



Book review

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THE GEOGRAPHY OF SERBIA

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Abstract: The manuscript represents a review of the monograph publication entitled *The Geography of Serbia*, published by the Geographical Institute “Jovan Cvijić” SASA in Belgrade. The aim of the review is to present this significant book to the scientific community, which gathered fifty-six, mainly young researchers who courageously accepted to write the study of special national importance, and include a vast geographical material from physical geography, human geography and related disciplines into a unique whole.

Keywords: book review; capital monography; national geography

Introduction

The monograph publication entitled *The Geography of Serbia* (in Serbian) has been long-awaited and we have heartily welcomed it as a scientific source that will help us get a better knowledge about the beauties of nature and understand the life, the creative work and everlasting migrations of the Serbs. It is a comprehensive geographical study about Serbia and a publishing venture of a prestigious scientific and research institution—the Geographical Institute “Jovan Cvijić” of the Serbian Academy of Sciences and Arts (SASA) in Belgrade. The publication refreshes our memories about the unexampled coryphaeus of the geographical science who it is named after, deservedly. The monograph is the result of the work on Project III 47007 financed by the Government of Serbia. This mastery book was designed and edited by Dr. Milan Radovanović, who gathered fifty-six, mainly young researchers who courageously accepted to write the study of a special national significance, and they deserve all the honors for the success in connecting such a vast geographical material from natural sciences, ethnology, history, economy, ecology, and sociology into a unique whole. Such a comprehensive study was very hard and complex to combine in the methodological unity since it was necessary to go into great depths and literary shape the delicate and complex relations between nature and society, from prehistory to these days. The authors worked patiently and meticulously which is why the way to the editorial phase was long, hard, and complex.

The monographs of this type are demanding, and they are rare in our geographical literature, which makes this book exceptionally significant. It represents a research venture that cast the full light on a very important Balkan and central European country full of turbulent, hard, and unpredictable history and incredible geography. Dr. Radovanović and the numerous team deserve all the praises for the creation and composition of this work as a recognition for their analytical elaboration of the

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cardinal sections of this original and multi-layer general geography monograph. By its topics, complexity, and originality, it is one of the most significant publications of the Geographical Institute "Jovan Cvijić" SASA.



Figure 1. The title page of the monograph.

The Geography of Serbia monograph contains 870 of texts and appendices that are harmoniously structured and scientifically founded, which is a result of good generalization and systematic organization. The book is conceptually divided into 12 separate sections, 58 parts, 112 top-level headings, and 63 second-level headings. The sections are mutually connected, but each of them can be studied independently. Special attention has been paid that the sections should thematically cover geographical, historical, geophysical, ecological, and economic expert and scientific representations of Serbia. The volume of the book required the use of numerous and various literature which has been given at the end of each main section, along with the conclusions. The book is illustrated by 24 images made by the authors, 99 photographs, 31 synthetic maps, 192 tables, and 211 different figures which are presented in the forms of maps, cartograms, cartodiagrams, histograms, linear and polar graphs, which provide us with the visual presentation of the geographical distribution of people, national wealth, and their civilization accomplishments. The monograph

contains 1,183 bibliographical reference items which were the scientific foundation for the authors when working on this voluminous book. It would be convenient to include the index and the register of the geographical terms and thus facilitate the readers to find the subject of interest in the book, which would enable them to navigate through this enormous book more easily. With the register, the monograph would be complete.

In the Preface, the editor remarks that the book aims to provide the scientific and public audience with a closer view of the modern geographical phenomena and processes that are presented in the sections as a result of the researches performed by the employees of the Geographical Institute "Jovan Cvijić" SASA and its external associates. Since it is a monograph that contains 870, the usual layout would be too detailed and would resemble an entirely new book, this piece of writing is actually a treatise which will provide the general information on the sections and point to the significance of this work. The main sections will be made more vivid by interesting texts which will raise the interest of the readers about the significance and essence of this work.

The relief of Serbia

The section prepared and written by Jelena Čalić, Marko V. Milošević, Milovan Milivojević, and Tivadar Gaudenji (pp. 22–86). Through the phases of geological evolution, the morpho-genetic and morphometric indicators are given, and they have been processed with the use of digital technology according to the sections: hypsometry, slopes, and terrain expositions. Using the principle of generalization, the forms of relief have been distinguished: plains, hills, and mountains, from the

lowest point of 28 m a.s.l. (the confluence of the river Timok into the Danube) to the highest point of 2,656 m a.s.l. (Đeravica in the Prokletije Mountains). In accordance with the horizontal and vertical distribution, the genetic typology of the relief of the Dinarides and the Carpathian-Balkans has been done, as well as the representation of certain types of relief that have been created in various phases of the geomorphologic evolution. The section is enriched by 24 maps, 11 photographs, 24 figures, and 13 tables, with 184 bibliographical reference items. The active geomorphologic processes—hillside, fluvial, karst, and periglacial have been analyzed, as well as the now inactive—glacial and aeolian processes. Of great value are the figures of geotectonic units and regional distribution, the maps of landslides, and the most important gorges in Serbia, then the appendices on karst, glacial, periglacial and aeolian relief of Serbia, etc. The cartographic appendices contribute to a better understanding of the endogenic and exogenic forms of the relief of Serbia.

The climate of Serbia

The section based on the meteorological data from 28 meteorological stations, and on the relative humidity data from as many as 60 meteorological stations. The text is accompanied by 13 maps and figures each, four photographs, and eight tables, with the reference to 89 bibliographical items. The section was prepared and written by Boško Milovanović, Milan Radovanović, Gorica Stanojević, Milica Pecelj, and Jugoslav Nikolić (pp. 94–156). The types of atmospheric circulation were analyzed, and then the analyses of the climatic elements and their trends were given, which is the starting point for presenting the spatial distribution of temperature, precipitation, insolation, cloud cover, humidity, wind, and snow, based on the half a century long set of data. In the *Man and Climate* section, the heat balance was calculated between a man and the environment (thermo-physiological bioclimatic index), which was the basis for the bio-climatological analysis done according to the daily values of the heat load index for Belgrade, Zlatibor, Loznica, Vranje, Niš, and Novi Sad. It is presented in the descriptive rasters which are the result of new scientific trends and great importance for the determination of criteria and conditions for the needs of recreation and rehabilitation in health centers, spas, and climatic places. The appendices of the maps of baric reliefs and cartograms with temperatures, precipitation according to the seasons, then the synthetic map of climatic regions in Serbia provide readers with a detailed visual presentation of the climatic types represented in Serbia.

The waters of Serbia

The section presented through the analysis of the state of water resources and their use by the authors Marko Urošev, Jelena Kovačević-Majkić, Dragoljub Štrbac, Ana Milanović Pešić, Dragana Milijašević, Dejana Jakovljević, and Ana Petrović (pp. 160–231). It consists of five main parts, 13 top-level headings, and 11 second-level headings, with the reference to 95 bibliographical items. After determining the water potential, the data were presented about the total capacity of the underground waters and the percentage of their exploitation (underground waters, thermal and mineral springs). Both international and domicile waters were studied. An overview was done for the mean specific runoff in Serbia, with the note that the mountainous regions are the richest in water, as well as the regions with the smallest population density and poor economic activity, which makes this area ecologically stable. The text contains the data on the runoff (23%) and evaporation of waters (77%), on the discharge, on the unfavorable effects of flood waves which cause enormous damages by endangering 18% of the territory of Serbia. There is also a review of the issue of torrential streams and dangerous erosion east from the Sava and the Danube. The problems of water supply have been

discussed, with the comment on the quality of underground and surface waters. The hydro-energetic potentials of the Danube and the Drina have been reviewed, as well as the investment in the water resources management, which is the proposition for the water management and represents a proactive approach which prefers prevention to solving problems. The section is illustrated by the diagrams of river discharges, maps and histograms, as well as the appropriate photographs of rivers, lakes, flooded areas, with the special reference to the floods in 2014.

The bio-geographical and pedological characteristics of Serbia

A comprehensive presentation of the biogeography and pedology elaborated by Milan Milenković, Nina B. Čurčić, Olga Kostić, and Marina Ilić (pp. 236–288). The section is presented in five parts and nine second-level headings, with 202 bibliographical units. The aim of this section is to point to the biological diversity of Serbia and to provide an insight into the current state of the study coverage of the richness and diversity of the fauna, flora, and pedology. Special attention has been paid to the harmful anthropogenic impacts on the forest ecosystems, as well as to the activities of the Sun which is accompanied by frequent fires. Thanks to the specificities of the climate, lithology, relief, and waters, Serbia is characterized by floristic and vegetational diversity, and the diversity of the animal world puts Serbia on the top in the Balkans, and Europe as well. The parts about fauna are the result of the researches made so far and they are the synthesis of the available data which have been updated by the relevant researches. The plant world of Serbia belongs to the Holarctic floristic region and Euro-Siberian floristic subregion. A wider review has been presented on the pedo-genetic factors: lithological-geological base layer, various chemical composition, terrain morphology (plains and mountains), as well as the vertical division of the terrains, and on the exposition, climatic factors, and vegetative cover. These factors have affected the formation of Serbia as a soil of various physical and chemical characteristics which belongs to the Palearctic land ecozone. The appendices contain: a pedological map, the map of forest vegetation of Serbia, the maps of the distribution of pseudo-scorpions, spiders, diplopoda, as well as the photographs of forest fires and spatial nature reserves, which make the section more vivid.

Environment, waste management, and environmental protection of Serbia

The section presented in five parts with top-level headings and nine parts with the second-level headings, using 202 bibliographical items. This section covers the three main elements (air, water, and land), and its authors are Dragana Miljanović, Milena Panić, and Tamara Jojić Glavonjić (pp. 298–365). The state of the environment was elaborated using the DPSIR methodological approach which takes into consideration: moving force, pressure, state, impact, reaction, and response. The section covers the main ecological issues, distinguishes the most endangered areas, and the measures and instruments used to provide adequate protection of the environment. The part, which is dedicated to the air, with the figures which show the emission of suspended particles, heavy metals, lead . . . , and the map of the air quality category has been given in the end. When the waters are considered, the sources of water pollution (point and diffuse ones) have been examined. The quality of surface and underground waters, as well as of the drinking water, has been studied. Related to the soil, the reduction of organic matters, degradation, compression, salination, and acidification of the soil were analyzed. There is also a part referring to the local and diffuse soil pollution, as well as environmental noise. The part with the topic on the issue of the waste presents the operation of the system of utility, industrial, medical, and packaging waste management. This part also contains the legislative,

planning, and institutional frameworks which are the basis of the waste management system. In the end, the classification and overview of the protected areas are presented. The section is vividly illustrated by the details from the national parks of Serbia.

The prehistoric geography of Serbia

The section based on the analysis of the impact of the geographical factors on the culture, economy, and society of the prehistoric communities (pp. 383–504). According to the paleo-geographical, paleo-ecological, and archeological documents, Dušan Mihailović, Dragana Antonović, and Aleksandar Kapuran have presented the prehistoric geography of Serbia in five parts, ten second-level headings and three third-level ones, with the reference to 365 bibliographical items. The chain of causal connections between natural processes and cultural phenomena has been overviewed and the important facts from the age of Pleistocene and early Holocene have been presented. The insight into the geological past is justified since the relief, climate, and vegetation of that time was different, so the settling of communities of hunters and collectors was different from the one of the stationary communities. All the time until the neolith and the beginning of deforestation, the impact of the natural factors on the way of living and on the development of culture was great, whereas the human impact on nature was insignificant. The importance of the geographical position of the Balkans was emphasized because it was the territory across which the continuous migrations were happening between Europe and Asia Minor. However, at the glacial age, it represented the refugium for the human communities and for the plant and animal world from which the area of the northern territories was later filled. The natural framework within which the prehistoric cultures developed was changing in time, which influenced the settling, migrations, and the development of the cultures on the Balkans as a transit territory and the main corridor for the population exchange. Various aspects of the settling of the central Balkans in prehistory reflected on the demographic changes and the population migrations, settlements, habitats, etc. The section is divided into five parts: Paleolithic, Mesolithic, Neolithic, Eolithic, Bronze, and Iron ages, and it is accompanied by synthesis maps. Each civilization is the world for itself, connected with the geographical environment and rooted in the culture. Each culture has its development path which contains the genesis, evolution, and transformation, but its “sunset” as well. The drawings of the habitats, sculptures from Lepenski Vir, and Vatin house depict the earthly colorfulness of the ancient cultures and civilizations on the territory of Serbia.

Historical processes and migrations on the territory of Serbia from the Early Middle Ages until 2006

The section was written by Zoran Janjetović and Slobodan Selenić who presented the historical migration processes on the territory of today’s Serbia, from the early middle ages until today, i.e. until the settling of the Slavs to Southeastern Europe (pp. 419–505). Through four main parts and five top-level headings and five second-level ones which are accompanied by 68 bibliographical items, the authors have presented centuries-long migrations on the territory of Serbia. The section represents a synthesis of the knowledge acquired so far about the social, economic, and political causes of the migrations, as well as of the social changes. The section is written based on the recent data fulfilled by the older unchanged literature. The migrations have been followed from the settling of Slavs through the Middle Ages to the time of Turkish conquests and centuries long Ottoman rule. The significance of the Great Migration of Serbs during the Great Turkish War has been emphasized, as

well as the settling of Vojvodina in the 18th century, and at the time of Habsburg monarchy, the migrations during the First Serbian Uprising, the migrations at the time of the Principality of Serbia, and the migrations caused by liberation wars, the migrations during the Balkan Wars, and finally, the migration during the two World Wars and the occupation in the Second World War until the migrations in socialist Yugoslavia.

The population of Serbia

The section was written by Vlasta Kokotović Kanazir, Jelena Stoilković Gnjatović, Marko Filipović, Stefana Babović, Marija Ivković, and Suzana Lović Obradović who presented the trends and the demographic image of Serbia, with the accent on the 2011 census (pp. 507–563). The section contains nine main parts, 17 top-level headings, and five second-level ones, with the reference to 58 bibliographical items. The authors shaped the modern demographic image of Serbia according to the phenomena: negative birth rate, population aging, intense migrations, industrialization, deagrartion, urbanization, and negative socio-political circumstances. The aim was to analyze the change in the number of people and households, and the spatial aspect of the depopulation and population structures, and to provide the insight into the demographic image of the population of Serbia, as well as the awareness of the lawfulness of the migration of population, birth rate, death rate, migration and structure of the population (gender, age, mother tongues and households, economic, marital, educational, and ethnic structures), which is accompanied by appropriate appendices about the structure of the population of Serbia by the municipalities.

The settlements of Serbia

The section contains ideas, concepts, and methodology in the research of the formation and development of settlements in Serbia as the most complex phenomenon in time and space (pp. 568–615). Using various approaches, Marija Drobñjaković and Aleksanda Spalević have determined the typology and classification of settlements, viewed both as a whole and as a subsystem of urban and rural settlements. In the analysis of the rural and urban settlements, they used quantitative and qualitative methods based on the demographic and socio-economic indicators with the aim to determine the lawfulness in the development of settlements and to recognize their changes in time and space. The section is divided into four main parts, with five top-level headings and five second-level ones, using 68 bibliographical items. The authors enriched this section with numerous photographs of different types of settlements, as well as with tables containing general parameters of network and classification of settlements, and the maps of the population density of Serbia and the appendices of the level of urbanization. In the end, the tables of the settlements with three or fewer citizens and functional urban areas of Serbia are presented.

National economy

The section was written by Rajko Bukvić, Darko Vuković, Jovana Todorić, and associates, which contains seven main parts, 20 top-level headings, and five second-level heading, with the reference to 172 bibliographical items (pp. 615–750). The work on this section was done with the participation of 12 authors who presented the historical development of the economy, from the times of the Nemanjić dynasty and at the time of the Ottoman Empire. Then they analyzed the development of the Serbian economy after the uprisings and after the liberation from the Turks, and, in the end, they

presented the development of the economy in the modern conditions of the 20th and 21st centuries. The development of the economy has been analyzed and the main characteristics of the national economy in Serbia have been provided. Special attention was paid on the efforts to overcome the inherited economic backwardness, and then to modernize and improve the agrarian country of that time and to turn it into a country with a modern industrial economy. The authors have estimated the current characteristics of the economy of Serbia through four sectors, where the attention was paid to the factors and conditions for the development of the economy in the primary, secondary, tertiary, and quaternary sector, which were thoroughly analyzed and accompanied by current maps of ore mining sites, energy resources, railway network, as well as the maps of navigable routes of Serbia and Pan-European corridors, with the special attention to Corridor 10.

The tourism of Serbia

The section was written by Željko Bjeljac, Aleksandra Terzić, Jovana Brankov, Ana Jovanović, and Marko D. Petrović, with the reference to 69 bibliographical items (pp. 753–810). Numerous data on the tourism of Serbia have been used to present the chronological framework and to provide an insight into the development of tourism and tourist turnover. The attention was individually paid to all the types of tourism: mountainous-recreational, spa, urban, rural, cultural, event, religious, nautical, hunting and fishing, transit, and trip-excursion. The most important values of the tourist regions of Serbia (21) in the four tourism macro-regions (Vojvodina, Belgrade, Šumadija, Western and Eastern Serbia) have been presented. The emphasis was also given to the foreign currency inflow from tourism, the material base of tourism, tourist turnover in Serbia, types of tourism. In the end, special insight was provided into the tourism macro-regions. The section is accompanied by numerous photographs of tourism facilities which visually fulfill the section.

Regional development, regional competitiveness, and regional cooperation in Serbia

The section was written by Radmila Miletić, Dragana Miljanović, and Darko Vuković in the context of the contemporary processes of European integration, transition, and polarization (pp. 811–870). The section deals with the problems of regional development, regional competitiveness, regional cooperation, and spatial planning. It points to the scope of inter-regional and intra-regional disparities, demographic, economic, and spatial development. The research assessed the indicators of regional competitiveness (infrastructure, quality of capital, innovations, etc.). The ranking of the regions has been carried out, where the region of Belgrade has achieved the highest level of regional competitiveness. The national development strategy documents have been analyzed where the principles, aims, and measures for the achievements of the equal regional development have been defined. The documents of the European Union have been used to define the policy of the regional development of Serbia, to strengthen territorial cohesion, to intensify the regional cooperation and spatial integration on different territorial levels. Seventy bibliographical items have been used, and, along with the appendices, they have contributed to the quality of this section.

Conclusion

The Geography of Serbia is a comprehensive study about one country and the people who live, work, and create in it, about the cultures and civilization which appeared, developed and disappeared on its stage. The editor has gathered and connected historians, geologists, meteorologists, economists, ecologists, etc., who have done a very successful job on this project.

Until now, an enormous number of books and scientific papers have been written about the landscapes, especially about the mountains, valleys, climate, waters, forests, lowlands, regions, economy, peoples and towns/cities in Serbia, which have been the inspiration for numerous writers and artists. The term *landscape* has been accepted in literature and art where the affection and dedication to the scene-aesthetic and emotional experiences can be sensed. The landscapes are interesting and unique in their way. From those in warm areas, which are full of good grasses, good waters, and forests with picturesque details, to the cold ones. Cvijić's metaphor about the limestone area which resembles "grey petrified rough sea" is the best image of karst regions, as well as his great metaphor about the region which is "painted with tea" was the best image of Šumadija that was the inspiration for the writer Milorad Pavić for the title of his well-known novel. The rivers have been the civilization points that attracted the attention of scientists, writers, and artists since ancient times. They have experienced them differently, presented them with great and unforgettable works, pointing to their cultural and civilization significance.

The river Drina is a *border point*, and with its old bridge, it was the literary inspiration which celebrated our Nobel Prize winner Ivo Andrić. There is nobody like Mikhail Sholokhov that has ever developed a story which connected a river, an alluvial plain, and a steppe which were the fields of life destinies, history, and civilizations in the Russian steppe. The Mississippi River is the birthplace of Nikola Tesla's friend Mark Twain, who was a sailor on it and experienced so many things that he did not need to invent anything when describing the adventures in his famous novel *The Life on the Mississippi*. The dream of genius Tesla was related to the Niagara river which he tamed by building a power plant and shone the world with magical light. Matthew Kneale, in his novel *Sweet Thames*, refreshed our memory of the Victorian era in England. And the Danube . . . , that border of the Roman Empire which has been connecting people, cultures, civilizations, and religions since the ancient times. And then the rivers Volga, Nile, Tiber, Euphrates, Rhine, etc. How many interesting examples there would be if we extended such stories to the mountainous, plain, forest landscapes, etc. These few works have the aim to bring some freshness into this predilection about Serbia.

The Geography of Serbia is a unique book, not only as a presentation of a country, but as an idea and a testimony about its nature, space, time, and people, which can be an inspiration for the new generations of writers and artists who will search for some new pieces of writing about the landscapes of unique beauty, and cultural heritage of Serbia from the old times. Let us remember some of the ancient civilizations that disappeared due to the lack of geographical knowledge about the landscapes, which their development and survival depended on. Carthage is not the only example.

It should be noted that the language, style, and the facts in the monograph are convenient for both scientific and wider public audiences, where nothing of the science has been lost. The monograph reminds us that Serbia is the eternal mother country and the spiritual garden of the Serbs for spreading the Serbian centuries long perseverance and spirit. It is a symbol of the migrations and sufferings of the Serbs, as well as of everything that is Serbian in the times of geo-political crises and conquering pretensions of great powers and neighboring nations. Thus, this book motivates the readers to think about it, it develops an interest in realizing the Serbian national identity and patriotism. There lie the contribution and eternal value of this book.

The monograph is a great accomplishment of diligent researchers who presented us with a study on the geography of Serbia whose scope, width, and comprehensiveness represents a priceless treasure of publishing and culture of a special national significance. *The Geography of Serbia* is a long-awaited voluminous geographical synthesis.