempt. Nevertheless, this means only one ethnic category. The other terms are still not ethnic categories. We may state that all Exarchists are Bulgarian (though it does not stand vice versa), but we cannot state that all Muslims are Turks. To overcome this problem McCarthy simply states that religion was more important in the Ottoman Empire than language or other forms of solidarity (especially in the case of Muslims), thus Ottoman censuses represents "loyalty schemes" within the peninsula better – therefore it is no need to split the category of Muslims.<sup>84</sup>

Accepting this approach outlined above, we tried to draw up a map using McCarthy's *sanjak*-level data based on Ottoman sources (Map 61). When doing this, we only slightly modified the categories: "Greeks" in North Macedonia were classified as Serbs, but Patriarchists in the South were not divided to Slavic-speakers, Albanian-speakers and Greeks. Modifying McCarthy's thesis on loyalty we split the group of Muslims. Muslims in regions where Albanians tended to live were classified as Albanians (only in evident cases); Slavic-speaking Muslims were also indicated separately, but this was not possible if two or more Muslim groups lived in the same *sanjak*. In this way we managed to obtain a picture that represented the approach of pro-Osmanist scholars.

the Greek(!) Bishopric in Bitolia compiled a name catalog of the male Greek population in the city of Resen, which clearly refuted the claims of the Greek diplomacy. In the area only 246 people identified themselves as Greeks! See: Stoytcheva/Marinovski, Ethnodemographic Characteristics. It is also one of the very first cases when the dangerous method of name analysis was applied in the peninsula to classify population into ethnic groups.

84 He repeats the opinion of Erődy in 1876. Scientific literature hardly has any accounts of Muslim-Muslim interethnic conflicts in the Balkan Peninsula at that time – in the Skopje sanjak this was rated at 6 to 12% in 1905. Demeter/Csaplár-Degovics, A Study in the Theory and Practice of Destabilization.

Besides the problem of loyalty, there is another concern with McCarthy's approach. When he tried to give a reconstruction of ethnic distributions in Ottoman Europe for the 1900s based solely on original Ottoman sources, he managed to make it only by using conscriptions from six different years for the seven *vilayets*, and he had to adjust them to the year 1910 by calculating with differentiated rates of yearly population increase (between 0.5% and 1.5% per annum).<sup>85</sup> Though his research meets scientific criteria, it is still a retrospective and artificial interpretation, like that of Şaşmaz cited earlier. In other words, the exclusive usage of original Ottoman sources hardly encourages precise reconstructions as it requires substantial statistical estimations and expertise – it was still easier to simply cheat in numbers and sometimes it took a hundred years to realize that statistics considered more or less reliable were fake indeed.

It is also possible to use post-war ethnic maps as references to assess the reliability of maps in the 19th century. For example, Hasluck's and Schultze-Jena's map (Map 10–11), despite ethnic cleansings and migration processes, still indicates highly mixed regions – thus, the situation could have been similar or even more intricate prior to 1912. These two settlement-level maps are excellent for testing the reliability of *Carte ethnographique de vilayet de Bitolia* (1899/1901), for example (see App. 84–85).

After the problems of data sources and the terms used for the description of ethnic affinities, it is also important to take a look at what these problems caused in practice. The first one is the fact that the differences between the numerous calculations – after aggregating them – are evident even at the highest (*vilayet*) levels of administration. *Ubicini* puts the number of Ottomans (Muslims) usually higher than *Behm*,<sup>86</sup> and the percentage values also show remarkable differences between these two sources cited here, and also between the two modern interpretations of the Bulgarian *Totev* and the Turkish *Karpat* (Table 25).<sup>87</sup>

85 McCarthy: *Population History*, 132.

86 *Ubicini*: *Lettres sur la Turquie*. He probably used the data of the 1844 census. *Behm* used *Jakšič*'s data published in *Petermanns Geographische Mitteilungen*, which was also used by Stanford in the 1870s.

87 See also: *Karpat*: *Ottoman population*, 56.

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*Table 23. An example of the Ottoman use of Exarchist conscription: religious (ethnic) distribution in Kostursko kaza and the decision made by the authorities regarding the distribution of ecclesiastic property*

<b>Situation in 15.05.1910</b>	<b>Exarchist households</b>	<b>Patriarchist households</b>	<b>Muslim households</b>	<b>Total population</b>	<b>Year of secession from patriarchate</b>	<b>Number of churches</b>	<b>Number of schools</b>
<b>Gorjanci</b>	161	170	175	2,645	1909	2	2
<b>Kumaničevo</b>	86	24	42	755	1908	3	1
<b>Starigiani</b>	38	20	0	455	1903	2	1
<b>Sničani</b>	58	23	0	420	1903	2	1
<b>G. Nestram</b>	79	91	0	970	1908	3	1
<b>D. Nestram</b>	70	150		1,320		2	2
<b>Čuka</b>	3	22	166	1,909		1	1 (Patriarchist)
<b>Breznica</b>	110	10	655			1	1
<b>Želevo</b>	110	110	?	1,406		2 (1 Exarchist)	2

Settlements seceded from the Patriarchate after 1903, but prior to the redistribution of Christian ecclesiastic property in 1910.

Centralen Darzhaven Arhiv, CDA, f. 331, op. 1, a.e. 309, pp. 74–5 and 35–8.

Table 24. Decision made by the Ottoman authorities in 1910  
based on the data above (original entries)

Gorjen(c)i	the bigger church outside the village becomes Bulgarian <sup>88</sup> property, the Graecoman majority possesses the main church in the centre of the settlement and the small one outside the village
Dolno Kumaničevo	problem remains unresolved: there is a bigger church in the village and a smaller outside the village, but there are only 3 Greek households
Gorno Kumaničevo	the church becomes Exarchist property; there are no Greek households
Breznica	the old church belongs to the Bulgarians; the 11 Greek households with 74 <i>nufuz</i> may erect a new building
Želevo	the newer church belongs to the Bulgarians and one school also
Staričani	Bulgarians, constituting the majority, get the larger church, while Greeks get the smaller one outside the village
Sničani	the large church belongs to the Bulgarians; the Greeks are allowed to build a new church
Čuka	the Greek majority gets the church, the 2 Exarchist household may build a new one
G. Nestram	the large church is given to the Bulgarians, the Greek possess the small one outside the village
D. Nestram	the church remains Greek; Bulgarians may establish a new one

CDA, f. 331k, op. 1, a.e. 309. p. 28.

88 The document found in Bulgarian archives uses this term and not ‘Exarchist’. This is another proof of an ethno-religious category becoming an ethnic term. Instead of Patriarchists, the category Greek is used.

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Table 25. *The proportion of Muslims in Rumelia around 1870, according to four estimates at vilayet level*

<b>Population in thousands or in %</b>	<b>Istanbul</b>	<b>Edirne</b>	<b>Tuna</b>	<b>Sofia</b>	<b>Selanik</b>	<b>Yanya</b>	<b>Manastir</b>	<b>Iskodra</b>	<b>Bosnia</b>	<b>Islands</b>
‘Turks’ (Karpat)	342	597	945	154	265	430	860	141	520	80
<i>Karpat %</i>	<b>57</b>	<b>39</b>	<b>45</b>	<b>23</b>	<b>49</b>	<b>36</b>	<b>56</b>	<b>47</b>	<b>40</b>	<b>50</b>
<i>Totev %</i>	-	<b>37</b>	<b>38</b>	-	<b>40</b>	-	<b>33</b>	-	-	-
Muslim (Behm and Jakšić)	183	523	819		429	251		789	493	
<i>Behm, 1864 %</i>	<b>56</b>	<b>39</b>	<b>41</b>		<b>42</b>	<b>65</b>		<b>59</b>	<b>36</b>	
Muslim (Ubicini)	620	603	1055		249	501	795	176	619	93 +114
<i>Ubicini, %</i>	<b>52</b>	<b>38</b>	<b>41</b>		<b>50</b>	<b>35</b>	<b>56</b>	<b>44</b>	<b>50</b>	<b>44</b>

Karpat: Ottoman Population 1830–1914, 56; Totev: Tsenen dokument za istoricheskata etnicheska demografiya na Balkanskiya poluostrrov; Behm: Die Bevölkerung der Erde, 84.

Table 26. *Differences between the official Ottoman census and the numbers of Muslims and the Christian population according to Teplov in the 1870s*

	<b>Official Ottoman numbers (total population)</b>		<b>According to Teplov (only male*)</b>	
	<b>Muslim</b>	<b>Others</b>	<b>Muslim</b>	<b>Others</b>
Ohrid	10,000	19,000	4,976	37,000
Starovo	34,000	8,000		
Gorna Dibra	43,000	12,000	19,948	15,535
Dolna Dibra	26,000	2,000		
Elbasan	50,000	7,000	18,966	13,000
Mat	24,000	1,200	6,055	2,300

\*Data should be multiplied by two.

Teplov’s data is quoted in Mihov: Naselenieto na Turtsija i Bălgariya, 122.

As there are also remarkable differences even in *kaza-level* data, the contradictions in *vilayet-level* statistics (see Table 37) are not the result of manipulating with the otherwise proper *kaza-level* data. To illustrate this we examined some datasets, which were compiled to influence decision-makers between 1878 and 1881 when trying to settle the Balkan Question (Table 27–29). These also served as a basis for Maps 15, 17, and 47. One reason for the remarkable difference between the three series is that data series compiled in 1873 were also utilized (Table 28). But the latter was already obsolete despite the few elapsed years, due to the numerous changes between 1875 and 1878. Thus, these did not help make the post-war situation clear and could have been used as references only to the pre-war situation. But this did not hinder lobbyists.

Among the evident differences one can find a significant decrease in the number of Muslim inhabitants in 1878–81. In the Razlog, Nigrita and Nevrokop *kaza* (compare Table 27 and Table 29) this can partly be explained by the Kresna-Razlog revolt, and partly by the obscurity of data interpretation stemming from the methodological differences between the two estimates: one was based on the male population, the other used the total population number. Lord Fitzmaurice mentioned that the number of males was multiplied by 2.5 in order to get the total number of the population, but he also submitted a document in which the Muslim male population was multiplied by 3 and the Christian by 3.5.<sup>89</sup> But there is no evidence provided in these documents as to whether Christian families were indeed larger. According to data from consul Stoney, based on 55 villages, an average Bulgarian family was composed of 5.6 to 6 persons,<sup>90</sup> so multiplying the number of Christian males by 3.5 seems to be exaggerated, and can be used only in territories like *şop* areas, where grown-up males used to live together in one *zadruga* household.

The belief that the Muslim fertility rate was declining<sup>91</sup> was mentioned first by Pouqueville in the beginning of the 19th century, and though it could be considered true for certain regions or for that decade, the generalization

89 Turkey. No. 1. Further Correspondence respecting the Affairs of Turkey. Presented to both Houses of Parliament by Command of Her Majesty 1878. London: Harrison and Sons, 14; Saloniki vilayet, Turkey, No. 15. Correspondence respecting the New Law for the European Provinces of Turkey. Part II, 161–292.

90 The numbers in the Bulgarian census of 1892 put average family size to 6.

91 Yosmaoğlu: Blood Ties, 131–2.

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of this phenomenon through cross-references and citations would later not be borne out by thorough research. Ravenstein's map was also based on this presumption; he used Helle von Samo's data.<sup>92</sup> Bianconi's map – railway engineers were important frontier pioneers from both a scientific and economic point of view – was based on Stanford's, and we know that it was created by the Greek ambassador Gennadios, who relied on Mathieu. Thus, while Mathieu's data was considered unreliable by his contemporaries, Bianconi's results were accepted because he did not refer to the original source, but rather to a 'popular' compilation.<sup>93</sup>

Furthermore, the word 'decline' did not necessarily imply that fertility rate for Muslims was initially lower than that for Christians, but by the end of the 19th century the latter statement also became generally accepted. Our map of Dobrudzha (Map 51) showing the number of males per household does not confirm the assumption that Christian households were always larger. Though household size is only a proxy variable for fertility rate, at least in this particular region there was no need to use different multipliers for the different religions to calculate the total population. Todorova also cites examples of similar Muslim and Christian household sizes in Bulgaria. On the other hand, age pyramids of the two groups suggest that Christian society was characterized by a favourable age structure, and according to Koyuncu, average population per household and the population growth rate of non-Muslims in the Danube *vilayet* was higher than those of Muslims.<sup>94</sup> So, the situation showed a regional pattern, thus extending any of the multipliers to the whole of the Ottoman Balkans must be considered a methodological mistake.

As it was written above due to the uncertainties is almost impossible to check the relevance of pre-war and post-war data – as there is no stable reference point. This means that calculations on migration and losses are also burdened with mistakes. British pre-war statistics (Map 17) distinguished between Patriarchist and Exarchist Bulgarians, but despite this the Ottoman source (Map 15) still gave a greater total number for Bulgarians (90,000 vs 50,000)

92 Helle von Samo: Die Völker des osmanischen Reiches; Mihov, Naselenieto na Turtsija, 139. See also Karpat: Ottoman population, 1830–1914 for Helle von Samo. See also: Ravenstein: Distribution of the Population in the Part of Europe Overrun by Turks.

93 Yosmaoğlu: Blood Ties, 133–4.

94 Todorova: Situating the family; Koyuncu: Tuna vilâyeti'nde nüfus.

Table 27. Ethnic distribution of some kazas according to a document submitted by Lord Fitzmaurice to Earl Granville, 1880 (male population)

<b>Kaza, male population</b>	<b>Muslim</b>	<b>Patriarchist Vlachs</b>	<b>Patriarchist Greeks</b>	<b>Patriarchist Bulgarians</b>	<b>Exarchist Bulgarians</b>	<b>Jews</b>
Seres	8,855		10,878	5,000		988
Demirhisar	7,457	2,859	1,075	6,106	1,762	
Melnik	3,900		4,464	3,360	2,791	
Zichna	3,062		7,037	3,803	950	
Petrich	4,081		725	2,800	1,414	
Nevrokop	19,715		500	6,984	9,204	
Razlog	4,563				9,214	
Nigrita	2,803		7,141			
<b>Sanjak of Seres</b>	<b>54,436</b>	<b>2,859</b>	<b>31,820</b>	<b>28,053</b>	<b>25,335</b>	<b>988</b>

Turkey, No. 15. Correspondence respecting the New Law for the European Provinces of Turkey. Presented to both Houses of Parliament by Command of Her Majesty. London, 1880.  
 Lord E. Fitzmaurice to Earl Granville, Büyükdere, June 12, 1880. Part I. IV-161.

Table 28. Another estimate for the same area (male population, 1873)

<b>Kaza, male population</b>	<b>Houses</b>	<b>Muslims</b>	<b>Bulgarians</b>	<b>Greeks</b>	<b>Vlachs</b>	<b>'Gypsies'</b>	<b>Pomaks</b>
Seres	13,337	9,591	18,510	11,058		870	
Demirhisar	7,917	4,480	20,010		460		
Melnik	4,903	3,310	11,208		560		
Zichna	5,732	2,551	7,241	6,168	577	300	
Petrich	3,557	2,774	7,551				
Nevrokop	16,280	6,638	26,375		215		13,873
<b>Sanjak of Seres</b>	<b>51,726</b>	<b>29,344</b>	<b>90,895</b>	<b>17,226</b>	<b>1,812</b>	<b>1,170</b>	<b>13,873</b>

Etographie des vilayets d'Adrianople, de Monastir et de Salonique. Constantinople, 1878.  
 Extrait du Courier d'Orient.

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Table 29. Italian source (Hondros) on the population of the same territories, 1881 (total population)

<b>Kaza, total population</b>	<b>Turks</b>	<b>Greeks</b>	<b>Bulgarians</b>	<b>Jews</b>	<b>Vlachs</b>	<b>Total</b>
Seres	21,700	38,400	14,400	1,500	1,000	77,000
Demirhisar	19,000	4,000	19,400		1,200	43,600
Melnik	10,500	6,500	20,000		1,150	38,150
Zichna	4,500	16,000	3,780	20	500	24,800
Petrich	10,000	500	16,500		100	27,100
Nevrokop	19,500	1,100	20,000		100	40,700
Razlog	3,500		11,500		100	15,100
Dzoumaja-Nigrita	3,000		9,000			12,000
<b>Total</b>	<b>91,700</b>	<b>66,500</b>	<b>114,580</b>	<b>1,520</b>	<b>4,150</b>	<b>278,450</b>

Hondros: Brevi cenni sui circondario di Serres; Bollettino Consolare pubblicato per cura del Ministero per gli Afferi Esteri di S. M. il Re d'Italia. Vol. 17 Parte 2. Roma 1881, 729–42.

while using the same reference unit (the male population).<sup>95</sup> The Ottoman estimate does not match the post-war data of Hondros (even the proportions are different), who simply doubled the male population in many cases in order to get the real numbers.<sup>96</sup> The *Extrait du Courier d'Orient* made a distinction between Pomaks, Muslim Albanians and other Muslims, but their cumulative number was still lower than the one given in the British source for Muslims. (The term 'Muslim' often incorporates Ottoman Turks, Albanians,

95 It is surprising that official Ottoman sources considered only Exarchists as Bulgarians. Their number according to the other source was only 28,000 (males). The fact that the number of Bulgarian Patriarchist and Exarchist males together is smaller than 90,000 confirms that the *Extrait du Courier d'Orient* was quite pro-Bulgarian. (The number of Greek males was even smaller in the 1873 statistics than the number of 'Patriarchist' Greeks in the British statistics: Table 27–28).

96 As we mentioned, children under the age of 14 were omitted from the descriptions, so doubling the number of males will result in an undercount.

sometimes even Muslim ‘Gypsies’ and Tatars). Although the terms Bulgarophone Greeks and Bulgarian Patriarchists are equivalent, their numbers in the conscription of the Greek Patriarchate and in the British documents simply did not match (Table 12 and 27), so the British neither relied on the data of Sylogos nor on the Extrait. The data given by the Italian consul, Hondros, was based on the combination of both sources (Fitzmaurice and the Extrait).

The problem of changing administrative boundaries was also mentioned by Lord Fitzmaurice. Even if measurement units and the name of territorial units matched, there still remained significant differences as to ethnic proportions (see Saloniki, Dojran, Avrethisar and Strumica in Table 30–31), since matching kaza names do not necessarily mean that the extent of these territorial units were the same in the different conscriptions. Not even the total population numbers match for the two approaches (Table 30–31). One can find significant differences even in the case of common/identical administrative unit names: the Extrait gives the number of Muslim males as 11,000 in Avrethisar; the British as 15,000. 12,000 Bulgarian males are counted in the latter and 37,000 thousand in the former. In Strumica the number of Bulgarian males varies between 10,000 and 19,000. Fitzmaurice counted 90,000 Muslims altogether in the sanjak of Saloniki (Table 30), while prior to the war of 1877–8 their number was 40,000. Either these statistics are fake or the number of Muslims reflects migratory processes as a consequence of the wars. The Greek statistics from 1878 differed from the British ones, as the case of the Plovdiv sanjak evidenced this (Table 32 and 34).

Thus, estimates and conscriptions based on smaller administrative levels also seem to be unreliable in 1876–8, owing to the numerous problems mentioned above; unfortunately, the situation is the same at higher levels of administration in the case of aggregated data (see Table 24). As statistics depicted contradictory pictures, it is not surprising that the decisions in Berlin were not based on the principle of national self-determination – despite the activity of its propagators. On the other hand, ethnic maps stressing the ‘sense of togetherness’ or losses were more successful, as these were able to mobilize the Balkan people for ‘national goals,’ as evident for example in the wartime mobilization rates in Bulgaria or Serbia.

Conscriptions from later periods do not seem to be more reliable. According to a specific Ottoman conscription conducted in the *vilayet* of Saloniki in 1903 (Table 35), Muslims constituted a relative majority in the *sanjak* of Seres, Saloniki and Drama, while in 1878, according to both the British sources and the Extrait (relying on Ottoman tax-data), the situation was just

## (b) Criticism of data reliability and its interpretations

the opposite. Both migration processes as a consequence of 1876–8 upheaval or the mismanagement of data can be responsible for this result. Furthermore, tens of thousands of men were missing from Macedonia as a result of seasonal migration (*pečalbari*), and this influenced the ethnic pattern of the region, but this did not always appear in statistics.<sup>97</sup>

Unlike in the case of Table 32–34, there are some examples where *kaza*-level mistakes or uncertainties balanced each other out at a higher administrative level, like in the case of Janina *vilayet*, where the same percentage value for Albanians occurs repeatedly (although the absolute numbers are varying) (Table 36). But, in fact, the situation was not less intricate in the western parts of Ottoman Europe, in Albania (see the differences in maps of Sax, Aravandinos and Kohlmann illustrating Çamëria in 1878 and 1880). The situation did not become clear with the advent of “professional” statistics.

Table 30. Ethnic distribution of some kazas, according to a document submitted by Lord Fitzmaurice to Earl Granville (male population)

Kaza, male population	Muslims	Patriarchist Vlachs	Patriarchist Greeks	Patriarchist Bulgarians	Exarchist Bulgarians	Jews
<i>Saloniki</i>	19,629		21,671	1,255		25,000
<i>Dojran</i>	8,614			3,400–11,000		95
<i>Avrethisar</i>	15,843	900	2,156	11,782		
<i>Köprülü-Veles</i>	7,765	1,000			15,975	
<i>Vodena</i>	9,066		4,755	3,812		
<i>Strumitsa</i> <sup>98</sup>	7,774		1,372	10,314		168
<i>Tikvesh</i>	9,420			9,735		
<i>Jenidje-Vardar</i>	10,449	562	8,700	1,500		61
<i>Veria-Karaferia</i>	2,787	2,000	8,395	1,291		149
<i>Kassandra</i>	4,322		14,385			
<i>Sanjak of Saloniki</i>	95,669	4,462	61,434	43,099–50,000	15,975	25,473

Turkey, No. 15. Correspondence respecting the New Law.

97 See: Stoytcheva: Gurbetchiystvoto kato faktor v razvitiето na bälgarskoto naselenie.

98 Administrative units also occurring in Table 31 are indicated with Italics for comparison.

Table 31. Another dataset for the same area (Extrait, male population, 1873)

<b>Kaza, nufuz, male population</b>	<b>Houses</b>	<b>Muslims</b>	<b>Bulgarians</b>	<b>Greeks</b>	<b>Jews</b>	<b>'Gypsies'</b>	<b>Pomaks</b>
Saloniki	23,212	10,335	23,517	7,441	40,300		
Dojran	5,133	6,683	5,418				1,585
Avrethisar	7,767	10,840	37,396			1,621	
Veles-Köprülü	5,225	2,759	16,877				1,277
Vodena	6,150	2,459	24,060	5,838(?)			5,838(?)
Strumitsa	8,190	6,365	18,732			130	
<i>Sanjak of Saloniki</i>	<i>55,677</i>	<i>39,441</i>	<i>126,000</i>	<i>13,279</i>		<i>1,751</i>	<i>8,700</i>

Engraphie des vilayets d'Adrinople, de Monastir et de Salonique. Constantinople, 1878.

Extrait du Courier d'Orient (Makedonija i Odrinsko), 196.

Table 32. British statistics on the sanjak of Philippopolis before 1878

<b>Kaza (males)</b>	<b>Turks</b>	<b>Muslim 'Gypsies'</b>	<b>Christian 'Gypsies'</b>	<b>Bulgarians</b>	<b>Greeks</b>	<b>Armenians</b>	<b>Jews</b>	<b>Total</b>
Plovdiv	35,400	5,474	495	80,107	3,700	380	691	126,247
Tatar-Pazardzhik	10,805	2,120	579	33,395	300	94	344	47,637
Hasköy	33,323	1,548	145	25,503		3	65	60,587
Stara Zagora	6,677	989	70	24,857			740	33,333
Kazanlik	14,365	1384	24	14,906			219	30,898
Chirpan	5,157	420	88	15,959				21,624
Sultanyeri	13,336	159		262				13,757
Ahiçelebi	8,197	377		5,346				13,920
<b>British statistics</b>	<b>127,260</b>	<b>12,471</b>	<b>1,401</b>	<b>200,335</b>	<b>4,000</b>	<b>477</b>	<b>2,059</b>	<b>348,000</b>
<b>In %</b>	<b>36%</b>	<b>3.5%</b>		<b>57%</b>	<b>1.1%</b>		<b>0.6%</b>	<b>100%</b>
<b>+ Sliven</b>	<b>44,700</b>			<b>60,000</b>				<b>105,000</b>

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Table 33. Ottoman statistics in 1880, case of the Plovdiv sanjak evidenced

Ottoman data from 1880	Turks	'Gypsies'	Bulgarians	Greeks	Armenians	Jews	Refugees	Total
<i>Plovdiv</i>	36,848	4,736	127,619	14,265	806	1,185	1,276	186,735
<i>Tatar Pazardzhik</i>	14,898	3,487	94,873	676	152	1,112	1,865	117,063
<i>Hasköy</i>	55,334	2,116	74,656	1,138		246	778	134,268
<i>Stara Zagora</i>	27,115	2,811	124,666			431	3,847	158,905
<b><i>Plovdiv sanjak</i></b>	<b>134,195</b>	<b>13,151</b>	<b>421,814</b>	<b>16,000</b>	<b>1,000</b>	<b>3,000</b>	<b>7,000</b>	<b>596,971</b>
%	22%	2.2%	70.1%	2.6%		0.5%	1.2%	100%
<i>Sliven</i>	12,463	3,685	96,425	14,184	276	845	2,258	130,136
%	10%	3%	73%	10.7%			2%	100%
<i>Burgas</i>	28,091	2,689	36,997	11,798		358	8,041	88,046
<b>Altogether</b>	<b>174,749</b>	<b>19,524</b>	<b>555,236</b>	<b>42,096</b>	<b>1,306</b>	<b>4,177</b>	<b>18,065</b>	<b>815,153</b>
%	21.4%	2.4%	68.1%	5.2%	0.2%	0.5%	2.2%	100%

Table 34. Summaries of the British, Greek and Ottoman statistics (only for Plovdiv sanjak)

	Turks	Muslim 'Gypsies'	Bulgarians	Greeks	Armenians	Jews	Total
<b>British statistics, 1876*</b>	127,260	12,471	200,335	4,000	477	2,059	348,000**
<i>males, in % of total</i>	36%	3.5%	57%	1.1%		0.6%	100%
<b>Greek statistics, 1876</b>	120,000		142,000-180,000	32,000			370,000
<i>males, in % of total</i>	32%		38–52%	9%			100%
<b>Ottoman statistics, 1880*</b>	134,195	13,150	421,814	16,000	1,000	3,000	596,971
<i>males, in % of total</i>	22%	2.2%	70.1%	2.6%		0.5%	100%

\* Without Burgas and Sliven districts. \*\* At least 700,000 in total.

British point of view: More: Under the Balkans. Greek point of view: the data of the Syllogos and the Patriarchate (Table 11–12). For the Ottoman statistics, see: Koyuncu: Tuna Vilâyeti'nde nüfus, and Gopčević: Bulgarien und Ostrumelien.

Table 35. Denominational distribution in the vilayet of Saloniki in 1903, according to an Ottoman conscription (in thousands)

<i>Sanjak</i>	Saloniki	Seres	Drama	Total
Muslim	220	145	119	484
Greek	190	78	22	290
Bulgarian	85	130	4	219
Vlachs	15	4	0	20
Jews	48	2	1	50
Total	558	359	146	1063

Şaşmaz: Analysis of the Population Table of the Census of Saloniki of 1903–4.

A comparison of Ottoman statistics (1904–7), Bulgarian statistics (the conscription of households) and Austrian statistics (the census of occupied lands, 1916), illustrated on pie chart maps, reveals that the interpretation of data – and thus the confines of the Albanian nation – were completely different (see Maps 57–59). Ottomans and Muslims were counted as Albanians in the recently published book of Mustafa Kruja (based on the practice applied in Ottoman census),<sup>99</sup> which might be appropriate for the *vilayet* of Janina, but not for Kosovo and the *sanjak* of Novipazar, where Muslims were not exclusively Albanians. In fact, this is a repetition of the old, criticized method of transforming a religious category into an ethnic one, and approaches like this underpin the necessity of this book.

One thing is for sure: the number of different European estimates on the ethnoreligious distribution of population in Macedonia (given in Table 37) far exceeds the number of available sources (the estimate of the Patriarchate and the Exarchate for 1878, the estimate of the Exarchate for 1900 and 1910, the Ottoman census in 1881 and 1905, the Macedonian *salname* of 1903, and the 1873 tax-conscription), unless these authors were able to access and read the local yearly registers and their corrections, the *salnames*. The lineage between these aggregated estimates can very often be traced (Nikolaides-Deligiannis-Colocotronis-Chalkiopoulos). The effectiveness of the propaganda of the different nations is reflected by the frequent recurrence of the same data series.

99 Kruja: Në historinë Shqiptare.

## (b) Criticism of data reliability and its interpretations

Table 36. Ethnic and religious proportions in Janina vilayet between 1880–1912, based on different censuses

<b>Angelo de Gubernatis, 1878</b>	<b>Albanian-speaking</b>	<b>Greek-speaking</b>	<b>Albanian-Greek speaking</b>	<b>Albanian speaking Vlach</b>	<b>Greek-speaking Vlach</b>	<b>Total</b>
number	165,000	145,000	100,000	45,000	25,000	480,000
%	34.38	30.21	20.83	9.38	5.21	100
<b>Ottoman Yearly Report (Salname), in 1890–1891</b>	<b>Muslims</b>	<b>Greek orthodox</b>	<b>Albanian orthodox</b>	<b>Vlachs</b>	<b>Jew</b>	<b>Total</b>
number	223,885	118,023	129,517	37,567	3517	512,509
%	43.68	23.03	25.27	7.33	0.69	100
<b>Ottoman records, 1901 + French consul</b>	<b>Muslims Albanians+ Turks</b>	<b>Greek orthodox</b>	<b>Albanian orthodox</b>	<b>Albanian speaking Vlach</b>	<b>Greek speaking Vlach</b>	<b>Total</b>
number	220,000+ 5,500	125,000	130,000	13,000	22,000	519,000
%	43.00	24.08	25.05	2.50	4.24	100.00
<b>Austro-Hungarian consul in Janina, 1902</b>	<b>Muslim Albanians</b>	<b>Greek orthodox</b>	<b>Albanian orthodox</b>	<b>Albanian speaking Vlach</b>	<b>Greek speaking Vlach</b>	<b>Total</b>
number	237,480	160,725	97,830			552,000
%	43.02	29.12	17.72	-	-	100
<b>Ottoman statistics of 1912 and Austrian consul</b>	<b>Muslim Albanians</b>	<b>Greek orthodox</b>	<b>Albanian orthodox</b>			<b>Total</b>
number	256,000	187,300	87,000			560,000
%	45.71	33.45	15.54	-	-	100

Sources: Bartl: Myslimanët shqiptarë në lëvizjen për pavarësi kombëtare, 91; Nizamoğlu: Reports Written on Ioannina (Yanya) and Their Consequences, 200; Ministère des Affaires Étrangères, Archives Diplomatiques (hereinafter: AMAE). Report by French vice consulate in Yoannina to the Minister of Foreign Affairs of France, Delcassé, Yoannina, 29 July 1901. HHStA, PA XIV Albanien, in AIH, Vj. 22-17-1800, Appendix to the report of the Austrian consul of Yoannina for the Ministry of Foreign Affairs, Yoannina, 22 September 1912.

Table 37. Contradictory estimates and censuses of the population of Ottoman Macedonia and Thrace (end of 19th century)

	Turkish	Bulgarian	Greek	Albanian	Vlach	Jew	'Gypsy'	Serbs	Total
	Population (in 1000)								
<b>Bernardakis, 1877 (Parnassos)</b>	747*	304	1082						<b>2,198</b>
<b>“Extrait” (males)</b>	170+22 Pomaks	590 (males)	100	3	20	50	2		<b>970</b>
<b>Greek, 1878</b>	349	438	337		70				<b>1,329</b>
<b>Duke Cherkassky, 1877</b>	516*	872	124		188	42			<b>1,771</b>
<b>Turkish census in 1881 (males)</b>	185*	500 (males)	23		17	14	4		<b>774 (males)</b>
<b>Rittich, 1885, St. Petersburg</b>		1,121	59						
<b>Gaston Routier, 1903</b>		1,136	322						
<b>Verković, 1889</b>	240	1,317	222	79					<b>1,949</b>
<b>G. Weigand – Die Nationalen Bestrebungen der Balkansvölker, 1898</b>	695*	1,200	220						<b>2,275</b>
<b>C. von der Goltz – Balkanwirren und ihre Grunde, 1904</b>	730*	266	580						<b>?</b>
<b>Journal ‘Le Temps’, Paris, 1905</b>	410	1,200	270	600					<b>2,782 with Kosovo and Novi Pazar</b>
<b>R. von Mach – Der Machtbereich des bulgarischen Exarchats in der Türkei. 1906</b>	–	1,166	95	6					<b>1,334 (Christians)</b>
<b>Amadori-Virgili – La questione rumeliota, 1908</b>	646	341	642						<b>Saloniki and Monastir vilayets</b>
<b>R. Pelletier – La vérité sur la Bulgarie. Paris 1913 és Leon Dominian (USA), New York, 1917</b>		1,172	190	3					<b>1,437 (Christians)</b>
<b>Encyclopaedia Britannica, 1911</b>	500	1,000+ 150 Pomak	250	120	90	75	50		<b>2,200</b>
<b>Bulgarian, Kănchov (1901)</b>	494+148 Pomak	1033	228	119+ 9	80	68	54,5	500?	<b>2,258</b>
<b>Serbian estimate (1889)</b>	231	58	201	165	70	66	29	2048	<b>2,870</b>

## (b) Criticism of data reliability and its interpretations

	Turkish	Bulgarian	Greek	Albanian	Vlach	Jew	'Gypsy'	Serbs	Total
	Population (in 1000)								
Greek estimate Deligiannis-government, (based on religion)	634*	332	654	-	25	53	9	-	1,725
Turkish (1906, Hilmi pasha)	423*	178	259					13	950
Turkish (1906)	1,145*	626+ Pomaks	633					0	2,300
Romanian, 1905	1,030	512	193	25 ch	350	65		21	2,200
Chalkiopoulos, 1913	618	313	661		8,5	88		4	1,700
Ivanov (1905)	1,500*	897	307		99			101	2,901
Ottoman census and Colocotronis (1905)	1,500	575	627		99			101	2,901
Serbian (Spiridon Gopčević, 1886-1889)	225 or 397 *	50	200-222	80-100	0	?	?	1540	2,200 Macedonia and Kosovo
Gopčević II. (including Muslims and Kosovo v.)	269+ (773)	72+104	167+ 4	50+ 138	93+ 7	67+ 5	34	1412+ 418	2,840 (incl. Kosovo)
Bulgarian government	132	1,038	429	0	0	80	?	0	2,871?
Greek (Kleanthes Nikolaidis) 1899	620*	200	650	0	50	80		250	1,820
Greek (Nikolaides 2), 1899		656	454	576					1686
Serbian? (Gersin, 1903)**	500*	1,182 Slavs	228	28	80	67	?	1,182 Slavs	2,085*
Laveleye, 1868	500	1,300+ 200 Pomaks	200	100	76	90	28	-	2,500
Italian	300	450	250	300	375	100	?	50	1,825
Austrian, 1905 (Ostrich)	550	1,500 Slavs	200					1,500 Slavs	2,200
British (Rousos)	400	1,150 Slavs	300					1,150 Slavs	
Macedonian	400	1,950 Slavs	270	210	105	45	30	1,950 Slavs	3,000
Russian (1899)	800	1,200	220	?	?	?	?	?	2,220
Brankov, Bulgarian, 1905		900+270 Patriarchists +100 Pomaks	190+ 270						
HHStA, Nachlass Kral, cca. 1902	480	600+155 Patriarchists	500	1,380				210	3,300 without Thrace, but with Albania

	Turkish	Bulgarian	Greek	Albanian	Vlach	Jew	'Gypsy'	Serbs	Total
	Population (in 1000)								
<b>Fikret Adanir (1879–1906)</b>	1,508* Muslim	900	307		100			100	
<b>Fikret Adanir (Frankfurter Allgemeine Zeitung, 1903)</b>	250+ 500 Pomaks	1,500 Ort. Slav	200	300	100				<b>2,850</b>

\* Muslims as a whole (including Albanians).

\*\* Gersin K. is in fact Niko Župančić: *Altserbien und die albanische Frage*. Vienna, 1912.

For historical records see: [https://www.strumski.com/books/SMEO\\_Statistika.pdf](https://www.strumski.com/books/SMEO_Statistika.pdf)

We have dealt with the nature of conscriptions, the problem of administrative levels and territorial adjustments, and the problem of temporal changes as possible causes of inaccuracy. There are other factors. Neither the increase in the number of ethnic categories did necessarily mean greater accuracy. Up to now we praised the method of Sax (the two-dimensional classification) for maintaining the old ethno-religious classification beside the new, linguistic national categories, but behind the impressive – and at the same time chaotic, as his opponents claimed – surface, serious data inconsistency can be evidenced if one checks the archival material these Austrian maps were based on. And this leads us back to the question of data sources and the ethnic terms used. The official Austrian consular reports used the terms Exarchists and Patriarchists (thus, the same ethno-religious categories as Ottoman authorities did), which were not equivalent to Bulgarians, Serbs and Greeks respectively. But *kaza*-level summaries already distinguished between Bulgarian, Serb and Greek Patriarchists.<sup>100</sup> The manuscripts contain numerous examples of how this transformation was done in the case of different localities; there was no unified method applied but each *kaza* treated as a separate case. And no one should think that these detailed estimates were more precise than others were. The usage of the double criteria for classification (language & religion, see Table 42) made these maps (Map 22–23 – patch maps;

100 The tables of the Austrian consuls we examined were compiled prior to the next official Ottoman census (1906), and so they had no data on Serbs from this source. If they were able to indicate them somehow, this means that they relied on other sources as well; the tracing of possible sources is one of the key points of the chapter.

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redrawn as pie chart maps: Map 24–25) look methodologically sophisticated and consistent, but in fact the data these were based on were not reliable. We managed to see the original data sheets of the published data and there are remarkable differences, in thousands, between the different versions. The number of Albanians was smaller in the official version, and so was the number of Ottomans (thus we may exclude the possibility of false classification between these groups). The original manuscript indicates many Vlachs as Greeks. The number of Orthodox also differs in the two versions. Some sheets used the categories of ‘Serbs’ and ‘Bulgarians’, while other raw material used the terms ‘Exarchists’ and ‘Patriarchists’. Sometimes even data on the same area from two consecutive years differ – and the difference can only partly be explained by (seasonal) migration (Table 39). Finally, the endings with 000 refer to the fact that data collection was based on estimation rather than enumeration.<sup>101</sup>

These differences can only partly be explained by the slow processing of data: sometimes it took years to check, validate and aggregate sporadic and settlement-level data, as can be seen in the example of school statistics at the beginning of the 20th century (Table 40),<sup>102</sup> or in the report of consul Pára on the ethnic proportions in Monastir (Table 39). In both cases by the time the *sanjak*-level aggregated statistics were ready they soon became obsolete due to the quickly changing situation. These documents highlight how quickly and where new schools were established to serve the national idea, and which nationalities remained undereducated (if we compare the number of schools to the total population). In some cases, while the aggregated numbers matched, there were significant differences between the number of Muslims and Christians (in Korica, for example; see Table 39) as regards raw sheets and published data (the latter served as the basis for mapping).

What is much more interesting is that the original manuscript often mentions Macedonian Slavs, as some of the maps after the Sax era did indicate them (see the map published in *Deutsche Rundschau für Geographie*; App. 21) – they were converted to Bulgarians only on the last version before official publication.

101 HHStA, PA XII, Türkei, Kt. 273. Compiled from the reports of consuls Pára, Ippen and Kral.

102 HHStA, PA XII, Türkei, Kt. 272.

*Table 38. Differences between the published data and the original manuscript on the ethnic pattern of the Balkans I*

**Official appendix of the Austrian map (Map 22)**

	Albanians		Greeks		Vlachs	'Gypsies'	Jews	Total
	Muslim	Ortho- dox	Ortho- dox Greeks	Mus- lim Greeks				
<b>Janina</b>	<b>450</b>	<b>800</b>	<b>77,700</b>	<b>6,000</b>	<b>6,400</b>	<b>1,000</b>	<b>3600</b>	<b>95,950</b>
Leskovic	11,000	5,000	4,000			1,000		21,000
Konica	1,200		12,600		4,000	200		18,000
Filat	12,000	9,000	6,000			1,000		28,000
Ajdonat	5,000	5,000	5,000			800		15,800
Metsovo			850		4,700	50		5,600
Statistische Daten über Nationalitäten und Religionen in Makedonien. k.k Hof- und Staatsdruckerei, 1905.								184,350

**Original manuscript in HHStA, Wien**

	Albanians		Greeks		Vlachs	'Gypsies'	Jews	Total
	Muslim	Ortho- dox	Ortho- dox Greeks	Muslim Greeks				
<b>Janina</b>	<b>4,500</b>	<b>4,400</b>	<b>81,000</b>		<b>12,000</b>			<b>108,000</b>
Leskovic	8,000	5,800	1,000		200			18,000
Konica	2,000	2,000	15,000		5,800			25,000
Filat	1,000	1,000	5,000					37,800
Ajdonat	3,000	3,000	3,500					15,800
Metsovo					5,800			5,900
								211,100

## (b) Criticism of data reliability and its interpretations

Table 39. Differences in population numbers between manuscripts from two consecutive years for the same region (from the reports of Consul Pára)

Sanjak	Kaza	Muslim Albanian, 1901	Orthodox Albanian, 1901	Muslim Albanian, 1902	Orthodox Albanian, 1902
Monastir	Monastir	<b>35,000</b>	2,000	32,000	2,200
	Prilep	<b>17,500</b>		12,000	
	Ohrid	<b>24,600</b>		22,000	300
	Krchova	<b>17,400</b>		11,500	
	Florina	<b>9,800</b>	2,600	6,500	2,600
<b>Total</b>		<b>104,000</b>	4,600	<b>84,000</b>	5,100
Dibra	Gorna Dibra	<b>49,000</b>	408	44,000	400
	Rekalar	12,000	3,600	10,000	3,600
	Dolna Dibra	13,000		<b>20,000</b>	
	Mati	20,000		<b>25,800</b>	
<b>Total</b>		94,000	4,208	99,800	4,000
Elbasan	Elbasan	30,500	3,800	30,000	<b>6,500</b>
	Gramshi	11,000		11,100	
	Peklin	15,500		14,800	
<b>Total</b>		57,000	3,800	55,900	6,500
Korcha	Korica	36,500	<b>26,400</b>	40,000	20,800
	Kolonia	14,514	4,100	13,000	6,100
	Starovo	22,400	3,050	22,400	3,000
	Kastorija	13,500	4,900	11,000	3,000

Left: HHStA, PA XII, Türkei, Kt. 272. 66–71. Monastir, 30.04.1901.

Right: HHStA, PA XII, Türkei, Kt. 272. Report Nr. 255. Pára to Goluchowski, 21.12.1902.

Table 40. The change in the number of schools within one year, 1901–2  
(1902 values are in brackets)

	Kaza	Christian Albanian	Bulgarian	Serbian	Greek	Vlach	Osmanli	Comments on secondary schools
Monastir	Monastir		57 (85)	6	60 (81)	13	58	2 ruşdie, 3 Bulgarian, 2 Serb, 6 Greek, 2 Vlach secondary schools
	Perlepe		26 (30)	11	8	1	26	2 Bulgarian, 1 ruşdie
	Ohrida		25 (33)	4	8	2	25	2 Bulgarian, 1 ruşdie
	Krchova		21	10			18	1 ruşdie
	Florina		28		42 (47)	3	33	1 Bulgarian, 1 Greek, 1 ruşdie
Dibra	G. Dibra		14	2			26	1 Bulgarian, 1 ruşdie
	Rekalar		10	2			4	
	D. Dibra						3	
	Mat						3	
Elbasan	Elbasan				4	1	8	1 Greek, 1 ruşdie
	Grams						4	
	Pekin						5	
Korica	Korcha	2			33 (41)	5	46	4 Greek, 2 ruşdie
	Kolonia				9		13	1 ruşdie
	Starovo				7	1	7	1 ruşdie
	Kastoria		40 (43)		66 (74)	3	36	1 Bulgarian, 3 Greek, 1 Vlach, 2 ruşdie

## (b) Criticism of data reliability and its interpretations

	<b>Kaza</b>	<b>Christian Albanian</b>	<b>Bulgarian</b>	<b>Serbian</b>	<b>Greek</b>	<b>Vlach</b>	<b>Osmanli</b>	<b>Comments on secondary schools</b>
Serfidje	Serfidja				15		9	3 Greek, 1 rušdie
	Naslich				31		22	2 Greek, 1 rušdie
	Kozani				9 (49)		56	2 Greek
	Kajalar		6 (11)		10		45	1 Bulgarian, 2 rušdie
	Grevena				26 (67)	6	17	2 Greek
	Elasszóna				30 (51)	5	9	2 Greek
	<b>Total</b>	<b>2</b>	<b>227</b>	<b>35</b>	<b>358</b>	<b>40</b>	<b>473</b>	

HHStA, PA XII, Türkei Kt. 273. For Üsküp, also see: HHStA, PA XII, Türkei Kt. 272. Consul Pára an Goluchowski, Skopje, 1901. and HHStA, PA XII, Türkei Kt. 272. 21.12.1902. Handschrift, Consul Pára an Goluchowski.

The different data series do not match even if a small time interval is chosen for comparison of smaller areas. The sets of Ottoman data from the two consecutive conscriptions do not correspond to each other at *kaza* level, not to mention the differences between the sets of data of Brancov and Kral, which are relatively close to each other in time and also taken back to *kaza* level (Table 41 compare with Table 42).

Ethnic patterns are even more confusing in contact zones. Grebenarov collected several estimates regarding the ethnic distribution of the ethnic contact zone around Dibra, Struga and Ohrid, where Christian Albanians and Muslim Slavs are also to be found, between 1873 and 1916 (Table 44).<sup>103</sup> However, not only do the numbers differ, but so do the terms referring to different ethnicities, measurement units, and even to district names and boundaries.

103 Grebenarov: Makedoniya 1913 g. Voyni, vastaniya i mezhdunarodni dogovori.

Table 41. Differences between population estimates at kaza level (small units) at the turn of the 20th century

Kaza	Ottoman census, 1902			Kral-Pára-Ippen cca. 1902			Brankov, 1899/1905		Ottoman, 1908			
	Bulgarian	Muslim	Greek and Vlach	Bulgarian	Muslim*	Greek and Vlach	Bulgarian	Greek and Vlach	Albanian	Serbs	Bulgarians	Aromun
Prilep	35,890	14,200	1000	46,000	12,000+ 3,500				18,308	6,504	38,790	212
Ohrid	17,500	8,100	750	24,000	22,000		44,000	3,100	20,369	1,564	34,060	345
Monastir	30,800	24,700	30,000	71,000	32,000+ 12,000	23,000			30,999	489	47,521	41,158
Florina				33,000	18,000	4,000	43,500	100				
Seres				25,000	36,000	35,000	47,500	28,500				
Drama				4,000+ 11,000	33,000	8,000	11,000	3,890				
Demirhisar	11,100	630		15,000	15,000	8,000						
Kichevo	20,000	13,500		22,000	18,000							

\* Albanians+Ottomans; Ottoman data from Kruja: Në historinë Shqiptare, 327-31.

## (b) Criticism of data reliability and its interpretations

Table 42. Part of the statistics found in *Nachlass Kral, HHStA, Wien*  
(*Monastir sanjak, c. 1900*)

	Albanians		Slavs			Greeks		Turks	Vlachs	'Gypsy'	Jew	Total
	Muslim	Orthodox	Exarchists	Patriarchists*	Muslim	Patriarchist	Muslim					
Monastir	32,000	2,200	47,000	24,000		100		23,000	12,000	2,500	5,000	148,000
Prilep	12,000		39,000	7,000	1,800			500	3,500	800		64,600
Ohrid	22,000	300	27,500	2,500		20		2,500	80	500		55,400
Krchova	11,500		16,000	6,500	6,500			60		80		40,640
Florina	6,500	2,600	17,000	16,000				4,000	12,000	2,000	20	60,120

\* 16,000 Patriarchists are Serbs, the rest are Bulgarians.  
Compare with Table 41.

Table 43. A comparison of Brancov's and the Greek Patriarchate's data on Greeks and Bulgarians in Macedonia from 1877 and the 1900s

Population according to Brancov, c. 1900			Population according to the Greek patriarchate, 1877			
<i>Kaza</i> , 1900	Greek and Vlach	Bulgarian	<i>Kaza</i> , 1877	Greek	Graecophile Bulgarian	Bulgarian
Vodena		31,136	Vodena	5,300	23,000	1,800
Seres	28,543	47,560	Seres	68,000		
Drama	3,890+ 1,912	11,016	Drama	19,000		
Salonica	37,265	33,120	Saloniki	47,000	10,000	4,200

Correspondence respecting the Objections raised by Populations inhabiting Turkish ...  
Memorandum des Syllogues Grecs de Constantinople. Jean D. Aristocles, 6 April 1878.

Some conscriptions use households as units, while others apply the number of male persons or indicate the total population or number of villages.

Datasets that mutually confirm one another are almost impossible to find. The two consecutive estimates of the Austrian consuls and of Känchov, made almost at the same time (c. 1900), only slightly differ in terms of numbers and appearance, but their terminology is completely different.

The low data integrity and reliability means that in the Balkan case visualization methods based on absolute numbers are useless. This explains why patch maps were used dominantly. But these fail to illustrate proportions. Pie chart maps can handle these, but these are often based on absolute numbers, which are unreliable. In this case multitone choropleths or pie charts of the same size could be a better solution (for scientific purposes) – as other forms of visualization distort reality, and thus may be used for political propaganda purposes.

## (b) Criticism of data reliability and its interpretations

Table 44. *Ethnic pattern of the transition zone towards Albania*

	Ohrid	Struga	Ohrid kaza	Dibra	Dibra kaza	Kičevo	Kičevo kaza
1873	4,450 b, 2,000 m, 450 v, 200 c *	1,420 b, 650 m, 210 c *	19,356 b, 4,191 m, 210 c *	3,800 b, 7,060 ma	15,820 b, 10,659 ma, 2,644 ka, 6,705 po	360 b, 1,050 m	8,741 b, 4,553 m *
1897, Kral, Roskowski	7,440 e, 3,950 a, 2,600 t, 485 v	2,940 e, 1,372 a	36,608 e, 1,948 v, 12,140 a, 561 pa		12,356 e, 3,638 pa, 766 po, 3,997 a, 1,206 ka	1,200 e, 1,086 po	18,393 e, 8,197 pa, 7,933 po, 2,380 a
1900, Kānčov	8,000 bk, 5,000 t, 500 ma, 300 ka, 400 v, 600 c	3,000 bk, 1,000 t, 350 ma, 220 c	41,208 bk, 3,026 po, 6,000 t, 300 ka, 6,991 ma, 1,950 v, 820 c	4,500 bk, 10,500 ma, 500 c	15,438 bk, 10,292 po, 3,380 t, 2,3695 ma	1,200 bk, 3,560 po	25,476 bk, 7,660 po, 6,190 ma, 254 c
1902, trade agency	1,600h b, 900h a, 110h v		71v b, 12v b-a, 14v a, 2v v	450h b, 1,900h a	16v b, 31v b-a, 63v a, 16v po-t	180h b, 50h a, 800h po	81v b, 15v b-a, 13v a, 8v po
1906, Ottoman only males					32,526 m, 10,555 b		
1908, Šopov and Exarchate			37,065 b, 6,635 t, 9,424 a, 1,882 v (47v b, 12v b-a, 10v other)		13,000 b, 10,000 po, 24,000 a, 3,000 t		
1916, Gadžanov	6,500 b, 2,500 t, 300 a, 700 c, 500 v	14,345 b and v, 13,054 m (district)		2688 a, 2820 t, 1912 b, 581 c	10,952 b, 8,421 t, 5,543 a, 10,848 po, 769 c	1,130 b, 3,400 po, 409 c	

v – Vlachs, b – Bulgarians, bk – Christian Bulgarians, po – Pomaks, pa – Patriarchists, e – Exarchists, a – Albanians, m – Muslims, ka – Christian Albanians, ma – Muslim Albanians, t – Turks, c – ‘Gypstes’, b-a – Bulgarian-Albanian (mixed village), po-t – Pomak-Turks, h – houses, v – villages;

\* Multiplying the data by 2 gives results similar to other calculations.

Grebrenarov: Makedonija 1913 g. Voyni, vāstianiya i mezhdunarodni dogovori, 19–29.

### (c) The complexity of identity – problems of comparison (measuring migration and ethnic changes)

Most maps covered only one aspect of the identity (most often language), but as it was said, this was not suitable for the complicated Balkan conditions. Flattening the dimensions of identity rather served to stress aspirations and suppress diversity. Maps that took more than one dimension of the identity into consideration were preferred mostly by Austrian cartographers. This was a result of their political goals mentioned, and partly due to their ‘imperial’ approach, which stood at odds with the notion of language-based nationalism, but they would splinter the categories even further instead of flattening them. As well as the attempt by Sax (Map 21), a map of Macedonia published in the *Geographische Rundschau* (App. 21) also referred to both ethnicity and religion without mixing the two categories. A similar attempt was made by the Hungarian Asbóth, illustrating religious distribution and the proportion of Bosnian landlords and landless social strata together in a series of maps in order to measure the relationship between social status and ethnicity.<sup>104</sup> The maps in the legacy of Kral (Map 22–23) were also prepared in this way. To test their ‘message’, we have created pie chart versions using the same raw data, and our results were quite different. The assumption of homogeneity on patch maps disappeared, giving way to a more heterogeneous view (compare Maps 22 and 25, and Maps 23 and 24).

Nevertheless, a map showing the Bulgarian-speaking population (thus incorporating Muslim Pomaks) differs from one that shows Exarchists and Patriarchists separately, while a patch map showing Muslims ‘aggregated’ is much more ‘convincing’ than a map showing Turks, Albanians and Pomaks separately. But mixing religious and ethnic (linguistic) categories is dangerous, and can lead to biased results. And not only contemporary interpretations, but also present-day maps make use of this technique (Map 12). On a map, showing the ethnic distribution of Ottoman Turkey based on the Ottoman census of 1905–6, published recently in *História*, a popular academic historical journal in Hungary,<sup>105</sup> the mixing of ethnic and religious categories can be observed (as it was in the original Ottoman source), resulting in a Muslim relative majority in every *vilayet* in European Turkey. The suggested picture helps us understand why the Ottomans chose a categorization that

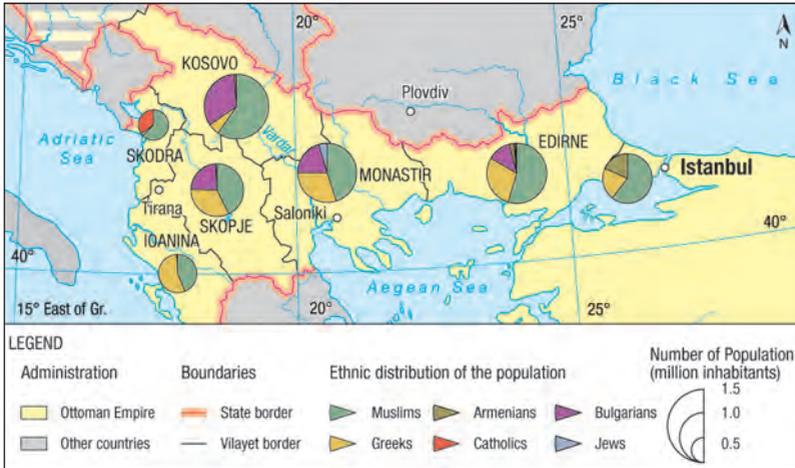
104 Asbóth: Bosznia és Hercegovina.

105 See the map by Béla Nagy in the article by Fodor: Kisebbségek, 33.

(c) The complexity of identity – problems of comparison

splinters the ‘others,’ which also corresponded to the desires of the small states, but left the Muslim category intact.

Map 12. Ethnic/religious map of European Turkey based on the census of 1906



Source: Fodor, P.: Kisebbségék az Oszmán Birodalomban. História, 2012/8.

Let us take a look behind the map and deconstruct it. Our criticism of this map – considering it as a representative of persisting and often unwitting ill practices in our region – can be summarized as follows. Besides the large territorial units that are unsuitable for showing us details about the ethnic situation close to the borders; the method of illustration used is also questionable, not to mention the reliability of the original data. No matter how realistic the percentage values are, the interpretation itself is not correct, as it mixes religious and ethnic categories when it discerns Serbs, Bulgars and Greeks, but does not make a distinction between Muslims using ‘old’ *millet* categories according to the general practice applied in Ottoman census. Scholars may argue that this is merely a reproduction of official data without distortions and modifications, thus can be reasoned, but we have already pointed out our reservations in connection with this method, when mapping the data collected by McCarthy (Map 61). In that case we tried to split Muslims into sub-groups (Muslim Albanians, Muslim Slavs). Muslims may argue that their religion meant a stronger tie, overshadowing ethnic differences, while in the case of the awakening Balkan nations the ‘*Konfessionsnation*’ had already been overwritten by ethno-linguistic categories, thus the Ottoman

practice depicts reality (though in the case of awakening Albanian national consciousness it is not so evident). But even if we accept the argument that national awakening had not yet taken place among Muslims, or if they are simply considered “Ottomans” (and not ethnic Turks), in accordance with official state intentions – thus justifying their being counted together there are other serious problems. This map and the data behind it contradicts Map 24 based on data from around 1900. In the latter, the number of Muslims (incl. Slavs, Turks and Albanians) reached 640,000 in the Kosovo *vilayet*,<sup>106</sup> while the map published in the Hungarian journal *História*, based on official Ottoman data, accounts for 960,000 Muslims. It is an enormous difference, even if we consider the Anatolian soldiers (the *sanjak* of Novipazar was included in both conscriptions), which has to be explained somehow.

Such a big difference within a short timespan cannot be explained by migration processes (the Ilinden uprising in 1903 induced mass movements among Slavs, rather than Muslims), contrary to the years between 1876 and 1900. In the Kosovo *vilayet* in 1876, only 400,000 Muslims were indicated for the 1911 territory,<sup>107</sup> so their number showed a remarkable recovery even until 1900, partly due to the mass immigration from lost Ottoman territories. This migration is reflected also in their proportional values: in 1876, Muslims constituted some 50% of the population – see Table 6 – but the map from 1906 and the data found in HHStA referring to the early 1900s put the proportion of Muslims at over 60% in the *vilayet*.<sup>108</sup> However, the difference between the 1900 and 1906 data neither can be explained by administrative readjustments (there were not any) nor by differences in conscription methods – the 50% difference is simply too high. In the case of the two other *vilayets* the difference was not so great.<sup>109</sup>

106 The data collected by the Austrian authorities reveals that the number of Ottoman Turks was only 109,000, while the number of Albanians reached 440,000, and that of Muslim Slavs 100,000 in that same vilayet.

107 For the 1876 territory it was approx. 550,000, similarly around 50%. Frantz: *Gewalt und Koexistenz*, 55–7.

108 A similar proportion for the vilayet was given by Jakšić, head of the Serbian Statistical Bureau, prior to 1875. The proportion of Muslims did not decrease either in Selanik (42% in 1875 and 45% in 1903 and 1906) or in Edirne after the turn of the century (Table 45).

109 The incorporation of children means an extra 25%. But in other vilayets, the difference between these two conscriptions was significantly lower, while a systematic modification should have resulted greater difference.

Furthermore, if we compare this data with that from 1905, just one year before the official census (Table 46–47), some of the numbers and proportions are confirmed, whereas some are not (Monastir), rendering the situation more complicated. The reason for this was that the conscription of the General Inspectorate (1904/05) did not cover the whole territory of the three vilayets, as some of the sanjaks were omitted initially from the Macedonian reform movement. Therefore the results are not comparable. Even these statistics showed an absolute Muslim majority with 51%, and this value raises suspicion regarding the conscription techniques and goals.

Of course, one may also have certain reservations about the reliability of the 1902–3 data, as neither of these was derived from “official” state statistics (Table 41–42). But the Austro-Hungarian authorities could also rely on the detailed settlement-level pie chart map of the region,<sup>110</sup> which was available at trading agencies of small states (App. 84–85, App. 94). However, these maps do not indicate exact numbers, while the tables and preliminary reports of the consuls did so at *kaza* level. Thus, there had to be another source of data (Ottoman *salname* and the conscriptions of the Exarchate) that was used by Austrians.

As McCarthy has already proven with the example of Anatoly in 1919, Ottoman *vilayet* statistics and Greek eparchial data regularly failed to coincide. This is also true for the Balkans. The smallest difference was that measured for the Greeks, while Bulgarians and Muslims showed regularly smaller numbers in Greek conscriptions (Table 48). The reclassification of groups into another group (Patriarchist Bulgarians) seems to be insignificant in this case (the number of Greeks were constant); the differences can mainly be explained by the different total number of inhabitants. This conscription fails to coincide with any of the three major Greek versions; neither does it match the Ottoman *salname* of 1904.

In previous pages we have criticized the Ottoman census because of mixing religious and ethnic terminology leading to the lack of subdivision of Muslims. Competing Balkan nations also made use of this practice. The Greek *Chalkiopoulos* also used aggregated categories of Muslims counting Pomaks

110 These maps, together with a book enumerating the settlements, were also found in HHStA PA and in BOA and had already been published by 1899–1901, while the manuscripts from Nachlass Kral and Kt. 272–273. originate from 1901–02.

Table 45. The vilayet-level calculation of Jakšić, head of the Serbian Statistical Bureau, prior to 1875<sup>111</sup>

Vilayets	Muslim	Non-Muslim	Muslim %
Istanbul	183	144	56
Edirne	523	831	39
Tuna	819	1,175	41
Selanik	429	599	42
Janina	250	460	35
Prizrend	789	550	59
Bosnia	493	864	36
Crete	38	162	19
Total	3,600	4,875	42

Stanford, An Ethnological Map of European Turkey and Greece (see also Table 25 and 10).

Table 46. Ethnic distribution in the three Macedonian vilayets in 1905, based on the data of the General Inspectorate (population in thousands and in %)

Vilayet	Muslims	Patriarchists	Bulgarians	Vlachs-Serbs	Total
Selanik	485	323	217		1,025
Manastir	260	291	188	30	770
Kosovo*	752	13	170	170	1,105
Total	1,500	627	575	199	2,901
Selanik	47.3%	31.5%	21.2%	0.0%	100%
Manastir	33.8%	37.8%	24.4%	3.9%	100%
Kosovo	68.1%	1.2%	15.4%	15.4%	100%
Total	<b>51.7%</b>	<b>21.6%</b>	<b>19.8%</b>	<b>6.9%</b>	<b>100%</b>

\* Some parts of the regions are omitted from the Mürzsteg process, and therefore also omitted from the investigation. Compare this to McCarthy: Population history, 120–22. and 145. See Table 6–7, 9–10.

111 Published in Petterman's Geographische Mitteilungen. The territorial distribution indicates that it was created some years earlier (as Austrian calculations for 1877–8 include “Kosovo” vilayet).

## (c) The complexity of identity – problems of comparison

Table 47. *The vilayet-level statistics of the Ottoman census in 1905/06 (population in thousands, based on McCarthy)*

Vilayet	Muslim	%	Greek	%	Bulgarian	%	Altogether
Edirne	759,000	53	396,000	28	171,000	12	1,400,000
Saloniki	604,000	45	398,000	30	271,000	20	1,350,000
Janina	244,000	44	311,000	55			561,000
Monastir	455,000	43	350,000	33	246,000	23	1,065,000
Shkodra	218,000	62	10,000	3			349,000
Kosova	959,000	60	93,000	5	531,000	33	1,600,000
Istanbul	567,000	57	200,000	20			999,000

Table 48. *Ottoman vilayet statistics and Greek Eparchial data from the same era on the same area (in thousands)*

Ottoman vilayet statistics <sup>112</sup>	Muslims	Hellenes*	Bulgarians**	Others	Total souls
Saloniki	433	350	200	50	1,013
Monastir	344	309	174	23	840
Total	777	659	374	73	1,873
Greek eparchial statistics	Muslims	Hellenes*	Bulgarians**	Others	Souls
Saloniki	397	350	130	30	937
Monastir	230	289	107	11	637
Total	627	639	237	61	1,574

\* Including Hellenophone Vlachs, Albanians and Bulgarians.

\*\* Schismatics (Exarchists).

112 Based on salname statistics from cca. 1900. See Table 10.

as Muslims in order to decrease the number of Bulgarians. The Romanians overestimated the number of Vlachs, at the expense of the Greeks, whereas the Greek interpretation showed smaller numbers of Orthodox Bulgarians compared to the Romanian data, similar to the Greek estimate in 1878 (Table 9). In other words, the Greek interpretation deprived Bulgarians of their natural growth for over thirty years.

The Ottoman General Inspectorate of the three Macedonian provinces put the number of Patriarchists at 627,000 in 1905. In the work of the Greek *Colocotronis*,<sup>113</sup> they were simply converted to Greeks, and their number even increased by him arbitrarily by 20,000, decreasing the number of Exarchists from 575,000 to 555,000. The Bulgarian Ivanov, on the other hand, reduced the number of Patriarchists by 300,000, claiming that they were Slavic-speaking Patriarchists.<sup>114</sup> His idea was strengthened by an earlier Ottoman conscription which claimed that in the area of Hrupišta and Kostur-Kastoria the majority was Bulgarian (Map 15 and 18, 1876 and 1902 – here Exarchist Slavs were separated from Greeks, unlike Map 17, where Greeks dominated the mentioned areas because of the different method of conscription). In this fashion, in his work published in 1919, Ivanov managed to increase the number of Bulgarians to 900,000 and to decrease that of the Greeks to 300,000. (Muslims still remained in the majority, many of them Albanians in Kosovo).

But, as *Musa Şaşmaz* wrote, the figures provided by Ivanov did indeed belong not to the Turkish statistics of 1905/06, but to the so-called “Hüseyn Hilmi Paşa Statistics” (a report on Macedonian reforms).<sup>115</sup> This found at least four different contemporary interpretations (see Table 49), and this undermines its reliability. It seems that Hüseyn Hilmi Paşa’s figures were more suitable for the Bulgarian claims (partly because of the different administrative boundaries) than the Turkish official statistics of 1905/06 with its high numbers. Ivanov simply intended to influence European public opinion, and when the discussions at the peace conference about the future of Macedonia were over, he did not hesitate to publish the real Turkish statistics of 1905/06 in his study *La Question Macedonienne*.<sup>116</sup>

113 Colocotronis: La Macédoine et l’Hellénisme.

114 Ivanoff: Les Bulgares devant le Congrès de la Paix.

115 Şaşmaz: The Distortion of the Population Data for National Causes.

116 Ivanoff: La Question Macedonienne, 176.

Table 49. An example of the different interpretation of the same source  
(the so-called ‘Hilmi Pasha Statistics’)

Vilayet	Group	Justice Committee	Kyriakides	Colocotronis	Ottoman salname (1904)
Selanik	Greek	332,000	373,227	303,610	313,709
	Bulgarian	195,000	207,313	159,835	214,000
Manastir	Greek	280,000	261,283	217,690	
	Bulgarian	143,000	178,412	128,915	

Kyriakides: The Northern Ethnological Boundaries of Hellenism; Colocotronis: La Macédoine et l’Hellénisme. Justice for Greece Committee: The Hellenic Character of Northern Epirus.

A good example of unconsolidated identity in the context of “awakening nations” is the case of Çämeria, the border region between today’s Greece and Albania. There, a strong local-regional identity prevailed, while modern (and official) ‘Albanian’ or ‘Greek’ national affinities were not as yet determinants of self-identification.<sup>117</sup> Under these circumstances the willingness to distort and manipulate identity in statistics was clearly evident. The Greeks attempted this in 1913 when they claimed that large masses of Albanians were in fact Graecophiles (Albanophone Greeks), thereby managing to create a Greek majority in several districts of southern Albania in 1913 (Table 51). In the case of fluid, unconsolidated nationality, fake statistics are definitely cheaper and may bring results faster than creating schools, changing minds or replacing the population. We have to distinguish between the three basic techniques: re-labelling an existing community; detaching a new subgroup; and re-classifying masses, i.e. incorporating masses into an existing group. This attempt on Greece’s part was based on the idea that this ‘ethnic group’ had already appeared on the map of Sax from 1877, and ‘Greco-Albanians’ still occurred on the Austrian map created for the Mürzsteg convention as well (Map 22).

The problem also occurred when these data had to be visualized during the delimitation of the southern boundaries of Albania. We have already compared the different patch maps of Aravandinos (App. 41) and Kohlmann from

117 See the differences in maps of Sax, Aravandinos and Kohlmann illustrating Çämeria in 1878 and 1880.

the 1880s,<sup>118</sup> the pie chart maps created by us from the data of Roukis (1884, Map 60) and the HHStA (Map 56, 1912) with one another. From among the numerous contemporary patch maps on “Albania”, the map of the pro-Albanian Lako in 1918 (App. 64b) is an example of ethnic maps showing only one (“ethnic”) dimension, while Alfred Stead’s map of the same area (App. 64c, 1909) uses a fuzzy, multidimensional approach, a combination of the method of Sax and the visualization technique (hatching to illustrate mixed zones) of Kiepert. Unlike Stead or Kiepert (compiled after Aravandinos, App. 41), Lako had to make a firm decision about how to classify the inhabitants of southern Albania (he classified them as Albanians and not as Greeks or Albanophone Greeks, or Graeco-Albanians). He did so in his settlement-level map too (Map 9), where he also used linguistic approach.

Another example of the reclassification of people was also implemented by the Greeks in 1913 after the incorporation of southern Macedonia (Table 53). While in 1913, the Bulgarian map of Ivanov, which was based on the statistics of the Exarchate, enumerated 330,000 Bulgarians in the region, the Greek statistics accounted for only 170,000. The Pomaks and Albanians were incorporated into the category of Muslims in the Greek statistics, while patriarchist Bulgarians were counted as Greeks, increasing the number of the latter from 236,000 to 500,000 (though still only a relative majority). Despite these efforts, even the Serbian press put the number of Slavs at 260,000 in Greece.<sup>119</sup>

National indifference and mimicry driven by fear were sometimes inseparable, and this could result in biased concepts based on reclassification. When Cvijić mentions ‘Albanized Serbs’ (*arnautaši*) in Kosovo, he refers to this mimicry of local lowland people with dual identity as a response to constant harassment from central government, local landlords and upland Albanians. The process began with the change of religion and ended in the change of language according to Serbian scholars. It is true that even Boué in the 1840s mentions the Albanization of Slavs using the term “mixed race”,<sup>120</sup> and it is also true that Roukis’ statistics published in the *Petermanns Geographische Mitteilungen* in 1884 indicate Muslim Serbs in the region of

118 Though both were suggested by Athens.

119 Report of the International Commission, 195. See also: Vellay: Lirrédentisme hellénique. who cites Amadori-Virgili.

120 Boué: Europäische Türkei, I. 341–6. Cited by Clewing: Mythen und Fakten, 41.

Prizren.<sup>121</sup> The phenomenon cannot be denied, but Serbian authors usually overestimate its significance. In the statistics of the Serbian consulate in Priština from 1905, which were published in 1988, 20,000 Albanians and altogether 390,000 Albanized Serbs are mentioned, and one may wonder how this unrealistic amount could be supported by any serious scholars.<sup>122</sup> Even the Serbian Urošević put the rate of Albanized Serbs only at 10 percent of the total population.<sup>123</sup> Daily survival was sometimes more important than sticking to national identity and this explains the abundance of “ethnic chameleons”, which was so vividly illustrated by Terzić with the example of the Patriarchist priest (see earlier). These cases confirm the complexity of the ethnic question in the Balkans.

A crucial problem is that in the patch maps we examined it is hardly possible to distinguish between mistakes, technical manipulations and real ethnic changes. The latter can be the result of change in people’s minds, it can be forced under pressure, or it can be the result of migration and forced displacement. And as we know, migration processes were not insignificant at all in that region. In 1843, when *Grisebach* visited Kalkandelen-Tetovo, it was completely “Bulgarian”, while *Rockstroh* in 1874 wrote about a mixed settlement of Albanians and Bulgarians with 1,600 houses.<sup>124</sup> If such changes could occur under relatively peaceful circumstances, then what could happen in a theatre of war? *Vacalopoulos* mentions that the Albanian soldiers of Ali Tepeleni forced Greeks and Vlachs to move from South Macedonia to Central Macedonia; the abundance of Vlachs in Krushevo (1,500 merchant families) and Monastir (700 merchant families) is thus the result of forced migration. *Kanitz* wrote of 1,200 Muslim and 800 Christian houses in Lovech in 1871, while in 1878 the 930 Christian houses outnumbered the 150 Muslim and 300 Roma (‘Gypsy’) households, owing to the collapse of the silk-reeling industry as a result of the political changes.<sup>125</sup> According to

121 Roukis: *Ethnographische und Statistische Mitteilungen über Albanien*.

122 Peruničić: *Svedočanstvo u Kosovu 1901–1913*, 246–8 and 509. Cited by Clewing: *Mythen und Fakten*, 40.

123 Urošević: *Etnički procesi na Kosovu tokom turske vladavine*, 111. Cited by Clewing, 41–2.

124 *Rockstroh*: *Reiseskizzen aus Dardanien und Albanien 1874*, 40–58.

125 *Kanitz*: *Donau-Bulgarien und der Balkan*. For Varna and Balchik, *Kanitz* provided three datasets in 1870–82, each one different regarding the numbers and percentage values.

McCarthy the expatriation of Muslims between 1875–85 exceeded 500,000 from the Balkan states<sup>126</sup> and a further 400,000 Muslims left the Balkans between 1912–20, constituting more than 40% of local Muslims.<sup>127</sup> The proportion of Muslims fell from 30% to 15% in Eastern Rumelia by 1879 (Table 32 and 54)<sup>128</sup> – according to the Foreign Office. (But soon 100,000 Muslims returned, and even the 1884 census in Eastern Rumelia counted 200,000 or 20% Muslims).<sup>129</sup>

Migration also makes the comparison of ethnic (patch) maps more difficult, as sometimes even – in numerical terms – minor changes may occur on patch maps, while larger changes may remain untraceable and invisible, e.g. if a disseminated minority of urban dwellers concentrated on a point are affected by the process. For example, according to Bulgarian estimates, roughly 200,000 Bulgarians from Macedonia moved to Bulgaria prior to the Balkan Wars, exerting pressure on Bulgarian diplomacy; a further 100,000 refugees arrived soon after the Balkan Wars.<sup>130</sup> While the earlier process was untraceable partly due to their scattered pattern, and partly because of the unreliability of maps, the latter wave was clearly visible on the maps of Thrace (compare App. 73 and App. 97). This again leads us to the question of visualization techniques: in this case, pie chart maps indicate changes better. An example: the decreasing number of Bulgarian Muslims<sup>131</sup> is not observable

- 126 Karpat put Ottoman civil losses in the Balkans between 1876 and 1878 at 200,000. Karpat: *Ottoman Population*, 48. McCarthy adds that a further 250,000–350,000 Muslims left Bulgaria in the years that followed. McCarthy: *Death and Exile*, 208.
- 127 McCarthy: *Population History*, 31 and 59. The Serbs alone carried off 700,000 sheep ruining the livelihood of Muslim pastoralists. Bulgarians are thought to have killed 7,000 Muslims in the Kavala region, a further 2,000 in Serres, and 3,000 in Dedeagaç according to McCarthy. Besides having an immediate effect on the ethnic proportions, it also encouraged Muslims to flee. McCarthy puts the percentage of the remaining Muslim population in Greece at 17%, while it was 45% in the case of Bulgaria and Serbia after the Balkan Wars.
- 128 In Sliven, the number of Muslims fell from 44,000 males then to 12,000 persons by 1880, while their proportion fell from 40% to 10% after 1878. Totev: *Tsenen dokument za istoricheskata etnicheska demografiya na Balkanskiya poluostrov*.
- 129 “Demographics of the Ottoman Empire”, in: Wikipedia, [https://en.wikipedia.org/wiki/Demographics\\_of\\_the\\_Ottoman\\_Empire](https://en.wikipedia.org/wiki/Demographics_of_the_Ottoman_Empire) (September 14, 2020).
- 130 The Report of the International Commission, 385.
- 131 Ireček pointed out that in the Shumen and Varna districts, the population of 135 settlements were exchanged. Between 1881–89, 12,500 Muslims left the Varna district, and a further 15,000 moved from the Razgrad area in 1882–83.

on maps before 1892, the year of the first Bulgarian census (App. 82, which is still a patch map, but at least indicates proportions), because those who left were often skilled urban dwellers, or inhabitants living in a minority, and thus remained unrecognized on the patch maps of Boué, Lejean, Mackenzie-Irby, etc., created before the exodus.

Fortunately, Ottoman censuses made it possible to measure the number of refugees. In the Danube *vilayet* there were 30,000 Circassian male *muhadjirs* (3% of the population) in the 1870s,<sup>132</sup> while other sources estimate male refugees at 64,000 (6%).<sup>133</sup> From the area acquired by Serbia in 1878 (Niš *sanjak*) at least 71,000 Muslims were displaced, including 49,000 Albanians.<sup>134</sup> In northern Macedonia the proportion of *muhadjirs* (Balkan Muslims who migrated from territories lost for the Empire, see Table 55) exceeded 25% in 1878 in the Prishtina, Gjilan and Vučitrn districts, which meant that the proportion of Christians decreased to below 25% in these areas (Map 46). This map also reveals why Mutlu had to add an extremely high additional value (+28%) to the population of Kosovo (1897) in his corrected statistics, discussed earlier.

Also, the comparison of Ottoman (census, 1908), Bulgarian (conscription of households) and Austrian statistics (census of occupied lands in 1916) on the Albanian ‘ethnic contact zone’ reveals that the displacement and expulsion of the population within the space of eight years also contributed to the changing ethnic pattern (Map 57–59 and App. 64); the Bulgarian conscription found a Bulgarian majority in many places where the Ottomans and Austrians earlier did not.

We can give another example of ethnic changes that can be observed even on patch map. The two ethnic patch maps of Dobrudja, one in the 1860s (Lejean) and the other in the 1910s both indicate huge diversity, but also mark remarkable changes, referring to ethnic replacement (App. 66–67). Our pie chart map created by the data of Ionesco in the 1850s indicates

Ottoman sources and Cherkassky wrote about 450,000 Muslim males (approx. 900,000 persons) in the Danube *vilayet*, while a further 340,000 Muslims lived in Eastern Rumelia before 1876 (according to Totev), and in 1884 their total number was only 800,000. In 1880 only 170,000 “Turks” were indicated in Eastern Rumelia (Gopčević), with a further 600,000 in North Bulgaria.

132 According to *Tahrir-i Cedid*, 1874. Koyuncu: Tuna vilâyeti’nde nüfus, 717.

133 Based on Ismail Kemal, editor of the newspaper Dunav. Arkadiev: *Izmeneniya v broya na naselenieto*.

134 Jagodić: *The Emigration of Muslims from the New Serbian Regions 1877/78*. European data series estimate their number between 50,000 and 90,000.

an even more versatile, mosaic-like picture (Map 54 compare with Map 50) with not so evident Romanian preponderance as in 1913 (App. 66), 30 years after the incorporation of the region into the kingdom.

As we mentioned above the role of urban spaces in visualization is special as they occupy a relatively small area on patch maps while at the same time comprising larger proportions from the population. Silistria, which displayed a Romanian-Turkish majority in 1878, by 1905 turned out to be Bulgarian (Table 50). In that case, both migration caused by the new political order, and the higher adaptability of multilingual urbanized communities could explain the changes. Although towns are usually considered to be the main places of assimilation (in Hungary, for example), this process does not necessarily always happen. In Kosovo the urbanized areas – thanks to the concentration of their cultural institutions – functioned largely as a refuge area for Christians. It seems that the number of urban Orthodox remained more or less constant in the towns of Kosovo between 1850 and 1900 (Table 52), though a generation of net reproduction was missing; however changes in ethnic proportions can only be estimated in the absence of proper data on Muslim households. Not even the huge influx of muhajjirs did significantly modify ethnic proportions in the town of Prishtina in 1880 compared to 1858. (Compare Map 46 and Table 52: Christians were already in minority in the 1840s, constituting not more than 25% of tax-payers, while according to Milojević in the 1870s, their ratio slightly decreased).<sup>135</sup>

*Table 50. The ethnic composition of the town of Silistra in 1878 and in 1905*

<b>Nationality</b>	<b>1878</b>	<b>1905</b>	<b>1879 Kanitza, number of families</b>
Bulgarian	1,500	6,100	529
Romanian	2,500	300	210
Turk, Tatar	7,000	4,300	2915
Jew, Armenian, 'Gypsy'		1,000	320
<b>Total</b>	<b>11,1000</b>	<b>12,000</b>	<b>4,000</b>

Documents Diplomatiques. Les événements de la péninsule Balkanique, 62.

135 Osmanlı Arşiv Belgelerinde. Kosova vilayeti, 363–413. Nr. 15477, Nr. 15465 *te-mettuat defters*.

## (c) The complexity of identity – problems of comparison

Table 51. Manipulated Greek statistics for Northern Epiros

Sanjak and kaza	Greeks (in 1,000)			Muslims (1,000)	Total (1,000)	Greek %	Muslim %
	Hellenes	Albano-phones	Vlacho-phones				
Janina s.	102	4	11.2	10.7	<b>128</b>	88	12
Preveza s.	32.7	1.1	0	2.7	<b>36</b>	92	8
Goumenitza s.	28.6	11.6	0.1	34.4	<b>74.8</b>	56	44
Argirocastro k.	13.1	7.9	0	21	<b>42.1</b>	50	50
Delvino k.	12.2	4.1	0	5.3	<b>21.8</b>	75	25
Himara k.	3.8	3.3	0	4.7	<b>11.9</b>	60	40
Vostino k.	18.6	0	2.3	0.8	<b>21.8</b>	96	4
Tepeleni k.	0	4.3	0	5.8	<b>10.2</b>	44	56
Premeti k.	0	7.1	1.6	9.6	<b>18</b>	48	52
<b>Total</b>	<b>211.5</b>	<b>43.7</b>	<b>15.3</b>	<b>95</b>	<b>385</b>	<b>74</b>	<b>26</b>
Korica k.	0	34	1.5	34	<b>69</b>	51	49
Colonia k.	0	5	0	9.6	<b>15</b>	34	66
Starovo k.	0	3.5	0	13.4	<b>13</b>	33	67

HHStA, PA XII, Türkei, Liasse XLV/4. 07.01.1913., zweite Beilage, fol. 64.

Table 52. Religious distribution of the population in Kosovo towns

Towns (household number)	Muslims, 1858	Christians, 1858	Christians, 1900
Ipek	4,000	800	641
Priština	1,200	300	531
Prizren	3,000	1,000	982

Based on Hilferding (1859) and Stojan Novaković. See Bataković: Serbia's Kosovo Drama, 57.

Table 53. Ethnic distribution of Southern (Greek) Macedonia, according to different calculations

Population in 1,000	Ivanov, 1913	Population in 1,000	Amadori-Virgili 1908 <sup>136</sup>
Bulgarian	329	Exarchist Bulgarian	170
Turk	314	Muslim	516
Greek	236	Orthodox Greek	497
Vlach	44	Vlach	6
Total	1,042	Total	1,236

Table 54. The population of Eastern Rumelia (Plovdiv sanjak) in 1875 and 1878, after forced migration

Folk	Prior to 1876–78	After the war (British statistics)	Proportion in 1878 measured to 1875 %	Proportion in 1875, %	Proportion in 1878, %	After the war (Gopčević)*
<b>Turk</b>	220,000	90,000	<b>41</b>	29	15.5	<b>134,000–174,000</b>
<b>Pomak</b>	25,000	25,000	<b>100</b>	3.3	4.3	
<b>Tatar</b>	10,000	8,000	<b>80</b>	1.3	1.3	
<b>Circassian</b>	10,000	0	<b>0</b>	1.3	0	
<b>Gipsy</b>	25,000	16,000	<b>64</b>	3.3	2.7	<b>13,000–19,000</b>
<b>Bulgars</b>	400,000	380,000	<b>95</b>	52.6	65.5	<b>421,000–555,000</b>
<b>Graeco-phile Bulgars</b>	35,000	30,000	<b>86</b>	4.6	5.1	

136 Amadori-Virgili: La questione rumeliota.

## (c) The complexity of identity – problems of comparison

Folk	Prior to 1876–78	After the war (British statistics)	Proportion in 1878 measured to 1875 %	Proportion in 1875, %	Proportion in 1878, %	After the war (Gopčević)*
Greek	35,000	30,000	86	4.6	5.1	16,000–42,000
Total	760,000	580,000	76	100	100	597,000–815,000

\* For Gopčević see Plovdiv sanjak and the whole of Eastern Rumelia separately (Table 33–34).

Foreign Office, 424/75 (Drummond Wolff to Salisbury, 26.09.1878), own calculation. Without Sliven and Burgas districts. See also Gopčević: Bulgarien und Ostrumelien. Totev (citing More) calculates with 117,000 Muslim males in Plovdiv and 194,000 Bulgarians, while in Sliven their number was 45,000 and 60,000 respectively in 1876.

Table 55. Number of Muslims before and after the Great Eastern Crisis

Vilayets	Edirne	Manastir	Selanik	Iskodra	Yanya	Kosova
	In 1,000					
1876	434	143	367	151	171	360
1882	539	302	460	163	211	637

Regions taken from the Ottoman Empire in 1878–81	by Austria	by Bulgaria	by Serbia	by Montenegro	by Greece	Total
1876	755	1,501	131	32	40	4,085
1882	450	715	12	0	5	3,500

McCarthy: Population History, 143.

Table 56. Ethnic proportions of Bulgarian towns based on an Ottoman *teskere* from 1866 (in %)

	<b>Bulgarian</b>	<b>Muslim</b>	<b>Gipsy</b>	<b>Armenian</b>	<b>Jew</b>	<b>Taxable total population in 1866 (growth since 1831)</b>
<b>Vidin</b>	34	<b>52</b>	6		8	7,664 (+25%)
<b>Sofia</b>	38	<b>39</b>	4		20	6,770 (+5%)
<b>Lom</b>	58	<b>35</b>	3		5	3,013
<b>Dupnica</b>	38	<b>46</b>	5		11	3,529
<b>Pleven</b>	47	<b>45</b>	5		2	7,793
<b>Ruse</b>	38	<b>52</b>	2	4	5	10,338 (+40%)
<b>Shumen</b>	40	<b>51</b>	1	5	2	10,060 (+8%)
<b>Varna</b>	49	<b>40</b>	1	8	2	7,537
<b>Silistra</b>	30	<b>62</b>	2	4	1	3,787

Keren: Evreyskoto obshchestvo v Ruschuk, 71; Todorov: The Balkan Town in the Second Half of the 19th century, 32-5.

Table 57. Muslims in Bulgarian *sanjaks* prior to 1878

<b>Sanjak</b>	<b>Villages</b>	<b>Muslims</b>	<b>Muslim %</b>	<b>Total</b>
Ruschuk	833	138,600	59.2	234,000
Varna	391	56,700	73.2	77,450
Vidin	434	25,300	16.8	150,000
Sofia	711	24,400	14.2	171,000
Tárnovo	453	71,600	40.6	176,000
Tulcea	252	39,000	68.4	57,000
Niš	549	54,500	35.1	155,000
<b>Total</b>		<b>410,000</b>	<b>41.0</b>	<b>1,020,000</b>

The table refers to significant changes compared to the first Bulgarian census (1892, App. 82).

Table 58. *The ethnic distribution of the population in Kosovo, 1911–1931*

Year	Albanian	Serbian	Total
	In 1,000		
1911	390	207	600
1921	280 (-28%)	156 (-24%)	436
1931	347 (+25%)	205 (+35%, an increase brought by settlers)	552 (+26%)

Based on Bataković: *Serbia's Kosovo Drama*, 60. and 91.

Despite the above analyzed significance of migration processes, the patch maps of Sax (late 1870s) and the *Nachlass Kral* (1900s) are quite similar in the extent of patches over the 30 years that elapsed. The similarity of the two patch maps draws the attention either to the relative stability of settlement structure and ethnic patterns in Macedonia despite the changes in numbers due to population movements in these hectic years; or to the dangers of using patch maps (as these are not informative about numbers and density) when investigating changes in ethnic patterns, because the pie chart maps definitely indicate the high proportion of migrant refugees. As to the first possibility, sometimes – contrary to the devastation and the reports of subsequent ethnic cleansing – even wars were unable to change radically ethnic proportions and patterns. The proportion of Albanians in Kosovo remained quite constant between 1911 and 1921, even though their losses were as high as 110,000, while those of the Serbs reached 60,000 – both ethnic groups suffered a loss of around 25% in this decade of war and displacement (Table 58).

If the comparison of patch maps is not solution, we may try to look behind them and check their data (keeping in mind that numbers are not accurate), in order to answer the question how stable ethnic proportions were. The comparison of the above analyzed vilayet-level data of Jakšić (Table 45) and the different Ottoman conscriptions between 1901 and 1906, also aggregated at vilayet level, generally confirm that the proportion of Muslims did not decrease in the shrinking Ottoman Europe. Due to the high number of Muslim refugees their share remained around 45–50% between the 1860s and 1910 in Macedonia despite the Great Eastern Crisis, Ilinden, Kresna-Razlog and *pečalbarstvo*. But, as we pointed out, the numbers themselves are unreliable, and thus we cannot separate changes caused by differences in net

reproduction from changes generated by migration or assimilation. However, this fact is a vote against the application of pie chart maps, and it makes choropleth maps more precious. (Nevertheless, the latter also had their limits, as these are unable to illustrate more than one nation on the same map).

And what about other ethnic groups? A conscription of Greeks in Thrace – the reason for this in 1910 was the occasion that only 23 out of the 288 electoral mandates of the Empire were won by Greeks<sup>137</sup> – assumes that significant decrease in the number of Greeks did not take place during the thirty years of Ottoman rule between the conscription in 1881 (Map 45) and the one executed in 1910 (Table 59) – except for Edirne. There were seven districts where population increase remained under the average +15% (including two districts characterized by decrease) and nine over 30% out of the 20 cases. In other words, the ethnic proportion of Greeks remained relatively stable in Thrace prior to 1920 according to the Greek source, unlike that of Bulgarians (See App. 73). This may challenge ideas on increasing Ottoman oppression during the Young Turk – Conservative rivalry. However, this was the very conscription criticized earlier by McCarthy. Thus, the numbers in the latter dataset, suggesting stability for the Greeks, are also unreliable.

The above outlined stress that temporal comparisons are unreliable, which is not surprising knowing that the input data and maps are flawed.

Table 59. Changes in numbers of ‘Greek Orthodox’ in Edirne vilayet (1881–1910)

<i>Kaza and muteşarifik</i>	<b>Greeks in 1881 (cf. Map 44–45)</b>	<b>Greeks in %</b>	<b>Total</b>	<b>Greeks in 1910</b>	<b>Growth measured to 1881 (= 1)</b>
Edirne m. s.	<b>84,000</b>	<b>30.55</b>	<b>275,000</b>	<b>62,000</b>	<b>0.74</b>
Kirkkilise m. s.	<b>56,000</b>	<b>37.84</b>	<b>148,000</b>	<b>68,000</b>	<b>1.21</b>
Kirkkilise	21,100	30.82	68,473	28,314	1.34
Vize	12,350	42.81	28,847	16,000	1.30

137 Alexandris: The Greek Census of Anatolia and Thrace (1910–1912). Though the methodological objectivity can be challenged, the ratios given here seem to be reliable (as the same type of distortion occurred in both cases).

## (c) The complexity of identity – problems of comparison

<i>Kaza and mütəşarifik</i>	<b>Greeks in 1881 (cf. Map 44–45)</b>	<b>Greeks in %</b>	<b>Total</b>	<b>Greeks in 1910</b>	<b>Growth measured to 1881 (= 1)</b>
Lüleburgas	7,500	34.20	21,932	9,471	1.26
Babaeski	5,607	32.49	17,257	5,270	0.94
Midia	6,950	89.10	7,800	9,405	1.35
Gelibolu m.s.	<b>62,000</b>	<b>63.44</b>	<b>97,726</b>	<b>81,000</b>	<b>1.31</b>
Gelibolu	19,400	58.57	33,120	19,613	1.01
Keşan	14,198	49.47	28,702	15,312	1.08
Şarköy	12,175	79.91	15,235	14,284	1.17
Mürefte	18,206	91.61	19,874	18,811	1.03
Eceabad	7,810	59.03	13,231	13,212	1.,69
Tekirdağ m.s.	<b>41,700</b>	<b>36.68</b>	<b>113,700</b>	<b>68,627</b>	<b>1.65</b>
Tekirdağ	19,302	46.15	41,827	34,000	1.76
Malgara	12,748	38.63	33,000	13,563	1.,06
Hairaboli	3,447	17.18	20,060	3,972	1.15
Çorlu	7,579	30.29	25,023	16,782	2.21
Dedeğaç m. s.	<b>25,418</b>	<b>28.57</b>	<b>88,971</b>		
Dedeğaç	7,180	23.62	30,400		
Soflu	13,770	27.32	50,405		
Enos	4,468	54.71	8,167	10,132	2.27

Alexandris: The Greek Census of Anatolia and Thrace (1910–1912).

## (d) Summary

This study examined the role of ethnographic maps of different kinds and the methods of manipulation which served as to exaggerate certain tendencies. There were many stages during the creation of an ethnographic map where distortions and manipulations could occur, such as (1) the uncritical application of data, (2) the arbitrary reclassification-manipulation of raw data and terms referring to ethnicity, (3) mixing ethnic and religious categories, (4) using colours to overemphasize phenomena, (5) choosing the technique of visualisation best fitting the political purposes, (6) neglecting roads and physical geographical circumstances, thus creating enhanced (but unrealistic) connectivity between communities.

The research aimed at comparing the original patch maps from the 19th century with recently created pie chart maps using the same old data to prove that the picture obtained was very often different. As it has also been proven that Ottoman censuses are quite reliable regarding the ethnic proportions (in contrast to absolute numbers), the authors are strongly convinced that pie chart maps are more reliable than the more common patch maps, as the former illustrate data variability better regardless of the reliability of the data. Despite this, pie chart maps were previously rarely applied in atlases and in scientific works partly because these were more difficult to read and interpret by the average reader. This also reveals that most of these maps targeted the masses and not only decision-makers. The preponderance of patch maps also assumes that among the roles of ethnic maps scientific functions were of secondary importance, and political or propaganda goals were of primary interest, like delimiting spheres of interest or strengthening national consciousness. The same is true regarding the illustration of dimensions of identity. Though even patch maps offered a way to illustrate different views and layers of identities on the same map, this – Austrian – method was not popular, because it complicated the situation rather than simplified it. And the latter was the aim of nationalists. The principle of simplicity (in the case of scientific modelling) is at least as important as the reality of the model. Sacrificing the latter and the preponderance of the former approach is another proof of the fact that in the creation of ethnic maps, political motives were more important than scientific ones.

Besides a lack of reliable data, population movements and unstable identities, political pressure – which was abundant from the 1860s with the first plans of the Balkan League – also ruined the credibility of ethnic mapping.

#### (d) Summary

The first explorers and travellers in the Balkans in the 1840s were less influenced by nationalistic movements, but did not have either the tools or the broader knowledge (ethnographic, linguistic, cartographic) needed to create reliable maps. Therefore, these maps are neither precise nor influenced by the ideas of the initiators: the maps reflect the thoughts of their creators, often driven by a positivistic belief in the development of the rights of the “oppressed”. Due to the lack of systematically collected and methodologically consistent (though not reliable) datasets available for Western scholars (with the exception of Ubicini and Boré) prior to 1873/81 and partly owing to a lack of field experience, patch maps naturally became dominant. In the eyes of the forthcoming generations this simple technique (brought to life by dire necessity) became one of the many abusive techniques that would soon be substituted by new and improved ones.

Besides the aforementioned favourable features to be utilized as propaganda material (visibility) and the goal to suppress the presence of minority groups and flatten the multitude of dimensions of identity while at the same time delimiting zones of aspirations, some scientific-methodological reasons for using patch maps should also be taken into consideration. Statistics transformed into maps were not always homogeneous in origin, and the problems that would be evidently visible after their visualization could be eliminated by using patch maps. As a by-product, the similarly unresolved problem of how to calculate total population from tax-payers could be bypassed.

By the time professional mapping methods evolved, ethnography had become an instrument of foreign policy of the Great Powers as well as the Balkan states, and so the reliability of subsequent maps did not improve, even if at first sight these seemed to be more scientific, and thus more convincing. Gopčević himself corrected hundreds of mistakes on the Austrian topographic maps and used the most detailed resolution ever seen, but he was very tolerant towards Serbian political aspirations. A complex approach to identity as a multidimensional phenomenon (Sax) or modern linguistic approaches stressing the continuum of dialects (Belić) were also instrumentalized by geographers and cartographers to support political goals. Thus, modern mapping methods also became unreliable, and offered opportunity for abuse. Furthermore, the splintering of the groups not only reflected the appearance of new fault lines within the society, but generated them as well.

In short, as knowledge improved (that could have made ethnic mapping more impartial), so too did the number of factors determining identity and the dependence of geography on policy-makers. Many of the pro-

fessional geographers or cartographers were unable to check the data used. Many did not wish to correct it at all, because they simply considered it an instrument for the realisation of nationalist ideas. Cvijić, within the space of fifteen years, published four completely different patch maps of the Balkans – even the names of the nations did not coincide – in order to support changing (growing) Serbian aspirations for Macedonia. Many were opportunists, like Spiridon Gopčević, who published pro-Serbian, pro-Greek and pro-Albanian writings using the same data and method.

As such, ethnic mapping (and, indirectly, geography as whole) soon lost any reputation for reliability. Together with history it became one of the stigmatized disciplines considered not objective and accused of collaboration with (nationalist) politicians. Politicians also contributed to the degradation of these scientific disciplines when they decided to influence scholarship in order to advertise and promote political goals.

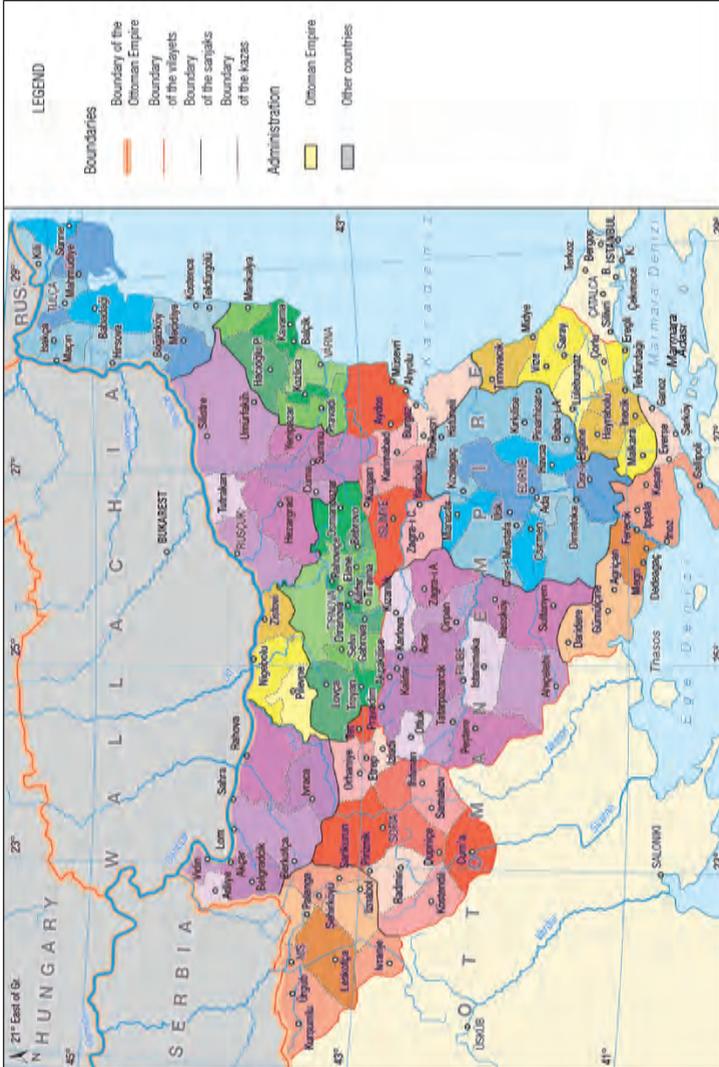
The authors of this book offered not only a view into how more reliable maps could have been created using the data at hand at that time, but also a method to check the reliability of raw data that could have been used by contemporary scholars. The mutual control of Ottoman censuses and Exarchist conscriptions, for example, offered a way to assess population numbers and ethnic groups in a more proper way. However, scholars usually refused this technique and fell into the trap of considering one of the sources only as primary and reliable and used the others only as aid material, if at all.

The main message of the authors is that ethnic maps should be treated with caution and care, especially because they are not outdated historical sources but existing political instruments in Southeastern Europe. They can generate sentiments also through their implicit message and their design. The examples enumerated in this book illustrate what should be taken into consideration in order not to let us be deceived by the mirage of maps.

## **Chapter 4. Maps**

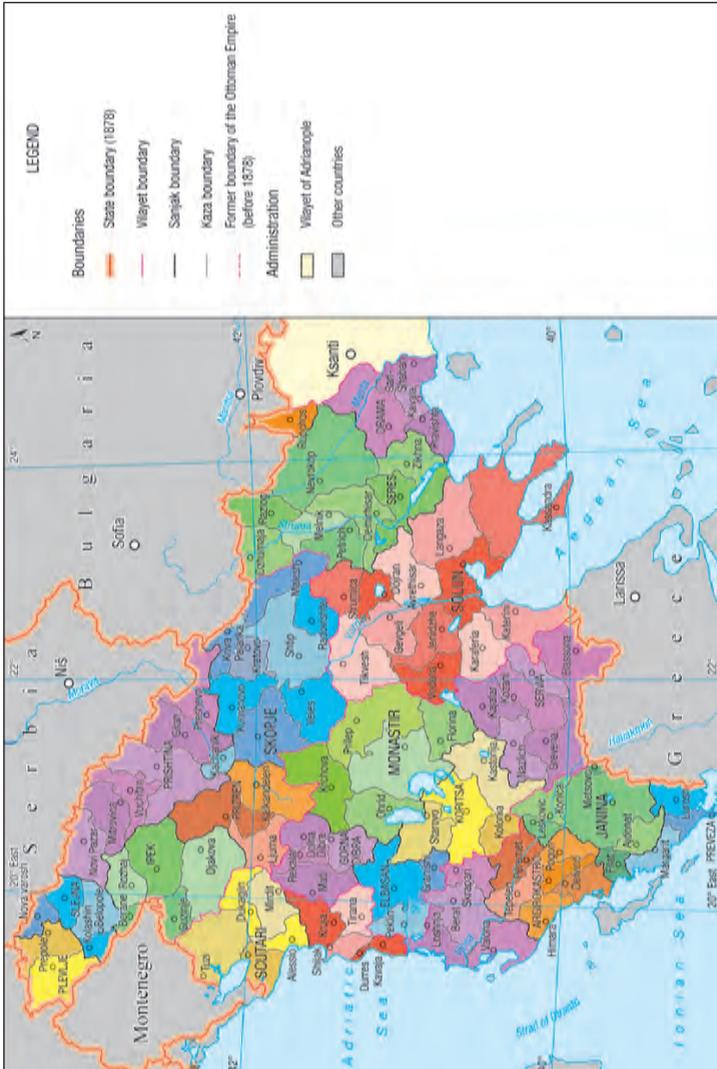
For the list of maps, shown in chapter 4, please see page 7–10 (starting with Map 13a through Map 61).

Map 13a. Kaza-level administrative map of Tuna and Edirne Vilayets after 1878



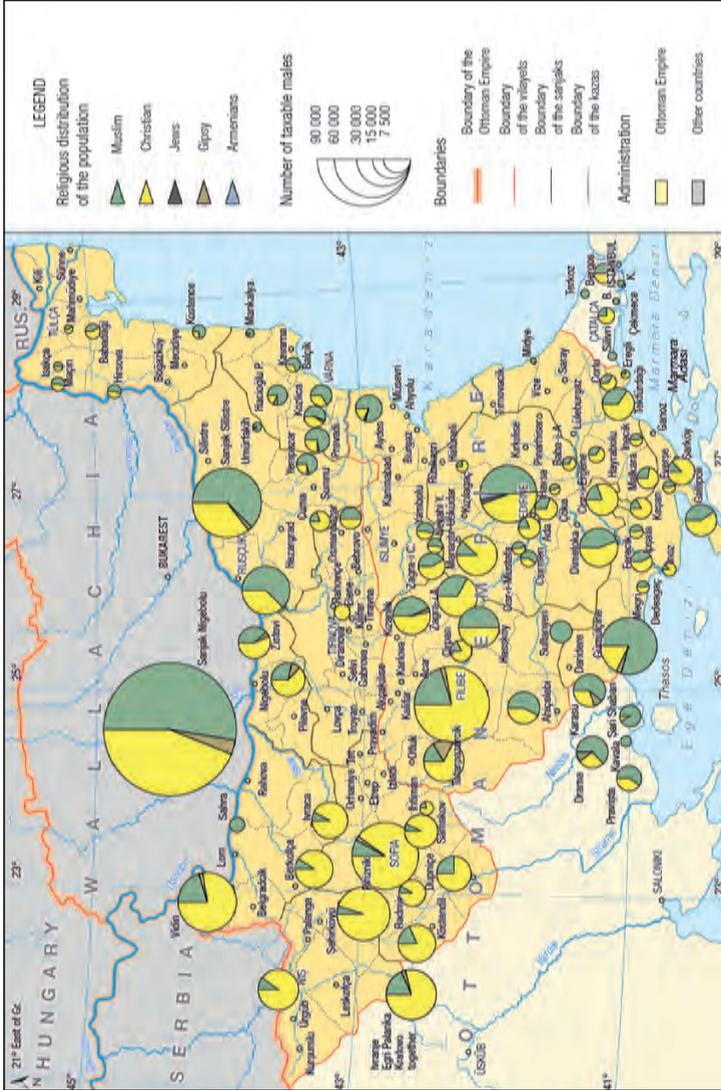
Source: Kornrupf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976 and 1983).

Map 13b. Kaza-level administrative map of Macedonian vilayets after 1900



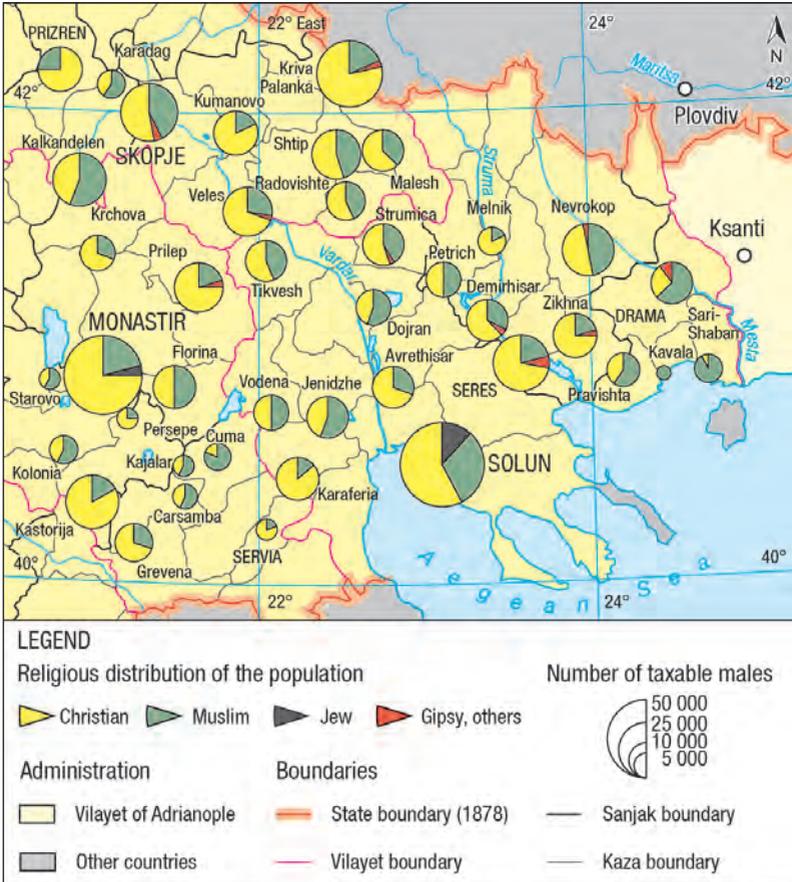
Source: Kornrumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976 and 1983).

Map 14a. Kaza-level ethnographic map of Tuna and Edirne Vilayets after 1831



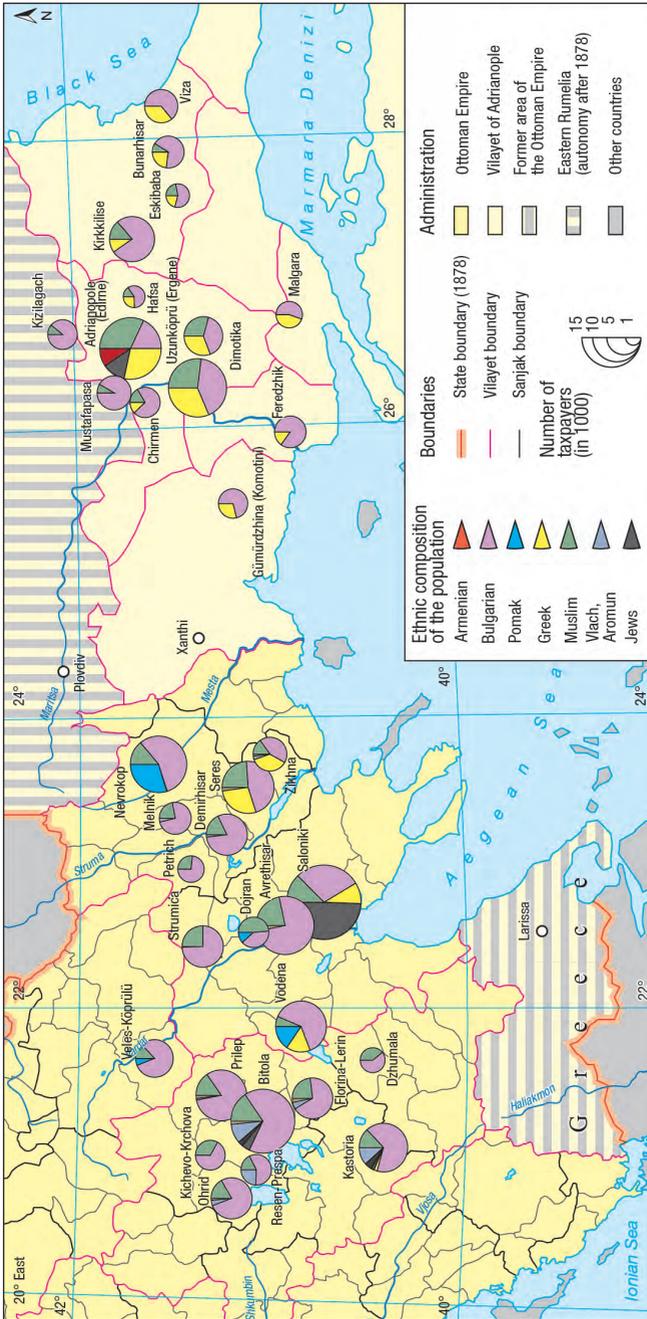
Source: [https://www.wikizero.com/en/Demographics\\_of\\_the\\_Ottoman\\_Empire](https://www.wikizero.com/en/Demographics_of_the_Ottoman_Empire)

Map 14b. Kaza-level ethnographic map of Macedonian vilayets after 1831



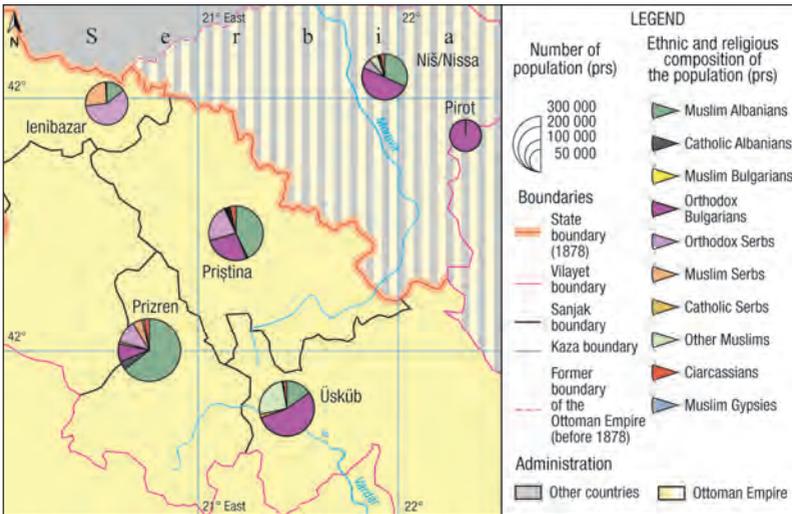
Source: [https://www.wikizero.com/en/Demographics\\_of\\_the\\_Ottoman\\_Empire](https://www.wikizero.com/en/Demographics_of_the_Ottoman_Empire)

Map 15. Ethnic map of Macedonia prior to 1878 (Extrait)



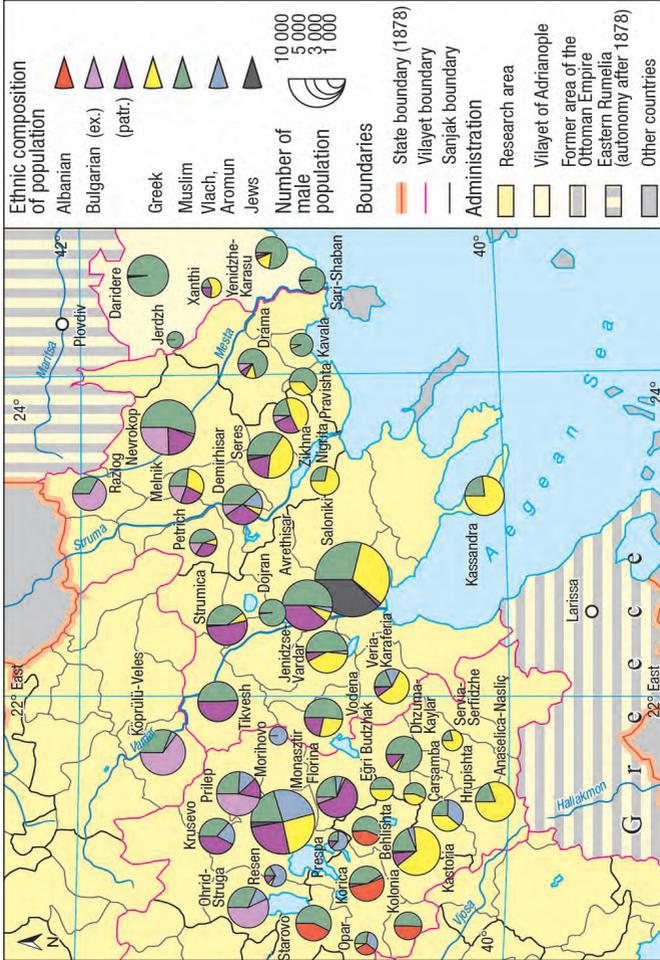
Source: Etnographie des vilayets d'Adrianople, de Monastir et de Salonique, 1878. Extrait du Courrier d'Orient.

Map 16. Ethnographic map of North-Macedonia (Kosovo Vilayet) before 1878 (Austrian version)



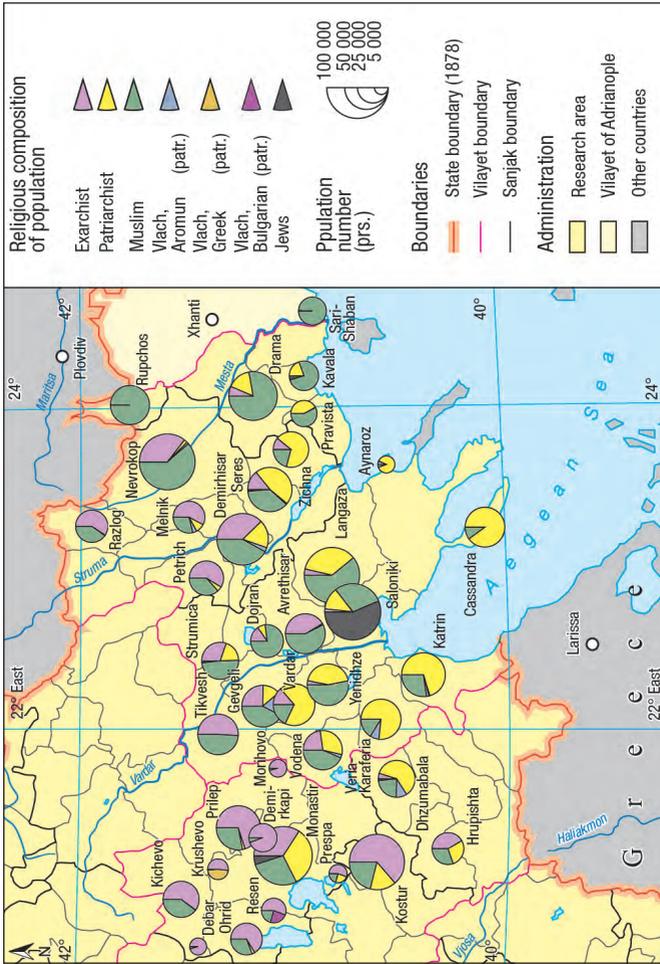
Source: Frantz: Gewalt und Koexistenz.

Map 17. Ethnic map of South-Macedonia prior to 1878 (English version)



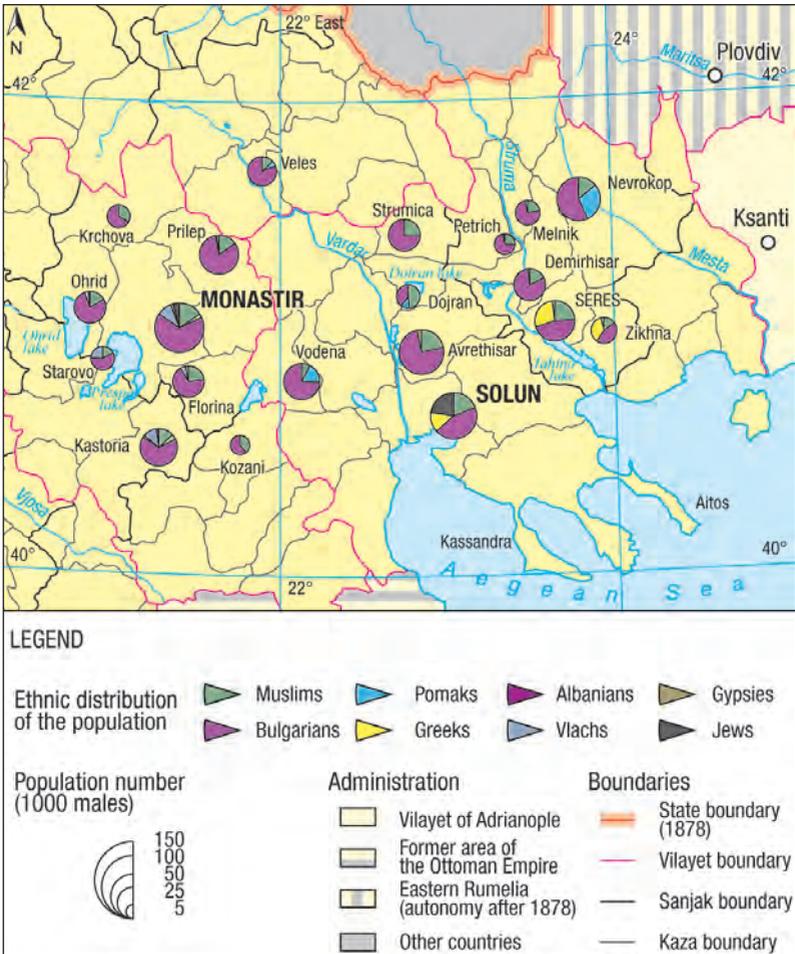
Source: Turkey, No. 15. Correspondence respecting the New Law for the European Provinces of Turkey, Presented to both Houses of Parliament by Command of Her Majesty. London, 1880. Lord E. Fitzmaurice to Earl Granville, Büyükdere, June 12, 1880. Part I. IV-161.

Map 18. Ethnic map of South-Macedonia in 1903 (Ottoman version)



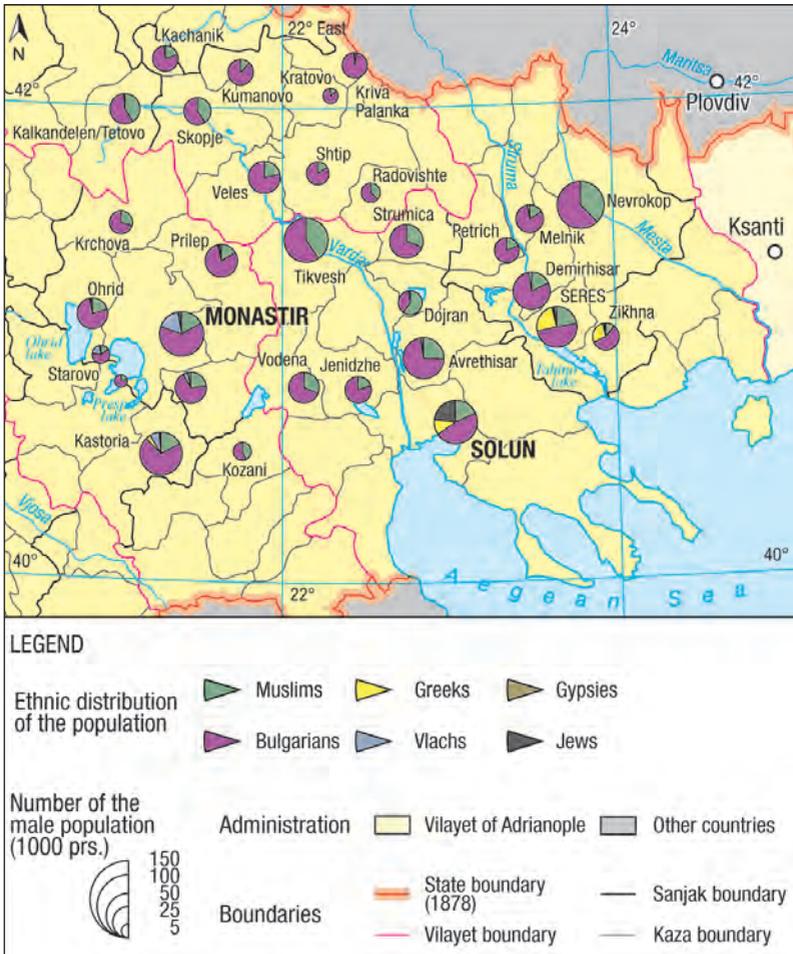
Source: Şaşmaz: Analysis of the Population Table of the Census of Salonica of 1903–4 and the Turkish yearbook of 1902/03 for the Bitola Vilayet.

Map 19. Ethnic map of Macedonia prior to 1878 (based on the Ottoman census)



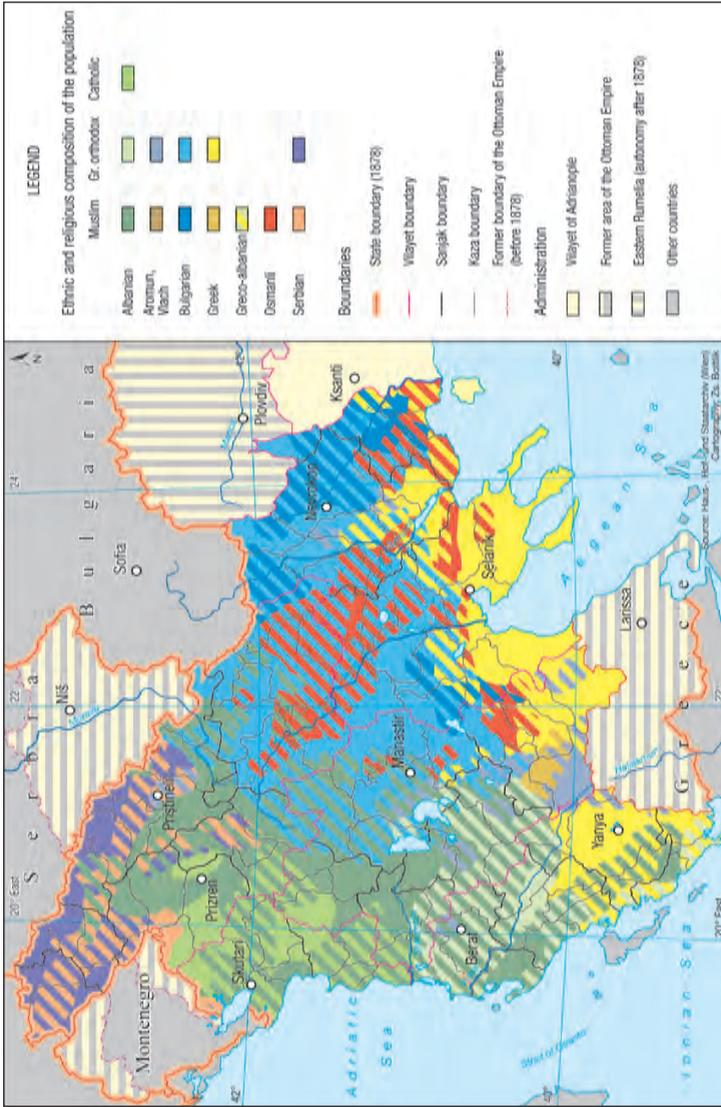
Source: Ivanov: *Bългарite v Makedoniya*. Sofia 1915, 165.

Map 20. Ethnic map of Macedonia in 1881 (based on the Ottoman census)



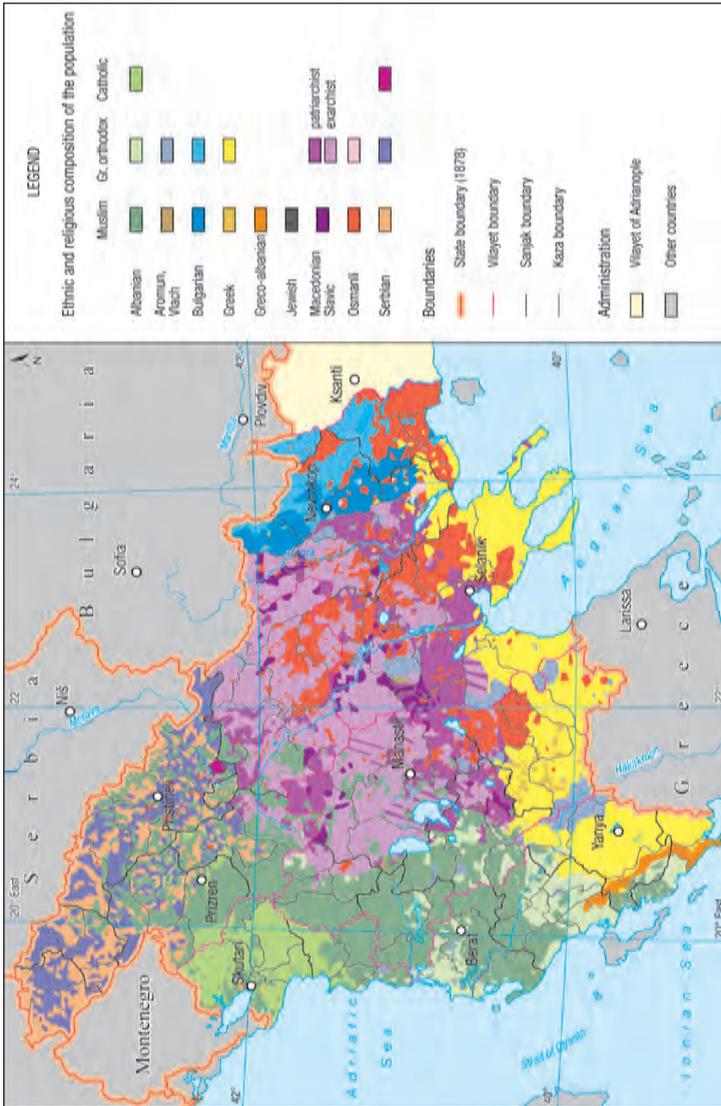
Source: Ivanov: Bălgarite v Makedoniya, 166.

Map 21. Ethnographic patch map of Macedonia, cca. 1878 (Austrian version – Sax)



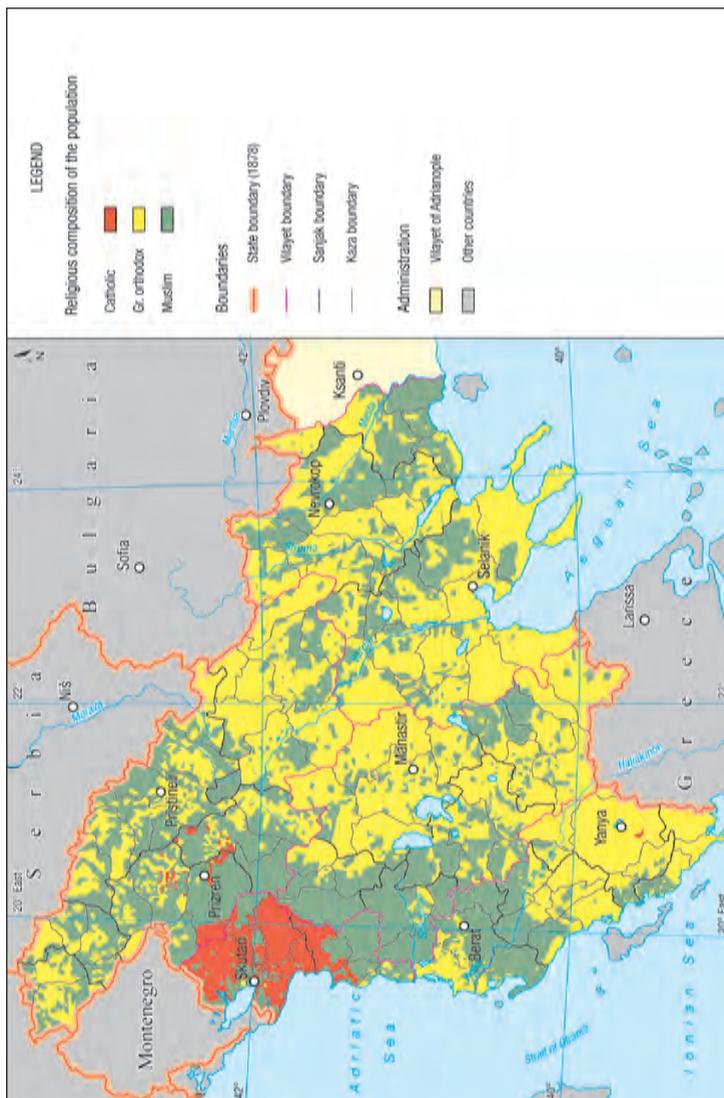
Source: [https://commons.wikimedia.org/wiki/File:Ethnographic\\_map\\_of\\_European\\_Turkey\\_from\\_1877\\_by\\_Carl\\_Sax.jpg](https://commons.wikimedia.org/wiki/File:Ethnographic_map_of_European_Turkey_from_1877_by_Carl_Sax.jpg).

Map 22. Ethnographic patch map of Macedonia, cca. 1900 (Austrian version)



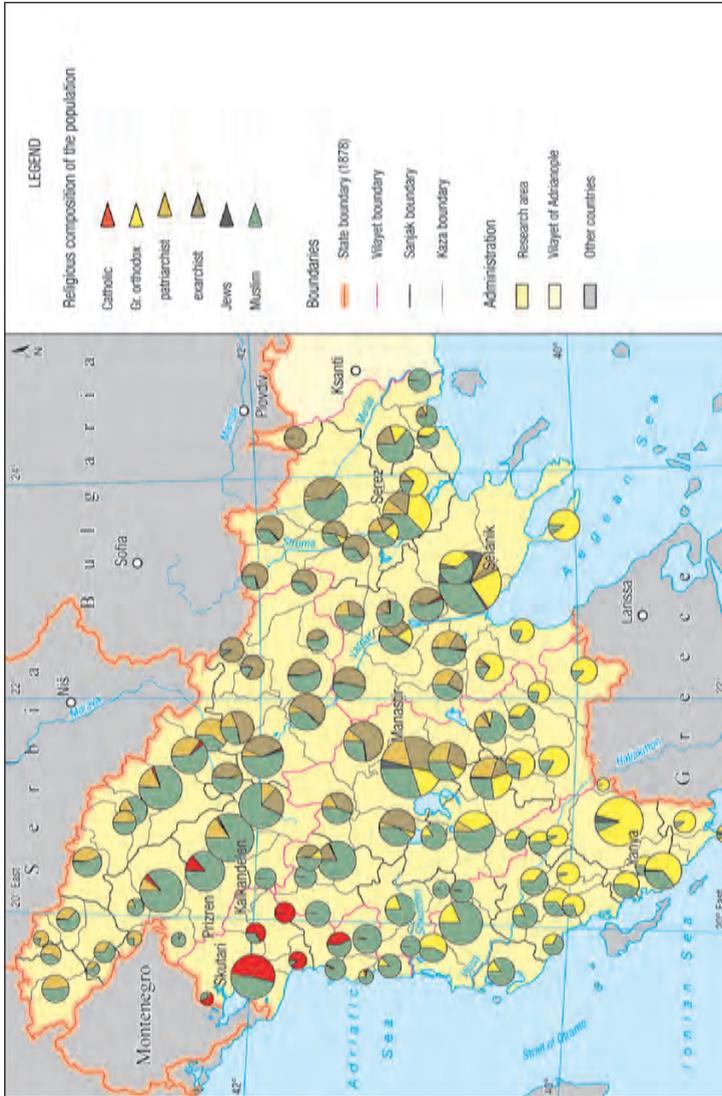
Source: HHStA, PA XII, Türkei, Liasse XXV, Kt. 272.

Map 23. Religious patch map of Macedonia, cca. 1900 (Austrian version)



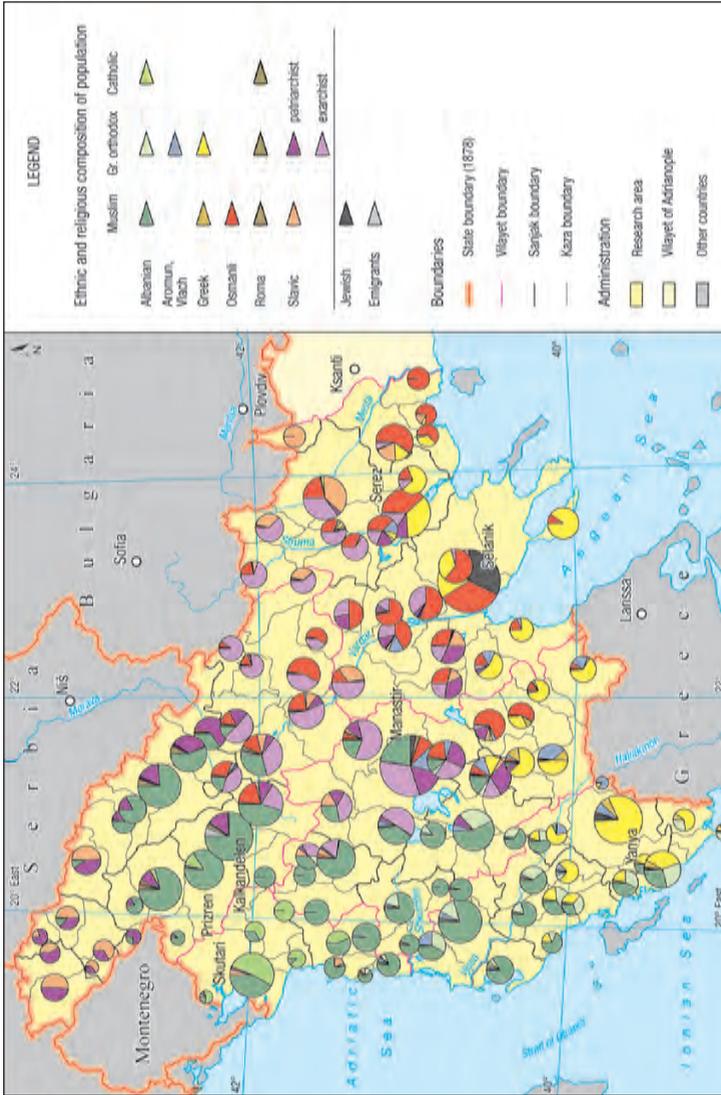
Source: HHStA, Kartensammlung, Keller 3. 7-3.

Map 24. Kaza-level religious pie chart map of Macedonia, cca. 1900 (Austrian version)



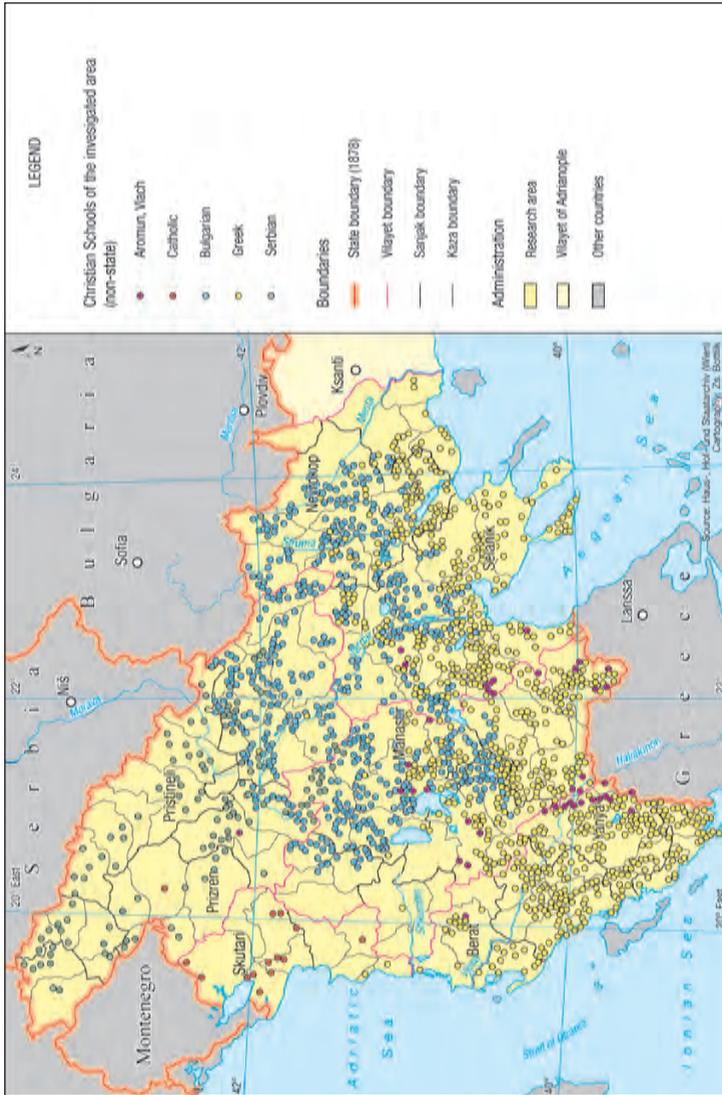
Source: HHStA, PA XII, Türkei, Liasse XXV, Kt. 272–274.

Map 25. Kaza-level ethnic pie chart map of Macedonia, cca. 1900 (Austrian version)



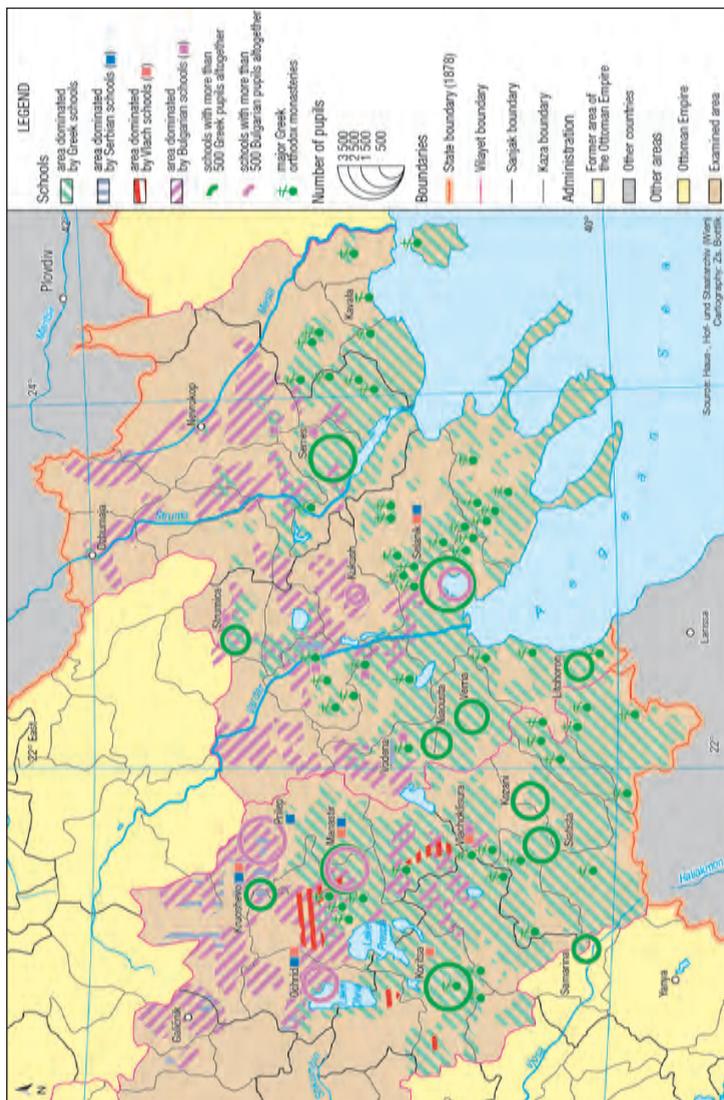
Source: HHStA, PA XII, Türkei, Liase XXV, Kt. 272–274.

Map 26. Christian schools in Macedonia, cca. 1900



Source: HHSTA, PA XII, Türkei, Liase XXV, Kt. 272.

Map 27. Churches and schools in Macedonia, cca. 1900 (based on Phocas-Cosmetatos)



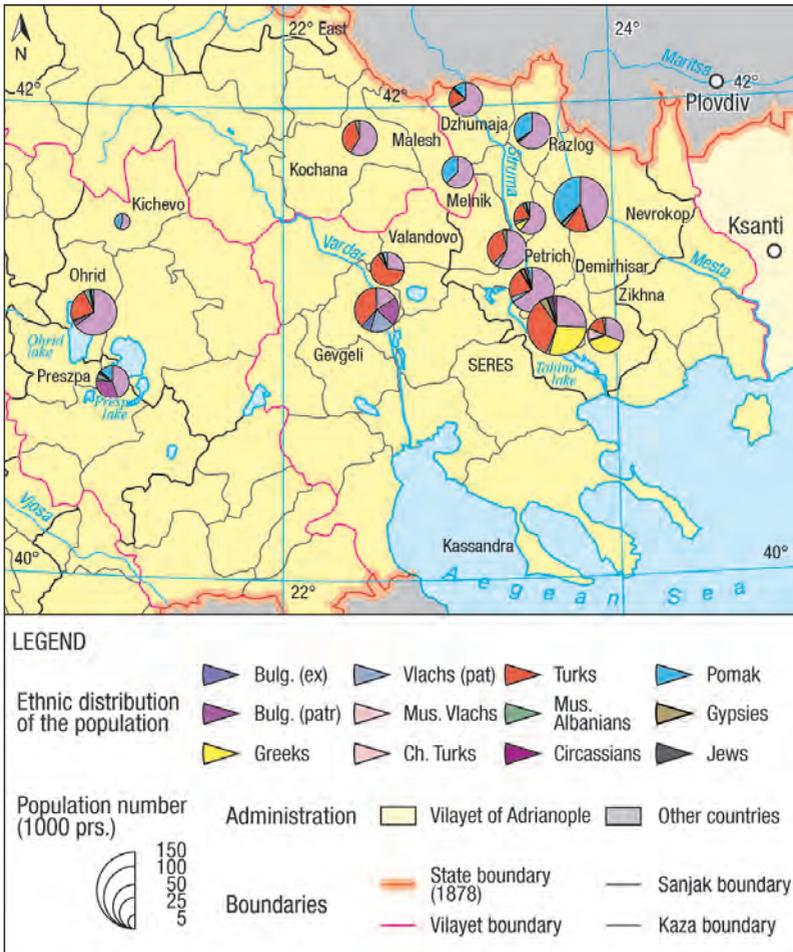
Source: HHStA, PA XII, Türkei, Liase XXV, Kt. 273.

Map 28. Ethnographic distribution of the population in Saloniki Vilayet



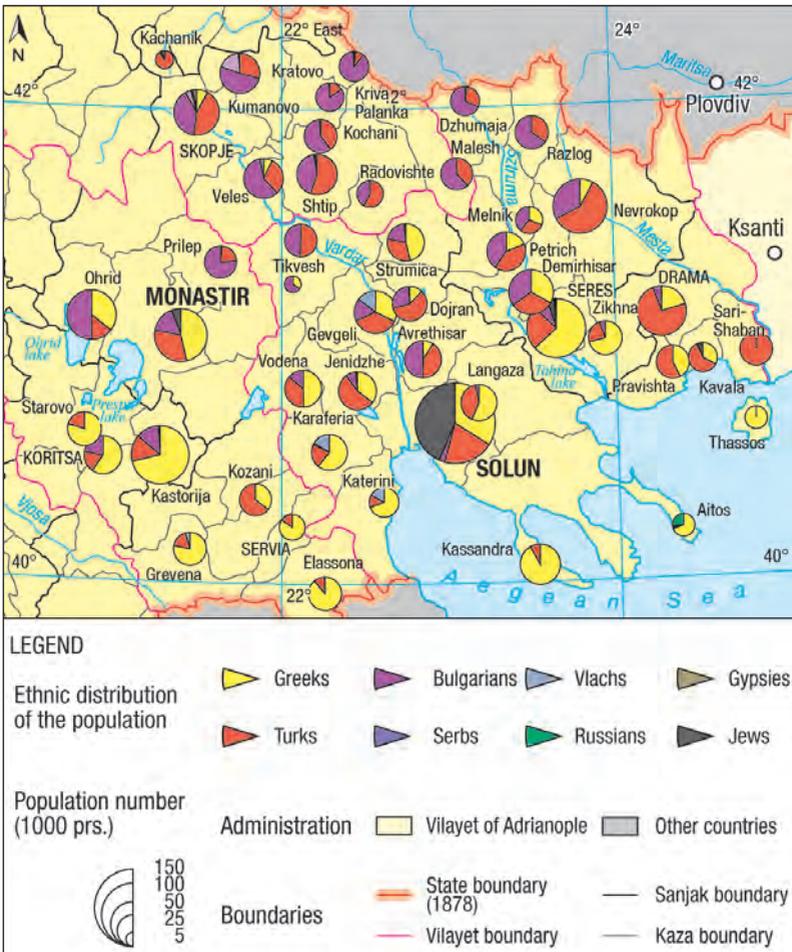
Sources: Ivanov: Bälgarite v Makedoniya; Gopčević: Makedonien und Alt-Serbien.

Map 29. Ethno-religious distribution of the population in Macedonia  
(based on Känchov's trip in 1894)



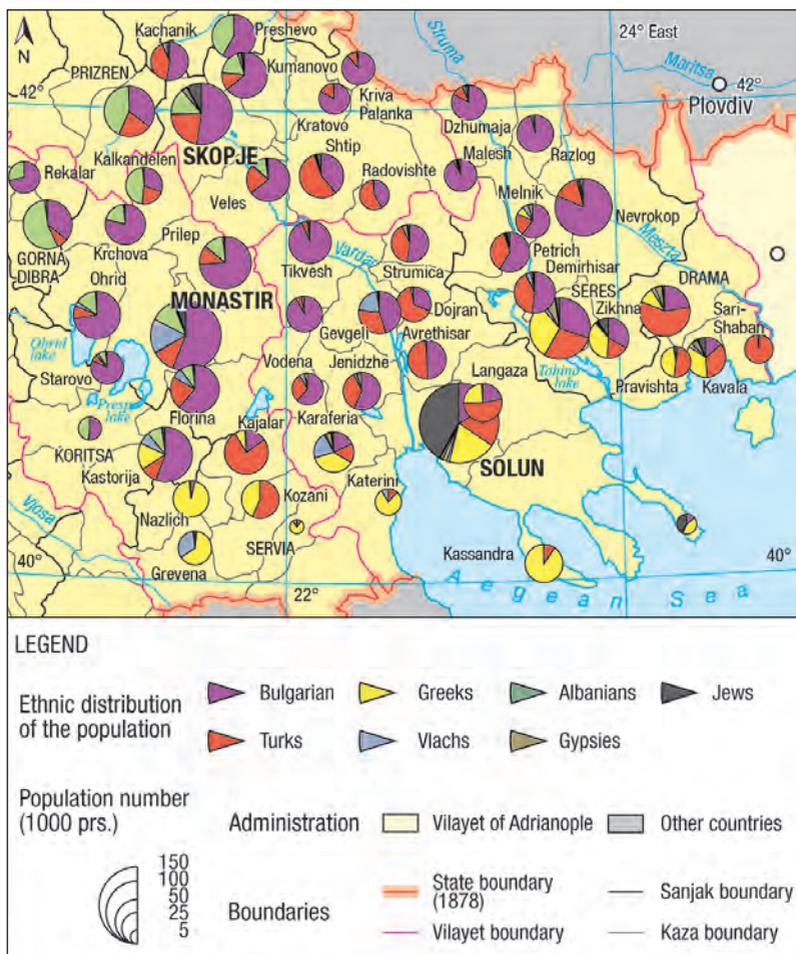
Source: Känchov: Makedoniya. Pätopisi. See also Map 28.

Map 30. Ethnographic distribution of the population in Macedonia according to Nikolaides (1899)



Source: Ivanov: Bългарite v Makedoniya.

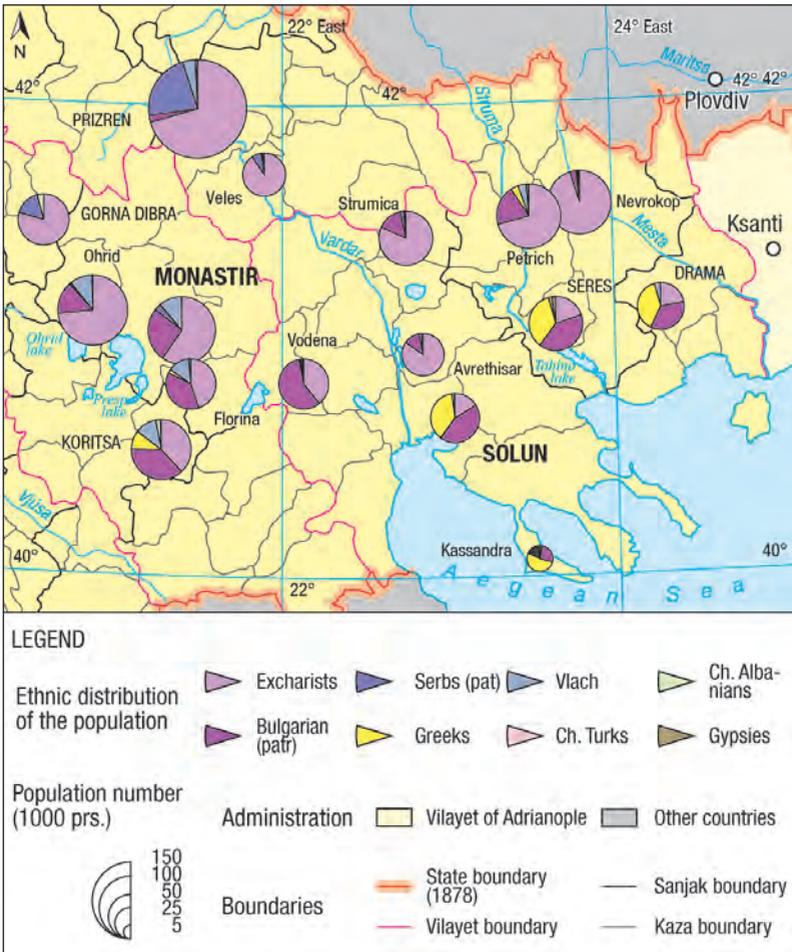
Map 31. Ethnographic distribution of the population in Macedonia according to Ivanov (1912)



Source: Ivanov: Bălgarite v Makedoniya.

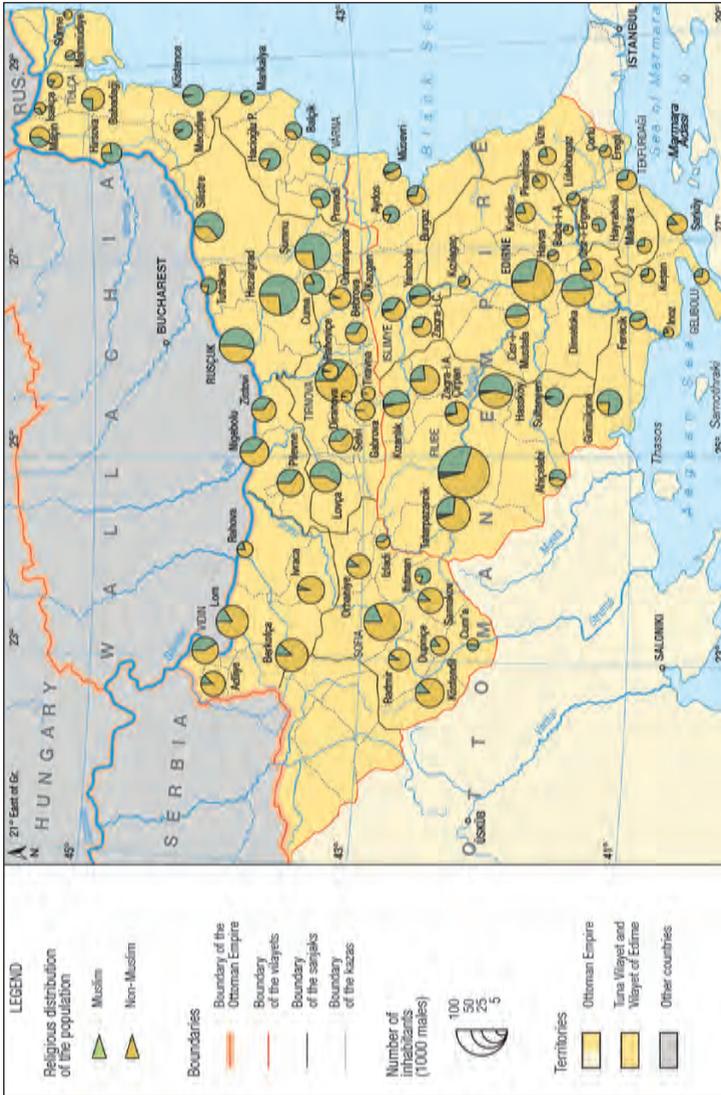


Map 33. Ethnic distribution of the Christian population according to R. von Mach (1906)



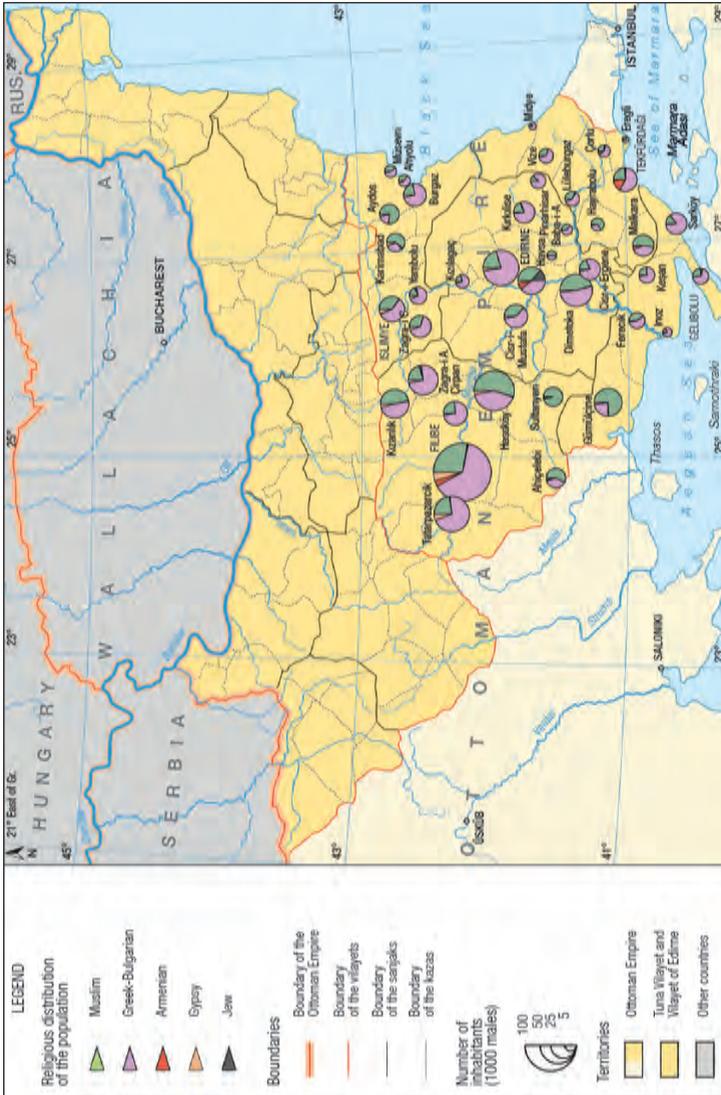
Source: Ivanov: Bălgarite v Makedoniya.

Map 34. Religious distribution of the population in Tuna and Edirne Vilayets, cca. 1873



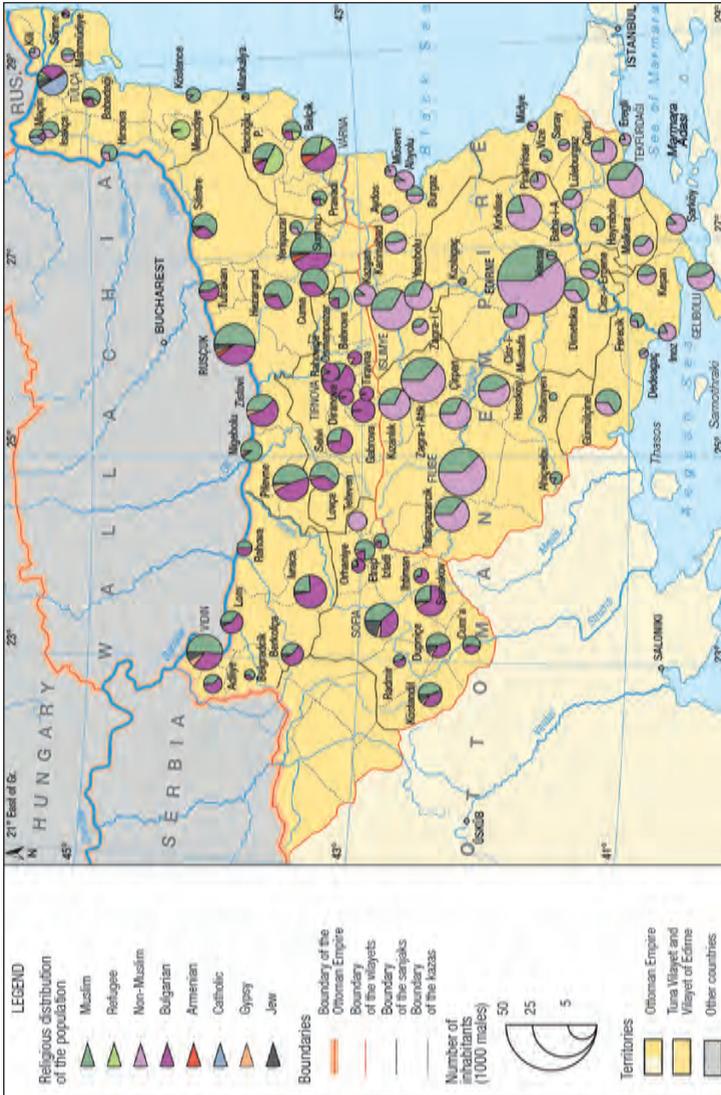
Source: Kornumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976).

Map 35. Ethnic distribution of the population in Edirne Vilayet, cca. 1873



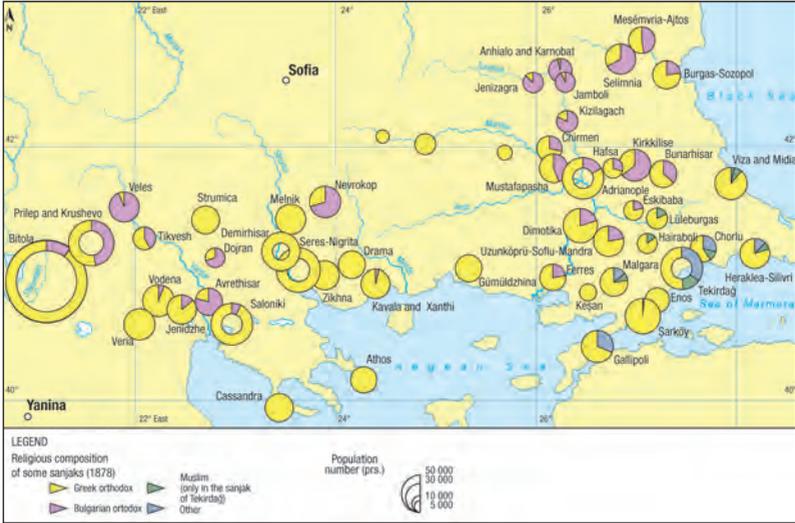
Source: Kornrumpf: Die Territorialverwaltung und Salnâme-i Vilâyet-i Tuna.

Map 36. Ethno-religious distribution of the urban population in Tuna and Edirne Vilayets, cca. 1874



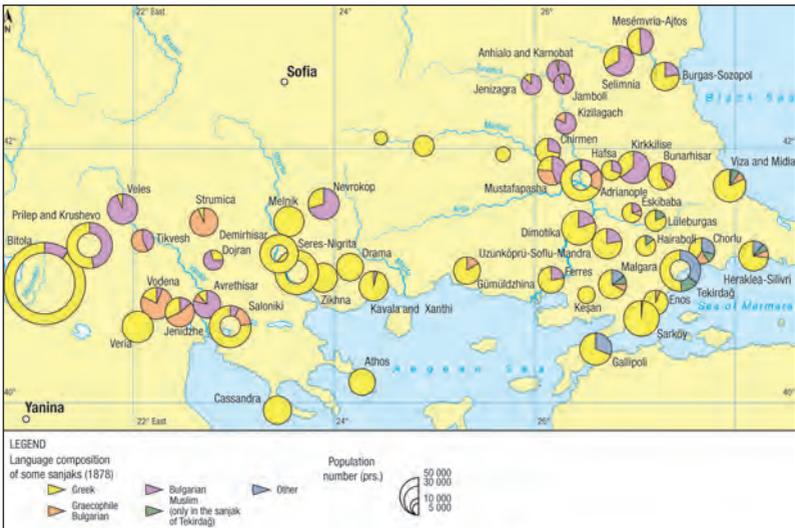
Source: Kornumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976).

Map 37. Religious distribution of the Christian population in Macedonia and Thrace (Syllogos and the Greek Patriarchate, 1878)



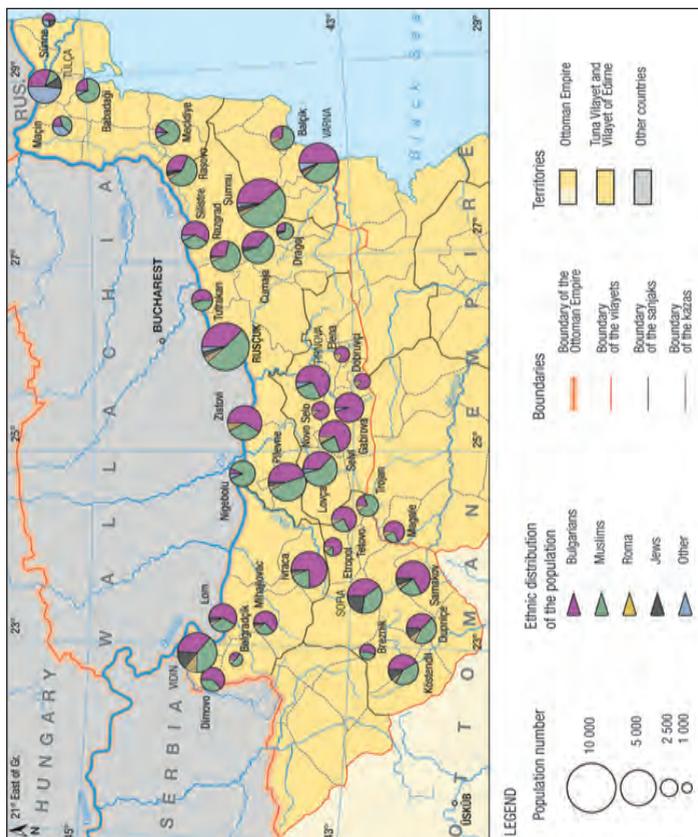
Source: see page 259.

Map 38. Language distribution of the Christian population in Macedonia and Thrace (Syllogos and the Greek Patriarchate, 1878)



Source: see page 259.

Map 39. Ethnic distribution of the urban population in Tuna Vilayet before 1878



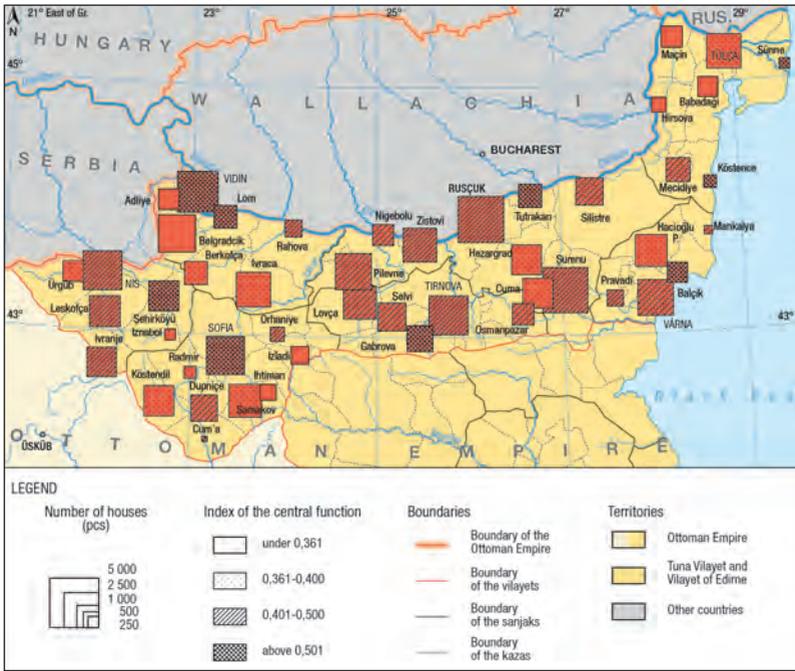
Source: Pándi: Köztes-Európa Atlasz. Data from Aubaret: Province de Danube. Bulletin de la société de géographie. V-<sup>ie</sup> série, Tom 12, 1876, 147-187. Compare with map 36.

Source Map 37-38 (page258:

Turkey, No. 31. Correspondence respecting the Objections raised by Populations inhabiting Turkish Provinces against the territorial changes proposed in the Preliminary Treaty signed at San Stefano. Presented to both Houses of Parliament by Command of Her Majesty. 1878, London, Harrison and sons. 16-38.

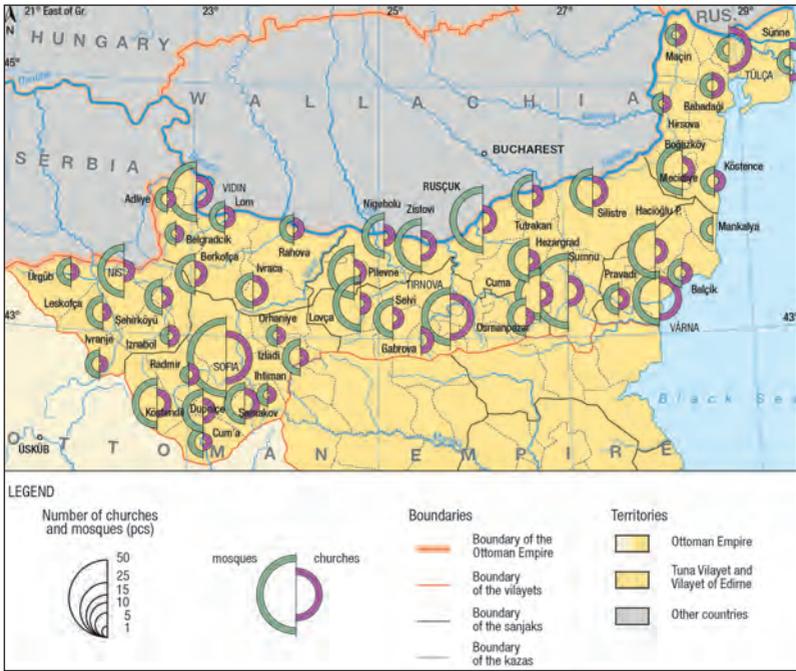
Memorandum des Syllogues Grecs de Constantinople. Jean D. Aristocles, 6 Avril, 1878. M.A.H. Layard, Ambassadeur de Sa Majesté Britannique à Constantinople.

Map 40. Significance and central function of towns in Tuna Vilayet, 1876



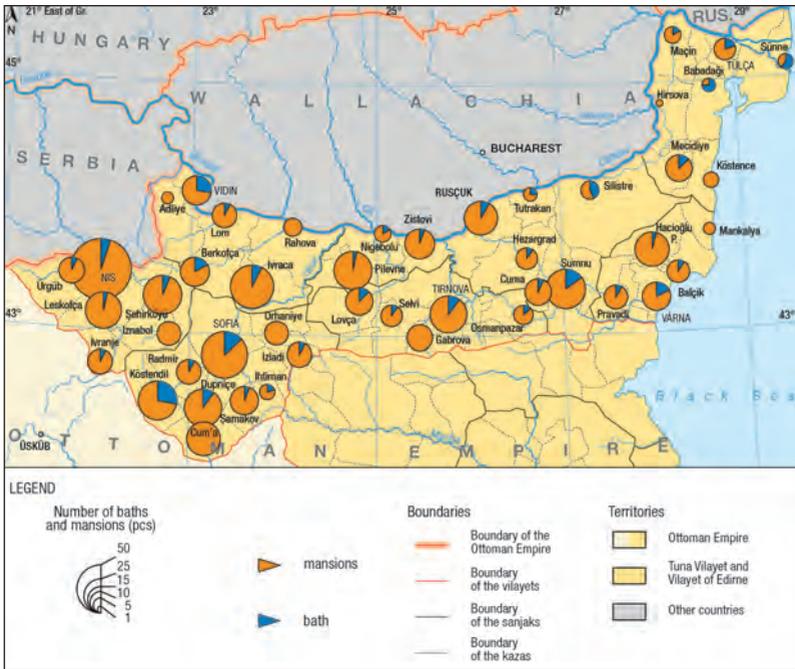
Source: Kornumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976).

Map 41. Churches and mosques in the towns of Tuna Vilayet, 1876



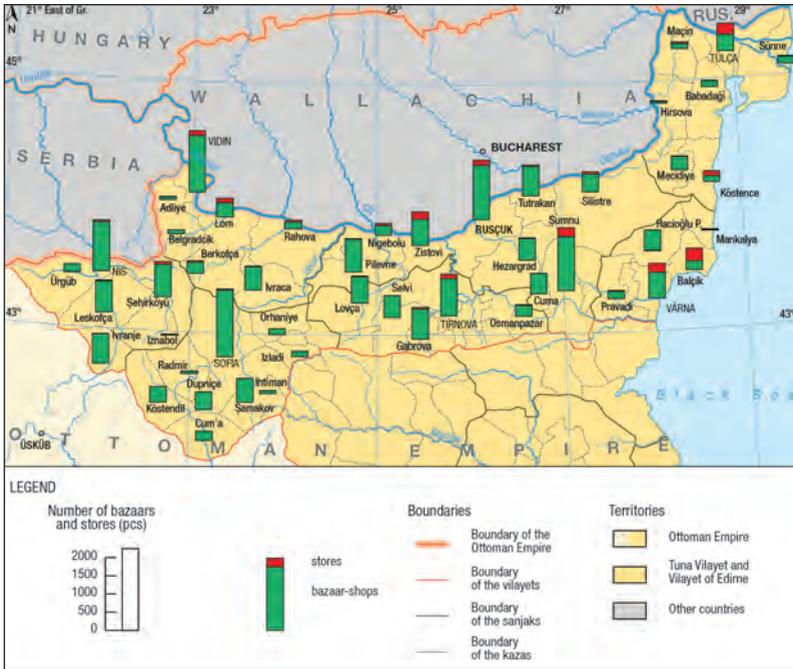
Source: Kornrumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976).

Map 42. Inns (han) and baths (hamam) in the towns of Tuna Vilayet, 1876



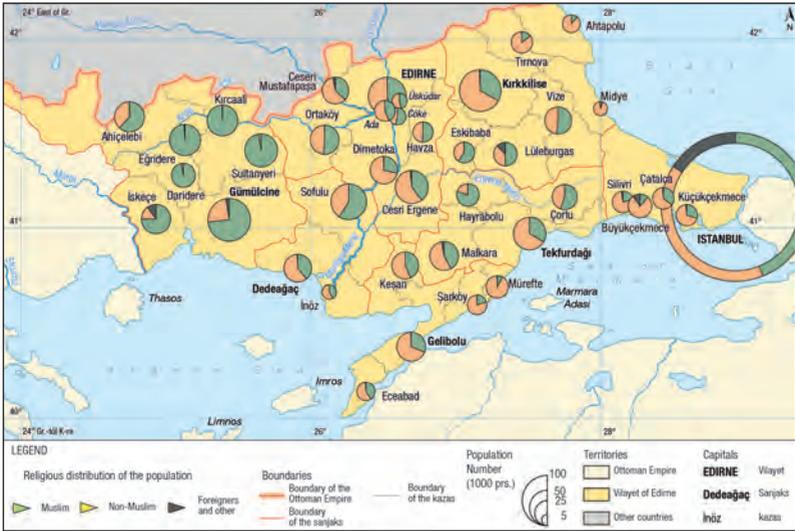
Source: Kornrumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976).

Map 43. Stores and bazaar shops in the towns of Tuna Vilayet, 1876



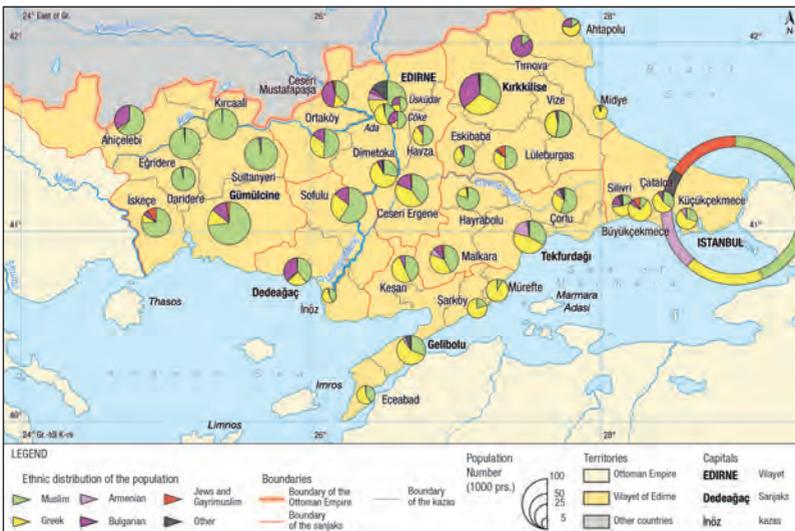
Source: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1976).

Map 44. Religious distribution of the population in Edirne Vilayet, cca. 1881



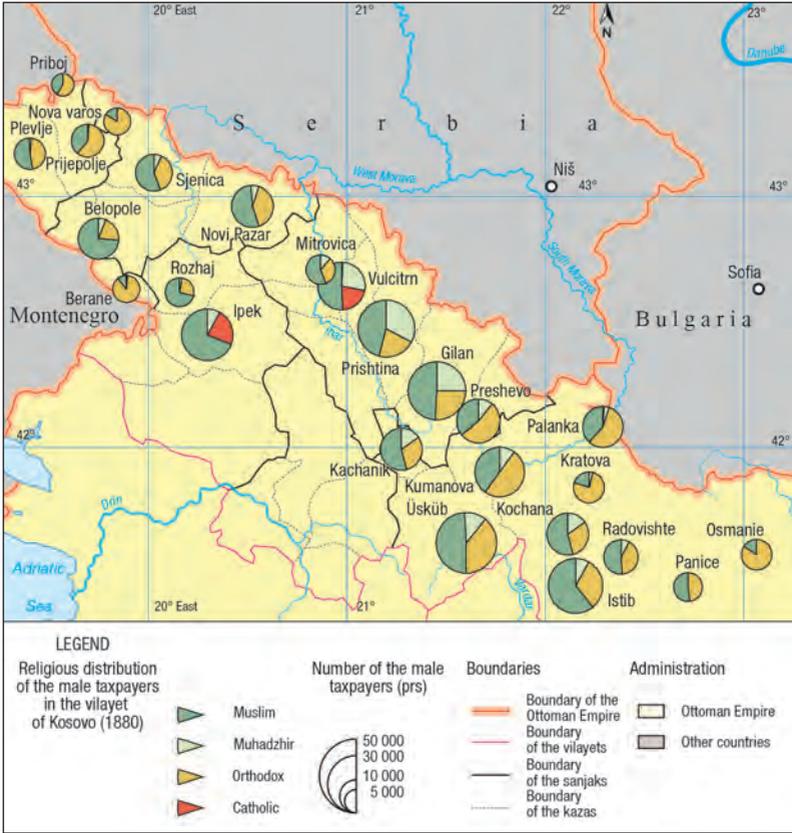
Source: Kornrumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1983).

Map 45. Ethnic distribution of the population in Edirne Vilayet, cca. 1881



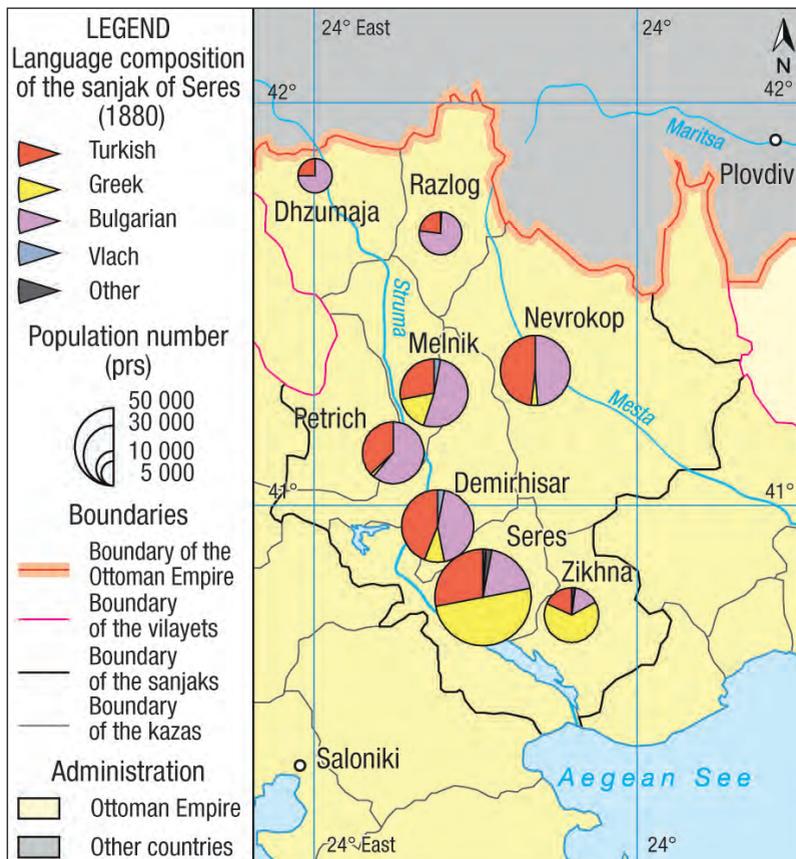
Source: Kornrumpf: Die Territorialverwaltung im östlichen Teil der europäischen Türkei (1983).

Map 46. Ethnic distribution of the population in Kosovo Vilayet and the proportion of muhadjirs, cca. 1881



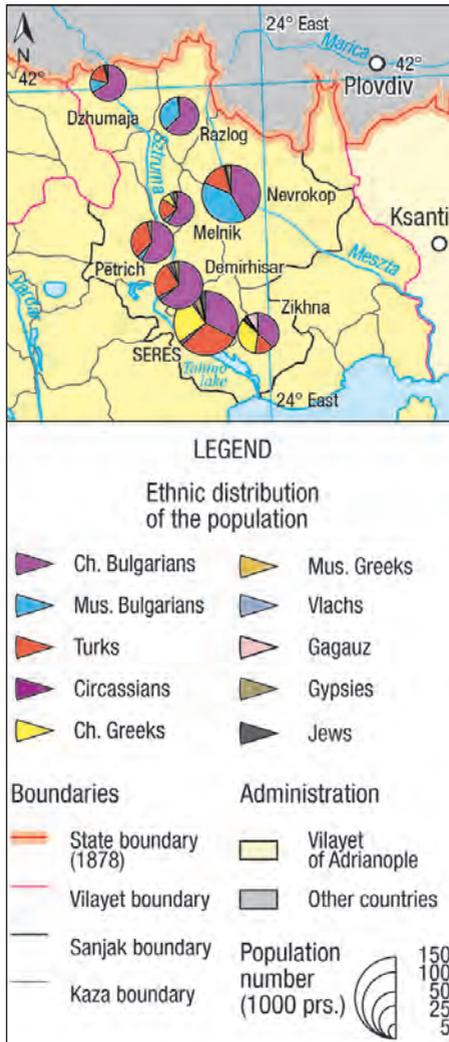
Source: BOA, Y. PRK. UM, 1/99. Osmanlı Arşiv belgelerinde: Kosova Vilayeti. T.C. Başbakanlık. Devlet Arşivleri Genel Müdürlüğü. İstanbul, 2007, 332–4.

Map 47. Ethnic distribution of the population in Seres Sanjak, cca. 1881 (Hondros)



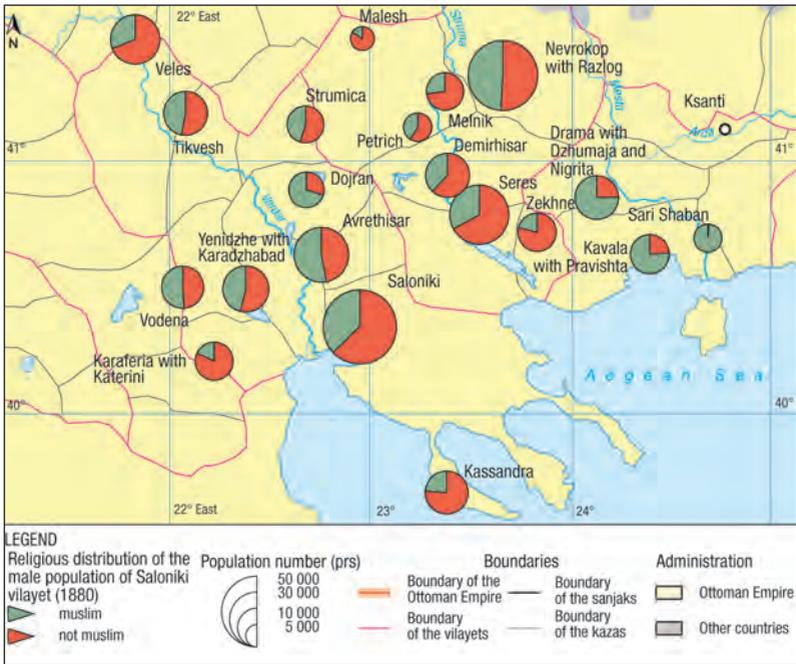
Source: Hondros, C.: Brevi cenni sui circondario di Serres del sig. Cost. Hondros Reggente la R. Agenzia Consolare in Serres, comunicati dal Cav. F. Zerboni R. Console a Salonico. 1881; Bollettino Consolare pubblicato per cura del Ministero per gli Afferi Esteri di S. M. il Re d'Italia. Vol. XVII. Parte II. Roma 1881, 729-42.

Map 48. Ethnic distribution of the population in Seres Sanjak, cca. 1894 (Känchov)



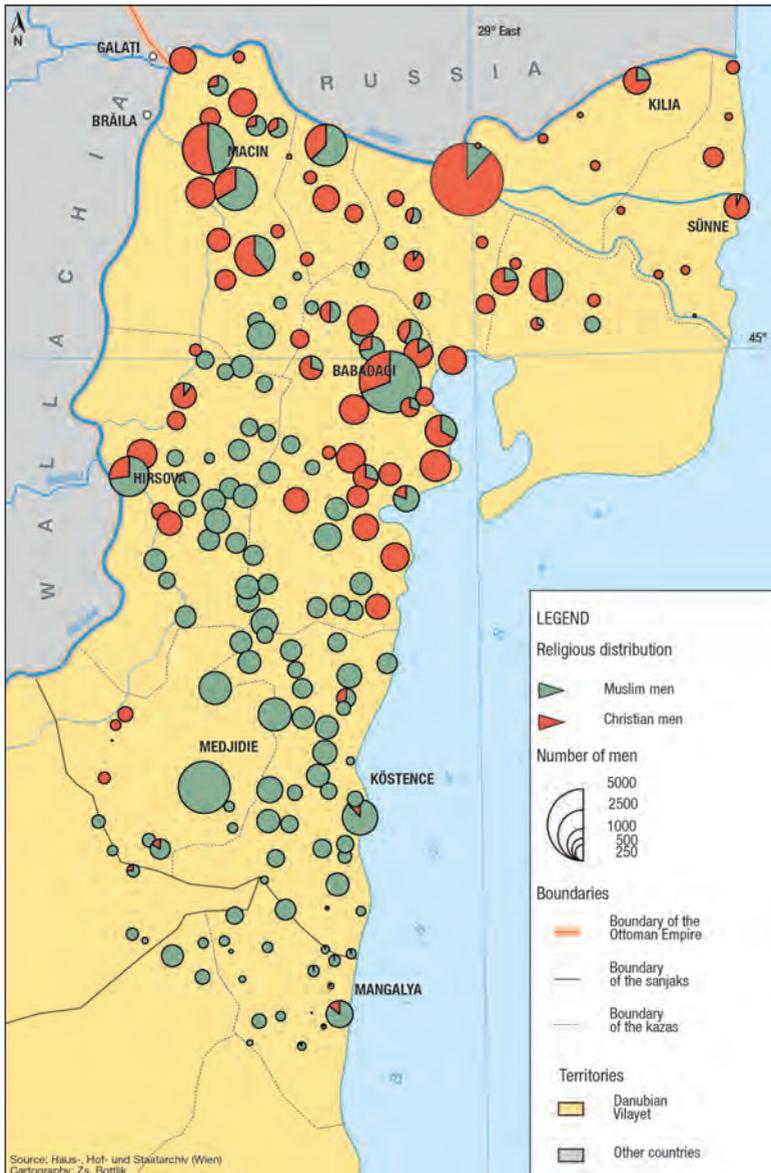
Source: Känchov: Makedoniya. Pätopisi. See also Map 47.

Map 49. Religious distribution of the population in Saloniki Vilayet in 1880



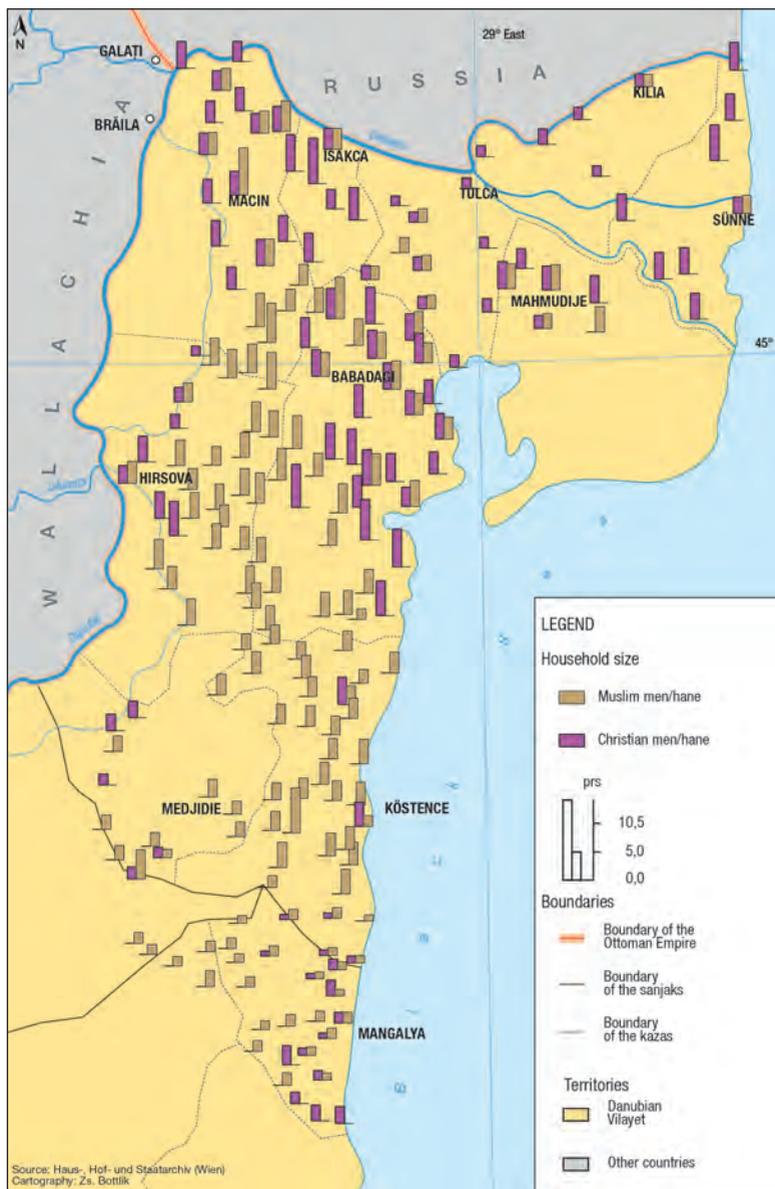
Source: Turkey, No. 15. Correspondence respecting the New Law for the European Provinces of Turkey. Presented to both Houses of Parliament by Command of Her Majesty. London, 1880. Lord E. Fitzmaurice to Earl Granville, Büyükdere, June 12, 1880 Part II. 161–292.

Map 50. Ethnic distribution of the population in Dobrudja before 1878



Source: Kornumpf: Zur Verwaltungsgliederung der Dobrudscha in den letzten Jahren der Osmanischen Herrschaft. In: Beiträge zur Osmanische Geschichte und Territorialverwaltung. Analecta Isisiana. Isis press, Istanbul 2001, 351–66.

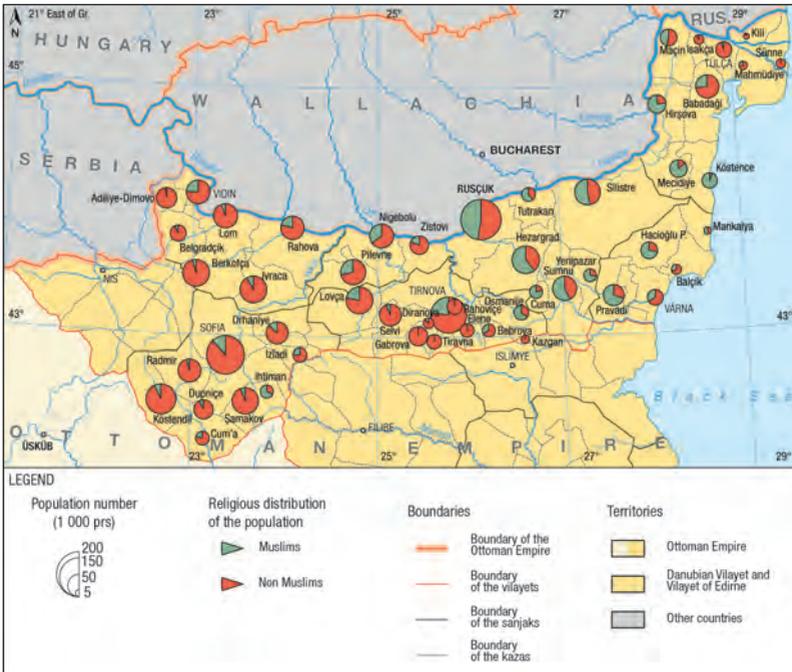
Map 51. Average family size for Muslim and Christian population in Dobrudja before 1878



Source: Calculated based on the data of Kornrumpf: Zur Verwaltungsgliederung der Dobrudscha.

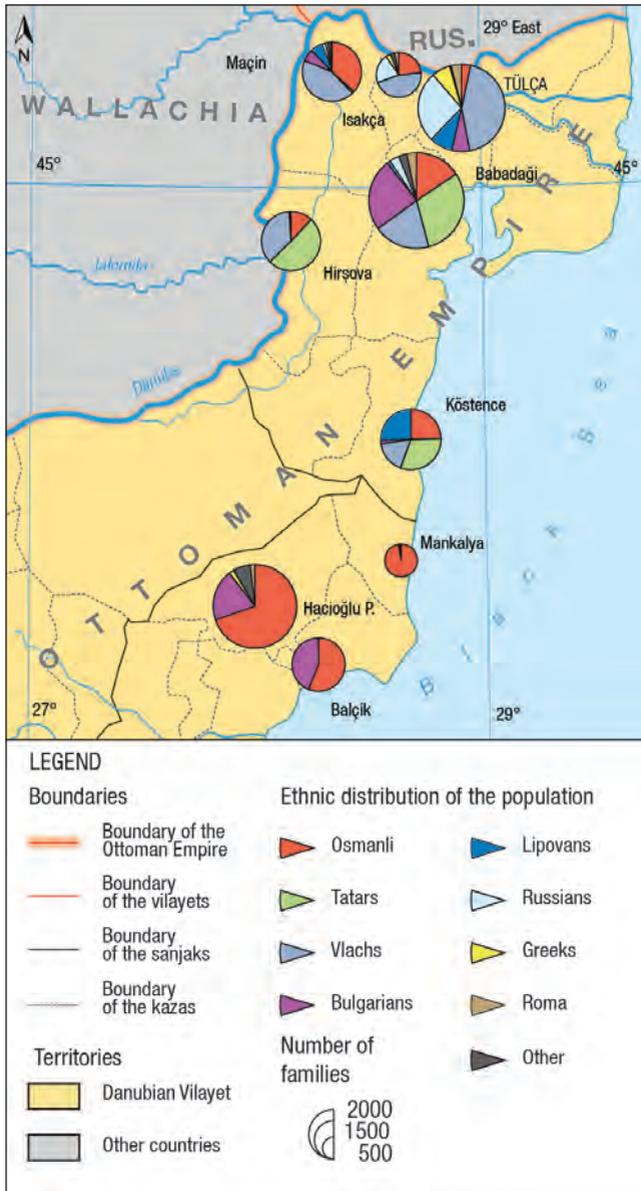


Map 53. Religious distribution of the population in Dobrudzja and the Danubian vilayet according to Moshnin (Russian, 1877)



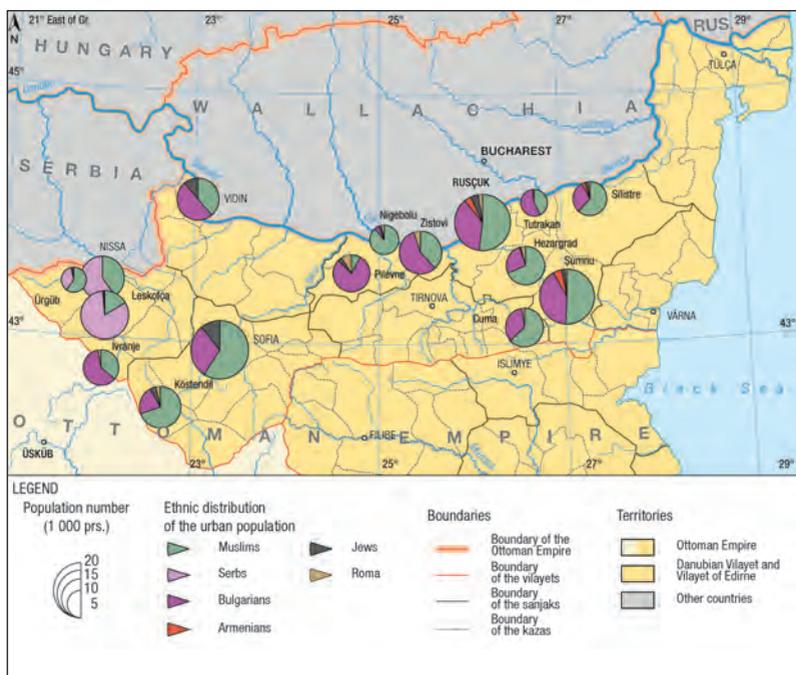
Source: Moshnin: Pri-Dunayskaya Bolgariya (Dunayskiy vilayet), 346–404.

Map 54. Ethnic distribution of the population in Dobrudja according to Ionesco (Romanian, 1852)



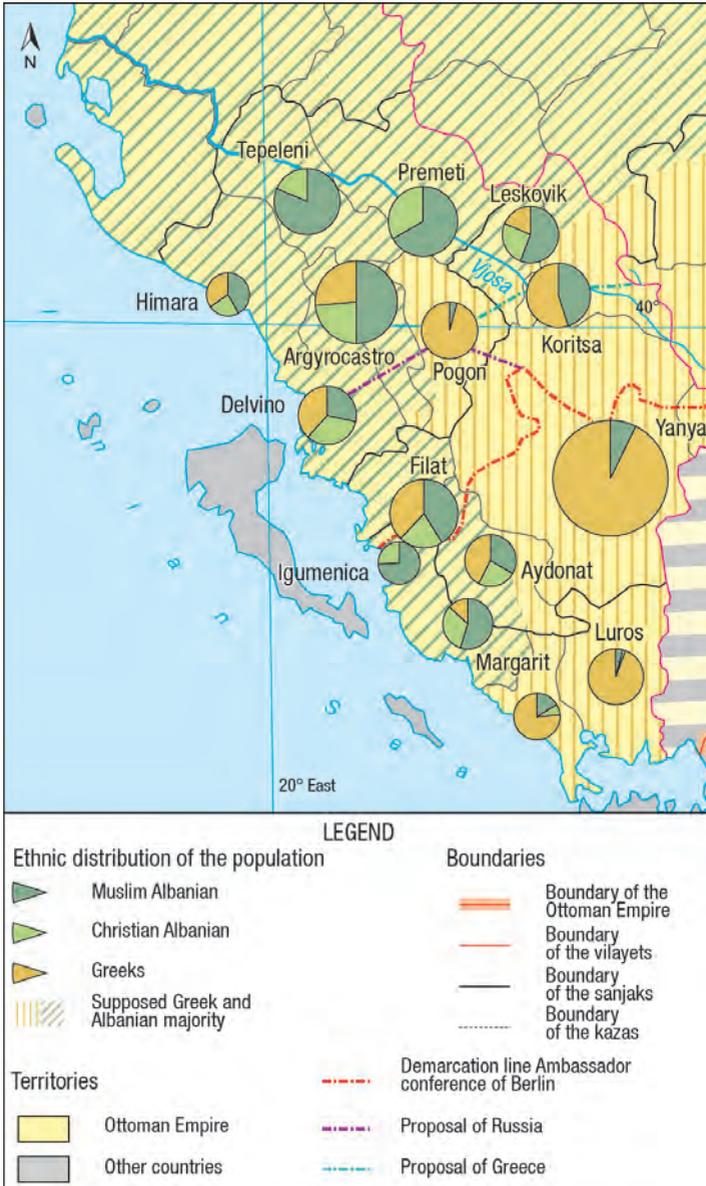
Source: Ionesco: Excursion agricole dans la plaine de la Dobrodja.

Map 55. Ethnic distribution of the urban population in Northern Bulgaria (Russian, 1877)



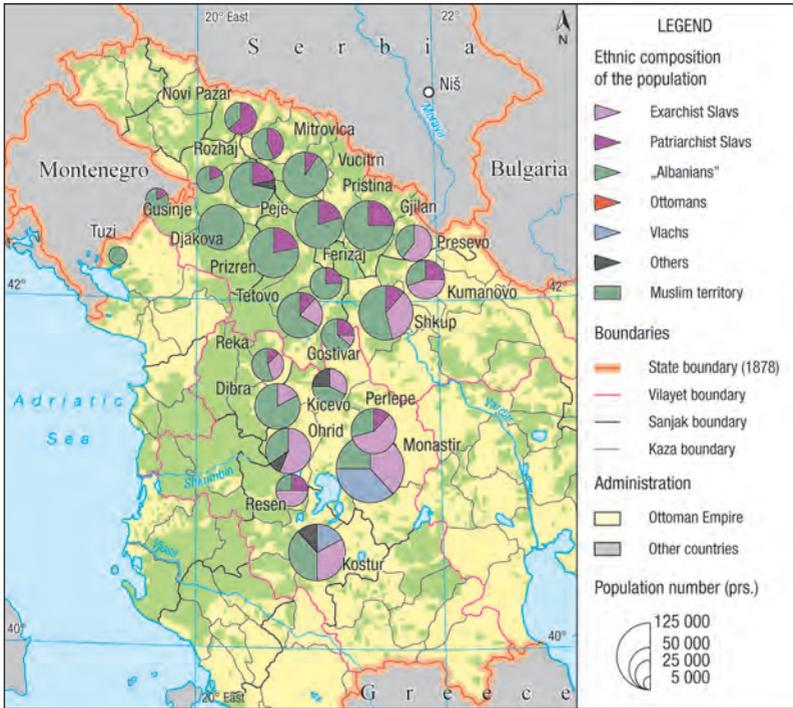
Source: Obruchev: Voенно-statisticheskiy sbornik na 1868 god. 1868, Tom 3.

Map 56. Sketch map on the ethnic distribution of the population in Albania (cca. 1912)



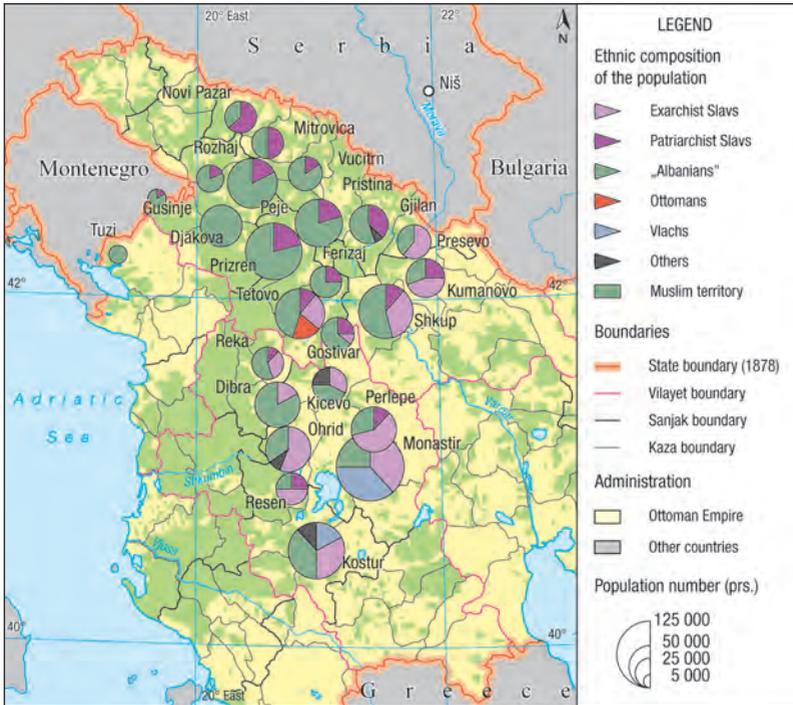
Source: HHStA, PA XII, Türkei Liasse XXV, Kt. 273.

Map 57. The boundaries and ethnic contact zone of the Albanian nation  
(Ottoman version, 1908)



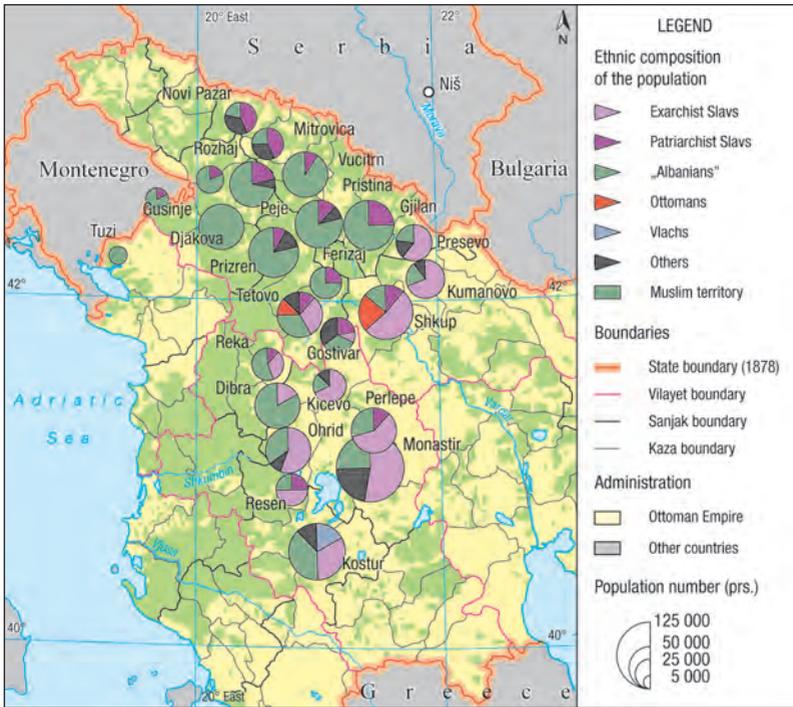
Source: Kruja: Në historinë Shqiptare.

Map 58. The boundaries and ethnic contact zone of the Albanian nation  
(Austria-Hungary, 1917)



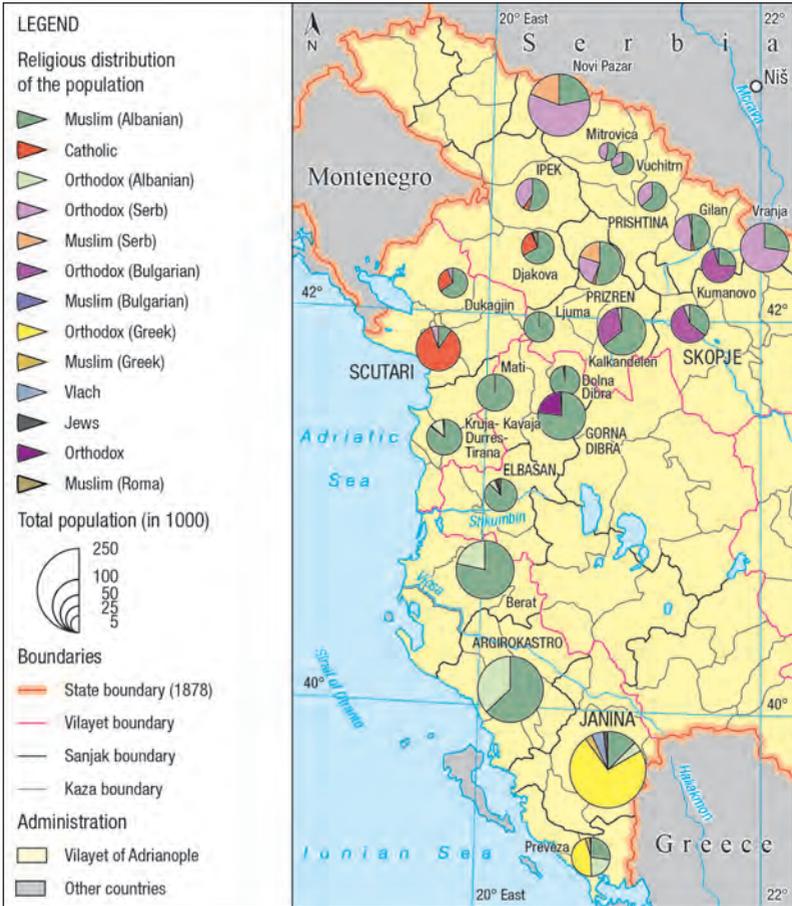
Source: Kruja: Në historinë Shqiptare.

Map 59. The boundaries and ethnic contact zone of the Albanian nation  
(Bulgarian version, 1918)



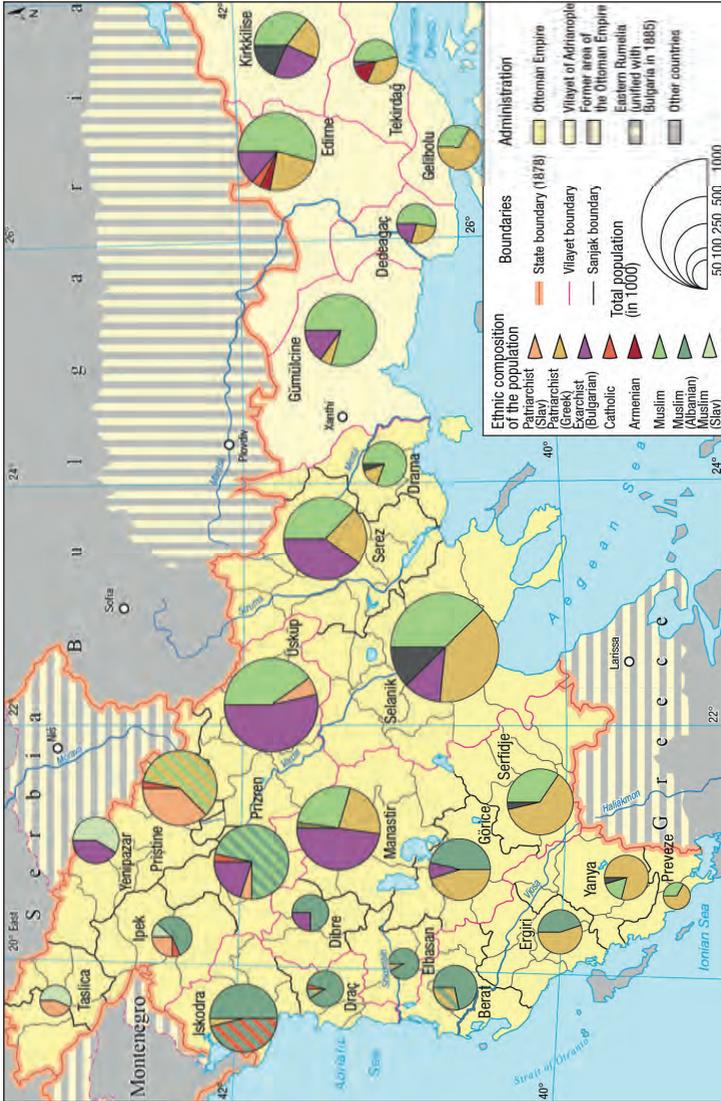
Source: Kruja: Në historinë Shqiptare.

Map 60. Ethnographic data on Albania and the sanjak of Novipazar according to Roukis (1884)



Source: Roukis: Ethnographische und Statistische Mitteilungen über Albanien.

Map 61. Ethnic map of the Balkans in 1910 (based on Ottoman salname)



Source: McCarthy: Population History of the Middle East and the Balkans.

## Appendix. List of Historical Maps

### *Explanatory note:*

The original maps listed here are references in the text as “App.” These historical maps serve as the basis of our analysis. They have been collected in archives and publications. Digital reproductions of them are available at the following web address: [www.balkanethnicmaps.hu](http://www.balkanethnicmaps.hu).

**App. 1. A pro-Greek ethnographic map by Synvet (Constantinople, 1877)**

[https://commons.wikimedia.org/wiki/File:Balkans-ethnic\\_\(1877\).jpg](https://commons.wikimedia.org/wiki/File:Balkans-ethnic_(1877).jpg)<sup>1</sup>

**App. 2. The pro-Greek ethnographic map of Edward Stanford  
(based on Gennadios, 1877)**

<https://hu.pinterest.com/pin/510877151484001522/>

**App. 2b. The pro-Greek ethnographic map of Bianconi (based on Gennadios, 1877)**

[http://www.nhmuseum.gr/en/fakelos-syllogon/antikeimena/23615\\_en/](http://www.nhmuseum.gr/en/fakelos-syllogon/antikeimena/23615_en/)

**App. 3. Pro-Greek map of Soteriades (“Hellenism in the Near East”, 1918)**

[https://commons.wikimedia.org/wiki/File:Hellenism\\_in\\_the\\_Near\\_East\\_1918.jpg](https://commons.wikimedia.org/wiki/File:Hellenism_in_the_Near_East_1918.jpg)

**App. 4. Ethnographic map of southern Macedonia, Epiros, Thrace  
(Phocas-Cosmetatos, Amadori-Virgili, 1908 and 1919)**

In: Phocas-Cosmetatos, S. P: La Macédoine. Son passé et son present. Etude histor., ethnograph. et polit. de la Macédoine, avec considérations sur les pays limitrophes et l’Hellénisme. Lausanne 1919; Amadori-Virgili, Giovanni: La questione rumeliota (Macedonia – Vecchia Serbia – Albania – Epiro) e la politica italiana. Garofalo 1908. See also Map 56.

**App. 5. Ethnographic map of northern Epiros (Greek version from 1913)**

<https://commons.wikimedia.org/wiki/File:EpireDuNOrd1913.jpg>

**App. 6. Ethnographic map of Georg von Hahn and František Zach along the Morava river (1861)**

[https://en.m.wikipedia.org/wiki/Johann\\_Georg\\_von\\_Hahn#/media/File%3ABugar-Morava-map.jpg](https://en.m.wikipedia.org/wiki/Johann_Georg_von_Hahn#/media/File%3ABugar-Morava-map.jpg)

1 Date of last download for all maps cited in the Appendix: 31.12.2020.

**App. 7. Ethnographic map of Davidović (Serbian, 1840s)**

[https://upload.wikimedia.org/wikipedia/commons/5/57/Davidovic\\_map\\_1846.jpg](https://upload.wikimedia.org/wikipedia/commons/5/57/Davidovic_map_1846.jpg)

**App. 8. Serbian ethnic territory by Desjardins (1853)**

[https://en.wikipedia.org/wiki/Bulgarians\\_in\\_Serbia#/media/File:Desjardins\\_Balkans\\_1853.jpg](https://en.wikipedia.org/wiki/Bulgarians_in_Serbia#/media/File:Desjardins_Balkans_1853.jpg)

**App. 9. Serbian lands based on the Empire of Tsar Dušan (Garašanin, Thiers, 1862)**

[https://commons.wikimedia.org/wiki/File:Map\\_of\\_the\\_Serb\\_population\\_1862,\\_H.\\_Thiers.png](https://commons.wikimedia.org/wiki/File:Map_of_the_Serb_population_1862,_H._Thiers.png)

**App. 10. Romanians in Serbia (1866)**

[https://commons.wikimedia.org/wiki/File:Ethnic\\_groups\\_in\\_Easternmost\\_Serbia\\_1866.jpg](https://commons.wikimedia.org/wiki/File:Ethnic_groups_in_Easternmost_Serbia_1866.jpg)

**App. 11. Serbian lands according to Miloš Milojević (1873)**

[https://upload.wikimedia.org/wikipedia/commons/5/5d/Greater\\_Serbia%2C\\_Milo%C5%A1\\_Milojevi%C4%87\\_%281873%29.jpg](https://upload.wikimedia.org/wikipedia/commons/5/5d/Greater_Serbia%2C_Milo%C5%A1_Milojevi%C4%87_%281873%29.jpg) and: <https://srbski.weebly.com/tajna-i-zabrana-zvana-milos-s-milojevic.html>

**App. 12. Ethnographic map of Spiridon Gopčević (1889)**

[https://luna.lib.uchicago.edu/luna/servlet/detail/UCHICAGO~2~2~551~1240066:Ethnographische-Karte-von-Makedonie?qvq=q:\\_luna\\_media\\_exif\\_filename%3DG6846-E1-1889-G6.tif&mi=0&trs=1](https://luna.lib.uchicago.edu/luna/servlet/detail/UCHICAGO~2~2~551~1240066:Ethnographische-Karte-von-Makedonie?qvq=q:_luna_media_exif_filename%3DG6846-E1-1889-G6.tif&mi=0&trs=1)

**App. 12b. Ethnographic map of Spiridon Gopčević (1889)**

<https://upload.wikimedia.org/wikipedia/commons/3/3c/Altserbien-und-Makedonien-map.jpg>

**App. 12c. The ethnic map of Karić (1887)**

In: Karić, Vladimir: Srbija, opis zemlje, naroda i države. Beograd 1887 and <https://i.imgur.com/X4dgPFD.jpg>

**App. 13. Balkan dialects by Alexandar Belić (1910s)**

[https://upload.wikimedia.org/wikipedia/commons/thumb/7/7b/Balkan\\_dialects\\_belic\\_1914.jpg/200px-Balkan\\_dialects\\_belic\\_1914.jpg](https://upload.wikimedia.org/wikipedia/commons/thumb/7/7b/Balkan_dialects_belic_1914.jpg/200px-Balkan_dialects_belic_1914.jpg) and [https://upload.wikimedia.org/wikipedia/commons/c/c1/Torlak\\_dialects\\_map\\_en.png](https://upload.wikimedia.org/wikipedia/commons/c/c1/Torlak_dialects_map_en.png)

**App. 14. Cvijić's ethnographic map in Petermanns Geographische Mitteilungen (1913)**

In: Cvijić, Jovan: Die ethnographische Abgrenzung der Völker auf der Balkanhalbinsel. In: PGM 59 (1913), 113–118; 185–189; 244–246; [https://zs.thulb.uni-jena.dereceive/jportal\\_jpvolume\\_00158800](https://zs.thulb.uni-jena.dereceive/jportal_jpvolume_00158800)

**App. 14b. Cvijić's map after the annexation of Bosnia-Herzegovina (1909)**

In: Cvijić, Jovan: *Carte ethnographique de la nation Serbe*. In: L'annexion de Bosnie et la question Serbe. Paris 1909, 70; <https://forum.poreklo.rs/index.php?topic=682.80>

**App. 15. Cvijić's ethnographic map (Breisemeister, William, 1918)**

In: Cvijić, Jovan: The Geographical Distribution of the Balkan Peoples. In: *The Geographical Review* 5 (1918), no. 5, 345–361; [https://commons.wikimedia.org/wiki/File:Cvijić,\\_Jovan\\_-\\_Breisemeister,\\_William\\_A.\\_-\\_Carte\\_ethnographique\\_de\\_la\\_P%C3%A9ninsule\\_balkanique\\_\(pd\).jpg](https://commons.wikimedia.org/wiki/File:Cvijić,_Jovan_-_Breisemeister,_William_A._-_Carte_ethnographique_de_la_P%C3%A9ninsule_balkanique_(pd).jpg)

**App. 16. Cvijić's ethnographic map (French review, 1918)**

In: Cvijić, Jovan: *Carte ethnographique de la Péninsule des Balkans*. In: *La péninsule balkanique. Géographie humaine*. Paris 1918. See a modified version in Cvijić Jovan: *Ethnographical map of the Balkan Peninsula*. London 1920.

**App. 16b. Cvijić's ethnographic map on Kosovo Vilayet**

<https://www.oldmapsonline.org/map/cuni/1144066>

**App. 16c. Cvijić's 'carte rouge' from 1919**

[https://pangea.blog.hu/2019/08/13/szerb\\_etnikai\\_terkepek\\_jovan\\_cviji](https://pangea.blog.hu/2019/08/13/szerb_etnikai_terkepek_jovan_cviji); Cvijić, Jovan: "Carte ethnographique des régions septentrionales Yougoslaves." In: Cvijić, Jovan: *Frontière septentrionale des Yougoslaves*. Paris 1919.

**App. 17. Fényes Elek's ethnographic map based on Ubicini's data (1854)**

Data from: Fényes Elek: *A Török Birodalom leírása statistikai és geographiai tekintetben* [The geographical and statistical description of the Ottoman Empire]. Pest 1854. Map was edited by Gábor Demeter.

**App. 17b. Ethnographic map of Czoernig (1850s)**

[https://commons.wikimedia.org/wiki/File:Ethnographic\\_map\\_of\\_Czoernig.jpg](https://commons.wikimedia.org/wiki/File:Ethnographic_map_of_Czoernig.jpg)

**App. 17c. Ethnographic map of the Serbian Vojvodina by Czoernig (1855)**

[https://commons.wikimedia.org/wiki/File:Voivodeship\\_of\\_serbia\\_ethnic\\_map\\_1855.jpg](https://commons.wikimedia.org/wiki/File:Voivodeship_of_serbia_ethnic_map_1855.jpg)

**App. 18. Ethnographic map of Carl Sax (1877)**

[https://commons.wikimedia.org/wiki/File:Ethnographic\\_map\\_of\\_European\\_Turkey\\_from\\_1877\\_by\\_Carl\\_Sax.jpg](https://commons.wikimedia.org/wiki/File:Ethnographic_map_of_European_Turkey_from_1877_by_Carl_Sax.jpg)

**App. 19. Ethnographic map of the Balkans (Hungary, Pallas Lexicon in 1897)**

[https://commons.wikimedia.org/wiki/File:Ethnographic\\_map\\_of\\_the\\_South\\_Balkans,\\_Pallas\\_Nagy\\_Lexikon,\\_1897.jpg](https://commons.wikimedia.org/wiki/File:Ethnographic_map_of_the_South_Balkans,_Pallas_Nagy_Lexikon,_1897.jpg)

**App. 20. Ethnographic map of the Balkans (military usage, Hungary, 1913)**

In: Magyar Katonai Közlöny [Hungarian Military Bulletin], 1913 April.

**App. 21. Friedrich Meinhard's ethnographic map of Macedonia (1899)**

In: Deutsche Rundschau für Geographie und Statistik Bd. XXI, Heft 10.

**App. 22. Ethnographic map of Macedonia**

**(Känchov's map of 1900 and Carnegie Report, 1914)**

In: Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen. [http://macedonia.kroraina.com/en/dr/dr\\_20-29\\_de.htm#29](http://macedonia.kroraina.com/en/dr/dr_20-29_de.htm#29); [https://commons.wikimedia.org/wiki/File:Macedonia\\_-\\_Point\\_of\\_View\\_of\\_the\\_Bulgarians.jpg](https://commons.wikimedia.org/wiki/File:Macedonia_-_Point_of_View_of_the_Bulgarians.jpg)

**App. 23. Ethnographic map of Macedonia**

**(Serbian version, 1912, Carnegie Report, 1914)**

[https://commons.wikimedia.org/wiki/File:Macedonia\\_-\\_Point\\_of\\_Viewof\\_the\\_Serbs.jpg](https://commons.wikimedia.org/wiki/File:Macedonia_-_Point_of_Viewof_the_Serbs.jpg)

**App. 24. Ethnographic map of the Balkans**

**(Hungarian geographer, Cholnoky, 1913)**

In: Földrajzi Közlemények [Hungarian Geographical Bulletin], 1913.

**App. 25. Ethnographic map of the Balkans by Mirkovich**

**(Slavic Congress, 1867, Russian)**

[https://commons.wikimedia.org/wiki/File:Ethnic\\_map\\_of\\_Balkans\\_-\\_russian\\_1867.jpg](https://commons.wikimedia.org/wiki/File:Ethnic_map_of_Balkans_-_russian_1867.jpg); Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen.

**App. 26. Ethnographic map of Kosovo by Joseph Müller (1840s)**

In: Müller, Joseph: Albanien, Rumelien und die österreichisch-montenegrische Grenze. Prague, 1844. See App. 16b and App. 83.

**App. 27. Ethnographic map of the Balkans by Zaryanko and Komarov**

**(Russian, 1890, Slavic Congress)**

In: Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen. [http://macedonia.kroraina.com/en/dr/dr\\_20-29\\_de.htm](http://macedonia.kroraina.com/en/dr/dr_20-29_de.htm)

**App. 28. Ethnographic map of the Balkans by Ami Boué (1847)**

[https://upload.wikimedia.org/wikipedia/commons/a/ac/Ethnographic\\_map\\_Ami\\_Bou%C3%A9\\_1847.jpg](https://upload.wikimedia.org/wikipedia/commons/a/ac/Ethnographic_map_Ami_Bou%C3%A9_1847.jpg)

**App. 29. Ethnographic map of the Balkans by Irby and Mackenzie (1860s)**

In: Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen. [http://macedonia.kroraina.com/en/dr/dr\\_20-29\\_de.htm](http://macedonia.kroraina.com/en/dr/dr_20-29_de.htm)

**App. 30. Ethnographic map of the Balkans by Lejean (1861)**

[https://en.wikipedia.org/wiki/Demographic\\_history\\_of\\_Macedonia#/media/File:Balkans-ethnic\\_\(1861\).jpg](https://en.wikipedia.org/wiki/Demographic_history_of_Macedonia#/media/File:Balkans-ethnic_(1861).jpg)

**App. 31. Ethnographic map of the Balkans by Šafarik (1842)**

[https://www.wikiwand.com/en/Matice\\_%C4%8Desk%C3%A1](https://www.wikiwand.com/en/Matice_%C4%8Desk%C3%A1)

**App. 32. Ethnographic map of the Balkans by Jaromir Erben (1868)**

In: Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen.  
[http://macedonia.kroraina.com/en/dr/dr\\_20-29\\_de.htm](http://macedonia.kroraina.com/en/dr/dr_20-29_de.htm)

**App. 33. Ethnographic map of Bradaška (1869)**

In: Bradaška, Franjo: Die Slaven in der Türkei. In: Mittheilungen aus Justus Perthes' geographischer Anstalt 15, 1869; [https://zs.thulb.uni-jena.de/rsc/viewer/jportal\\_derivate\\_00261172/ThULB\\_129489816\\_1869\\_Perthes\\_0509.tif?logicalDiv=jportal\\_jparticle\\_00527688&q=Bradaska](https://zs.thulb.uni-jena.de/rsc/viewer/jportal_derivate_00261172/ThULB_129489816_1869_Perthes_0509.tif?logicalDiv=jportal_jparticle_00527688&q=Bradaska)

**App. 34. Map to illustrate Professor Max Müller's "Suggestions" for the assistance of officers in learning the languages of these seats of war in the East/drawn by Augustus Petermann (1854)**

[https://luna.lib.uchicago.edu/luna/servlet/detail/UCHICAGO~2~2~539~1240078Map-to-illustrate-Professor-Max-Mu%CC%88?qvq=q:\\_luna\\_media\\_exif\\_filename%3DG7431-E3-1854-P4.tif&mi=0&trs=1](https://luna.lib.uchicago.edu/luna/servlet/detail/UCHICAGO~2~2~539~1240078Map-to-illustrate-Professor-Max-Mu%CC%88?qvq=q:_luna_media_exif_filename%3DG7431-E3-1854-P4.tif&mi=0&trs=1)

**App. 35. Ethnic map of the Balkans by Elisee Reclus (1876)**

In: Die Bulgaren in ihren historischen, ethnographischen und politischen Grenzen.  
[http://macedonia.kroraina.com/en/dr/dr\\_20-29\\_de.htm](http://macedonia.kroraina.com/en/dr/dr_20-29_de.htm)

**App. 36. Ethnic map of the Balkans by Vidal de la Blache (1898)**

<https://en.m.wikipedia.org/wiki/File:Balkans-ethnique.JPG>

**App. 37. Ethnic map of the Balkans by Leon Niox (1899)**

<https://2.bp.blogspot.com/-9VvF4GvdcN0/Trl3FY9qgYI/AAAAAAAAAeU/weNY-ZLEQ0/s1600/Nioks-1899.jpg>

**App. 38. Ethnic map of the Balkans published in La Science et la Vie based on Cvijić (1918)**

<http://themacedonians.blogspot.com/2009/03/what-old-maps-say-about-macedonians.html>

**App. 39. Ethnological map of Romania by Elisee Reclus (1910s)**

[https://commons.wikimedia.org/wiki/File:The\\_Ethnological\\_map\\_by\\_Elisee\\_Reclus.jpg](https://commons.wikimedia.org/wiki/File:The_Ethnological_map_by_Elisee_Reclus.jpg)

**App. 40. Ethnic map of the Balkans by Georges Y. Devas (1918)**

In: Devas, Georges, Y: Le nouvelle Serbie. Paris 1918. <https://www.todocoleccion.net/libros-antiguos/la-nouvelle-serbie-georges-devas-berger-levrault-libraires-editeurs-1918~x208177067>

**App. 41. Ethnic map of Epiros by Aravandinos (1878)**

[https://upload.wikimedia.org/wikipedia/commons/a/a2/Ethnographic\\_map\\_of\\_Epirus%2C\\_based\\_on\\_P.\\_Aravandinos%2C\\_1878.jpg](https://upload.wikimedia.org/wikipedia/commons/a/a2/Ethnographic_map_of_Epirus%2C_based_on_P._Aravandinos%2C_1878.jpg)

**App. 42. Ethnic map of the Balkans by Heinrich Kiepert (1876–77)**

[https://commons.wikimedia.org/wiki/File:Ethnic\\_map\\_of\\_Balkans\\_-\\_german\\_1876.jpg](https://commons.wikimedia.org/wiki/File:Ethnic_map_of_Balkans_-_german_1876.jpg)

**App. 43. Ethnocratic map of the Balkans by Heinrich Kiepert (1878)**

[https://commons.wikimedia.org/wiki/File:Ethnic\\_map\\_of\\_Balkans\\_Kiepert.1878.png](https://commons.wikimedia.org/wiki/File:Ethnic_map_of_Balkans_Kiepert.1878.png)

**App. 43b. Zones of civilisation by Cvijić (1918)**

In: Cvijić, Jovan: The Zones of Civilisation of the Balkan Peninsula. In: The Geographical Review 5 (1918), no. 6, 470–82.

**App. 44. Ethnic map of the Balkans by Ernst Ravenstein (1880)**

<https://upload.wikimedia.org/wikipedia/commons/5/51/Ernst-Ravenstein-Balkans-Ethnic-Map-1880.jpg>

**App. 45. The distribution of Muslims according to Petermann and Habenicht (1876)**

[https://luna.lib.uchicago.edu/luna/servlet/detail/UCHICAGO~2~2~553~1240065:Die-neueste-Eintheilung,-die-tu%CC%88rki?qvq=q:\\_luna\\_media\\_exif\\_file\\_name%3DG6801-E1-1876-P4.tif&mi=0&trs=1](https://luna.lib.uchicago.edu/luna/servlet/detail/UCHICAGO~2~2~553~1240065:Die-neueste-Eintheilung,-die-tu%CC%88rki?qvq=q:_luna_media_exif_file_name%3DG6801-E1-1876-P4.tif&mi=0&trs=1)

**App. 46. Ethnic map of the Balkans by Andree (Handatlas, 1881)**

<https://commons.wikimedia.org/wiki/File:Andree64-1.jpg>

**App. 47. Ethnographic map of Romania by Gustav Weigand (Sprachatlas, 1895 and 1909)**

<http://www.corpusbdr.info/?goto=past>

**App. 48. Ethnographic map of the Balkans by Weigand**

[https://commons.wikimedia.org/wiki/Atlas\\_of\\_Transylvania#/media/File:Sprachatlas\\_Weigand\\_67.JPG](https://commons.wikimedia.org/wiki/Atlas_of_Transylvania#/media/File:Sprachatlas_Weigand_67.JPG)

**App. 49. Ethnographic map of Greece (Philipson, 1897)**

[https://commons.wikimedia.org/wiki/File:Greece\\_ethnic\\_1897.JPG](https://commons.wikimedia.org/wiki/File:Greece_ethnic_1897.JPG)

**App. 50. Ethnographic map of the Balkans by Dietrich Schaefer (1916)**

<https://searchworks.stanford.edu/view/11659556>

**App. 51. German Ethnographic map on the Balkans 1918–1924**

**(“Völker- und Sprachenkarte der Balkan-Halbinsel”, Leipzig)**

<http://macedoniantestimony.blogspot.com/2012/11/volker-und-sprachenkarte-der-balkan.html>

**App. 52. German Ethnographic map of the Balkans (1933)**

<https://www.alamy.com/die-vlker-des-donauraumes-und-der-balkanhalbinsel-image264412335.html>

**App. 53. A settlement level ethnographic map of Macedonia, Leipzig**

**(L. Schultze-Jena, 1920s)**

In: Wilkinson, Henry, Robert: Maps and Politics. A Review of the Ethnographic Cartography of Macedonia. Liverpool 1951, 251.

**App. 53b. Ethnic map of Macedonia (1932)**

<https://i.imgur.com/X40SNaD.jpg>

**App. 54. German map on Yugoslavia (ca. 1940)**

<http://i.imgur.com/WLHli72.jpg>

**App. 55. Shepherd’s map (1911, published again in 1923)**

[https://www.wikiwand.com/en/Macedonia\\_\(region\)](https://www.wikiwand.com/en/Macedonia_(region))

**App. 55b. Richard Andree’s ethnic map (1895, previous version in 1881)**

In: Andree’s Allgemeiner Handatlas, 1st Edition, Leipzig 1881 (<https://twitter.com/FactsBalkan/status/845692675068248066>); [https://upload.wikimedia.org/wikipedia/commons/9/9b/Balkan\\_map\\_1895\\_Richard\\_Andree.jpg](https://upload.wikimedia.org/wikipedia/commons/9/9b/Balkan_map_1895_Richard_Andree.jpg)

**App. 56. Ethnographic map according to the Encyclopaedia Britannica (1911)**

<https://twitter.com/FactsBalkan/status/846421144303538176>

**App. 57. Ethnographic map of the Balkans (British, 1922)**

[https://commons.wikimedia.org/wiki/File:Map\\_showing\\_the\\_Macedonians\\_in\\_Greece\\_1922\\_-\\_distribution-of-nationalities-in-south-eastern-europe-1922-ver2.JPG](https://commons.wikimedia.org/wiki/File:Map_showing_the_Macedonians_in_Greece_1922_-_distribution-of-nationalities-in-south-eastern-europe-1922-ver2.JPG)

**App. 58. Ethnographic map of the Balkans**

**(War Office, London, 1916, published in Daily Telegraph, 1918)**

[https://enacademic.com/pictures/enwiki/69/Ethnographical\\_Map\\_of\\_Central\\_and\\_South\\_Eastern\\_Europe\\_-\\_The\\_War\\_Office\\_1916%2C\\_London.jpg](https://enacademic.com/pictures/enwiki/69/Ethnographical_Map_of_Central_and_South_Eastern_Europe_-_The_War_Office_1916%2C_London.jpg)

- App. 59. Ethnographic map by Alexander Gross (Daily Telegraph, 1918)**  
<http://themacedonians.blogspot.com/2009/03/what-old-maps-say-about-macedonians.html>
- App. 59b. Ethnographic map of southern Macedonia and Thrace used by the Royal Navy in 1944 (Serbian view in 1913)**  
<https://www.alamy.com/stock-photo-macedonia-ethnography-serbian-view-1913-ww2-royal-navy-intelligence-108677720.html>
- App. 60. The Ethnoreligious map of Bosnia based on the census of 1910**  
<http://geoportal.ios-regensburg.de/catalog/BV042750510>; <http://www.nbn-resolving.de/urn:nbn:de:bvb:355-ubr16671-1>
- App. 61. A religious map of Bosnia-Herzegovina (1880s)**  
In: Asbóth, János: Bosznia és Hercegovina. Budapest 1887.
- App. 62. Land tenure system in Bosnia (1880s)**  
In: Asbóth, János: Bosznia és Hercegovina. Budapest 1887.
- App. 63. Ethnographic map on Albania (1913)**  
<https://hu.pinterest.com/pin/525584218984662569/>
- App. 64. Ethnographic border between Albanians and Slavs in South-Albania (1919)**  
Map by Nikolla Lako, cited in Çekrezi, Constantine: Albania. Past and Present. New York 1919.
- App. 64b. Ethnographic map of Albania by Lako (1918)**  
<https://twitter.com/AlbanologyFacts/status/1044240100832542721/photo/1>
- App. 64c. Ethnographic map of Albania by Alfred Stead (1909)**  
<https://www.rastko.rs/kosovo/istorija/sanu/map3.html>
- App. 65. Ethnographic map on Albania Dardano, 1913–1918 (Italian, pro-Albanian version)**  
In: Dardano, A.: Carte Ethnique et Linguistique de l'Orient Européen. Institut Géographique De Agostini, Novare, 1913–1918; <https://www.theapricity.com/forum/showthread.php?54863-Maps-of-Macedonia/page7>
- App. 66. Ethnographic map of Dobrudja (Tafrali, 1912)**  
In: Tafrali, O.: Carte Ethnographique de la Dobroudja. In: Tafrali, O.: La Roumanie Transdanubienne (La Dobroudja). Paris 1918, 195; [https://pangea.blog.hu/2019/04/18/romania\\_reflected\\_in\\_ethnic\\_maps](https://pangea.blog.hu/2019/04/18/romania_reflected_in_ethnic_maps)

**App. 67. Ethnographic map of Dobruja (Lejean, 1861)**

[https://commons.wikimedia.org/wiki/File:Dobrogea-Bugeac\\_harta\\_etnica\\_\(1861\).JPG](https://commons.wikimedia.org/wiki/File:Dobrogea-Bugeac_harta_etnica_(1861).JPG)

**App. 68. Ethnographic map of Atanasiu (Romanian) on Vlachs (1919–1924)**

<https://www.theapricity.com/forum/showthread.php?54863-Maps-of-Macedonia/page7>

**App. 68b. Vlach schools in Macedonia prior to 1914**

[https://enacademic.com/pictures/enwiki/82/Romanian\\_Schools\\_for\\_Aromians\\_and\\_Meglenoromians.JPG](https://enacademic.com/pictures/enwiki/82/Romanian_Schools_for_Aromians_and_Meglenoromians.JPG)

**App. 69. Detailed ethnic composition of Greek Macedonia**

In: Lithoxou, Dimitris: *The Greek Anti-Macedonian Struggle, Part 1: From St. Ilija's Day to Zagorichani (1903–1905)*. North Melbourne 2012; [https://upload.wikimedia.org/wikipedia/en/d/d5/Detailed\\_Ethnic\\_composition\\_of\\_the\\_Greek\\_Macedonia.jpg](https://upload.wikimedia.org/wikipedia/en/d/d5/Detailed_Ethnic_composition_of_the_Greek_Macedonia.jpg)

**App. 69b. Detailed ethnic composition of Greek Macedonia (retrospective reconstruction for 1913)**

[https://upload.wikimedia.org/wikipedia/commons/d/d9/Map\\_of\\_Ethnic\\_composition\\_in\\_Northern\\_Greece\\_-\\_Macedonia\\_and\\_Thracia.jpg](https://upload.wikimedia.org/wikipedia/commons/d/d9/Map_of_Ethnic_composition_in_Northern_Greece_-_Macedonia_and_Thracia.jpg)

**App. 70. Settlement-level ethnic pattern of South-Macedonia**

**App. 71. Ethnic pattern of the Peloponnese (1890s)**

<https://hu.pinterest.com/pin/300826450084108782/>

**App. 72. Resettling refugees from Asia Minor (League of Nations, 1926)**

[https://commons.wikimedia.org/wiki/File:Map\\_of\\_Greek\\_Refugee\\_Settlements\\_in\\_Greece,\\_1926.png](https://commons.wikimedia.org/wiki/File:Map_of_Greek_Refugee_Settlements_in_Greece,_1926.png); <https://twitter.com/ArcGreek/status/1250859832036515842/photo/1>

**App. 72b. Ethnic changes in Greek Macedonia between 1912 and 1926**

[https://www.flickr.com/photos/athens\\_greece/33556493151](https://www.flickr.com/photos/athens_greece/33556493151)

**App. 73. Ethnographic map of Thrace (Bulgarian, Ljubomir Miletić, 1912)**

[https://en.wikipedia.org/wiki/Bulgarians\\_in\\_Turkey#/media/File:Ethnographic-map-Thrace-1912.jpg](https://en.wikipedia.org/wiki/Bulgarians_in_Turkey#/media/File:Ethnographic-map-Thrace-1912.jpg)

**App. 74. Ethnographic map by the Jordan Ivanov (Bulgarian, 1915)**

In: *Македонија во образи – La Macedoine illustree / Комитет за изучаване българските земи, 1919* ([http://www.promacedonia.org/rami/am/am\\_karta.html](http://www.promacedonia.org/rami/am/am_karta.html)); <http://geoportost.georeferencer.com/maps/60213689853/>

- App. 75. Ethnographical map of southern Slavs by the Bulgarian Ivanov (1913)**  
[https://upload.wikimedia.org/wikipedia/commons/f/f6/Ethnographic\\_map\\_of\\_the\\_Southern\\_Slavs%2C\\_1913.jpg](https://upload.wikimedia.org/wikipedia/commons/f/f6/Ethnographic_map_of_the_Southern_Slavs%2C_1913.jpg)
- App. 76. Bulgarian Ethnographic map of the Balkans showing the situation around 1877 (approved in 1936)**  
In: Markov, Georgi: Bălgariya i Balkanskiya săyuz sreshtu Osmanskata Imperiya, 1911–1913. Sofia: Izd. Zahariy Stoyanov, 2012.
- App. 77. Ethnographic map of Bulgarian professors (Ishirkov, Ivanov, 1915)**  
In: Ischirkoff, Anastas: Ethnographische Karte des Bulgarentums auf dem Balkanhalbinsel im Jahre 1912. In: PGM 61 (1915), 339–342, [https://zs.thulb.uni-jena.de/receive/jportal\\_jpvolume\\_00155002](https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00155002); [https://en.wikipedia.org/wiki/Demographic\\_history\\_of\\_Macedonia#/media/File:Bulgarians\\_in\\_1912.jpg](https://en.wikipedia.org/wiki/Demographic_history_of_Macedonia#/media/File:Bulgarians_in_1912.jpg)
- App. 78. Bulgarian claims in 1915**  
[https://en.wikipedia.org/wiki/Bulgaria\\_during\\_World\\_War\\_I#/media/File:WWI\\_BG\\_MAP.jpg](https://en.wikipedia.org/wiki/Bulgaria_during_World_War_I#/media/File:WWI_BG_MAP.jpg)
- App. 79. Ethnoreligious and administrative map of Teplov (1878)**  
[https://www.wikizero.com/en/Demographics\\_of\\_the\\_Ottoman\\_Empire](https://www.wikizero.com/en/Demographics_of_the_Ottoman_Empire), see also Map 13.
- App. 80. Ethnographic map of Thrace, in French language from the first world war**  
[https://farm8.staticflickr.com/7376/9935875713\\_aa5a8013f7\\_o.jpg](https://farm8.staticflickr.com/7376/9935875713_aa5a8013f7_o.jpg); cf. App. 73.
- App. 81. A sanjak level ethnoreligious map of the Ottoman Balkans before 1877 (modern adaptation)**  
[http://www.allempires.com/Forum/forum\\_posts.asp?TID=33601&OB=DESC&PN=2](http://www.allempires.com/Forum/forum_posts.asp?TID=33601&OB=DESC&PN=2)
- App. 82. Ethnographic map of Bulgaria based on the census in 1892**  
[https://www.wikiwand.com/en/Vlachs\\_in\\_Bulgaria](https://www.wikiwand.com/en/Vlachs_in_Bulgaria)
- App. 83. Ethnographic map of Kosovo vilayet prior to 1878**  
In: Frantz, Anne Eva: Gewalt und Koexistenz. Muslime und Christen im spätosmanischen Kosovo (1870–1913). München 2016. (based on original sources of the HHStA). See also App. 16b.
- App. 84. Settlement level ethnographic map of Monastir Vilayet (ca. 1900)**  
In: HHStA, PA XII, Türkei Liasse XXV. Kt. 272. /// Kartensammlung, Keller 3. 7–3. Carte ethnographique du Vilayet de Bitola (Monastir, 1901) Redigée au bureau de l'Agence Commerciale de Bulgarie à Salonique, 1899 (Sophia, 1902). See also Map 31.

- App. 85. Settlement-level ethnographic map of Kosovo Vilayet (ca. 1901)**  
In: HHStA, Kartensammlung, Keller 3. 7–3. Carte ethnographique du Vilayet de Kosovo (1901). See also Map 31.
- App. 86. Schools and churches in Saloniki Vilayet (ca. 1910)**  
In: Phocas-Cosmetatos, S. P: La Macédoine. Son passé et son present. Etude histor., ethnograph. et polit. de la Macédoine, avec considérations sur les pays limitrophes et l'Hellénisme. Lausanne 1919. See also Map 26–27.
- App. 87. Schools and churches in Monastir Vilayet (ca. 1910)**  
In: Phocas-Cosmetatos, S. P: La Macédoine. Son passé et son present. Etude histor., ethnograph. et polit. de la Macédoine, avec considérations sur les pays limitrophes et l'Hellénisme. Lausanne 1919. See also Map 26–27.
- App. 88. Schools and churches in Janina Vilayet (ca. 1910)**  
In: Phocas-Cosmetatos, S. P: La Macédoine. Son passé et son present. Etude histor., ethnograph. et polit. de la Macédoine, avec considérations sur les pays limitrophes et l'Hellénisme. Lausanne 1919. See also Map 26–27.
- App. 89. Schools and churches in Edirne Vilayet (cc. 1910)**  
In: Phocas-Cosmetatos, S. P: La Macédoine. Son passé et son present. Etude histor., ethnograph. et polit. de la Macédoine, avec considérations sur les pays limitrophes et l'Hellénisme. Lausanne 1919. See also Map 26–27.
- App. 90. Settlement level ethnographic map of South-Macedonia (by Ivanov, 1912)**  
In: HHStA, Kartensammlung, Keller 3. 7–9. Carte ethnographique de la Macédoine du Süd. Par le J. Ivanow, 1912 (Representant la repartition ethnique á la veille de la guerre des Balkans, 1912). See also Map 52.
- App. 91. Patch map of Macedonia by Gopčević (1889)**  
In: Gopčević, Spiridon: Makedonien und Alt-Serbien. Wien 1889. See also Map 28.
- App. 92. Religious map of Macedonia (1877)**  
In: HHStA, Kartensammlung, Keller 3. 7–3. Religionskarte der Vilayete Kosovo, Saloniki. See also Map 23.
- App. 93. Patch map of ethnic majorities in Macedonia (1905)**  
In: HHStA, PA XII, Türkei, Liasse XXV. Kt. 272. Zur Detailbeschreibung von Makedonien. Beilage 4. See also Map 32.
- App. 94. Settlement-level ethnographic map of Saloniki Vilayet (ca. 1901)**  
In: HHStA, PA XII, Türkei, Liasse XXV. Kt. 272. Carte ethnographique du Vilayet de Saloniki. See also Map 31.

**App. 95. Christian schools in Saloniki Vilayet (ca. 1901)**

In: HHStA, PA XII, Türkei, Liasse XXV. Kt. 273. See also Map 26–27.

**App. 96. Plan of Serbian colonization in Kosovo and Macedonia (1920s)**

[https://upload.wikimedia.org/wikipedia/commons/7/7d/Map\\_of\\_Serbian\\_colonization\\_in\\_Vardar\\_Macedonia\\_20\\_century.jpg](https://upload.wikimedia.org/wikipedia/commons/7/7d/Map_of_Serbian_colonization_in_Vardar_Macedonia_20_century.jpg)

**App. 97. Ottoman ethnographic map of Thrace (1910s)**

In: Başbakanlık Osmanlı Arşivi, Istanbul (BOA), HRT\_h\_0234\_A\_00001

**App. 98. Ottoman ethnographic maps of Anatoly (ca. 1914)**

In: BOA, HRT\_h\_00408\_a, b, c; [https://en.wikipedia.org/wiki/Population\\_exchange\\_between\\_Greece\\_and\\_Turkey#/media/File:Proportions\\_des\\_populations\\_en\\_Asie\\_Mineure\\_statistique\\_officielle\\_d1914.png](https://en.wikipedia.org/wiki/Population_exchange_between_Greece_and_Turkey#/media/File:Proportions_des_populations_en_Asie_Mineure_statistique_officielle_d1914.png); [https://farm8.staticflickr.com/7340/10042049523\\_ac0ca11d72\\_o.jpg](https://farm8.staticflickr.com/7340/10042049523_ac0ca11d72_o.jpg)

**App. 99. Ottoman pie chart map on Anatoly (ca. 1914)**

In: BOA, HRT\_h\_00408\_e

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# DIGIOST

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The authors seek to answer whether the ethnic maps of the Balkan Peninsula created between 1840 and 1914 can be considered scientific products, or whether these maps were merely tools that served the political goals of the Balkan nation states and the regional agenda of the Great Powers. Despite evident methodological progress, maps were often contradictory indicating that propaganda purposes played an important role during their preparation.

The book investigates (1) the discrepancy between statistical data and their visualization on maps; (2) the reliability of Ottoman statistics and their Western and Balkan interpretations; (3) the adequacy of applied visualization techniques; and (4) the difference between the quality and content of maps created for the public and those created for political decision-makers. The authors apply interdisciplinary methods to deconstruct approximately one hundred maps analysing their background data, visualization techniques, and intentions behind the maps. Then, they redraw fifty maps with unified categories and scaling to promote comparison applying a different visualization technique.

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