Serbian Atlases in the 19th and Early 20th Century

Jelena Glišović^{a,*}, Žarko Ilić^b

- ^a National Library of Serbia, glisovic.jelena@nb.rs
- ^b Faculty of Philosophy, University of Belgrade, zarko.ilic95@yahoo.com
- * Corresponding author

Abstract:

Atlases published in the Serbian language in the 19th and early 20th century, with rare exceptions were used as an auxiliary teaching tool in geography and history classes. The aim of this paper is to point out all the atlases that were in use in Serbian schools until the beginning of the First World War. The analysis of the content of the atlases was performed and presented, and as well as the different methodologies used by the authors during the creation of the atlas. The connection between the geography curriculum and the content of the atlas was pointed out, in accordance with the changes in the geography curriculum during the time. In addition to school atlases, the first atlases, made by Jovan Cvijić, will be presented, which aimed to show maps that relate to a clearly defined topic and these were the first such atlases within the framework of Serbian cartography.

Keywords: Atlas, Serbian Cartography, History of Cartography

1. Introduction

At a time when Europe was making big strides in the development of geographical science, including cartography, under the influence of ancient geographical concepts, the peoples of the Balkan Peninsula were struggling to survive on the European political scene (Thrower, 58-90). The arrival of the Ottomans in the Balkans interrupted the continuity of cultural development in this part of Europe. After falling under the Ottoman rule, the development of cartography in the Serbian medieval state was nonexistent. Until the end of the 18th century, the Serbian people and the lands they inhabited were only an object of cartographic representation, and even though the Balkan Peninsula had its place in almost all atlases published in that period, the geographical knowledge about this area was very low and had remained so until the 1840s (Ilić, 2019, 20-25).

The development of Serbian cartography started in the late 18th century, when Zaharije Stefanović Orfelin published several maps as a contribution to his monumental work *Hagiography of Peter the Great*. He also produced a map showing the Balkan Peninsula, which was published as a supplement to the second volume of the *History of Various Slavic Peoples: Serbians, Croatians and Bulgarians*, published in 1794, showing Pannonia, Moesia, Dacia, and Illyricum. These are the first cartographic works by Serbian authors (Radojčić, 1997, 61).

2.1 School atlases

The first geography textbook and atlas in the Serbian language were published by Pavle Solarić in the early 19th century. The textbook was entitled *Ново гражданско землеописание*, and the atlas was entitled *Пъшій землеписникь* (Solarić, 1804). Both works were published in Venice in 1804. The textbook was published in two volumes, with the first

volume dedicated to the geographical overview of European countries, and the second volume provided data on the geography of Asia, Africa, America and Australia (Polynesia). What is important to emphasize is that the textbook was based on the work of German geographer Adolf Christian Gaspari Allgemeine Einleitung in die neueste Erdbescheibung, which showed that the development of the Serbian geographical science was very early on under the influence of German geography and cartography.

The aforementioned atlas showed 37 maps of different parts of the world. The Balkan Peninsula was presented in the atlas sheet no. 30, entitled "Turkey". At first glance, this sheet clearly showed the mountain range from the Gulf of Trieste to the Black Sea, i.e. the Central Ridge, which was considered to extend along the Balkan Peninsula. Based on this belief, German cartographer Johann August Zeune gave the peninsula its name - Balkan Peninsula. This was a prevailing understanding in the geographical world until the 1930s, until the research work of Ami Boué appeared. The atlas sheet showed the boundaries of geography terms present on the Balkan Peninsula at the beginning of the 19th century, but they have not been named. Certain hydrography terms were plotted, such as rivers Morava (Great and South), Vardar and Marica.

Geographic work of Pavle Solarić did not bring significant improvement of the geographic knowledge of the Balkan Peninsula, but its greatest significance lies in the fact that it was the first geographic work written and published in the Serbian language.

Exactly 50 years have passed between the publication of Solarić's textbook and atlas, and the new atlas published in the Serbian language. The new atlas was published by the then well-known French cartographer Constantine Desjardins, who moved to Serbia in early June 1851 and furnished the Ministry of Education with several maps and made an agreement with the ministry to produce 4 maps necessary for Serbian schools at that time, which included: a world map, a map of Europe, a map of Turkey, and a map of Serbian lands. In addition to the production of said maps, which was completed during 1853 and 1854, Constantine Desjardins also published Земльописный атласъ in 1854. The atlas and the geographic maps were made at the order of

the Serbian government. The atlas contained 2 pages of text and 8 maps. However, as the atlas was made in only 8 copies, no copy has been preserved to this day. The special significance of this atlas is that it was the first geographic atlas published in the Principality of Serbia, in Belgrade, which was aimed to serve as a teaching tool in schools (Novaković 1869, 356).

The school curriculum adopted in 1883 provided for the study of geography in the 3rd and 4th grade. The plan for the 3rd grade was to introduce the geography of the Kingdom of Serbia, and the plan for the 4th grade was to teach the geography of Serbian lands, which, according to the understandings of that time, consisted of Bosnia and Herzegovina, Old Serbia, Montenegro, Dalmatia, Istria, Croatia, Slavonia, Srem, Banat and Bačka. In the second semester of the 4th grade, the geography of other countries of the Balkan Peninsula was studied, while the geography classes for the 5th and 6th grade were dedicated to the European and other continents (Ilić, 2010, 60-61). After Vladimir Karić published the Geography of the Kingdom of Serbia for the 3rd grade of primary schools in 1885, and then in 1887 the Geography of the Serbian land and the Balkan Peninsula for the 4th grade of primary schools in the Kingdom of Serbia, his textbooks became the basis for the first preserved atlas used in Serbian schools. The atlas was published in 1888 under the title Atlas of the Kingdom of Serbia with geography according to the curriculum for the third grade of primary schools. The authors were Petar Šreplović and Vladimir Titelbah. The atlas was meant to serve as a teaching tool, in accordance with the then curriculum for teaching geography in elementary schools. The atlas showed a geographical representation of the Kingdom of Serbia with the then administrative division (districts). The main motive of the authors of this atlas was to overcome the difficulties that geography teachers faced in teaching geography. The atlas was made entirely in accordance with the primary school geography curriculum. It provided an overview of the main places, mountains, and rivers in each district. Description of each district was accompanied by a map of the district. The maps in the atlas were quite modest, especially in terms of relief features. Only the highest mountains were plotted, using the hatching method. The students were not able to get a clear picture of the relief features of the Kingdom of Serbia based on the relief presented in this way (Šreplović, Titelbah, 1888). At the end, the atlas provided a map of the Kingdom of Serbia containing only district borders, and students were assigned with the task to draw mountains, rivers and larger inhabited areas (Šreplović, Titelbah, 1888, 46-47). Over the next two years, the atlases continued to be used solely as a teaching aid for the 3rd grade elementary school pupils. A new atlas of the Kingdom of Serbia with geography and biographies according to the new administrative division for 3rd grade pupils was published in Belgrade in 1891. In the production of the atlas the author followed the methodological principle of division of the Kingdom of Serbia into districts. A total of 15 districts were portrayed, with the description on the left and the map on the right. At that time, the Kingdom of Serbia was divided into the following districts: Podunavlje, Valjevo, Podrinje, Užice, Rudnik, Kragujevac, Morava, Požarevac, Krajina, Crna reka, Timok, Kruševac, Toplica, Pirot and Vranje. The textual description of each district stated the border, large mountains and rivers. The author also mentioned large and small towns. A special chapter was dedicated to the history of each district, mentioning significant historical events and names of important people, but mostly only prominent persons from the time of the First Serbian Uprising. The atlas also listed further sub-division of districts administrative units. As mentioned earlier, in addition to the textual part each description was accompanied by a geographical map of the district. The map showed the hydrographic network with names of large rivers. The relief was shown by the method of hatching, stating the altitudes of most mountains. The number of inhabitants of each settlement was shown by the size of the letters used for the name of each settlement (Šreplović, 1891, 4-34). The second part of the atlas was dedicated to the description of the position of the Kingdom of Serbia, and the same method used by the author to describe districts was applied to the description of the Kingdom of Serbia. The last part of the atlas was dedicated to the biographies of famous people from the periods of the First and Second Serbian Uprising. Two years after the publication of Sreplović's second atlas, during the fourth session of the Teachers' Association in August of 1892, a geography professor Kosta Kovačević expressed his opinion on

the preparation of an atlas in a paper entitled What type of atlas we need for our high schools. The author first emphasized the need for atlases in schools, stating that the main goal is to supplement the lacking and obsolete maps used in schools.1 It is interesting that Kovačević did not refer to the two atlases prepared by Šreplović, since they, despite considered as atlases, did not contain the elements that Kovačević considered necessary for an atlas. Each atlas should first have a map of the Kingdom of Serbia in the scale of 1: 1.000.000, which should first be an orohydrographic or physical map, followed by a map of the internal administrative division of Serbia (Kovačević, 1892, 4). A special part of the future atlas was to be dedicated to the Serbian ethnic space, i.e. "Serbian lands", which was a term used to denote the territory inhabited by Serbs and had exclusively ethnographic significance in the 19th and 20th century. Serbian lands were to be shown on 4 political maps: 1. Banat, Bačka, Baranja and Srem; 2. Istria, Croatia and Slavonia; 3. Bosnia, Herzegovina, Dalmatia, Montenegro and the Zeta region; 4. Old Serbia and Macedonia (Kovačević, 1892, 5). After the presentation of Serbia and Serbian lands, attention should be paid to the Balkan Peninsula, which, as the author points out, had an important place in Serbian history: "The Serbian state was founded there, it is a place of the most important events in the history of our ancestors, it is a place where we started and where we will certainly conclude our role, and all our interests are tied to it" (Kovačević, 1892, 6). As far as continents are concerned, Europe should be shown in more detail, which he considered to be better known than the rest of the world, and therefore suggested that European countries be shown on five separate maps, with one general overview of Europe at a scale of 1:20.000.000. One physical and political map of other continents should be prepared.

¹ The maps used in Serbian elementary and secondary schools, included the Map of the Principality of Serbia made by Jovan Milenković in 1850, Desjardin maps from 1853 and 1854, and in some schools, as an ethnographic map, the map from 1873 published by Miloš Milojević under the title Historical and Ethnographic Geographic Map of Serbs and Serbian (Yugoslav lands) in Turkey and Austria. In 1893, there was only one school in the entire Kingdom of Serbia that had isothermal maps.

Kovačević also referred to the method of relief presentation and the problem of geography terms used in Serbian geography textbooks. He thought that the relief should be shown by the method of Hachure map, where the height of the mountains is determined by numbers. In general, the problem in Serbian geographical science at the end of the 19th century was the terminology. In the textbooks, different forms of names for the same term are found: island, bay, strait etc (Cvijić, 1887, 903-916; Cvijić, 1888, 21-28). Kovačević ended his presentation by concluding that the government paid more attention to the production of atlases in the 1850s compered to in his period (Kovačević, 1892, 11).

Despite the fact that Kosta Kovačević published his presentation in which he clearly stated the characteristics of an atlas, his proposals were not accepted by Petar Šreplović, who was the only one who produced atlases until the end of the 19th century. The change of the geography curriculum in 1892 also led to a change in the territorial delimitation of the notion of Serbian lands in geography textbooks. According to this curriculum, the Vidin and Sredac areas in Bulgaria have been determined as part of Serbian lands, i.e. as part of the territory inhabited by Serbs (Ilić, 2010, 131). In addition to the change in the curriculum, the publication of the new atlas was influenced by the novelties from the 1899 curriculum, when it was decided that 3rd grade pupils should be acquainted with the geography of the Kingdom of Serbia, and that the geography of the Kingdom of Serbia should be studied in detail in the 4th grade, while Serbian lands should only be briefly presented (Ilić, 2010, 131, 191-192). The new plan was articulated in Šreplović's atlas from 1899: Atlas of the Kingdom of Serbia and Serbian lands according to the political division for the 4th grade pupils of national primary schools. The author cited the following prominent Serbian geographers as sources for his work: Vladimir Karić, Milan Milićević, Jovan Dragašević and Jovan Cvijić. The first part of the atlas was dedicated to the Kingdom of Serbia, and the author adhered to the established method that he used in previous atlases, i.e. introduction of the country's geography through the division into administrative units - districts. In relation to the 1891 edition, the author expanded the text and added new information about the relief, waters, and significant places within

each district. It is interesting that the relief of different districts was shown by the use of different methods. On the map of the Podunavlje, Kragujevac and Krajina districts, the relief was shown by the method of shading with white gaps at the top, where the names of large mountains were written, while the hatching method was applied for other districts. The author dedicated the second part of the atlas to Serbian lands: Old Serbia, Macedonia, Bosnia and Herzegovina, Montenegro, Dalmatia, Istria, Croatia, Slavonia, Srem, Banat, Bačka, Vidin, and Sredac district (Šreplović, 1899, 38-51). Old Serbia was marked as an area bounded on the north by the Kingdom of Serbia, by Bulgaria on the east, by Macedonia and Albania on the south, and the Adriatic Sea and Montenegro on the west. Demirkapija on the River Vardar was marked as the border of Old Serbia to the south i.e. the border of Old Serbia and Macedonia. Strumica and Bitola were shown within Macedonia, while Kostur, Gorica and Devoll were shown as part of Old Serbia. The border between Old Serbia and Albania was shown as the upper course of the River Devoll and the lower course of the River Shkumbin. Statistical data showed that this area had close to 60,000 km² and 1,600,000 inhabitants, but their ethnographic affiliation was not stated.2

The next area shown in the atlas was Macedonia, covering 20,000 km² with about 1,000,000 inhabitants. The Rhodopes in the east were marked as the borders of this area, while Nevrokop, Melnik, Strumica and Bitola were the northernmost cities.

² Regarding the border of Old Serbia, there is no single position in the Serbian geographical literature from the 19th and the beginning of the 20th century. Vladimir Karić set the border on Šar Mountains, referring to the area south of it as Serbian Macedonia. For Jovan Cvijić, Old Serbia meant the territory north of the Šar Mountains, including Skopje and Tetovo areas. What is important to emphasize is that the term Old Serbia has not only been used in geographical textbooks, but the population that inhabited that territory had also used the term Old Serbia since the middle of the 19th century. (Karić, 1882, 118-119; Cvijić, 1906, 54-55; Jagodić, Belgrade 2016, 36-42; Šešum, 2016, 88-92). In this paper, we will not deal with the geographical definition of this term, but we will present the geographical representations of this and other areas that entered the framework of the Serbian land, within the Serbian atlases.

From Bitola, the border went south to the source of Bistrica and went along its upper course, and then across Olympus and not far from the town of Servia, ending on the shores of the Gulf of Thessaloniki. The atlas then showed Bosnia and Herzegovina, where Herzegovina was presented as an area that stretched east to the River Lim and included the monastery of Mileševa, which was in line with the geographical understanding of this term by the inhabitants of this the territory.³ This was followed by Montenegro, Dalmatia, Istria, Croatia, Slavonia, Srem, Banat and Bačka. It was stated that Croatia was inhabited by Croats, while Slavonia and Srem by Serbs (Šreplović, 1899, 42-49). The last part of the atlas was dedicated to the Vidin and Sredac districts, i.e. the areas known as Shopluk. The atlas stated that out of 450,000 inhabitants of this area, 400,000 of them were Serbs of the Orthodox faith, who celebrate the Slava.

In accordance with the 1899 curriculum, which, in addition to the above data, provided for the study of geography of the Kingdom of Serbia not by its districts, but by river basins, Petar Šreplović and Josif Kovačević published in 1900 the Atlas of the Kingdom of Serbia with geography by river basins, as per the curriculum - a short reminder for 3rd grade elementary school pupils. Instead of the previously used method by which the geographical presentation meant the division based on administrative division of the state into districts, the authors decided on the presentation of the Kingdom of Serbia based on large river basins. The territory of one river basin was shown with all the rivers located in that territory. These rivers flowed into the river after which the river basin was named. Accordingly, the boundaries of each river basin were the large mountains that surrounded it and from which rivers flowed to one riverbed. The territory of the Kingdom of Serbia was divided into 9 river basins: Sava, Kolubara, Drina, Danube, Timok, Nišava, Binačka Morava (South Morava) and Golijska Moravica (Šreplović, Kovačević, 1900). Compared to previous atlases, the authors have retained the same methodology to present the geography of the territories of certain river basins, as they did to present geography of districts. The territory of each river basin was shown on the map.

_

Based on the above data, we can clearly see that the Serbian atlases created at the end of the 19th century had the sole purpose to serve as a teaching tool in Serbian elementary schools, exclusively in the 3rd and 4th grade, showing the area of the Kingdom of Serbia and areas which the authors considered as an integral part of the Serbian lands. The first atlas showing the European and non-European continents was published at the beginning of the 20th century, which will be discussed later. Atlases of Petar Šreplović are accompanied by a text and a geographical map showing each district or area. As we have seen, Šreplović did not accept the proposals presented by Kovačević on the layout of the atlas for Serbian schools, but rather strictly adhered to the curriculum that stated which areas are studied in which grade. Josif Kovačević published the Serbian Geography Atlas for the Junior High School Students in 1902, mostly in accordance with the instructions of Kosta

Kovačević from 1892. The atlas was completely adapted to the 5th and 6th grade students, when the European and non-European continents were studied in geography classes. On the first page, the author presented the revolution and rotation of the earth, the movement of the Moon, the eclipse of the Sun and the Moon, while the second page showed the constellations, the Earth's belts, and the sides of the world. This is followed by the physical and political map of Europe, maps of Asia, and one physical and political map of each continent. The relief was shown by the color method, and within the physical map of Asia, the cross-section of the relief was shown by 90° east longitude (Kovačević, 1902). The map of North America had a legend presented in colors, where green indicated altitudes up to 200 meters, light yellow 200-500 meters, and ocher altitudes over 500 meters. An integral part of this atlas was the physicalpolitical map of the Balkan Peninsula in the scale of 1: 8,000,000. The geographical map showed the relief using the color method, up to 200 meters above sea level, the relief was shown in green, from 200m-500m light yellow, from 500m-1000m light brown, from 1000m-1500m brown, and over 1500m dark brown. It showed a very clear map of the Balkan Peninsula, with a clear relief image. This map, as well as others within this atlas, are very important, because for the first time in Serbian cartography the relief was shown by the color method, which will become a widely used method (Kovačević, 1902). In

³ Old Serbian writings and inscriptions.

addition, unlike atlases published in previous years, which were more like textbooks with geography maps making up only one, often a small part, in Kovačević's atlas there are only geography maps, and the purpose of this atlas was to give students a more detailed study of geography of the European and other continents.

The same year when Kovačević published his atlas, Mihailo Stanojević and Raša Mitrović published the Atlas of the Kingdom of Serbia by river basins for the 3rd grade of public schools. In terms of geographical data and methodology, the atlas did not differ much from Šreplović's and Kovačević's atlas, apart from the fact that at the beginning of the atlas students were familiarized with the way of presenting different forms of the earth's surface on the map, which was the case in earlier editions. Unlike Šreplović and Kovačević, the authors of this atlas divided the Kingdom of Serbia into 7 river basins. This atlas also presented folk costumes of different parts of Serbia, as well as historical data related to the First and Second Serbian Uprising (Stanojević, Mitrović, 1902).

Two more atlases were made for school needs in the Kingdom of Serbia prior to the First World War. The first was made by a geography professor Dragutin Deroko and published in 1911, entitled Atlas of the Kingdom of Serbia and Serbian lands for the 4th grade of elementary schools. The atlas contained 9 maps, 4 of which were dedicated to the Kingdom of Serbia, with one showing the entire area of the Kingdom, and the others showing the administrative division into districts in eastern, western, and southern Serbia. 4 maps were dedicated to Serbian lands, which mostly showed the areas as the previous atlases, but without the Vidin and Sredac districts. The last map in the atlas showed the historical space of the Serbian lands. As in the atlas made by Josif Kovačević, the relief is shown by the color method, and as for the methodology of geographical representation of the Kingdom of Serbia, Deroko used the method of representation by districts (Ilić, 2010, 194). Deroko's atlas is the best, most clear, and most accurate Serbian atlas published for school

⁴ Presentation of the geography of the Kingdom of Serbia by river basins had its opponents, among whom was Dimitrije Putniković, who authored several geography textbooks. (Ilić, 2010, 194).

curriculum before the First World War. Based on the geographical picture of the Kingdom of Serbia and the western and central parts of the Balkan Peninsula, the students had a clear idea of the geographical appearance, relief composition, hydrographic network, road connections and other geographical features (Deroko, 1911).

The last atlas published before the First World War was prepared by Petar Šreplović in 1914, entitled Atlas of the Kingdom of Serbia With Geography by River Basins. A short reminder for 3rd grade pupils. Methodologically, the atlas did not differ from the already mentioned Šreplović's and Kovačević's atlas from 1900. Due to the territorial expansion of Serbia after the First and Second Balkan Wars, the Vardar basin and the geographical description of that area were added.

2.2 Atlases by Jovan Cvijić

In addition to the atlas for school use, at the beginning of the 20th century, two thematic atlases were published within the framework of Serbian cartography, the author of which was the prominent Serbian geographer Jovan Cvijić. The atlases were created based on field research by Jovan Cvijić in Old Serbia and Macedonia between 1898 and 1901. (Cvijić, 1906, 21-32). Cvijić first presented the results of his research concerning the measurement of lakes in Macedonia and Old Serbia in the Atlas of Lakes of Macedonia, Old Serbia and Epirus or the Great Lakes of the Balkan Peninsula, published in 1902 by the Serbian Royal Academy. The atlas showed isobathic maps of lakes with data concerning their immediate surroundings: altitude, relief, settlements, islands, and numerous other elements (Cvijić, 1902; Stanković 2006, 165). The following year, Jovan Cvijić published another atlas dedicated to Old Serbia and Macedonia, in which he presented the geological picture of that area - the Geological Atlas of Macedonia and Old Serbia. The first sheet showed a map of Excursions in Old Serbia and Macedonia taken by Jovan Cvijić, Petar Janković and Vladimir Petković, while the other maps showed a geological sketch of the area. The last map was dedicated to the representations of the Central ridge of the Balkan Peninsula in various cartographic works from the 17th to the middle of the 19th century (Cvijić 1903). The publication of two atlases made by Cvijić dedicated to Old Serbia and Macedonia is a

huge contribution to geographical science, especially if we keep in mind the degree of geographical knowledge about the geology of this area. This was the first atlas dedicated to the geology of these areas, providing first geological maps. It was also the first

3. Conclusions

The basic designation of most Serbian atlases published at the end of the 19th and the beginning of the 20th century came from their clearly defined goal - to serve as an auxiliary educational tool and facilitate the teaching of geography to 3rd and 4th grade pupils in elementary schools. The most important task was to present the Kingdom of Serbia and the surrounding countries and the main geographical characteristics of Serbia. Their content and methodology were defined by the geography curriculum. With the exception of Cvijić's atlases in Serbia, no thematic atlases were published until the First World War. These atlases, which were published for school needs, fulfilled their purpose of giving a more detailed geographical picture of Serbia, because they were given in a significantly larger scale than previously published maps.

However, it is important to point out that Serbian cartography at that time was still not at the level of European modern cartography.

4. References

- 1. Cvijić, J. (1887), Contribution to our geographical terminology. Educational Gazette: 903-916.
- Cvijić, J. (1888). Contribution to our geographical terminology. Educational Gazette: 21-28.
- Cvijić, J. (1902). Atlas of Lakes of Macedonia, Old Serbia and Epirus or the Great Lakes of the Balkan Peninsula. Belgrade: Geographical Institute of Velika Škola.
- Cvijić, J. (1903). Belgrade: Geographical Institute of the Great School.
- Cvijić, J. (1906). Basics of geography and geology of Old Serbia and Macedonia. Belgrade: The Serbian Royal Academy of Sciences.

time the lakes of Macedonia and Old Serbia were measured in detail and data presented in one atlas. There are opinions that with the publication of these two atlases the cartography was introduced into the Academy of Sciences (Vemić 2007, 409).

- Deroko, D. (1911). Atlas of the Kingdom of Serbia and Serbian Land for the 4th grade of Elementary Schools. Belgrade: State printing office of the Kingdom of Serbia.
- Ilić, A. (2010). Textbooks and National Education in Serbia 1878-1918.
 Belgrade: Faculty of Philosophy.
- Ilić, Ž. (2019). The First Maps of Modern Serbia. Unpublished MA thesis. Faculty of Philosophy, University of Belgrade.
- 9. Jagodić, M. (2016). Serbia and Old Serbia 1839-1868. Heritage on the South. Belgrade: Evoluta.
- 10. Karić, V. (1882). *Serbian land*. Belgrade.
- Kovačević, J. (1902). Serbian geography Atlas for the Junior High School Students. Belgrade: V. Valožić.
- 12. Kovačević, K. (1892). What kind of atlas do our high schools need? Belgrade.
- Novaković, S. (1869). Serbian bibliography for new literature: 1741-1867. Belgrade: Serbian Learned Society.
- 14. Radojčić S. (1997). "Beginning of the new age Serbian cartography". Bulletin of the Serbian Geographical Society 77, no. 2: 61-65.
- 15. Соларић, П. (1804). Пѣшій землеписникь. Venice.
- Stanković, S. (2006). Jovan Cvijić: gifted and sensitive soul. Belgrade: Serbian Geographical Society.
- Stanojević, M. & Mitrović, R. Atlas of the Kingdom of Serbia by River Basins for the 3rd Grade of Public Schools. Belgrade.
- 18. Šešum, U. (2016). Serbia and Old Serbia 1804-1839. Belgrade: Faculty of Philosophy.

- 19. Šreplović, P. & Titelbah. V. (1888). Atlas of the Kingdom of Serbia with Geography, According to the Elementary School 3rd Grade Curriculum. Belgrade: A. Purić.
- Šreplović, P. (1891). New Atlas of the Kingdom Serbia with geography and biographies according to the new division. Belgrade.
- Šreplović, P. (1899). Atlas of the Kingdom of Serbia and Serbian Lands for the 4th Grade Pupils of National Elementary Schools. Belgrade.
- 22. Šreplović, P. & Kovačević, J. (1900). Atlas of the Kingdom of Serbia with Geography by River Basins as per the Curriculum – a short Reminder for 3rd Grade Elementary School Pupils. Belgrade: V. Valožić.
- Vemić, M. (2007). Cartography in Serbia in 20th Century. Collection of Papers of Geographical Institute "Jovan Cvijie" SASA 57: 407-415.