

GEOGRAPHICAL INSTITUTE "JOVAN CVIJIĆ"
SERBIAN ACADEMY OF SCIENCES AND ARTS
JOURNAL OF THE GEOGRAPHICAL
INSTITUTE "JOVAN CVIJIĆ" SASA

Vol. 71 • № 3

Belgrade
2021



GEOGRAPHICAL INSTITUTE "JOVAN CVIJIĆ"
SERBIAN ACADEMY OF SCIENCES AND ARTS



JOURNAL OF THE GEOGRAPHICAL
INSTITUTE "JOVAN CVIJIĆ" SASA

Vol. 71 • № 3

BELGRADE
2021

PUBLISHER: Geographical Institute "Jovan Cvijić" SASA, Đure Jakšića 9, 11000 Belgrade, Serbia
tel/fax: +381 11 26–37–597, e-mail: zbornik@gi.sanu.ac.rs

ACTING PUBLISHER: Milan Radovanović

Editors-in-Chief

Marko D. Petrović, Geographical Institute "Jovan Cvijić" SASA, Social Geography Department, Belgrade, Serbia

Ana Milanović Pešić, Geographical Institute "Jovan Cvijić" SASA, Physical Geography Department, Belgrade, Serbia

Associate Editors for Physical Geography

Alexandra Jiricka-Pürerer, BOKU University of Natural Resources and Life Sciences, Institute of Landscape Development, Recreation and Conservation Planning, Vienna, Austria

Čedo Maksimović, Imperial College London, Faculty of Engineering, Department of Civil and Environmental Engineering, London, United Kingdom

Christoph Schneider, Humboldt University, Faculty of Mathematics and Natural Sciences, Geography Department, Berlin, Germany

Dimitri Vandenberghe, Ghent University, Department of Geology, Ghent, Belgium

Dragan Burić, University of Montenegro, Faculty of Philosophy, Geography Department, Nikšić, Montenegro

Jiangbo Gao, Chinese Academy of Sciences, Institute of Geographic Sciences and Natural Resources Research, Key Laboratory of Land Surface Pattern and Simulation, Beijing, China

João Fernando Pereira Gomes, Higher Engineering Institute of Lisbon, Lisbon, Portugal

Katya Georgieva, Bulgarian Academy of Sciences (BAS), Space Research and Technology Institute, Sofia, Bulgaria

Luka Č. Popović, Astronomical Observatory of Belgrade, Belgrade, Serbia

Mariyana Nikolova, Bulgarian Academy of Sciences (BAS), National Institute of Geophysics, Geodesy and Geography, Sofia, Bulgaria

Milan Radovanović, Geographical Institute "Jovan Cvijić" SASA, Physical Geography Department, Belgrade, Serbia

Nina B. Ćurčić, Geographical Institute "Jovan Cvijić" SASA, Physical Geography Department, Belgrade, Serbia

Sandu Boengiu, University of Craiova, Faculty of Sciences, Department of Geography, Craiova, Romania

Shaohong Wu, Chinese Academy of Sciences, Institute of Geographic Sciences and Natural Resources Research, Key Laboratory of Land Surface Pattern and Simulation, Beijing, China

Slobodan B. Marković, University of Novi Sad, Faculty of Sciences, Chair of Physical Geography, Novi Sad, Serbia

Svetlana M. Malkhazova, Moscow State University "M. V. Lomonosov", Faculty of Geography, Department of Biogeography, Moscow, Russian Federation

Tivadar Gaudenji, Geographical Institute "Jovan Cvijić" SASA, Physical Geography Department, Belgrade, Serbia

Ulrike Pröbstl-Haider, BOKU University of Natural Resources and Life Sciences, Institute of Landscape Development, Recreation and Conservation Planning, Vienna, Austria

Zoran Govedar, University of Banja Luka, Faculty of Forestry, Banja Luka, Bosnia and Herzegovina

Associate Editors for Human Geography

Alfonso Morales, University of Wisconsin-Madison, Department of Planning and Landscape Architecture, Madison WI, United States

Alon Gelbman, Kinneret College on the Sea of Galilee, Kinnerot, Israel

Anatoly Yamashkin, N. P. Ogarev Mordovia State University, Faculty of Geography, Saransk, Russian Federation

Antonio Portugal Duarte, University of Coimbra, Faculty of Economy, Coimbra, Portugal
Darko B. Vuković, National Research University Higher School of Economics, Saint Petersburg School of Economics and Management, Saint Petersburg, Russian Federation
David Marcouiller, University of Wisconsin-Madison, Department of Planning and Landscape Architecture, Madison WI, United States
Etienne Piguet, University of Neuchâtel, Institute of Geography, Neuchâtel, Switzerland
Gábor Lux, Hungarian Academy of Sciences, CERS Institute for Regional Studies, Budapest, Hungary
Gaëlle Hallair, CNRS UMR Géographie-Cités, Paris, France
Harald Kegler, University Kassel, Institute for Urban Development, Kassel, Germany
James Kennell, University of Greenwich, Faculty of Business, Department of Marketing, Events and Tourism, London, United Kingdom
János Péntzes, University of Debrecen, Department of Social Geography and Regional Development Planning, Debrecen, Hungary
Jinlong Gao, Chinese Academy of Sciences, Nanjing Institute of Geography and Limnology, Nanjing, China
Larry Dwyer, University of New South Wales, Business School, Sydney, Australia
Medet Yolal, Anadolu University, Faculty of Tourism, Eskisehir, Turkey
Moinak Maiti, Pondicherry University, School of Management, Kalapet, India
Natalia A. Vuković, National Research University Higher School of Economics, Faculty of World Economy and International Affairs, Moscow, Russian Federation
Rahman Nurković, University of Sarajevo, Faculty of Science, Department of Geography, Sarajevo, Bosnia and Herzegovina
Yaroslav Vyklyuk, Bukovinian University, Faculty of Computer Systems and Technologies, Chernivtsi, Ukraine
Željko Bjeljic, Geographical Institute "Jovan Cvijić" SASA, Social Geography Department, Belgrade, Serbia

Technical Editors

Dejan Doljak, Geographical Institute "Jovan Cvijić" SASA, Spatial Planning Department, Belgrade, Serbia
Suzana Lović Obradović, Geographical Institute "Jovan Cvijić" SASA, Cartography Department, Belgrade, Serbia

Secretary of the Editorial Board

Dragana Miljanović, Geographical Institute "Jovan Cvijić" SASA, Regional Geography Department, Belgrade, Serbia

Printing of this publication was supported by:
Ministry of Education, Science and Technological Development of the Republic of Serbia

Journal of the Geographical Institute "Jovan Cvijić" SASA is indexed and abstracted in Scopus and Web of Science (Emerging Sources Citation Index—ESCI).



This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivs 4.0

Web presentation: <http://www.gi.sanu.ac.rs/zbornik/index.php/zbornik/index>
<http://www.doiserbia.nb.rs/journal.aspx?issn=0350-7599>

Circulation: 300

Printed by: 3D+, Belgrade

ISSN 0350-7599 (Printed edition)
eISSN 1821-2808 (Electronic edition)
UDC: 910/911.3