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The 50 years of science dissemination of the Brazilian Journal of Cartography: historiography, goals, and future challenges

Os 50 anos de divulgação de ciência da Revista Brasileira de Cartografia: historiografia, metas e desafios futuros

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EDITORIAL PREFACE

The Brazilian Journal of Cartography (RBC) is a scientific journal linked to the Brazilian Society of Cartography, Geodesy, Photogrammetry and Remote Sensing (SBC). The origin of RBC dates to the early 1970s and, in its 50 years of existence, has established itself as one of the main national vehicles for disseminating science developed in the areas of Cartography, Cadastre and Land Management, Geodesy, Photogrammetry, Remote Sensing, Science of Geoinformation and Hydrography.

Since its inception, the RBC publication has been built in partnership with renowned Brazilian public universities. Currently, the task is led by us, professors and researchers at the Universidade Federal de Uberlândia (UFU), after a period maintained by the Universidade de Brasília (UNB) and, previously, by the Universidade Federal do Rio de Janeiro (UFRJ), by the Universidade Estadual Paulista (UNESP), by the Universidade Federal do Paraná (UFPR) and by the Universidade do Estado do Rio de Janeiro (UERJ). As a result of this condition, throughout its 5 decades of existence, RBC was managed by Brazilian researchers engaged in the construction of excellent scientific knowledge. For the event of publication of this special issue, we would like to commend the efforts of the former editors who managed RBC with high competence, they are Cláudio Ivanof Lucarevischi (1970-1973); Moysés Castello Branco Filho (1973-1975); Fernando Castro Velloso (1975-1981); João Carlos Bach (1981-1982); Marcelo Carvalho dos Santos (1983-1984); Cláudio Ivanof Lucarevischi, Genaro Araújo da Rocha, Placidino Machado Fagundes (1985-1989); Eliane Ramiro dos Santos (1990-1993); Luiz Muniz Barreto (1994-1995); Camil Gemael (1995-1996); Íris Pereira Escobar (1996-1997); Antonio Maria Garcia Tommaselli (1997-2000); Édson Aparecido Mitishita (2001-2002); Sílvio Rogério Correia de Freitas (2002); João Francisco Galera Monico (2003-2006); Nilton Nobuhiro Imai (2005); Paulo Márcio Leal de Menezes (2006-2013); and Renato Fontes Guimarães (2014-2017), with special collaboration from Alan José Salomão Graça in the last two terms. Our sincere acknowledgment for all the work dedicated to the construction of the Brazilian Journal of Cartography.

It is important to highlight that the partnership between the Brazilian Cartography Society and the Brazilian universities and research institutions, has given the RBC prominence in the dissemination of science, combined with the condition of inviolable independence in the evaluation published by the journal. In this way, we acknowledge the SBC for allowing institutions and serious people, directly involved in the construction of national science, to manage RBC since its conception. In particular, we would like to thank the current president of SBC, MSc. Hélio Gouvêa Prado and the scientific-technical vice-president, Dr. Antônio Carlos Freire Sampaio, supporters of the scientific and independent management of the journal.

Historically, it is noticeable that RBC collaborators, be they, editors, reviewers, or authors, are important actors in several areas of scientific knowledge, with special adherence to the field of Geosciences.

They are individuals who have contributed to the growth of science and technology in Brazil and abroad, disseminating their research, evaluating papers, and collaborating with the suitability of the peer-review process. The RBC also has, in its history, the participation of authors and reviewers from international institutions, which expands the academic relevance of the journal.

To celebrate the 50th anniversary of the Brazilian Journal of Cartography, we organized this special issue, whose function is to crown with excellent quality science the existence of one of the greatest vehicles for scientific dissemination in Geosciences in Brazil. Thus, the construction of this issue began 1 year before its publication and was only possible through the extensive collaboration of the academic community involved with the journal. More than 80 proposals were submitted, which were judged by an internal committee. Of these more than 80 proposals, 36 papers were selected that should be submitted to an editorial evaluation, in the continuity of the selection process. At the end of the process, 17 contributions remained in essential areas and the result of which can be appreciated by reading the journal.

In proposing a special issue with review articles, our main intention was to allow the reader of our journal to know the history of the evolution of scientific thought in the fields of knowledge of the journal and to glimpse the vastness of themes that need to be explored in the coming years. As a result, we asked for contributions aimed at:

- To rescue the historical-scientific evolution of the research developed in the areas that are the scope of interest of the journal;
- Contextualize the discussion on the scientific development of the knowledge areas of interest to the journal on national and international scales;
- Point out the future challenges of scientific research in areas related to the scope of interest of the journal, considering the Brazilian and global context.

In order to direct contributions to topics of great relevance to the RBC reading community, we list priority axes for receiving article proposals. To this end, we observe global trends in scientific development in the fields of interest of the journal and list the following themes:

- Physical Aspects of Geodesy
- Multipurpose Cadastre
- Cartography and Thematic Cartography
- Cartography and Children
- Historical Cartography and History of Cartography
- Construction and Structuring of Official Databases
- Development and Applications of New Sensor Systems and Mapping Platforms
- Photogrammetry and Remote Sensing
- Space Geodesy
- Geodesign and Urban Mobility
- Geoinformatics, Big Data e Geostreaming
- Hydrography and Bathymetric Surveys
- Geospatial Information in Agriculture
- Spatial Data Infrastructure
- Topographic and Geodetic Surveys
- Collaborative Mapping, VGI, *Citizen Science*
- Intelligent Methods for Recognizing Patterns and Features in Images
- New methods of using, producing and

- representing spatial information
- New Methods in Modeling and Quality Control of Spatial Information
- Radar, SAR and InSar
- Recognition of patterns and features with Land and Airborne Lidar data
- Geographic Information Science and Systems

For readers avid for high-quality science, the papers published in this special issue include a collection of scientific questions that need to be answered in the next years. We would like to encourage a critical reading of these elements, in such a way as to create an environment for discussion, innovation, and scientific progress. Thus, this collection of research problems should serve the public of RBC as a guide for proposing new research that, when completed, may be sent to us and readily evaluated by our body of editors and reviewers.

We would like to highlight that this special issue also crowns the new phase of RBC in the national and international academic scene. Over the past 3 years, we have tried to update the journal and insert it into important index bases. Our objective when starting the management of RBC at the Universidade Federal de Uberlândia was to improve and expand the reach of the content we publish, by (1) regularizing the flow of publications, (2) the acquisition of digital identifiers and (3) indexing in important national and international bases. Thus, after almost 3 years at the head of the journal, we achieved positive results in all of these points, with emphasis on the approval of RBC's indexing on the international SCOPUS database. We consider this as a result of our unremitting work, the commitment of the entire academic community (authors, reviewers, and editors) and, in particular, of the entire history built by the actors involved with the management of RBC throughout these 5 decades of existence. Our sincere acknowledgment to all.

It is important to mention that managing a journal of the size of Brazilian Journal of Cartography requires the exercise to image the future scenarios of management and science to set goals compatible with the demands of disseminating high-quality science. Thus, when observing the national and international scientific development scenario, we intend to encourage the publication in the English language in the next years, without leaving the Portuguese language as a possibility for our audience. This condition will aim to expand the dissemination of the content published in our journal, without hurting the dimensions of dissemination of national research in its native language. We will constantly search for suitable indexes, whose disclosure bias matches the needs of the authors who, so kindly, send us the results of their scientific research. We will expand the scope of interest of the content we publish, adapting ourselves to the innovative and challenging scenarios provided by the growing interest of other areas of knowledge to the promising and fascinating field of Spatial Information. Following the RBC's development proposals, we have reached internationalization, always observing the regional importance of our journal. We understand that internationalization initially involves the expansion of the body of reviewers and editors linked to international research institutions: an item that we determine as a priority. In order to expand the dissemination capacity of the research we publish, we will deal with the insertion in the technological scenario by diversifying the publication formats and dissemination routes, such as social media. Such measures aim to bring together the science we do and the people who are increasingly interested in the use of technologies linked to spatial information.

By spreading the RBC's future paths to the academic community, we share our concrete wishes and intentions. These shared motivations define the new face of RBC, with a commitment to the necessary adaptations for the dissemination of high-quality science and increasing insertion in the academic community and, also, in the lives of laypeople interested in Spatial Information.

Finally, we understand that the contribution with the publication of this special issue is also a historical legacy that reminds researchers of the present and the future: looking at the past is an exercise that allows us to visualize the future in the context of the development of scientific research high level. We express our contentment by publishing excellent review papers and we hope that the community will appreciate the content of this special issue that celebrates the 50th anniversary of Brazilian Journal of Cartography.

Regards,

Prof. Dr. João Vitor Meza Bravo and Prof. Dr. Gabriel do Nascimento Guimarães

Editors biography



João Vitor Meza Bravo João Vitor Meza Bravo was born in Guaraçaí, in São Paulo state, and grew up in Andradina (SP). He is a Geographer who graduated from the Universidade Estadual de Maringá (UEM) and Doctor in Geodetic Sciences from the Universidade Federal do Paraná (UFPR). He is a professor at the Institute of Geography at the Universidade Federal de Uberlândia. He researches in Cartography and Geographic Information Systems focusing on the themes of spatial perception and cognition, collaborative mapping and the environment. He has been editor-in-chief of the Brazilian Journal of Cartography since June 2018.



Gabriel do Nascimento Guimarães was born in Franca, in São Paulo state. He is a Cartographer Engineer who graduated from the Universidade Estadual Paulista (UNESP) and Doctor in Transports Engineering from the Escola Politécnica da Universidade de São Paulo (EPUSP). He is a professor at the Institute of Geography at the Universidade Federal de Uberlândia. He researches in physical aspects of Geodesy focusing on the themes about height system, gravimetry and geoid modeling. Since June 2018 he is the vice editor-in-chief of the Brazilian Journal of Cartography.



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