

Cartography in Croatia 2015-2019
National Report to the ICA 18th General Assembly
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1 Introduction

Croatia has been a member of the International Cartographic Association – ICA since 1995 and one of its obligations has been to submit national reports about its cartographic activities at general assemblies held every four years. The bearer of those activities in Croatia is the Croatian Cartographic Society.

Croatia became a member of the ICA in Barcelona in 1995, where its first national report for the period 1991–1995 was submitted. Reports were also submitted for the period 1995–1999 in Ottawa in 1999, for the period 1999–2003 in Durban in 2003, for the period 2003–2007 in Moscow in 2007, for the period 2007–2011 in Paris in 2011, and for the period 2011–2015 in Rio de Janeiro in 2015. This report, which encompasses the period 2015–2019, is going to be submitted at the General Assembly of the ICA in Tokyo in 2019. The Republic of Croatia has a comprehensive overview of cartographic activities in the past 28 years, i.e. since it became independent state.

The report is divided into following sections: Official Cartography, Academic Cartography, Commercial Cartography and Other Activities. The report ends with Acknowledgments and Bibliography.

Such a report can never encompass all the activities for the previous period. This is because not all parties answered the call for collaboration. Nevertheless, the most relevant institutions and companies are represented in the report. It is a merit of individuals who contributed with their reports and those people are listed in the Acknowledgments chapter.

The list of references at the end of the report was based on data provided by collaborators on the report, searching the Croatian Scientific Bibliography database and other sources.

2 Official Cartography

2.1 Geographical Names

The Act on the State Survey and Cadastre of Real Estates was published in the Official Gazette (112/2017) on 14 December 2018. The Act regulates the state survey, cadastre of real estates, infrastructure cadastre, registry of buildings, registry of spatial units, registry of geographic names, the appropriate competences for tasks related to these, the performance of these tasks, the tasks of the State Geodetic Administration, the storage and use of data, and supervision of tasks regulated by the Act.

The provisions of the Act are applicable to other geodetic tasks if performed within the framework of hydrographic surveys, commassation, and similar procedures. Tasks related to the state survey, cadastre of real estates, infrastructure cadastre, registry of buildings, registry of spatial units, registry of geographic names are of interest to the Republic of Croatia. Here is the section of the Act related to geographic names.

REGISTRY OF GEOGRAPHIC NAMES

Article 143

- (1) The Registry of Geographic Names is a record in which information on geographic names in the Republic of Croatia is kept and maintained, as determined by this Act or special regulations.
- (2) The State Geodetic Administration is the body competent to keep and maintain the Registry of Geographic Names.

Article 144

Information on the following geographic names is kept in the Register of Geographic Names: geographic units, relief forms, land and sea waters, islands and peninsulas, buildings and other objects, areas, settlements, traffic routes, and general names.

Article 145

- (1) Geographic names have the features of points with spatial coordinates.
- (2) The position of a geographic name is determined and recorded in the geodetic reference system of the Republic of Croatia (Article 12 paragraph 1 of this Act).

Article 146

- (1) Information from Article 144 of this Act is entered in the Registry of Geographic Names from the official documents and records of public legal bodies which within the framework of their competence create individual geographic names or information on geographic names.

- (2) The bodies in paragraph 1 of this Article are obliged, without delay or recompense, to deliver to the State Geodetic Administration information which affects the contents of the Registry.

Article 147

The contents and means of keeping and maintaining the Registry of Geographic Names is prescribed by the director in the Rulebook.

Article 148

- (1) Tasks relating to the standardisation of geographic names are conducted by public legal bodies in accordance with the recommendations of the Commission for the Standardisation of Geographic Names.
- (2) The Commission in paragraph 1 of this Article is appointed and relieved of duty by a decision of the Government of the Republic of Croatia, with a mandate of four years.
- (3) The Commission in paragraph 1 of this Article comprises members from:
 - the central body of state administration competent for the Register of Geographic names (president)
 - the central body of state administration competent for foreign affairs (one member)
 - the central body of state administration competent for cultural heritage (one member)
 - the central body of state administration competent for science and education (one member)
 - the Hydrographic Institute of the Republic of Croatia (one member)
 - the Institute for Croatian Language and Linguistics (one member)
 - the Croatian Institute for History (one member)
 - the Croatian Cartographic Society (one member)
 - the Croatian Geographic Society (one member)
 - the Miroslav Krleža Lexicographical Institute (one member)
 - universities providing and teaching and research in the area of geographic names, at the proposal of the central body of state administration competent for science and education (two members).
- (4) The Commission for the Standardisation of Geographic Names performs the following tasks:
 - monitors the implementation of regulations on settlements and their application in geographic names
 - conducts a revision of toponyms and confirms new ones, as necessary
 - confirms the spelling and use of foreign geographic names for application in education, science, Croatian diplomacy, etc.
 - makes recommendations for improving the Registry of Geographic Names

- cooperates in the work of international organisations which are concerned with geographic names.

On March 28, 2019, the Government of the Republic of Croatia appointed the Commission for Standardization of Geographical Names for a period of four years. For the first time, a multidisciplinary body has been established, which will, inter alia, deal with the standardization of geographic names in the Republic of Croatia and foreign geographic names. In addition, the Commission also monitors the implementation of settlements regulations and their application in geographic names, revision of the toponyms and, if necessary, new ones, establishes the principles of writing and use of foreign geographic names for application in education, science, Croatian diplomacy, etc. international organizations dealing with geographic names, and makes recommendations for improving the geographic naming register maintained and maintained by the State Geodetic Administration.

At this first session of the Commission, there was a remarkable interest in the issue of geographic names and further activities on systematic standardization of geographical names were agreed.

2.2 State Geodetic Administration (SGA)



www.dgu.hr

The State Geodetic Administration is a state administrative organization that carries out activities in the field of geodesy, cartography, cadastre and photogrammetry and takes care of the establishment of the national spatial data infrastructure, informatization of cadastre and geodetic-spatial data systems, official state cartography (1:5000, 1:25 000, 1:50 000, 1:100 000, 1:250 000), geodetic documentation, statistics on real estate cadastre, spatial units and infrastructure and geodetic and cadastral works for the state border.

The Law on State Survey and Real Estate Cadastre (Official Gazette 112/18) regulates state surveying, real estate cadastre, cadastre of infrastructure, building register, spatial unit register, geographic name register, jurisdiction over land surveying, real estate cadastre, infrastructure cadastre, building register, spatial unit register, geographic name register, data storage and usage, and inspection of state survey and property cadastre surveys.

The State Geodetic Administration carries out its activities in the Central Office of Zagreb and 20 branch offices throughout the Republic of Croatia.

Exceptionally in the area of the City of Zagreb, the administrative and professional activities that are legally placed in the sphere of the regional office are performed by the Zagreb City Office for Cadastre and Geodetic Activities.

In the period 2016–2019, in the field of official state cartography, the following tasks were performed:

121 sheets of topographic maps in scale 1:25 000 (TK25) have been made. After a new division of the sheets has been put in use, these sheets were updated and released for official use. To date, 373 out of 539 TK25 sheets have been created, and map making activities are continuing.

The production of digital orthophoto maps in a scale of 1:5000 (DOF5) from the shooting period 2014–2016 have been completed and all 10524 DOF5 maps have been released for official use. Following the two-year DOF5 production dynamics for the Ministry of Agriculture, in 2017 DOF5 sheets were made for the eastern part and in 2018 for the western part of the Republic of Croatia. All 10905 DOF5 maps are released for official use. Along with DOF5 production, the digital relief model for the entire Republic of Croatia was updated.

For EuroGeographics purposes, data for Euro-RegionalMap were created in 2016 and were updated during 2017.

In 2018 harmonization of basic topographic database was performed to meet the requirements of the INSPIRE directive for the topics: Height, Hydrography, Transport.

During 2018 and 2019, the map-walls were also made in 17 locations.

Product Specifications for TK25 Version 2.0; Product Specifications for TK50 Version 1.0 were made and the Product Specifications for Aerophotogrammetric Shooting and Orientation Point Version 2.1 has been updated. During 2018, the Product Specifications for TK50 Version 2.0; Product Specifications TK100 Version 1.0 and Product Specifications TK250 Version 1.0 were also drafted.

In 2016, a new Ordinance on Topographic Survey and State Maps (Official Gazette 65/16) and the Regulation on Aerial Shooting (Official Gazette 70/16) were made. Amendments to the Ordinance on Cartographic Signs with the corresponding Collection of Cartographic Signs (Official Gazette, No. 59/18) have been made in 2018.

During the year 2019, a new Regulation on Aerial Shooting (Official Gazette No. 28/19) was made and drafts of the Ordinance on Topographic Survey and State Maps Production were made and they are to be put into official use in 2019.

An ERDF (European Regional Development Fund) project funded from EU funds was launched. "Establishment of an official topographic-cartographic information system to be used as a basis for geoinformation systems of state administration and public sector bodies".

More information on the activities of the State Geodetic Administration can be found on the web site <https://dgu.gov.hr>.

2.3 Hydrographic Institute of the Republic of Croatia (HHI)



<http://www.hhi.hr>

Hydrographic Institute of the Republic of Croatia (HHI) carries out hydrographic activity of interest to the Republic of Croatia, which includes scientific research, and development and professional tasks relating to navigational safety in the Adriatic, hydrographic-geodetic survey of the Adriatic, marine geodesy, construction and production of nautical charts and publications, oceanographic research, marine geology, development of a hydrographic information system, and publishing-printing tasks. In addition, the HHI is responsible for describing and plotting of a geodetically defined limit of maritime sovereignty of Republic of Croatia, having regard to other regulations governing national border, maintenance and follow-up of the official marine database in the fields of: navigation, hydrography (structures on the sea and seabed), cartography, geology, geophysics and oceanography (sea level oscillations, waves, sea currents, thermohaline, hydroacoustic and optical properties of the sea, hydrometeorology, etc.), as well as setting up and management of a marine cadastre.

The Institute is authorised to develop the safety of navigation service in the Adriatic in accordance with recommendations of the following organizations:

- International Hydrographic Organization (IHO)
- International Maritime Organization (IMO)
- International Association of Lighthouse Authorities (IALA),

and in cooperation with the Ministry of the Sea, Transport and Infrastructure, the Croatian Navy, harbour master's offices, the Plovput company, and hydrographic offices and institutes of maritime nations worldwide.

According to annual work plans, between 2015 and 2019 cartographic activity of the HHI involved the production and publishing of nautical charts and their continuous updating, intensified work on vectorization and production of electronic navigational charts (ENC) still pending, construction and production of plans and other graphic representations appearing in nautical publications, good cooperation with Croatian ministries (MMPI, MVEP, MORH, etc.), professional work on the preparation of studies and projects, as well as other cartographic tasks.

Official paper navigational charts

First edition:

- Navigational chart No. 18 Luka Rijeka i Rijeka-Brajda, 1:4000 scale, October 2017
- Navigational chart No. 350-31 Venezia-Zadar, 1:350 000 scale, (in progress)
- Navigational chart No. 350-32 Ancona-Šibenik, 1:350 000 scale, (in progress)
- Navigational chart No. 350-33 Pescara-Split, 1:350 000 scale, (in progress)
- Navigational chart No. 350-34 Barletta-Dubrovnik, 1:350 000 scale, (in progress)

New edition:

- Navigational chart No. 15, Rijeka, 1:15 000 scale, October 2017
- Navigational chart No. 47, Split – Kaštelanski zaljev, 1:15 000 scale, with plans: Split – Gradska luka, 1:4000 scale, Bazen Vranjic, 1:4000 scale, and Bazen Solin, 1:5000 scale, March 2017
- Navigational chart No. 11, Zapadna obala Istre – plans of ports, 9 plans at different scales, (in progress)

All other HHI navigational charts were printed according to need and demand as revised reprints with updated contents, for the purpose of ensuring safe navigation in the Adriatic Sea.

Continuous updating of official navigational charts

A large part of the cartographic work involves updating of official navigational charts both in analogue and electronic form, comprising the following tasks:

- Defining of corrections for already published official charts, publishing of these corrections in the monthly publication Oglas za pomorce (OZP) (Notices to Mariners).

- Production of block corrections to be added to existing charts and publications for updating their contents. Block corrections are parts of cartographic representations, i.e. extracts from charts or plans or graphic representations appearing in publications. Between June 2015 and May 2019, a total of 40 block corrections were produced and published in OZP for updating purposes.

Printing of charts using high-quality large format printers (plotters)

Introducing new technology, the HHI production of new charts and new editions of charts in recent years has been based on a unique database, while printing on paper is usually performed using high-quality large format printers (plotters), always resulting in an up-to-date official chart (print on demand).

In the following years, printing by high-quality large format printers (plotters) will continue to increase for reasons relating to short print runs of official charts, and will eventually completely replace the offset machine in the printing of official nautical charts.

Vectorization of existing contents of official charts

Some official charts that have not been produced by means of a computer are subject to vectorization and computer processing, so as to improve the quality and accuracy of cartographic representation and facilitate their updating and reproduction. Between 2015 and 2019 this process was used for the production of official charts No. 100-21, 100-26, 100-27, and 100-28.

Conversion to the WGS84 ellipsoid

Most of official HHI charts were constructed on the Bessel ellipsoid. To achieve compliance with the IHO standard determining that charts should be produced on the WGS84 ellipsoid, the HHI aims at producing all official charts on the WGS84 ellipsoid. Therefore, through the use of new technology and specification of work processes and software, all new charts and new editions of charts are constructed on the WGS84 ellipsoid. Revised reprints, pending new editions, continue to be constructed on the Bessel ellipsoid indicating the correction for WGS84 ellipsoid.

Official electronic navigational charts (ENC)

A large part of the basic cartographic activity involves the production of new ENC cells and updating of already released ENC cells for the area of the HHI competence (area of the Adriatic Sea under the jurisdiction of the Republic of Croatia).

- In the period May 2015 and May 2019 intensive production of new ENC cells took place, both for official charts and for plans of ports, har-

bours, marinas and quays appearing in official nautical publications. Currently, a total of 207 ENC cells have been released through the PRIMAR distribution centre (May 2019). In the reporting period 112 new ENC cells were produced, validated (quality control performed) and released. Intensive production of new ENC cells for all navigational purposes is continued according to recommendations of the IHO.

- Maintenance of released ENC cells, due to structure of corrections and correcting method, is performed through Update, Re-issue or New Edition.

Nautical publications

- First edition:

List of Lights and Fog Signals 2017

4 graphic representations of the Adriatic Sea or its parts were produced for the purpose of providing information on lighthouses in the area of Eastern Adriatic.

- New edition:

Catalogue of Nautical Charts and Publications (HI-N-18), 2018

24 graphic representations were produced to provide an overview of all nautical charts and publications published by the Hydrographic Institute of the Republic of Croatia.

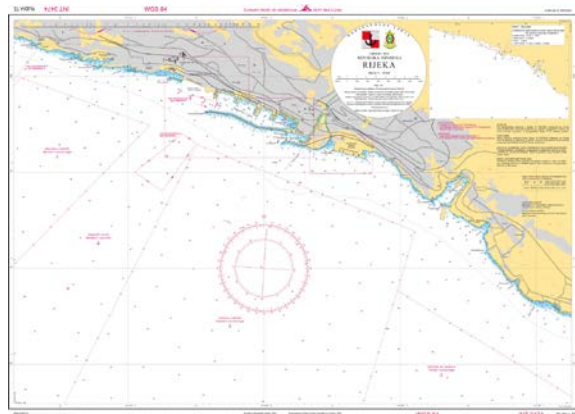
Adriatic Sea Pilot, Part I (Piranski Zaljev – Virsko More)

150 plans, diagrams and graphic representations of Eastern Adriatic were produced, covering the area from Piranski Zaljev to Virsko More.

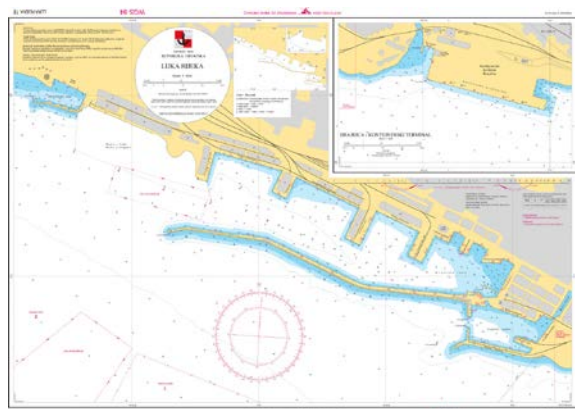
Cartographic work on other projects

1. Within the CORE Project 3 cartographic representations were produced, while within the EMODnet Project data for Digital Terrain Model were produced relating to 6 areas.
2. Cartographic work on the training for dKart platform for chart production. In cooperation with PRIMAR, training course for chart production in dKart Publisher was held in order to completely define the chart production process.
3. Coastline was defined according to the data obtained from fair charts, and by consulting digital orthophotos for updates.
4. In cooperation with PRIMAR, HHI organised the International workshop on quality control, validation and use of ICT infrastructure in the production and distribution of official electronic navigational charts (ENC).
5. For the Act on Harbour Master's Offices, 8 cartographic representations were produced.

6. For ACI publication January 2018, 22 plans of ACI marinas were produced.
7. Full implementation of the print of demand (POD) process for nautical charts is in progress.
8. 30 cartographic representations were produced for the reports presented at the Mediterranean and Black Seas Hydrographic Commission conferences (MBSHC 2017 and MBSHC 2019).



Official nautical chart No. 15 (INT3474) Rijeka, 1:15 000, October 2017



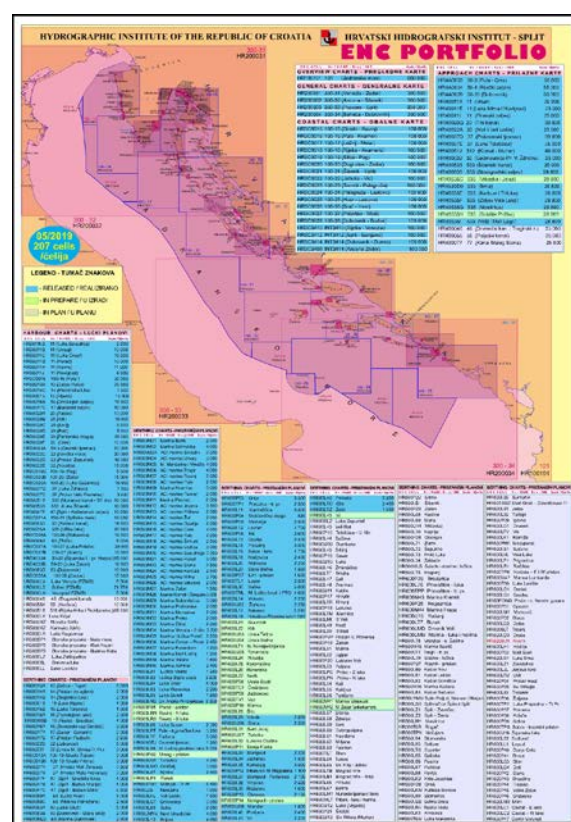
Official nautical chart No. 18 Luka Rijeka, 1:4000, October 2017



Official nautical chart No. 47 (INT3477) Split – Kaštelanski zaljev, 1:15 000, March 2017



Official nautical chart No. 350-33 Pescara - Split, 1:350 000, near finalization



ENC portfolio, status on 31 May 2019

2.4 Croatian Geological Survey (HGI-CGS)



<http://www.hgi-cgs.hr>

The Croatian Geological Survey is the largest research institute in the field of geosciences and geo-

logical engineering in the Republic of Croatia. Geological data form the basis for resolving numerous projects in the national interest, such as the fresh water supply, water and soil protection, the construction of large infrastructure objects, city planning, defining reserves of mineral resources, and environmental protection. Research is done using the latest methods and information and computer technology. Maps are prepared within the scientific programme: Geological Maps of the Republic of Croatia, supported by the Ministry of Science, Education and Sport which covers eight fundamental scientific projects (in the period 2013–2015): Basic Geological Map of the Republic of Croatia 1:50 000, Basic Hydrogeological Map of the Republic of Croatia 1:100 000, Basic Engineering-Geological Map of the Republic of Croatia scale 1:100 000, Basic Geochemical Map of the Republic of Croatia, Map of Mineral and Energetic Resources, Geothermal Map of the Republic of Croatia. In the period from 2015–2018, a total of 16 maps were published:

Avanić, Radovan; Šimunić, Antun; Hećimović, Ivan; Kovačić, Marijan; Marković, Stjepan; Grgasović, Tonći; Kurečić, Tomislav; Slovenec, Damir; Vrsaljko, Davor (2015): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Trakošćan (Ptuj 2), Croatian Geological Survey, Zagreb.

Fuček, Ladislav; Matičec, Dubravko; Vlahović, Igor; Oštrić, Nenad; Prtoljan, Božo; Korolija, Boško; Korbar, Tvrtko; Husinec, Antun; Palenik, Damir (2015): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Cres i Lošinj, Croatian Geological Survey, Zagreb.

Jelaska, Vladimir; Fuček, Ladislav; Galović, Ivan; Glovacki Jernej, Željka; Gušić, Ivan; Korolija, Boško; Marinčić, Stanko; Matičec, Dubravko; Oštrić, Nenad; Prtoljan, Božo (2015): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Otok Brač, Croatian Geological Survey, Zagreb.

Matičec, Dubravko; Velić, Ivo; Tišljar, Josip; Vlahović, Igor; Marinčić, Stanko; Fuček, Ladislav (2015): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Rovinj 3, Croatian Geological Survey, Zagreb.

Oštrić, Nenad; Jelaska, Vladimir; Fuček, Ladislav; Prtoljan, Božo; Korolija, Boško; Gušić, Ivan; Marinčić, Stanko; Šparica, Marko; Korbar, Tvrtko; Husinec, Antun (2015): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Otok Hvar, Croatian Geological Survey, Zagreb.

Oštrić, Nenad; Jelaska, Vladimir; Fuček, Ladislav; Prtoljan, Božo; Korolija, Boško; Gušić, Ivan; Marinčić, Stanko; Korbar, Tvrtko; Šparica, Marko (2015): Basic Geological Map of the Republic of

Croatia 1:50 000 – sheet Omiš 3, Croatian Geological Survey, Zagreb.

Oštrić, Nenad; Jelaska, Vladimir; Fuček, Ladislav; Prtoljan, Božo; Korolija, Boško; Marinčić, Stanko; Korbar, Tvrtko (2015): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Omiš 4, Croatian Geological Survey, Zagreb.

Pikija, Mato; Šikić, Krešimir; Trifunović, Sreten (2015): Basic Geological Map of the Republic of Croatia 1:100 000: Sheet Mohač L 34-74, Croatian Geological Survey, Zagreb.

Prtoljan, Božo; Vlahović, Igor; Velić, Ivo (2015): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Konavle, Croatian Geological Survey, Zagreb.

Filjak, Radovan; Pikija, Mato; Avanić, Radovan; Bakrač, Koraljka; Miknić, Mirjana; Pavelić, Davor; Brkić, Mato; Belak, Mirko (2016): Basic Geological Map of the Republic of Croatia 1:50 000 - sheet Slavenska Požega 3, Croatian Geological Survey, Zagreb.

Filjak, Radovan; Pikija, Mato; Avanić, Radovan; Bakrač, Koraljka; Miknić, Mirjana (2016): Basic Geological Map of the Republic of Croatia - sheet Slavenska Požega 4, Croatian Geological Survey, Zagreb.

Fuček, Ladislav; Jelaska, Vladimir; Prtoljan, Božo; Korolija, Boško; Oštrić, Nenad; Gušić, Ivan (2016): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Dugi otok, Croatian Geological Survey, Zagreb.

Korbar, Tvrtko; Fuček, Ladislav; Brčić, Vlatko; Palenik, Damir (2017): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet “Šolta, Čiovo, Drvenik”, Croatian Geological Survey, Zagreb.

Matičec, Dubravko; Bergant, Stanislav; Fuček, Ladislav; Palenik, Damir; Korbar, Tvrtko; Vlahović, Igor; Šparica, Marko; Koch, Georg; Prtoljan, Božo; Galović, Ivan et al. (2017): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Rovinj 1, Croatian Geological Survey, Zagreb.

Stroj, Andrej; Terzić, Josip; Pavičić, Ante (2017): Basic Hydrogeological Map of the Republic of Croatia 1:100 000, Sheet Rab, Explanatory Notes and Map, Croatian Geological Survey, Zagreb.

Fuček, Ladislav; Korbar, Tvrtko; Palenik, Damir; Matičec, Dubravko (2018): Basic Geological Map of the Republic of Croatia 1:50 000 – sheet Silba 1, Croatian Geological Survey, Zagreb.

2.5 Croatian Bureau of Statistics (CBS)



REPUBLIC OF CROATIA
CROATIAN BUREAU OF STATISTICS
www.dzs.hr

In November 2015, the Croatian Bureau of Statistics developed the GeoSTAT^{RH} portal. Thanks to that, for the first time users can use the data produced by the Croatian Bureau of Statistics in an interactive way. This application enables the cartographic presentation of statistical data, by combining the selected spatial level with the selected statistical data to the smallest detail. More specifically, users can monitor the demographic data from the 2011 Census at the microlevel of 1 km² cell size. This facilitates the monitoring of statistical indicators that are available, except in the standard form in the First Releases and publications, on interactive maps where everyone interested can spatially monitor the movement of individual statistical indicators.

In addition to the demographic data at the level of 1km² cells, users can browse the data from the Register of Business Entities (all legal forms) according to the NKD 2007 and the data on accommodation capacities in tourism, specifically the total number of establishments, the total number of accommodation units and the total number of permanent beds.

The portal provides for browsing the data at the following levels: state, NUTS 2 level, county, town/city and municipality, city districts of the City of Zagreb and settlement.

At the state level, browsing of data from the following areas is enabled: national accounts, Register of Business Entities, education and at-risk-of-poverty distribution.

At the NUTS 2 level, browsing of data from the following areas is enabled: population, national accounts, trade and at-risk-of-poverty distribution.

At the county level, browsing of data from the following areas is enabled: population, national accounts, employment and wages, Register of Business Entities, education, industry, construction, trade, at-risk-of-poverty distribution and business demography.

At the town/city/municipality level, browsing of data from the following areas is enabled: population, agriculture, employment and wages, and at-risk-of-poverty distribution.

At the city districts of the City of Zagreb level, browsing of data from the following areas is enabled: population and at-risk-of-poverty distribution.

At the settlement level, browsing of data from the area of population is enabled.

As for the selected variables, users can search the data from the 2011 Census of Population, Households and Dwellings on the map according to the following criteria: age and sex, educational attainment and activity, or the data on the average age of population.

The GeoSTAT portal provides users with a variety of tools that enable personalised browsing of data. Users can move the map in all directions, zoom a specific area or return to the full coverage. Layers can overlap, enabling users to compare data on the maps on the left and the right side of the screen. Users can also print the map and select the format and size of the paper. The portal can connect to the external OWS layers of other institutions so that the user can choose between the WMS or WFS service.

Layers and objects on the map can be identified using the polygon or point object identification tools. Users can also produce a statistical report by selecting the spatial level and set of data, and the data can be viewed in the form of a table in Excel. Using the appropriate tool, the length and surface of the selected area on the map can be measured. Certain data in GeoSTAT can also be presented in different types of charts (pie, column, bar and doughnut).

The GeoSTAT portal also contains the Metadata Catalogue, which provides for searching the sets and services of spatial data. One of the goals of the Catalogue is to facilitate searching, analysis and sharing of spatial data and to increase the interoperability between the provider and users of spatial data and its services, all with the aim of meeting the requirements of the INSPIRE Directive.

Link to the GeoSTAT portal: <https://geostat.dzs.hr>

2.6 Croatian State Archives (CSA)



<http://www.arhiv.hr/>

The Croatian State Archives keeps archival materials of the central executive, legislative and administrative bodies and governmental bodies structured in fonds/collections that mostly correspond to

wholes created by a single creator or institution (or multiple creators in case of a collection), which were active in the area of the Croatian countries in the historical context. The cartographic records are kept separately in individual collections or as parts of fonds (construction designs, plans or maps as enclosure to documents created by the activity of the central executive, legislative and administrative bodies and governmental bodies in the area of the Croatian countries in the historical context, pertaining to different technical works and building construction. Finding aids for fonds and collections are available to the users in the Main Reading Room of the CSA, as well as the national archival informational system NAIS that is used for description, processing and managing of archives and it represents the online registry of archival fonds and collections (<http://arhinet.arhiv.hr/>). Analytically described cartographic archives whose analytically described data is available in the Main Reading Room of the CSA comprise of the following collections/fonds:

KARTOGRAFSKA ZBIRKA (reference number HR-HDA-902)

General information about the archives

Kartografska zbirka (Cartographic Collection) was created by the regular transfer of the records (legal obligation), purchase, donation or separation from individual archival fonds. The collection currently has *4729 processed and analytically described cartographic items*. A cartographic item can have one or more pages i.e. several hundred pages when atlases are concerned. The maps in the collection are processed in accordance with the International Standard Biographic Description for Cartographic Materials – ISBD (CM) and are described according to the type of maps: general, topographic, cadastral, maritime, bathymetric, forester's, plant-geographical, geological, geomorphological, seismological, pedological, hydrological, climatological, wartime, military-didactical, historical, archaeological, traffic, aeronautical, postal, kilometrical, demographical, ethnographical, lingual, economic, tourist, mountainous, administrative, political maps, demarcation maps, settlements plans, property plans and other maps (astronomical, trigonometrical, medicinal). Users can access the databases on the computers in the CSA Main Reading Room.

Description and processing of the maps/plans

All maps and plans are processed in accordance with the International Standard Biographic Description for Cartographic Materials – ISBD (CM) and are analytically described in the database according to the given parameters. In the period from 2015 to 2019 the total of *129 cartographic map items*, plans and atlases, that is, *386 pages of maps and plans* were described.

Digitization of maps

150 cartographic units were digitised (cards and plans) from the Cartographical Collection. The digitisation of cartographic records is regularly provided on users' request and at the same time the collection of digitised copies of the Cartographic Collection is made.

'The First World War' Web Portal of the CSA

'The First World War' web portal is dedicated to commemorating a 100-year anniversary of the Great War and its goal is to present to the public the various digitised archives on WW1 and to give them insight on various research possibilities for this historical period through individual subjects. For the purpose of the portal various administrative, political, ethnographic, traffic and border-related maps were chosen and digitised, all relating to the period of the First World War. *The total of 393 maps were digitised and published.*

First World War: Guidebook through Fonds and Collections of the Croatian State Archives. Baričević, H. (ed.): The Croatian State Archives, 2016, 230 p.

The latter guidebook was published by the CSA with the intention to encompass all relevant fonds and collections with archival material pertaining to the First World War. Among others, the guidebook includes cartographic archives kept in several of the CSA's collections.

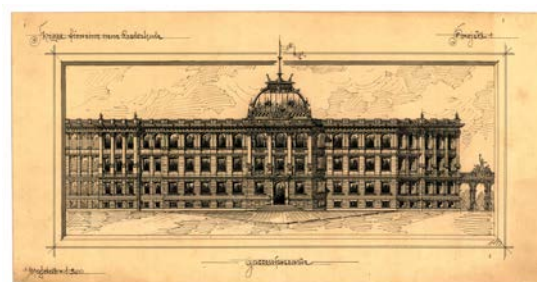
Acquiring new cadastral archives

In the period 2015 to 2019 the following total was acquired:

2024 maps (acquired by the official duty)

217 maps, 29 graphics i 12 vedute (purchase)

133 maps (donation)

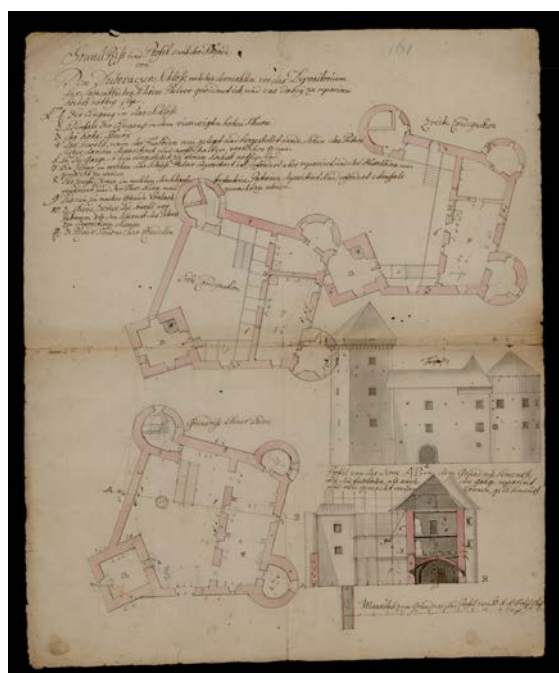


Zbirka građevinskih nacrtā, HR-HDA-905, II.99, nacrt za Realnu gimnaziju u Zagrebu, ca. 1894. – 1910

ZBIRKA GRAĐEVINSKIH NACRTA (reference number HR-HDA-905)

Zbirka građevinskih nacrtā (Building Designs Collection) comprises of public objects' designs, sel-

dom private ones. The processed designs were created in the period from 1770 to 1990. Considering the object they show, the collection designs were divided into 38 groups (regulatory basis of the settlements; conservation studies; regional designs and site diagrams of streets and squares; educational institutions; pedagogical and social institutions; scientific institutes; health facilities; medicinal institutes; judiciary; administration; cultural institutions; publishing; financial institution; PTT; military facilities; police and guardhouses; Penitentiaries; industrial facilities; mines and quarries; state farms; cooperative facilities; rural economic facilities; veterinary surgeries; other economic facilities; road building; railway; bridge building; inland waters regulation; harbours and seashore arrangement; sewerage; waterworks; water supply; wells; residential facilities; tourist and catering facilities; castles; fortresses; citadels; church facilities; cemeteries; tombs; monuments; builder's examination tests; furniture designs; detail designs; tools, appliances and machines designs; land holdings). The collection is regularly complemented with new acquisitions – mostly by separating them from other archival fonds.



Zbirka planova, HR-HDA-904, Inv. Br. 50, Grundris und Profil samt der Gebäude von dem Dubovacser Schloss, ca. 1800, manuscript in colours

Description and processing of designs, plans and maps

In the period from 2015 to 2019 the total of 190 pages of designs, plans and maps were analytically processed and described in accordance with the International Standard Biographic Description for

Cartographic Materials – ISBD (CM). Users can access the finding aid in the CSA Main Reading Room.

ZBIRKA PLANOVA (reference number HR-HDA-904)

Zbirka planova (Plans Collection) comprises of cartographic records of private, public and military facilities. The collection's timeframe is from 1600 to 1941. All description items were grouped in accordance with the local points of reference and some items in accordance with the topical points of reference (for example, liturgical buildings, belvederes, inns, border-guard houses, penitentiaries, mills, bridges, mortuaries, furnaces, guardhouses, stables and sheds, military buildings and flats), due to the existence of the old list and card files, the former already being structured in that way and quoted by users. The collection comprises of 536 cartographic items and does not augment. The cartographic records in the collection were processed in accordance with the International Standard Biographic Description for Cartographic Materials – ISBD (CM). Users can access the finding aid in the CSA Main Reading Room.

ZEMALJSKA VLADA, ODJEL ZA UNUTARNJE POSLOVE (reference number HR-HDA-79)

Odjel za unutarnje poslove Zemaljske vlade (Land Government's Department for Internal Affairs) is fonds that besides books and documents also keeps cartographic records created by the activity of the same creator (as enclosures to documents) that mostly pertain to public facilities and rarely private ones. The processed cartographic records pertain to the period from 1869 to 1921. Considering a facility they show, the cartographic items are divided into 30 groups (regulatory bases, conservation studies, regional designs and site diagrams of streets and squares, educational institutions, pedagogical and social institutions, health facilities, medicinal institutes, administration, cultural institutions, PTT, military facilities, penitentiaries, industrial facilities, mines, quarries, state farms, smaller farms, commercial facilities, other economic facilities, road building, railways, bridge building, inland waters regulation, hydrographic facilities, land reclamation, vessels, sewerage, waterworks, water supply, wells, cisterns, watering places, residential facilities, tourist and catering facilities, forests, forest farms, landed properties, various maps (demarcation maps, kilometric maps, cadastral maps, administrative maps), signs, coats of arms, flags, symbols, examination tests, cemeteries, tombs, monuments).

Description and processing of the cartographic records and creating finding aids

The processing of the associated cartographic archives (designs, plans and maps), as well as creation of the finding aid for the fonds is finished. The total of 1567 *maps, plans and designs* were processed and described in accordance with the International Standard Biographic Description for Cartographic Materials – ISBD (CM). *In the period from 2015 to 2019 the total of 105 designs, plans and maps were described and analytically processed.* Users can access the finding aid in the CSA Main Reading Room.

ZEMALJSKA VLADA. ODJEL ZA UNUTARNJE POSLOVE. KULTURNO-TEHNIČKI ODSJEK (reference number HR-HDA-79)

General information about the archives

Odjel za unutarnje poslove Zemaljske vlade (Land Government's Department for Internal Affairs) is fonds that also stores archival material created by the activity of the Cultural-Technical Division, with cartographic archival material created by the activity of the same creator. These archives mostly concern public and rarely private objects. The processed cartographic archives pertain to the period from 1869 to 1921. Depending on the object they show, cartographic units will be divided into several dozen thematic groups and processed in accordance with the International Standard Biographic Description for Cartographic Materials – ISBD (CM). So far the total of 305 *designs and plans* were described and analytically processed.

BOŽIDAR RAŠICA (reference number HR-HDA-1770)

The CSA also keeps archives created by activities of renowned individuals, as cultural heritage whose permanent value also represents a testimonial of our past and present. Božidar Rašica's personal papers have archival material created by the activities of Božidar Rašica, the renowned architect, who designed numerous dwellings, business, fair and school objects, created urban and architectural plans, adapted the Croatian National Theatres in Zagreb and Split etc. Besides his identity documents the fonds stores designs of his projects and they are processed in accordance with the International Standard Biographic Description for Cartographic Materials – ISBD (CM). In the period from 2015 to 2019 the total of 5031 *designs* were described and analytically processed.

ZVONIMIR POŽGAJ (reference number HR-HAD-814)

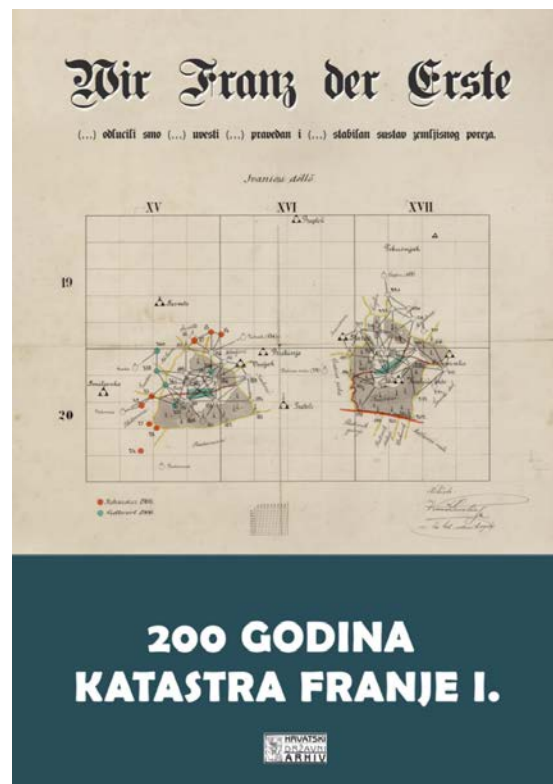
Zvonimir Požgaj's personal papers have archival material created by the activities of Zvonimir Požgaj, the renowned architect, who designed nu-

merous public buildings, villas, churches and hotels. Besides his identity documents the fonds stores designs of his projects and they are processed in accordance with the International Standard Biographic Description for Cartographic Materials – ISBD (CM). In the period from 2015 to 2019 the total of 518 *designs* were described and analytically processed.

EXHIBITIONS

Forester's maps and plans – from the history of managing forests of Croatia

The CSA accepted the invitation of the Faculty of Forestry to mark 250 years of the Croatian forestry with an exhibition. The purpose of the latter was to present to the general public old forestry maps and plans, as well as key documents important for understanding of history of managing forests of Croatia. On display at the exhibition was the original oldest forestry map of the Lika Regiment from 1764–1765, whose only other copy is kept at the War Archives in Vienna. 32 *maps/plans* were on display i.e. 12 *various documents* that testify about the history of forestry in Croatia. The exhibition catalogue was published by the Faculty of Forestry, authored by Mirjana Jurić and edited by Dr Renata Pernar. Mirjana Jurić was also the author of the exhibition.



The Vukovar-Srijem County on old maps and plans

At the invitation of the State Archives in Vukovar, to mark the County Day, the exhibition was held in Vukovar's Croatian Hall. The total of *47 maps/plans was on display*, mostly kept at the CSA, as well as the State Archives in Osijek and the Vukovar City Museum. The exhibition catalogue was published by the State Archives in Vukovar, authored by Mirjana Jurić, who was also the author of the exhibition.

200 years of cadastre of Francis I

The 2017 International Archives Day was marked with the exhibition on 200 years of cadastre of Francis I. The exhibition purpose was to mark the 200th anniversary since Emperor Francis I promulgated his patent, which introduced a permanent cadastre in the whole Habsburg Monarchy. The exhibition also marked 170 years since the beginning and 140 years since the end of the terrestrial survey in the Kingdom of Croatia and Slavonia. The cadastral records kept in the fonds Archival Maps for Croatia and Slavonia were displayed on 10 display boards. The exhibition leaflet was published by the CSA, authored by Mirjana Jurić, who was also the author of the exhibition.

120 years of the school forum

The CSA accepted the invitation of the Organizational Board on the occasion of marking 120 years since the construction of Isidor Kršnjavi's Forum and it gave professional help to students of the 5th Gymnasium who organized the virtual exhibition of the same name, presented at the Mimara Museum. The students used cartographic archives kept at the CSA and also published a newspaper for this occasion.

EDUCATIONAL ACTIVITIES

Cartographic workshops

Since May 2014 the CSA has in its offer a new educational activity, the cartographic workshop entitled "Let us read maps", intended for the children of various ages – from preschool (6 years) to 4th grade of elementary school, but also for senior classes.

The author of the cartographic workshops is Mirjana Jurić. The goal of executing the workshops in preschool institutions is introducing additional activities in order to better percept the world around us and it has also been coordinated with the National basic curriculum for preschool education and general obligatory and high school education. The goal of executing the workshop in elementary schools is to introduce after-school activities in order to better master the material of nature and society/geography and it has also been coordinated with the National basic curriculum for preschool

education and general obligatory and high school education, as well as with the curriculum for the classes of nature and society/geography. The workshop uses various educational materials created by using old maps and plans from the Cartographic Collection of the CSA, which has entered the Register of Cultural Goods by the Ministry of Culture. The main purpose of the workshop is to cause interest for maps, stimulate artistic creativity in children by presenting space, promote cartography and improve cartographic perception of the children so that they acquire new knowledge and experiences, develop new skills (better orientation, orientation on the map, reading of the maps, recognizing symbols on the map in different time periods), comprehend spatial relations, are introduced to cartographic heritage and historical sources, as well as develop via geography classes basic cartographic literacy that is needed in their future education. Several thematic workshops were designed, depending on the age of the children and by adjusting the terminology and the level of their current knowledge i.e. depending on the mastered material from the nature and society classes and new ones are designed (each senior class has wider workshop terminology). In the period from May 2015 to 7 June, 2019 the total of *814 elementary and secondary school children* attended the workshop, from various schools in the Zagreb area, but also from neighbouring counties.



Workshop in the Croatian State Archives: „The search for the toponyms on the Croatian map of the 16th century“

Student training program

Student training program lasting the total of 40 hours for the 3rd year university students of the Department of Geography of the Faculty of Science

in Zagreb has been taking place since 2013 and is mentored by Mirjana Jurić. During the duration of the training the students are introduced to the Cartographic Collection and Archives of Maps for Croatia and Slavonia (content-related physiognomy, types of maps, maps reproduction techniques, artistic processing of maps through history, cadastral sources, topographic and cadastral surveys, different publishers of maps), while during the practical part the topographic maps of various publishers from the turn of the 19th to 20th century, cadastral plans from the fonds Archives of maps for Croatia and Slavonia (lithographic copies) and microtoponyms from cadastral plans from the period of Francis I are analytically listed. In the period from 2015 to 2019 the *total of 10 students* did their training.

Lectures on cartographic archives

Lectures for the students of geography and geodes with the goal of introducing them to the cartographic heritage kept in the CSA, with the emphasis on the Cartographic Collection and the Archives of Maps for Croatia and Slavonia are given by Mirjana Jurić. During the lectures the students get an insight into original maps and plans from the period of mid-16th to early 20th century that follow the development of cartography through history i.e. cadastral plans and associated cadastral archives for understanding history of cadastre and terrestrial surveys. In the period from 2015 to 2019 the *total of 42 students* attended the lectures.

The lecture for participants of the 12th conference Cartography and Geoinformation (2016) aiming to introduce the cartographic and cadastral heritage kept in the CSA, with the emphasis on the Cartographic Collection and Archives of Maps for Croatia and Slavonia, is held by Mirjana Jurić. *10 conference participants* attended the lecture.

Presentation regarding cartographic workshops and cartographic archives kept in the CSA given to the county professional active of history teachers of the city of Zagreb was given by Mirjana Jurić and *circa 30 teachers attended*.

Promotional film on the CSA

The promotional film by Robert Knjaz on the Croatian State Archives presents among others the opulent cartographic and cadastral heritage, cartographic workshops and the most valuable originals from the Cartographic Collection.

COMMEMORATING IMPORTANT EVENTS

Kliofest

Within Kliofest in 2015 and 2016 two workshops were held i.e. 'Zagreb on old cadastral plans' and 'In search for toponyms on a 16th-century historical map of Croatia', authored by Mirjana Jurić. *The total of 20 children* attended the workshops.

CONFERENCES (PRESENTATIONS)

2nd Croatian emigrational congress, Šibenik, 30 June – 2 July 2017

Mirjana Jurić participated in the congress with the presentation *Presenting the cultural-educational activity of the CSA: the example of the Cartographic Workshop*.

Archives, libraries, museums, Rovinj, November 2016

Mirjana Jurić was among the seminar's participants and had a presentation *Exhibitions and workshops outside the Croatian State Archives – experiences and new possibilities*.

CONFERENCES, COURSES

Instructing other archives

The CSA participates in professional training and instructing of employees in other archives.

- Snježana Ivanović, senior archivist, and Mirjana Jurić provided professional assistance to the employees of the State Archives in Split, pertaining to the manner of processing fonds HR-DAST-384. Poduzeće za organizaciju izgradnje i gospodarenja 'PIS' Split, comprising of design documentation
- Mirjana Jurić provided professional assistance to employees of the State Archives in Sisak, pertaining to processing of cartographic archives.

Workshop for state archives

The CSA organizes workshops for employees from other state archives

- Snježana Ivanović, senior archivist, and Mirjana Jurić held the workshop entitled 'Archival processing of design documentation: examples from practice, dilemmas and solutions'
- Mirjana Jurić held the workshop entitled 'Processing cartographic archives – maps, plans and blueprints'

2.7 Institute for Migration and Ethnic Studies



<http://www.imin.hr/>

Lectures

During academic years 2017/2018 and 2018/2019 Ph.D. Dubravka Mlinarić gave lectures on historical

cartography entitled 'Cartographic Sources for the Pre Modern History' for Postgraduate Studies in Pre modern History, History Department, Faculty of Humanities and Social Sciences, University of Zagreb.

Conference Papers

28–30 May 2015, University of Juraj Dobrila, Pula

Dubravka Mlinarić presented a paper entitled Migration of People and Ideas, and Shaping of Identities in Composite Modern Empires in the Eastern Adriatic at the international conference "Past, Present, Future: Identity in Flux", pannel on Identities of Migrants. Organisers were the University of Juraj Dobrila, Pula, and Mediterranean Studies Association (Utah State University, the University of Massachusetts Dartmouth and the University of Kansas).

5–8 October 2016, University of Zadar, Zadar

Dubravka Mlinarić delivered a paper (co-author Drago Župarić-Iljić) Early Modern Irrigation of the Vrana Lake and Protomodern Ecological Migrations: Economical and Ecological Success or a Failure? at the 5th Conference of Croatian historians: Crises, Conflicts and Solidarity in Historical Perspective, suorganised by the Croatian Committee of Historical Sciences, Croatian Society of Historians and University of Zadar.

30–31 May 2017, Faculty of Humanities and Social Science, University of Zagreb

Dubravka Mlinarić gave a lecture Exchange of Ideas and Dissemination of Knowledge in the Early Modern Adriatic Basin: Perspective of a cartographer within the session Schiavoni: Artworks and Networks between Early Modern Italy and Croatian Historical Lands at the international conference Visualizing Past in a Foreign Country: Schiavoni/Illyrian Confraternities and Colleges in Early Modern Italy in comparative perspective, organised by the Faculty of Humanities and Social Sciences, University of Zagreb.

5– 6 June 2017, Zagreb

Dubravka Mlinarić participated to the international conference Borders of Southeastern Europe with a paper Shaping boundaries on the European periphery: Croatian experiences (co-author Snježana Gregurović). Suorganizors were European Union National Institutes for Culture – EUNIC Croatia (Austrian Cultural Forum, French Institute in Croatia, Goethe-Institut Croatia, Hungarian Institute Balassi, Italian Institute, the Instituto Cervantes, Camões Institute and British Council), Institute for Migration and Ethnic Studies, City of Rijeka and University of Rijeka.

28 June – 2 July 2017, Department of Geography, Faculty of Science, Zagreb

Dubravka Mlinarić presented a paper entitled Cartographic versus Statistical Records of the Early Modern Dalmatian Environmental and Demographic Change on the Multiple Borderlands, co-authored by Ivka Kljajić (Faculty of Geodesy, Zagreb) at the 9th ESEH Biennial Conference „Natures in between: Environments in areas of contacts among states, economic systems, cultures and religions".

30–31 May 2019, Faculty of Humanities and Social Science, University of Juraj Dobrila, Pula

Dubravka Mlinarić delivered a lecture Shaping of Croatian Borders on the European Periphery in Historical Perspective: A Quest for Social Justice or (Just) Outcome of a Neighbouring States Powers' Collision? at the international conference Past, Present, Future, Peace in History: Avoiding War and the Quest for Social Justice.

Media, Public Lectures, Popularising Cartography

24 February 2015, National and University Library in Zagreb, public presentation celebrating International Map Year, popularizing cartography and presenting the Novak Map Collection, 'Maps and Identities - Mapmakers from Croatian Lands in the Early Modern Period – a Selection from the Novak Collection', delivered by Dubravka Mlinarić.

16 May 2019, public presentation, popularizing cartography „Private Cartographic Collections as the Croatian Cultural Heritage: Rethinking the Access to the Archival Sources“ organised by the Croatian Cartographic Society and delivered by Dubravka Mlinarić at the Croatian State Archives in Zagreb.

Applications

October, 2018 – March, 2019 – as a project collaborator, responsible for scientific and profesional analysis of old maps as specific archival sources, Dubravka Mlinarić worked on structuring of the catalogue of old maps of Croatian lands. Besides the very analyse she provided a desk-study research for the national project of Adris Foundation, named *Javna dostupnost najveće privatne zbirke – Collectio Felbar* (Public accesibility to the biggest private collection – Collectio Felbar). Projekt leader was Ewald Felbar in collaboration with the Croatian Cartographic Society. The aim of the project was to revise the immense national cultural heritage from this particular private collection and increase the accessibility to interested consumers. It also contributes to popularization of maps and travel literature as a specific media of communication and knowledge sharing about the past Croatian lands. Professional analysis of old travelbooks of Croatian lands was made by Neven Kovačev.

Awards

The CCS recognized Dubravka Mlinarić and co-author M. Miletić-Drder, for their contribution to cartography development and the authorship of the monograph book *Zbirka Novak Mappae Croaticae u Zbirci zemljovida i atlasa NSK*.

Dubravka Mlinarić, Research Advisor, was employed at the Department for Migration and Demographic Research. A list of her published papers for the period 2015–2019 can be found in the Bibliography.

3 Academic Cartography

3.1 Faculty of Geodesy of the University of Zagreb



<http://www.geof.unizg.hr/>

Institute for Cartography and Photogrammetry is one of three Institutes at Faculty of Geodesy. Heads of the Institute were Assist. Prof. Robert Župan (2015), Assist. Prof. Andrija Krtalić (2015-2017) and Assist. Prof. Vesna Poslončec Petrić (2017-). The Institute consists of three chairs: Chair for Cartography (Assist. Prof. Vesna Poslončec-Petrić, Chair 2015-2017, Prof. Stanislav Frangeš, Chair 2017-), Chair for Geoinformation (Prof. Miljenko Lapaine, Chair 2015-2017, Prof. Nada Vučetić, Chair 2017-), Chair for Photogrammetry and Remote Sensing (Assist. Prof. Dubravko Gajski, Chair). The chairs are fundamental structural units of all faculty activities.

Cartographic Activities Prof. dr. sc. Stanislav Frangeš in the period 2015-2019:

- Creation of cartographic presentations for the needs of cyclo-tourist project "Zadar bike"
- 3 overview maps and 43 detailed maps (2016-2017)
- 5 detailed maps at a scale of 1:75 000 (2019)
- Member of the Commission for drafting the Ordinance on the Register of Geographical Names at the State Geodetic Administration of the Republic of Croatia
- Member of the Commission for Standardization of Geographical Names Appointed by the Croatian Parliament

More details on the Faculty of Geodesy of the University of Zagreb can be found at www.geof.hr

3.2 Department of Geography of the University of Zadar



<http://www.unizd.hr/>

The Department of Geography at the University of Zadar organised various cartographic activities

between 2015 and 2019. Starting from the fact that maps are objects of research to geographers (primarily as sources of spatial data), means of research, and teaching resources, almost all the staff of the Department of Geography were involved, to a greater or lesser extent, in ensuring that appropriate attention was paid to cartographic contents as part of various scientific, teaching and expert programmes. The Department of Geography planned and implemented cartographic activities independently, and in cooperation with the Croatian Geographic Society in Zadar, along with other institutions and associations, primarily the Croatian Cartographic Society, the Zadar State Archives, and other Croatian and foreign universities and companies, especially those whose activities focus on implementing geo-information systems.

Cartography and GIS, with the associated teaching content, are represented to a significant degree in curricula at all three levels of university studies. In single-subject undergraduate studies in Applied Geography, and in dual-subject undergraduate studies in Geography (for teaching Geography), cartographic contents form the core of the courses in Geographical Mathematics, Cartography I, Cartography II, and Cartography and Visualisation. They form specific parts of the courses on Geoinformatics and Multimedia Geography, while GIS is part of Geoinformatic System I and Geoinformatic System II. In many other courses, maps are part of teaching contents approached from the aforementioned geographical perspectives. In single-subject graduate studies in Applied Geography (within the modules Geographic Spatial Modelling and Geographic Aspects of Managing Coastal Regions) and in dual-subject graduate studies (for teaching Geography), cartographic and GIS contents are represented in the following courses: Modelling Spatial Data in GIS I, Modelling Spatial Data in GIS II, Geographic Analysis of Landscapes, Spatial Analysis in GIS and Remote Research, and appear as secondary elements in many other courses. For its teaching requirements, the Department has equipped a GIS Study Room, acquired an unmanned airborne device, tablets with programmes installed for orientation and navigation, and so on. Training and certification of personnel who use this equipment in teaching and scientific work has also been carried out. In the doctoral study programme *The Adriatic – a Link Between Continents* cartographic contents are considered especially within the framework of the courses entitled Application of GIS in Geography and History and Development of the Adriatic in the Light of Cartographic Sources.

Scientific research is carried out within several thematic areas which successfully correlate geographic and cartographic topics. Through the Strategic Programme for Scientific Research 2014-

2018, and the Strategic Programme for Scientific Research 2019-2023, cartography has been established as a basic activity in the following thematic areas:

- a) Cartographic sources in geographic research of the Croatian Adriatic area
- b) Developing a new methodological approach to studying ravines
- c) Developing a multi-criteria model for sustainable management in areas of travertine watercourses – based on the example of Skradinski Buk
- d) Multiresolution landscape modelling

Special systematic research is carried out as part of the *Geospatial analysis laboratory* project (GAL), financed by the Croatian Science Foundation. The project is headed by Ante Šiljeg, and the associates are Nina Lončar and Ivan Marić. Fran Domazetović and Mirko Barada, who are doctoral students, are also involved in the project. Along with acquiring the newest technological equipment, this team has also achieved significant scientific results and published many papers in WoS and Scopus indexed journals. They have also participated in various knowledge and technology transfer activities in cooperation with local and regional communities. Among other things, Ante Šiljeg, Mirko Barada and Ivan Marić have published a university textbook, *Digitalno modeliranje reljefa* (Digital Relief Modelling) (Alfa, Zagreb 2018).

A number of scientific papers which provide comparative analyses of old maps have been published by Damir Magaš, Josip Faričić, Lena Mirošević, Ante Blaće and Tome Marelić. These scientists have also participated in a large number of scientific meetings in Croatia and abroad, where they have presented their research results on old cartographic material, particularly Early Modern cartographic depictions of the Adriatic. Tome Marelić and Josip Faričić have concentrated particularly on cartography as a topic.

In cooperation with other geodesists and historians, Zadar geographers have hosted a number of scientific-popular courses and lectures to present various cartographic and related topics to a wider audience. For example, the following lectures were held:

19 September 2017, Zadar State Archives, *Zadar on Old Maps*

22 November 2017, Archdiocese of Zadar and University of Zadar (St. Chrysogonus Days of Christian Culture), *The Bible is not an Astronomy Manual, and the Earth is not a Flat Plane*.

A course was also organised on 4 December 2017, *Marking the 200th Anniversary of the Introduction of the Cadastre which Covered the Entire Area of Modern Croatia for the First Time* (Department of Geography, University of Zadar, Croatian Geographic Society – Zadar, Croatian Cartographic

Society, and Zadar State Archives). In conjunction with this, an exhibition called *The Islands of Iž and Rava on Old Maps* (in cooperation with the National Museum of Zadar) was mounted on the *Anamarija* passenger vessel which connects Iž and Rava to the city of Zadar. It was also mounted at the Faculty of Geodesy, University of Zagreb, from July to October 2015, in cooperation with the Croatian Cartographic Society.

To mark World GIS Day and the International Week of Geography, lectures and scientific-expert meetings were held, where scientists from Croatia and abroad presented their work.

Thanks to team work, great interest in maps, cartography and GIS, the Zadar geographic hub has been able to implement various cartographic activities and keep abreast of the most recent scientific discoveries and IT developments, without neglecting our rich cartographic heritage. There is still much to be done in this field, and we continue to meet the challenges head on.

4 Commercial Cartography

4.1 Croatia Control Ltd. (HKZP)



<http://www.crocontrol.hr>

Croatia Control Ltd. is a state-owned limited liability company that operates independently in the Republic of Croatia, pursuant to relevant laws and company acts. In the provision of air navigation services to the institutions in neighbouring countries it adheres to the principles and procedures of ICAO (International Civil Aviation Organisation) and EUROCONTROL (European Organisation for the Safety of Air Navigation).

The primary mission of Croatia Control Ltd is provision of air navigation services, pursuing the basic principle of a high level of air traffic safety.

Croatia Control Ltd., Department of Air navigation, procedure design and cartography are employes three cartographers.

The products of cartography service are applied to following activities of the company:

- Provision of operational air navigation services – air traffic control, alerting service, provision of pre-flight and flight information services to enable safe, orderly and expeditious air traffic flow; processing and retention of flight data; forwarding of information significant to air traffic safety; management of air traffic flow and airspace use;
- Collection, processing and promulgation of aeronautical information, including issuance of specific publications;
- Identification of operational requirements for air traffic control systems, surveillance systems, equipment and infrastructure;
- Planning of airspace structure and flying procedures taking into account interests of civil and military users, as well as environmental requirements;
- Implementation and harmonization of operational, developmental and international tasks and duties with international organizations, especially ICAO (International Civil Aviation Organization) and EUROCONTROL (European Organisation for the Safety of Air Navigation);

Aeronautical information is collected, processed and disseminated in the form of text and charts. The data are published in the Aeronautical Information

Publication Croatia (eAIP) and in the VFR Manual in regular, pre-determined cycles.

Various types of thematic maps are published for all airports in the Republic of Croatia, including the whole area of Croatia's Flight Information Region. These maps are created in different scales and are available in analogue and digital form.

Charts are adapted to the specific cartographic key for aeronautical charts.

Various types of charts which are made within Croatia Control Ltd. are published in the Aeronautical Information Publication and in the VFR Manual for period 2015 – 2019 include:

- VFR Charts with recommended VFR routes, 1:500 000
- Aerodrome Charts – ICAO 1:10 000 – 1:20 000 – preparation for publishing only
- Aircraft Parking/Docking Charts – ICAO – preparation for publishing only
- Aerodrome Obstacle Charts Type A – ICAO, 1:10 000 – 1:20 000 – preparation for publishing only
- Precision Approach Terrain Charts – ICAO
- Instrument Approach Charts – ICAO, 1:100 000 – 1:500 000
- Visual Manoeuvring - Circling Charts (IFR) - ICAO
- Standard Instrument Departure Charts (SID) – ICAO
- Standard Arrival Charts – Instrument (STAR) – ICAO
- Enroute Charts – ICAO, 1:1 000 000 - ICAO
- Visual Approach Charts - ICAO, 1:100 000 – 1:250 000
- Visual Operation Charts 1:200 000 – 1:300 000
- ATC Surveillance Minimum Altitude Charts – ICAO
- Index Charts – Charts of Aerial Sporting and Recreational Activities, Charts of Military Operations Areas, etc.

Many other types of thematic maps are created for operational purposes of Croatia Control Ltd. These include Anti-Hail Rocketing chart for Croatia and part of Bosnia and Herzegovina at a 1:500 000 scale.

Charts are made and printed by digital methods also provided in electronic form in eAIP Croatia and VFR Manual.

Total number of 185 published charts including changes are re-published several times during this period.

Charts are made according to Standards and Recommendations contained in ICAO Annex 4 and are published every time when there is a safety-critical change in aeronautical data – usually once or several times a year.

In addition to the production of various charts, we are also involved in ongoing projects aimed at the establishment of geoinformation systems: Aeronautical Information Database Modernization Project CroATM for implementation Commission implementing Regulation (EU) No 73/2010 and 1029/2014 and INSPIRE.

More details about the activities of the Croatia Control Ltd can be found at the Internet address <http://www.crocontrol.hr>

4.2 OIKON Ltd. – Institute of Applied Ecology



<https://oikon.hr/>

Oikon Ltd. is an institute working in the field of applied ecology since 1997. Its specialties are environmental protection, industrial ecology, environmental medicine, renewable energy sources, nature protection, natural resource management, ecological modelling, landscape ecology, remote sensing and geoinformatics. It is a medium-sized company with experts, including 8 doctors of science, who cover a 18 expert fields and with an outspread network of hundreds of external collaborators.

In order to provide better horizontal link between the departments, more successful transfer and application of knowledge, and enhanced research and development work related to the use of remote sensing methods on projects, in 2017, OIKON founded the Laboratory for Remote Sensing and GIS – LADIGIS.

The use of the latest technologies and sensors in the field of remote research, such as LIDAR, multispectral and radar satellite imagery, enables the company to achieve effective mapping of changes in land use, fires, soil and forest site index, health status, spatial composition of tree / forest type / agriculture types or determining the amount of biomass in inaccessible areas. All this has already been successfully implemented in many of Oikon's projects. The Laboratory also provides support within the company by developing land cover layouts of higher resolutions that are necessary for better assessments of environmental impact.

Oikon does spatial analyses, cartographic processing and preparation of maps for its own needs and studies of environmental effects, natural resource management programs and nature protection studies and programs:

- Production of maps of hunting ground areas for hunting economic bases (1:10 000/ 1:25 000)

- Production of maps for forest management programs (1:5000/1:25 000)
- Production of maps for protected area (national parks and nature parks – 1:25 000) management plans
- Spatial analysis and map preparation in rural and regional development projects
- Production of maps of forest road infrastructure
- Modeling of spatial noise distribution around various infrastructural and industrial objects
- Production of maps of landscape design and landscape main projects (1:500 – 1:5000)
- Production of 3D visualization of various infrastructural and industrial objects
- Production of maps of potential and real erosion in areas of planning various infrastructural objects
- Analyses of visual sensitivity of landscape in landscape analysis
- Telemetric and GPS animal tracking (wolf, lynx, brown bear), analysis of their movement
- Ultrasound monitoring of bat movement and analysis of their use of space/habitat
- Web mapping applications

The projects in which Oikon has set up GIS / WEB GIS, conducted spatial analysis and spatial modeling, prepared maps on national, regional and local levels from 2015 to 2019 are:

1. Landscape study of Primorsko-goranska county, Client: JU „Zavod za prostorno uređenje Primorsko-goranske županije“
2. Upgrade of existing CORINE database (CLC 2018) and validation of thematic database generated by interpretation on satellite images, Client: Croatian Agency for Environment and Nature (CAEN)
3. Landscape Study for the southern coast of the town of Labin, Client: City of Labin
4. Development of expert background study for characterization and delineation of hilly and mountainous areas, Client: Ministry of Regional Development and EU Funds Croatia
5. The Study about effectiveness of the implementation of the “Orders on undertaking measures for prevention of spreading the harmful organism - *Corythucha arcuata* (Say, 1832) – The oak lace bug, Client: Ministry of Agriculture RC
6. Application of High Definition Multispectral Satellite Surveys in Determining the Degree of Productivity and Various Forest Owner's Forests in the Mediterranean and Sub-Mediterranean, Client: Ministry of Agriculture RC
7. Carbon sink assessment in dead organic matter and average wood stock assessment in maquis, thickets and first age class stand in Croatian forests, Client: Croatian Agency for Environment and Nature (CAEN)

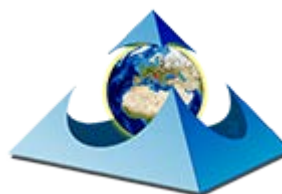
8. Landscape Study for UPU 2.2. Sveti Jakov and the surrounding area, Client: Studijski centar za obnovu i razvoj Ltd., Dubrovnik
9. Forest management program for forest owners in Istria county, four management units, Client: Croatian agricultural and forestry advisory service
10. Study documentation for the preparation of projects for flood protection in the Mirna River basin: aspects of environmental and nature protection and preparation of maps of vulnerability, Client: Vodoprivredno – projektni biro d.d., Zagreb
11. Development of forest area baselines and maps of the area with special constraints, Client: Ministry of Agriculture RC
12. Study of Areas with Natural Constraints in Agriculture and Calculation Design, Client: Ministry of Agriculture and Rural Development, Montenegro
13. Plan for the use of renewable energy resources in Dubrovnik – Neretva County, Client: Dubrovnik – Neretva County
14. The habitat map development and the definition of ecological requirements and conservation zones of the natural values of the Brijuni National Park, Client: PI „National Park Brijuni“
15. Development of geoinformation system and web GIS application for public lighting of City of Rab, Client: City of Rab
16. Analysis of spatial features of Sisak-Moslavina county for the use of renewable sources of energy, Client: Sisak-Moslavina county
17. Design and implementation of interactive map of Agriculture and Agricultural land of City of Zagreb, Client: City of Zagreb
18. Upgrade of existing CORINE database (CLC 2012), validation of thematic database generated by interpretation on satellite images and WEB GIS browser creation, Client: Croatian Environment Agency
19. Study of landscape protection of the city of Zagreb, Client: CITY OF ZAGREB – City Office for the Strategic Planning and Development of the City
20. Landscape and Spatial identity Study of the Veli Brijun Island, Client: PI „National Park Brijuni“
21. Fine Tuning spatial analysis of municipalities and their classification in mountain areas, areas with bio-physical constraints and specific areas with constraints in agriculture, Client: Ministry of Agriculture RC
22. Impact of Agriculture on Groundwater and Groundwater Pollution in the Republic of Croatia – analysis of water load from agriculture, estimation of water load from agriculture and processing of satellite images of IRS and estimation

of cultures outside ARKOD, Client: Faculty of Agronomy Zagreb and Croatian waters

23. Preparation of maps for Fine tuning of areas with natural constraints in agriculture, Client: Ministry of Agriculture RC
24. Spatial analysis and site suitability evaluation of ground photovoltaic power plant on the Unije island, Client: Regionalna energetska agencija Kvarner Ltd., Rijeka
25. Study for Area Definition under influence of natural or other specific constraints in agriculture including calculations, Client: Ministry of Agriculture RC

Apart from the use of remote sensing, GIS and cartography in their regular work, OIKON employees, primarily LADIGIS members, carry out scientific research to improve and achieve greater efficiency and accuracy and the application of new data collection and analysis technologies. They regularly report to the public through their participation in professional and scientific meetings with presentations and posters, and by publishing their achievements in professional and scientific journals. In the period from 2015 to 2019, they publicized and published many papers (see section Bibliography).

4.3 CroMaps



<http://www.cromaps.com/branka>

Cartographic products by Branka Poljak, between 2015 and 2019 published by the Tourist Board, 3D laser design etc.:

2015 Stari Grad Tourist Map (Island of Hvar) reprinted in 2016, 2018
 2015 Vrboska Tourist Map (Island of Hvar) reprinted in 2016, 2018
 2016 Tourist Map Hrvatsko zagorje (Map Hrvatsko zagorje, Town Plans centre of Krapina, Zabok, Donja-Gornja Stubica, Klanjec, Pregrada, Krapinske Toplice, Oroslavje, Kumrovec, Marija Bistrica, Zlatar)
 2016 Interactive maps - Tourist Topographic map Vinodol, Tourist Town Plans Novi Vinodolski, bike rout and walkways Vinodol for tourist Interactive Touch Kiosk
 2015 Tourist Map of the Island of Korčula, map of footpaths and cycle tracks, Town Plans of Korčula, Vela Luka, Blato, Lumbarda, Smokvica reprinted in 2016, 2017, 2018, 2019

2017 Town Plans Samobor - Sveta Nedelja
2017 3D tactical map Association of Blind SMŽ-
Sisak - day center, rehabilitation program
2019 Tourist Topographic map Lovinac - Pose-
darje (include cycling routes)
2017 Traffic maps RH - map desks HAK

2017 Board maps (city light) include: map of the
beach Bribir coast Novi Vinodolski
2019 Board maps (city light) include: Tourist
Plan Vrboska and Tourist Map of the Island of
Hvar

2019 World maps – mapping natural resources
(world's top oil-producing countries and natural
gas production – different maps)

The following wall maps were published in the
period 2015–2019:

Map of Europe, Map Southeast Europe, Map EU
postal code, World map, Road Map of Europe,
Road Map RH, Road Map of the Balkans, City
Plan of Zagreb with District Borders, Map of the
Republic of Croatia - Counties, Municipalities,
Mayors, Prefects, Political Parties, Road Map
Sweden, Road Map Ireland, Map Istria, Town
Plans Sisak, Petrinja, Zagreb, Požega, Vinkovci,
Osijek, Slavonski Brod, Split (Donje Sitno, Gornje
Sitno, Kamen, Slatine, Srinjine, Stobreč, Žrnovni-
ca included in the administrative area of the City),
Makarska, Kaštele, Karlovac, Sisak, Vukovar,
Dubrovnik, Varaždin, Čakovec, Koprivnica,
Karlovac, Gospić, Velika Gorica, Zaprešić, Ivanić
Grad, Rijeka, Pula, Zadar

5 Other Activities

5.1 Croatian Cartographic Society



<http://www.kartografija.hr/>

2015

The national report "Cartography in Croatia 2011–2015" was submitted in time for ICA General Assembly and published in *Cartography and Geoinformation*, issue 22.

Members of the Croatian Cartographic Society (CCS) participated with the following papers:

Lapaine, M.: Multi Standard-Parallel Azimuthal Projections

Triplat Horvat, M., Lapaine, M.: Determination of Definitive Standard Parallels of Normal Aspect Conic Projections Equidistant along Meridians on Old Maps

Viličić, M., Lapaine, M.: Research on the Reliability of Mercator's Map *Sclavonia, Croatia, Bosnia cum Dalmatiae parte*

212 children's drawings were submitted for the national competition with the theme "My place in today's world". The jury selected six best drawings and five additional drawings to be acknowledged. The award ceremony was held in the scope of the Festival of Science in the Technical Museum in Zagreb on April 25, 2015.

Two maps of the Croatian Mountain Rescue Service, two wall world maps, *Web-Cartography* lecture notes by R. Župan and S. Frangeš and the *Geochemical Atlas of Sisak* by A. Šorša and J. Halamić were exhibited at the map and cartographic products exhibition in Rio.

M. Lapaine was acknowledged for chairing the Commission on Map Projections from 2011 to 2015 and was elected again for 2015–2019.

Exhibitions, lectures and other activities in 2015

- Tourist-Mountaineering Maps of the Croatian Mountain Rescue Service, exhibition on the 1st floor of the Faculty of Geodesy, University of Zagreb, opened on February 24, 2015. The exhibition was transferred to the Marko Marulić City Library in Split and opened on September 14, 2015

- Exhibition "Herzegovina on maps and plans", 1st floor of the Faculty of Geodesy, University of Zagreb, opened on December 12, author M. Alilović
- Exhibition on the occasion of the 250th anniversary of forestry in Croatia at the Faculty of Forestry, University of Zagreb, titled "Forestry maps and plans – from the history of forest management in Croatia", authors R. Pernar and M. Jurić
- Exhibition "In the wake of Roman agrimensores" was opened in the Technical Museum in Zagreb which was renamed to Nikola Tesla Technical Museum. The exhibition was prepared by pupils of the Geodetic Technical School from Pula, and it was opened by M. Lapaine
- M. Jurić prepared the exhibition "Vukovarsko-srijemska county on old maps and plans". The exhibition was opened in the Croatian Home in Vukovar on the occasion of the Day of the Vukovarsko-Srijemska county.
- An exhibition of tourist maps was opened on December 22, 2015 in the Museum of Tourism in Opatija, author Marija Kos.
- Promotion of the book "Herzegovina on maps and plans" in the Miroslav Krleža Lexicographic Institute in Zagreb. The book was also promoted in the Franciscan monastery of the Herzegovinian Provincial in Dubrava (Zagreb), Mostar, Velika Gorica, Ljubuško and Pleternica
- Cartography in Brazil, lecture by M. Lapaine in the Marko Marulić City Library in Split within the scope of the Croatian Mountain Rescue Service exhibition, September 14, 2015
- ICC2015 and Croatian Cartography, lecture by M. Lapaine at the Faculty of Geodesy in Zagreb, October 12, 2015
- New base geological map of the Republic of Croatia 1:50 000 – Island of Hvar (Oštrić et al. 2015), lecture by T. Korbar at the Faculty of Geodesy of the University of Zagreb, December 15, 2015
- Determination of areas from plans and maps, lecture by M. Lapaine for high school mathematics teachers in Zagrebačka county and at the 4th Congress of Croatian Court Experts and Assessors
- I. Kljajić held a lecture on Ivan Klobučarić at the international scientific conference *Seven Centuries of Augustinian Monastery in Rijeka*
- M. Viličić held a lecture on Croatia at the International Cartographic Conference in Rio de Janeiro at the 8th Symposium of Chartered Geodetic Engineers held in Opatija
- D. Tutić organized the workshop OSM Geo Awareness Week on the International GIS Day,

at the Faculty of Geodesy of the University of Zagreb, November 18, 2015

- At the beginning of November 2015, a meeting was held in Vienna of all ICA commission chairs with the new Executive Board and the new President (Prof. Meno-Jan Kraak). On the occasion, CCS president donated a wall world map in the Winkel Projection produced by M. Lapaine, Ž. Tutek and M. Triplat Horvat to past ICA President Prof. Georg Gartner. Prof. Gartner thanked for the present and was photographed on the same day in front of the new map with all members of the Executive Board and the new ICA President. Similar maps were also sent to map exhibitions in Sofia and Rio de Janeiro. The map donated to Prof. Gartner was supplemented with representations of polar areas in the azimuthal projection.

2016

The 15th Annual Assembly of CCS was held in the hall of the Faculty of Architecture, Geodesy and Civil Engineering, Kačićeva 26, Zagreb on March 18, 2016. Participants were greeted by Prof. Dr. Damir Medak, Dean of the Faculty of Geodesy. The Assembly consisted of three parts and was opened and led by Prof. Dr. Miljenko Lapaine, President of CCS. In the first, unofficial part of the assembly, M. Lapaine held a lecture titled *Ruđer Bošković, European Geodesist 2016*.

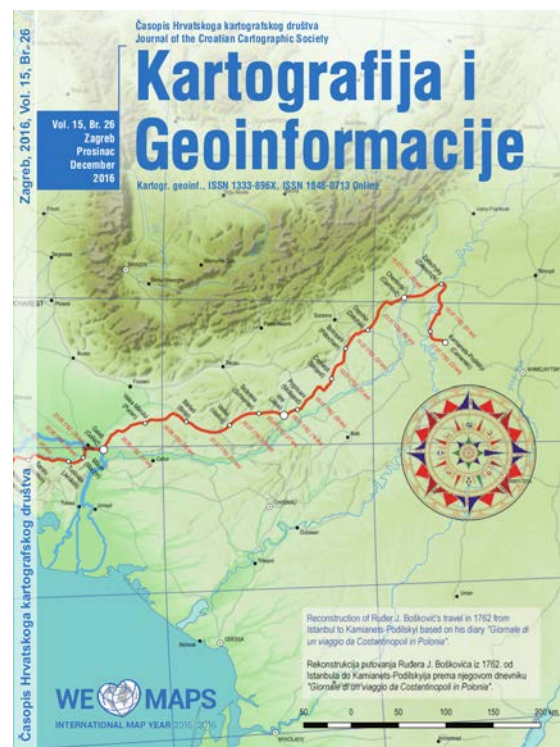
Exhibitions, lectures and other activities in 2016

- A new sheet of the Base Geological Map of the Republic of Croatia 1: 50 000 – Cres and Lošinj was presented in Cres on January 28, 2016
- A map of the Zadar Archipelago published by the Croatian Mountain Rescue Service was presented in the Zadar City Library on March 3, 2016
- M. Lapaine held an invited lecture titled "Introduction of new coordinate systems in Croatia" at the 44th Slovenian Geodetic Day, Laško, March 4, 2016
- The exhibition "Ruđer Bošković, European geodesist of 2016" was opened on March 18, 2016 at the Faculty of Geodesy in Zagreb, authors M. Lapaine and I. Kljajić
- 14th Festival of Science was held at the Nikola Tesla Technical Museum from April 18 to 23, 2016. The theme was "Art and Science". Cartography participated with following lectures:
Kljajić, I.: Internet – source of spatial data
Puceković, B.: Leonardo da Vinci and cartography
Lapaine, M.: Art and cartography – cartography and art
Kuveždić Divjak, A.: Map of Zagreb in water colours – a more subtle view of digital maps
Viličić, M., Lapaine, M.: Artistic elements on map by Stjepan Glavač from 1673

Poslončec-Petrić, V., Frangeš, S.: Cartography – science and art of representing space

- CCS celebrated its 15th birthday on October 10, 2016. CCS President held a lecture on the 15 years of CCS activities, the AutoCarto2016 conference he attended and the ICC2017 conference, to be held in Washington in 2017.
- The 12th conference on cartography and geoinformation was organized on the occasion of the World GIS Day in Zagreb from November 16 to 18, 2016. The event was co-organized by the Faculty of Geodesy and officially sponsored by ICA and the Croatian Academy of Engineering.
- I. Kljajić organized a competition of children's drawings, which are to be sent to the exhibition in Washington DC in 2017. A corresponding leaflet was produced.
- Preparations have begun for participation in the 28th International Cartographic Conference in Washington DC (July 2–7, 2017). Croatia participated with papers, products for the International Map Exhibition (two maps from the State Geodetic Administration, one each from the Croatian Geological Survey, Ministry of Defence of the Republic of Croatia and the Faculty of Geodesy, and two issues of the *Cartography and Geoinformation* journal) and six children's drawings.

Cartography and Geoinformation journal – Vol. 15, issues 25 and 26 were published.



Prof. Dr. Miljenko Lapaine was unanimously voted CCS President for 2016 and 2017.

CCS Presidency's proposal was confirmed to award Marija Brajković, MSc a CCS letter of acknowledgment for her great dedication to promoting CCS and especially organizing the 11th Cartography and Geoinformation Conference in Buzet in 2015.

Mirko Alilović, graduate engineer, received a charter for remarkable contribution to cartography, especially for his monograph "Herzegovina on maps and plans" and a series of map exhibitions in 2015 and 2016, which were the best possible way to promote cartography in the International Map Year.

2017

The 17th General Assembly of CCS was held at the Faculty of Geodesy, Kačićeva 26, in Zagreb on March 17, 2017. Dean of the Faculty of Geodesy, Prof Dr. Damir Medak greeted all present members of CCS. President of CCS, Prof. Dr. Miljenko Lapaine led the assembly, which consisted of three parts. Prof. Dr. Miljenko Lapaine held a lecture in the first unofficial part titled *2017 – A year of significant anniversaries for geodesy, astronomy, geophysics and cartography*

Exhibitions, lectures and other activities in 2017

- Festival of Science was held from April 24 to 29, 2017. CCS has participated each year. In 2017, the main themes were *Time* and the 160th anniversary of Andrija Mohorovičić's birth. At the 2017 Festival of Science we participated with:
 - M. Lapaine, I. Kljajić: Two Hundred Years of Cadastre (exhibition)
 - I. Kljajić, A. Kuveždić Divjak: Award Ceremony for the *We Love Maps* Children's World Map Competition (presentation)
 - V. Poslončec-Petrić, Ž. Bačić, D. Tutić, Z. Nevistić: Spatial Data Infrastructure and Changes on Earth (presentation)
 - M. Lapaine: 2017 – A Year of Great Anniversaries in Geodesy, Astronomy, Geophysics and Cartography (lecture)
 - A. Kuveždić Divjak, Ž. Bačić: Observation of Earth with Copernicus (presentation)
 - A ceremonial academy on the occasion of Prof. Emeritus Nedjeljko Frančula's 80th birthday, honorary member of CCS, was held at the Faculty of Geodesy on June 19, 2017. Two lectures were:
 - D. Tutić and A. Kuveždić Divjak: World Maps and the Winkel Tripel Projection
 - M. Lapaine: Map Projections without Auxiliary Surfaces
- A small reception was held after congratulating Prof. Frančula.
- M. Lapaine participated in the International Cartographic Conference and the special ICA

General Assembly in Washington D.C. from July 2 to 7, 2017. He chaired a meeting of the Commission on Map Projections, presented the paper *Loxodrome in Web-Mercator Projection*, participated in the World Cartographic Forum (meeting of all presidents of cartographic associations participating in the conference) and in the ceremonial academy in honour to Prof. H. Moellering

- The 13th International Conference on Geoheritage, Geoinformation and Cartography, Selce, September 7–9, 2017 was a success. Details can be found in the publication Program and Abstracts and the conference web-site <http://www.kartografija.hr/conf17/>.
- CCS was established on October 10, 2001. Its birthday was celebrated at the Faculty of Geodesy and involved a lecture by M. Lapaine on the International Cartographic Conference and the special ICA General Assembly held in Washington 2017 and the 13th International Conference on Geoheritage, Geoinformation and Cartography, Selce 2017. It was also the occasion of M. Lapaine's retiring, so a reception was held after the lecture.
- Dr. Ana Kuveždić Divjak and Prof. Dr. Miljenko Lapaine participated in producing a world map for an episode of *Inside the Factory* about tea which was broadcasted on BBC 2 in December 2017. The episode is very interesting, informative and amusing. The ending credits features their names, as well as Croatian Cartographic Society and Faculty of Geodesy of the University of Zagreb.



Cartography and Geoinformation journal – Vol. 16, issues 27 and 28 were published.

CCS Presidency's proposal to award Dr. Branko Puceković CCS acknowledgment for organizing the performance and conducting the Croatian choir Kučani from Kuče at the November 16, 2016 was accepted unanimously.

CCS Presidency's proposal to award the Croatian choir Kučani from Kuče CCS acknowledgment for performing at the opening ceremony of the 12th conference on cartography and geoinformation in Zagreb on November 16, 2016 was accepted unanimously.

CCS Presidency's proposal was unanimously accepted to award Mirjana Jurić, MSc the CCS Award for special contribution to cartography and especially for a series of exhibitions, workshops and lectures, which was the best possible way to promote Croatian cartography.

2018

The 18th Annual Assembly of CCS was held at the Faculty of Geodesy, Kačićeva 26, Zagreb on March 16, 2018. Participants were greeted by Assoc. Prof. Dr. Robert Župan, Vice Dean of the Faculty of Geodesy. The Assembly consisted of three parts and was opened and led by Prof. Dr. Miljenko Lapaine, President of CCS. In the first, unofficial part of the assembly, Prof. Dr. Miljenko Lapaine held a lecture *The Behrmann Projection or Don't Trust a Professor*.

Exhibitions, lectures and other activities in 2018

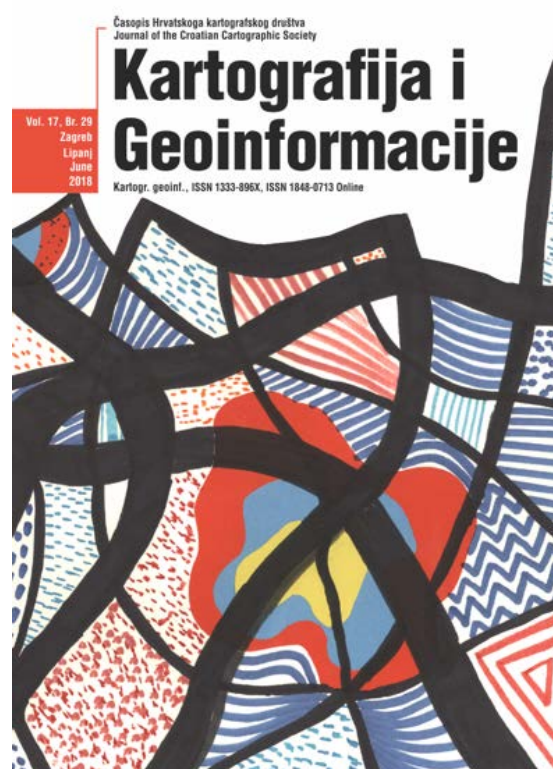
The Society organised or participated in the following exhibitions:

- 200 Years of the Franciscan Cadastre, at the Faculty of Geodesy
- Forestry Maps, at the Faculty of Geodesy
- Old Maps and Plans of Istria, at the El Magazine in Gallery in Vodnjan
- Old Cadastral Plans of Istria, at the Faculty of Geodesy, to mark SDI Day and the 14th ICGC

In cooperation with the State Geodetic Administration and University of Zagreb, Faculty of Geodesy, SDI Days and the 14th International Conference on Geoinformation and Cartography was held from 27 to 29 September 2018. More details are available at www.kartografija.hr. The following foreign guests participated: Paulo Márcio Leal de Menezes, professor from Rio de Janeiro, Brazil, Rex Cammack, professor at the University of Nebraska in Omaha, USA, Laszlo Zentai, professor at the Eötvös Loránd University in Budapest, Joep Crompvoets, professor at KU Leuven, Belgium, and Dalibor Bartonek and Radovan Machotka, professors at the Technical University in Brno.

On the third day of the conference, a tour was organised to Kloštar Ivanić and Čazma. Visits were made to the parish church of the Assumption of the Blessed Virgin Mary and the old Franciscan monastery near the church of St. John the Baptist, where a restored plaque marking the origin of the Kloštar Ivanić coordinate system was unveiled. It was used in the mid-19th century to create cadastral plans. Dr. Damir Šantek, Director of the State Geodetic Administration, addressed a few words to those present, while the plaque was unveiled by Željko Filipović, the mayor of Kloštar Ivanić.

Cartography and Geoinformation journal – Vol. 17, issues 29 and 30 were published.



Scopus informed us that our journal was evaluated again by the Scopus Content Selection & Advisory Board. It was decided that Cartography and Geoinformation would stay in Scopus without changes. The decision was explained in the following way: *This is a Croatian national geography journal with bilingual (!) (English/Croatian) articles of sufficient and consistent quality. Supporting reasons: + The journal maintains a convincing editorial policy.*

From the No. 30, each article have a DOI, thanks to the efforts of the editor-in-chief, Dr. Ana Kuveždić Divjak.

Prof. Dr. Miljenko Lapaine was voted for the CCS President for the 2018–2019 period.

The CCS Presidency's proposal to award Dr. Dubravka Mlinarić and Dr. Mira Miletić Drder for their contribution to cartography, especially co-authorship of the book *Novak Collection Mappae Croaticae in the Map and Atlas Collection of the National and University Library*, was accepted unanimously.

The CCS Presidency's proposal to acknowledge the State Geodetic Administration for supporting CCS, especially for supporting participation in the International Conference on Geoheritage, Geoinformation and Cartography held in Selce, September 7–9, 2017, was accepted unanimously.

The CCS Presidency's proposal to acknowledge the Faculty of Geodesy of the University of Zagreb for the perennial support of all activities of the CCS was also accepted unanimously.

The 19th Annual Assembly of the Croatian Cartographic Society was held on 14 December 2018 in the Council Chamber of the Faculty of Architecture, Civil Engineering and Geodesy, Kačićeva 26, Zagreb. Prof. Dr. Damir Medak, Dean of the Faculty of Geodesy, welcomed those present on behalf of the host institute. The Assembly was opened and chaired by Prof. Dr. Miljenko Lapaine, President of the Society. It was divided into three parts. The first, unofficial part, was a lecture by Prof. Dr. Robert Župan: *Impressions from China*.

The official part of the Assembly consisted of acceptance of the agenda, acceptance of the minutes of the 18th Assembly, president's report on the work of the Society in 2018, financial report for 2018, report by the Supervisory Committee, plan for 2019, financial plan for 2019, the Society awards and acknowledgements.



The President of the Croatian Cartographic Society reads the explanation of the CCS Award for Mirjana Jurić, MSc

The proposal of the Society's Presidency that Milka Kosanović and Germano Fioranti be awarded the Society's Charter was applauded. The award was for their contributions to cartography, particularly for the *Old Maps and Plans of Istria* exhibition held in August and September 2018 in Vodnjan.

The proposal of the Society's Presidency that the Croatian Chamber of Chartered Geodesy Engineers be awarded an acknowledgment for their support for the CCS, particularly for the journal *Cartography and Geoinformation*, was also applauded.

The proposal of the Society's Presidency that Geomatika-Smolčak d.o.o. be awarded an acknowledgment for its many years of support for the Society's activities was also accepted unanimously.

2019

A Grant Contract for the Project "Public Availability of Felbar Collection" was signed. Financial support was spent in accordance with the contract (description of maps, description of books, translation into German, translation into English and posting to the web). The Felbar Collections web-site is updated and available at www.felbar.com.

Lecture by Dr. Dubravka Mlinarić "Private Cartographic Collections as a Croatian Cultural Heritage: Reflection of Accessibility to Historical Heritage" was held on May 16, 2019 in the Croatian State Archives in Zagreb. Dr. Mlinarić talked about the Collection Novak and the Collection Felbar.

Activities related to the 29th International Cartographic Conference and the 17th General Assembly of ICA:

- At the request of ICA President Prof. Dr. Meno-Jann Kraak, comments on the ICA Strategic Plan for 2019–2027 were delivered.
- The public was informed about collecting data on activities in the field of cartography in Croatia for the period 2015–2019 for the purpose of drafting the National Report which should be submitted by 15 June 2019.
- The public was informed about the possibilities of participating in the international map exhibition in Tokyo.
- A competition has been launched for children's drawing and this will be coordinated on behalf of the Society in Croatia by Dr. Ivka Kljajić. The competition for children's drawings on the theme *We love maps* has been luckily drawn to the end. 227 children's artworks arrived. The Committee composed of Prof. Art Ines Krasić, Assoc. Prof. Art Tomislav Buntak and Assist. Prof. Art Igor Čabraja from the Academy of Fine Arts of the University of Zagreb, Prof. Emer. Miljenko Lapaine and Assist. Prof. Ivka Kljajić from the Faculty of Geodesy of the University of Zagreb selected six children's drawings that will be exhibited at the 29th International Cartographic Conference in Tokyo, 15–20 July 2019.

In the Gallery on the 1st floor of the Faculty of Geodesy of the University of Zagreb, the exhibition "We love maps" was set up with drawings of chil-

dren whose works have been awarded or commended.

On April 13, 2019, during the Festival of Science organized in the Technical Museum Nikola Tesla in Zagreb, the CCS organized a ceremony for all children participated in the competition. The best children's artworks were awarded.

Details are available at www.kartografija.hr, and a report was prepared to be published in *Cartography and Geoinformation* journal.

15th International Conference on Geoinformation and Cartography

In cooperation with the University of Zagreb, Faculty of Geodesy, the 15th International Conference on Geoinformation and Cartography will be held from 26 to 29 September 2019 in Zagreb, Vodnjan, Pula, Brijuni Islands and Venice. The invited lecturers are E. Lynn Usery, Adrijana Car and Henrik Hargitai. The conference is endorsed by the ICA, Croatian Academy of Engineering, and Universities in Zagreb, Zadar and Pula. More details are available at www.kartografija.hr.

Cartography and Geoinformation journal – Vol. 18, issues 31 and 32 are in preparation.

More information on CCS activities can be found at www.kartografija.hr.

6 Acknowledgements

The author would like to thank the persons who had helped in collecting the data for this report. They are listed in alphabetical order:

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Mirjana Jurić, Croatian State Archive

Vinka Kolić, Hydrographic Institute of the Republic of Croatia

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Vladimir Kušan, OIKON Ltd.

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Marijan Marjanović, State Geodetic Administration

Dubravka Mlinarić, Institute for Migration and Ethnic Studies

Branka Poljak, CroMaps

Vesna Poslončec Petrić, Faculty of Geodesy, University of Zagreb

Blaženka Preradović, Croatia Control Ltd.

Dragan Roša, Observatory Zagreb

Blaženka Vuković, Croatian Bureau of Statistics

Robert Župan, Faculty of Geodesy, University of Zagreb

7 Bibliography 2015 – 2019

Bačić, Željko; Cromptvoets, Joep; Poslončec-Petrić, Vesna (2018): BESTSDI Project SDI Curriculum Implementation at Academic Institutions in the Region // SDI Days 2018 and 14th International Conference on Geoinformation and Cartography - Program and Abstracts. Zagreb : Hrvatsko kartografsko društvo, 39–39 (predavanje, sažetak, znanstveni)

Bačić, Željko; Ključanin, Slobodanka; Poslončec-Petrić, Vesna (2017): Analysis of mid-term national spatial data infrastructure strategies in the Western Balkan // Scientific Journal of Civil Engineering. 6, 2; 85–92 (članak, znanstveni)

Bačić, Željko; Poslončec-Petrić, Vesna (2016): BESTSDI Project – Modernization and standardization of SDI education in region // 12th International Scientific and Professional Conference on Contemporary Theory and Practice in Construction / Antunović, Biljana (ed), Banja Luka : University of Banja Luka, Faculty of Architecture, Civil Engineering and Geodesy, 677–684 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni)

Bačić, Željko; Poslončec-Petrić, Vesna; Tutić, Dražen (2018): New Competences in Academic Education Through Realisation of the BESTSDI and EO4GEO Projects // International Scientific Conference On Contemporary Theory And Practice In Construction XIII / Antunović, Biljana (ed), Banja Luka : University of Banja Luka, Faculty of Architecture, Civil Engineering and Geodesy, 421–428 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni)

Balaško, Matija; Tutić, Dražen; Kuveždić Divjak, Ana (2017): Augmented Reality Sandbox in the Classroom. // Abstracts - 20th Scientific-Professional Colloquium on Geometry and Graphics / Došlić, Tomislav ; Jurkin, Ema (ur.) Zagreb: Croatian Society for Geometry and Graphics, 45–45 (poster, sažetak, stručni)

Balaško, Matija; Tutić, Dražen; Kuveždić Divjak, Ana (2017): Augmented Reality Sandbox in the Classroom. // Abstracts - 20th Scientific-Professional Colloquium on Geometry and Graphics / Došlić, Tomislav ; Jurkin, Ema (ed). Zagreb: Croatian Society for Geometry and Graphics, 45–45 (poster, sažetak, stručni)

Balenović, I., Luka Jurjević, Anita Simic Milas, Mateo Gašparović, Ante Seletković, Goran Tijan, Danijela Ivanković, Alen Berta, Hrvoje Marjanović (2018): The Influence of DTM Type on Mean Tree Height Estimates From UAV-Based Images, Natural Resources, Green Technology & Sustainable Development-Green/3 (Poster presentation, 5-8 June 2018, Zagreb, Croatia)

Balenović, I., Mateo Gašparović, Anita Simic Milas, Alen Berta, Ante Seletković (2017): Accuracy assessment of digital terrain models of lowland pedunculate oak forests derived from airborne laser scanning and photogrammetry, CROJFE j. for. eng. 39(2018)1 p. 117–128

Baričević, Vladimir; Landek, Ivan; Šantek, Damir (2018): Poboljšanje modela podataka CROTIS-a za temeljni paket i objektne cjeline Građevine i Promet. // Geodetski list, 73(95), 4; 277–292 (međunarodna recenzija, pregledni rad, znanstveni)

Baričević, Vladimir; Vilus, Igor; Landek, Ivan (2018): Korištenje službenih topografskih podataka kod izrade prostornih planova nove generacije // Geodezija i drugi / Paar, Rinaldo (ed), Zagreb: Hrvatska komora ovlaštenih inženjera geodezije, 127–133 (predavanje, domaća recenzija, sažetak, ostalo)

Berta A., V. Kušan, Z. Mesić, D. Križnjak, (2017): New findings for GHG National Inventory Report – woodstocks of the shrublands and waquies in the Croatian Mediterranean and sub-Mediterranean, Third regional conference on environmental impact assessment, Book of abstracts, Vodice, Croatia, p. 148

Berta, A., Ante Seletković, Ivan Balenović, Zrinka Mesić, Ivona Žiža, Davor Korman, Nela Jantol, Vladimir Kušan (2018): Tree species classification in forests of Central Croatia using Sentinel 2 data and data mining, Natural Resources, Green Technology & Sustainable Development-Green/3 (Oral presentation, 5-8 June 2018, Zagreb, Croatia)

Berta, A., V. Kušan, D. Stojšavljević, D. Hatić, (2016) Variability of the basic possession parameters in privately-owned forests in Croatia, Conference proceedings, Radojčić Redovniković, I., V.Gaurina Srček, K. Radošević, T. Jakovljević, R. Stojaković, D. Erdec Hendrih (ed): Natural resources, green technology and sustainable development, GREEN2016, 5. – 7. 10. 2016., Zagreb, p. 3-8 (međunarodna recenzija, znanstveni) <http://www.sum-ins.hr/wp-content/uploads/2017/05/Proceedings-GREEN2-2016.pdf>

Berta, A., V. Kušan, J. Križan, D. Stojšavljević, D. Hatić, D (2017): Posjedovne i površinske značajke šuma šumoposjednika u Hrvatskoj prema regijama (Estate characteristics of private-owned forests in Croatia according to regions), Šumarski list, 1–2 (2017): 57–65

Berta, A., V. Kušan, V. Šteko (2015): Evaluation of vegetation as a landscape component: Case study Veli Brijun island, Second regional conference on environmental impact assessment 2015, Novi Vinodolski, Book of Abstracts, 22

Berta, A., V. Kušan, Z. Mesić, D. Stojšavljević, D. Hatić, (2016): Use of high resolution multispectral

satellite images in determining the degree of productivity and age of uneven-aged stands of private forest owners in the Mediterranean and Sub-mediterranean, Abstract Book, ESA EO Summer School – Earth system monitoring & modelling, 1–12 August 2016, ESA – ESRIN, Frascati, Rome, Italy, (Poster presentation, međunarodna recenzija, znanstveni), <https://earth.esa.int/documents/973910/2588760/EO-Summer-School-2016-Abstract-Book>

Berta, A., Z. Mesić, E. Lugić, A. Ostojić, M. Petković, S. Sviben, D. Korman, N. Jantol, V. Kušan (2018): Monitoring of invasiveness of the oak lace bug *Corythucha arcuata* (say, 1832) in Spačva Basin, Croatia by Modis satellite, Book of Abstracts, S. D. Jelaska (ur.): 3rd Croatian Symposium on Invasive Species, 26–27 November 2018 Zagreb, Croatia (predavanje, međunarodna recenzija, sažetak, znanstveni), p. 36, <http://www.ekolosko-drustvo.hr/3CSIS-book-of-abstracts.pdf>

Berta, A., Z. Mesić, T. Levanić, I. Žiža, D. Korman, N. Jantol, D. Hatić, V. Kušan (2018): Monitoring age of private owned Holm oak (*Quercus ilex* L.) and *Pubescent oak* (*Quercus pubescens* Willd.) forests in Croatian Mediterranean and sub-Mediterranean with Sentinel 2 multispectral satellite, Geophysical Research Abstracts Vol. 20, EGU2018-13784-1, 2018 EGU General Assembly 2018©, 9–13 April 2018, Vienna, Austria, (Poster presentation, međunarodna recenzija, znanstveni), <https://meetingorganizer.copernicus.org/EGU2018/EGU2018-13784-1.pdf>, <https://meetingorganizer.copernicus.org/EGU2018/posters/27624>

Branko Puceković (2015): Uvod u ontologiju u kartografiji // 11. savjetovanje Kartografija i geoinformacije, Buzet, Hrvatska (predavanje, domaća recenzija, neobjavljeni rad, ostalo)

Branko Puceković (2016): Leonardo da Vinci i kartografija. // 14. festival znanosti u Tehničkom muzeju "Nikola Tesla", Zagreb, Hrvatska (predavanje, pp prezentacija, stručni)

Brkić, Davorka; Landek, Ivan; Marjanović, Marijan (2016): Propisi vezani za dobivanje odobrenja za snimanje iz zraka bespilotnim zrakoplovima // Geodezija kao profesija / Ronaldo, Paar ; Olga Bjelotomić (ed), Zagreb: Hrvatska komora ovlaštenih inženjera geodezije, 122–122 (predavanje, međunarodna recenzija, sažetak, stručni)

(COST Action TD1202) Demetris Demetriou, Michele Campagna, Ivana Racetin, Milan Konecny (2017): Integrating Spatial Data Infrastructures (SDIs) with Volunteered Geographic Information (VGI) for creating a Global GIS platform. // Mapping and the Citizen Sensor / Foody, Giles ; See, Linda ; Fritz, Steffen ; Mooney, Peter (eds), London: Ubiquity Press Ltd., 273-297 doi:10.5334/bbf

(COST Action project TD1202) Demetriou, Demetris; Campagna, Michele; Racetin, Ivana; Konecny

Milan (2017): A discussion for integrating INSPIRE with volunteered geographic information (VGI) and the vision for a global spatial-based platform. // Proceedings of SPIE, the International Society for Optical Engineering, 10444 (2017), 10444 OE, 10 doi:10.1117/12.2277194 (međunarodna recenzija, pregledni rad, znanstveni)

Čuka, Anica; Blaće, Ante; Faričić, Josip (2017): Historic Land-Use Evolution of a Small Island – Case Study of Žirajsko Polje on Žirje Island, Croatia. // ESEH conference - Natures in between. Environments in areas of contact among states, economic systems, cultures and religions, Zagreb. Hrvatska (predavanje, međunarodna recenzija, neobjavljeni rad, znanstveni)

Čuka, Anica; Mirošević, Lena; Faričić, Josip; Gracovac Matassi, Vera (2017): Phylloxera revisited: the spread of grapevine disease in Dalmatia and its influence on socio-economic development and agricultural landscape. // Annales-Anali za Istrske in Mediteranske Studije-Series Historia et Sociologia, 27, 1; 101–118 doi:10.19233/ASHS.2017.09 (međunarodna recenzija, članak, znanstveni)

Dinar, Ilma; Ključanin, Slobodanka; Poslončec-Petrić, Vesna (2015): Large Scale Topographic Maps Generalisation and Visualization Based on New Methodology. // Geodetski list : glasilo Hrvatskoga geodetskog društva, 69 (92), 3; 189–198 (prethodno priopćenje, znanstveni)

Dinar, Ilma; Ključanin, Slobodanka; Poslončec-Petrić, Vesna (2016): Proposition of new methodology for developing basic topographic maps based on real estate cadastre database. // Tehnički vjesnik : znanstveno-stručni časopis tehničkih fakulteta Sveučilišta u Osijeku, 6; 1849–1854 (prethodno priopćenje, znanstveni)

Divjak, Dragan; Tutić, Dražen; Roić, Miodrag (2017): Otvorena znanost u projektu "Razvoj višenamjenskog sustava upravljanja zemljištem - DEMLAS". // Zbornik radova X. simpozija ovlaštenih inženjera geodezije - Prostorni registri za budućnost, Opatija, Hrvatska, 78–83 (predavanje, domaća recenzija, cjeloviti rad (in extenso), stručni)

Dumbović Bilušić B., V. Kušan, K. Lisavac, J. Franović, J. Katelan, D. Petrović, M. Bilušić, A. Mihulja, (2015): Kulturni pejzaž Vrmca, Opština Tivat, KZU Napredak Gornja Lastva, Expeditio Kotor, 1–173

Faričić, J. (ed, 2016): Riznica glagoljaške kulture i hrvatske pismenosti otoka Rave: I – Glagoljske matične knjige župe Uznesenja Blažene Djevice Marije na Ravi 1613. – 1830. ; II – Glagoljska madrikula Bratovštine sv. Roka 1764. – 1892. i Glagoljska kopija iz Libra kvaterna 1769. – 1849. ; III – Fatevićev zbornik duhovnog štiva 1617. ; IV – Svaštice., Zadar: Stalna izložba crkvene umjetnosti - Zadar i Sveučilište u Zadru (monografija)

- Faričić, J. (ed, 2016): *Zemunik u prostoru i vremenu*, Zadar: Sveučilište u Zadru (monografija)
- Faričić, J. (ed, 2017): *Kali.*, Zadar: Sveučilište u Zadru, Hrvatska akademija znanosti i umjetnosti i Općina Kali, (monografija)
- Faričić, J. (ed, 2017): *Rječnik i govor starih žitelja otoka Rave.*, Zadar: Ogranak Matice hrvatske u Zadru, (rječnik)
- Faričić, J. (ed, 2017): *Župa Ljubač – zrcalo povijesnih i geografskih mijena u sjeverozapadnom dijelu Ravnih kotara*, Zadar: Sveučilište u Zadru i Župa sv. Martina u Ljupču, (monografija)
- Faričić, Josip (2015): *Dolasci sv. Franje Asiškog na hrvatsku obalu u kontekstu pomorsko-geografskog sustava Jadrana*. // *Kačić : zbornik Franjevačke provincije Presvetoga Otkupitelja*, 46-47, 1; 67–90 (podatak o recenziji nije dostupan, članak, znanstveni)
- Faričić, Josip (2015): *Karol Wojtyła – „Božji putnik“*. // *Ivan Pavao II - putnik, suputnik i navjestitelj / Ražov, Elvis* (ed), Zadar: Zadarska nadbiskupija i Sveučilište u Zadru, 31–46
- Faričić, Josip (2016): *Geografska imena na starim kartografskim prikazima šibenskih otoka*. // *Toponimija šibenskog otočja / Skračić, Vladimir* (ed), Zadar: Sveučilište u Zadru, 247–308
- Faričić, Josip (2016): *Geografski aspekti djelovanja Ruđera Josipa Boškovića*. // *Ruđer Bošković i geoznanosti / Ruđer Bošković and the Geosciences / Lapaine, Miljenko* (ed), Zagreb: Geodetski fakultet Sveučilišta u Zagrebu ; Državna geodetska uprava ; Hrvatska komora ovlaštenih inženjera geodezije, 315–325
- Faričić, Josip (2016): *Kartografski izvori geografskih podataka o ranonovovjekovnom Novigradu*. // *Novigrad nekad i sad / Kaštela, Slobodan* (ed) Zadar: Sveučilište u Zadru, Hrvatska akademija znanosti i umjetnosti, Matica hrvatska i Općina Novigrad, 260–291
- Faričić, Josip (2016): *Rava – mali otok s bogatom riznicom glagoljaške baštine*. // *Riznica glagoljaške kulture i hrvatske pismenosti otoka Rave / Bunčuga, Blaga ; Faričić, Josip ; Kero, Pavao* (eds), Zadar: Stalna izložba crkvene umjetnosti - Zadar i Sveučilište u Zadru, 7–10
- Faričić, Josip (2016): *Zemunik na starim geografskim kartama – rekonstrukcija razvoja i značenja ravnokotarskoga naselja u svjetlu kartografskih izvora*. // *Zemunik u prostoru i vremenu / Faričić, Josip ; Dundović, Zdenko* (eds), Zadar: Sveučilište u Zadru, 198–225
- Faričić, Josip (2017): *Kartographische Tätigkeiten in Dalmatien während der zweiten österreichischen Herrschaft*. // *Kroatiens Küste im Lichte der Habsburgermonarchie / Stojić, Aneta ; Pavić Pintarić, Anita* (eds) Wien: New Academic Press, 141–159
- Faričić, Josip (2017): *Ljubač na starim kartama: od geografske percepcije do kartografske vizualizacije*. // *Župa Ljubač – zrcalo povijesnih i geografskih mijena u sjeverozapadnom dijelu Ravnih kotara / Faričić, Josip, Lenkić, Jerolim* (eds), Zadar: Sveučilište u Zadru i Župa sv. Martina u Ljupču, 204–236
- Faričić, Josip (2017): *Uvodne crtice o Kalima* // *Kali / Faričić, Josip* (ed), Zadar: Sveučilište u Zadru, Hrvatska akademija znanosti i umjetnosti i Općina Kali, 15–22
- Faričić, Josip (2018): *Descriptio silvae – Prikazi šuma u hrvatskom primorskom prostoru tijekom 16. stoljeća* // *Ekonomika i ekohistorija : časopis za gospodarsku povijest i povijest okoliša*, 14, 1; 120–135 (recenziran, članak, znanstveni)
- Faričić, Josip (2018): *Pakoštane u svjetlu kartografskih izvora: položaj i značenje maloga hrvatskog naselja u velikom sustavu Sredozemlja i Jadrana* // *Pakoštane – Veli Školj: Kasnoantički brodolom u geološko-geografskom i kulturno-povijesnom kontekstu / Radić Rossi, Irena ; Boetto, Giulia* (eds). Zadar: Sveučilište u Zadru, 135–159
- Faričić, Josip; Čuka, Anica: *Blaće, Ante* (2019): *Potentials, perspectives and challenges in tourism development on Croatian Islands – differentiation and classification of islands according to their complex geographies* // *Re-imagining Europe's Future Society and Landscapes*, Galway, 186–186 (predavanje, međunarodna recenzija, sažetak, znanstveni)
- Faričić, Josip; Mirošević, Lena (2017): *Carta di cabotaggio del Mare Adriatico (1822-1824) : A Turning-Point in the Development of Adriatic Maritime Cartography* // *Imago Mundi*, 69, 1; 99–111 doi:10.1080/03085694.2017.1242846 (međunarodna recenzija, članak, znanstveni)
- Frančula, Nedjeljko (2015): *Besplatne Esrijeve e-knjige* // *Geodetski list*, 69, 3; 240–240 (<https://www.bib.irb.hr/779624>)
- Frančula, Nedjeljko (2015): *Dobrovoljno kartografiranje u kriznim situacijama* // *Geodetski list*, 69 (92), 2; 164–166 (<https://www.bib.irb.hr/771564>)
- Frančula, Nedjeljko (2015): *Geolocirani Twitter - globalni izvor podataka o mobilnosti ljudi* // *Geodetski list*, 69 (92), 2; 161–162 (<https://www.bib.irb.hr/771560>)
- Frančula, Nedjeljko (2015): *Geoprostorna inteligencija i masovna podrška* // *Geodetski list*, 69, 3; 228–228 (<https://www.bib.irb.hr/779607>)
- Frančula, Nedjeljko (2015): *Geoprostorno obavljanje* // *Geodetski list*, 69, 4; 306–306 (<https://www.bib.irb.hr/793234>)

Frančula, Nedjeljko (2015): Googleov Street View pokriva cijelu Hrvatsku // Geodetski list, 69, 1; 62–63 (<https://www.bib.irb.hr/757474>)

Frančula, Nedjeljko (2015): Hrvatska po broju suradnika OpenStreetMapa na milijun stanovnika u listopadu 2014. među najboljima na svijetu // Geodetski list, 69, 3; 241–241 (<https://www.bib.irb.hr/779625>)

Frančula, Nedjeljko (2015): Istraživački potencijal Twittera – izbor iz literature // Geodetski list, 69 (92), 2; 163–164 (<https://www.bib.irb.hr/771563>)

Frančula, Nedjeljko (2015): Karte za automobile bez vozača // Geodetski list, 69, 1; 64–65 (<https://www.bib.irb.hr/757477>)

Frančula, Nedjeljko (2015): Kartografiranje društvenih medija i velikih podataka // Geodetski list, 69, 4; 339–340 (<https://www.bib.irb.hr/793249>)

Frančula, Nedjeljko (2015): Kartografiranje kibernetičkog prostora i društveni mediji // Geodetski list, 69 (92), 2; 159–159 (<https://www.bib.irb.hr/771556>)

Frančula, Nedjeljko (2015): Kartografska kakofonija // Geodetski list, 69 (92), 2; 162–163 (<https://www.bib.irb.hr/771561>)

Frančula, Nedjeljko (2015): Kibernetička kartografija // Geodetski list, 69 (92), 2; 144–144 (<https://www.bib.irb.hr/771538>)

Frančula, Nedjeljko (2015): Kombinacijom Google Maps i poruka s Twittera nastaje karta snježnih oborina Ujedinjenog Kraljevstva // Geodetski list, 69 (92), 2; 160–160 (<https://www.bib.irb.hr/771559>)

Frančula, Nedjeljko (2015): Masovna podrška u poboljšanju topografskih informacija SAD-a // Geodetski list, 69, 4; 338–338 (<https://www.bib.irb.hr/793247>)

Frančula, Nedjeljko (2015): Masovno skupljanje podataka i masovna podrška // Geodetski list, 69, 3; 226–226 (<https://www.bib.irb.hr/779603>)

Frančula, Nedjeljko (2015): Nacionalne geodetsko-kartografske agencije // Geodetski list, 69, 1; 56–56 (<https://www.bib.irb.hr/757471>)

Frančula, Nedjeljko (2015): Najcitiraniji kartografi prema Google Scholaru // Geodetski list, 69, 1; 61–62 (<https://www.bib.irb.hr/757472>)

Frančula, Nedjeljko (2015): Novi sadržaji u geodeziji i geoinformatici zabilježeni u Hrvatskoj znanstvenoj bibliografiji // Geodetski list, 69, 4; 308–310 (<https://www.bib.irb.hr/793238>)

Frančula, Nedjeljko (2015): Pametne karte i pametno kartografiranje // Geodetski list, 69, 3; 227–227 (<https://www.bib.irb.hr/779604>)

Frančula, Nedjeljko (2015): ResearchGate // Geodetski list, 69, 4; 311–311 (<https://www.bib.irb.hr/793243>)

Frančula, Nedjeljko (2015): Revolucija u kartografiji // Geodetski list, 69, 3; 238–239 (<https://www.bib.irb.hr/779623>)

Frančula, Nedjeljko (2015): Rezolucija Opće skupštine Ujedinjenih naroda o ulozi geodezije u održivom razvoju // Geodetski list, 69, 1; 64–64 (<https://www.bib.irb.hr/757476>)

Frančula, Nedjeljko (2015): Sekcija za geoprostorne informacije Ujedinjenih naroda // Geodetski list, 69, 4; 307–307 (<https://www.bib.irb.hr/793235>)

Frančula, Nedjeljko (2015): Skupljanje ili prikupljanje podataka // Geodetski list, 69, 4; 305–306 (<https://www.bib.irb.hr/793242>)

Frančula, Nedjeljko (2015): Talijanske općine na Twitteru // Geodetski list, 69 (92), 2; 158–158 (<https://www.bib.irb.hr/771552>)

Frančula, Nedjeljko (2016): Alat za usporedbu karata na internetu // Geodetski list, 70, 2; 191–191 (<https://www.bib.irb.hr/830789>)

Frančula, Nedjeljko (2016): Analiza satelitskih snimaka uz masovnu podršku uklopljena u računalnu igru // Geodetski list, 70, 3; 305–305 (<https://www.bib.irb.hr/846433>)

Frančula, Nedjeljko (2016): Digitalna Zemlja // Geodetski list, 70, 2; 199–200 (<https://www.bib.irb.hr/830946>)

Frančula, Nedjeljko (2016): Digitalni akademski arhivi i repozitoriji (Dabar) // Geodetski list, 70, 1; 97–97 (<https://www.bib.irb.hr/812666>)

Frančula, Nedjeljko (2016): Faktor odjeka geodetskih časopisa za 2015. // Geodetski list, 70, 4; 395–396 (<https://www.bib.irb.hr/868501>)

Frančula, Nedjeljko (2016): Geodetski časopisi u Emerging Sources Citation Indexu // Kartografija i geoinformacije, 15, 25; 138–139

Frančula, Nedjeljko (2016): Geodetski časopisi u Scopusu // Geodetski list, 70, 2; 178–182 (<https://www.bib.irb.hr/830785>)

Frančula, Nedjeljko (2016): Geo-spatial Information Science // Geodetski list, 70, 4; 405–406 (<https://www.bib.irb.hr/868506>)

Frančula, Nedjeljko (2016): ISPRS International Journal of Geo-Information // Geodetski list, 70, 1; 119–119 (<https://www.bib.irb.hr/812673>)

Frančula, Nedjeljko (2016): Kartografski časopisi u Scopusu // Kartografija i geoinformacije, 15, 25; 136–139

- Frančula, Nedjeljko (2016): Kartografski sadržaji u *Journal of Geography* // *Kartografija i geoinformacije*, 15, 25; 140–141
- Frančula, Nedjeljko (2016): *Natural Hazards and Earth System Sciences* // *Geodetski list*, 70, 2; 194–195 (<https://www.bib.irb.hr/830809>)
- Frančula, Nedjeljko (2016): *Otvoren pristup časopisima Taylor & Francis za hrvatsku akademsku i znanstvenu zajednicu* // *Geodetski list*, 70, 3; 283–283 (<https://www.bib.irb.hr/846326>)
- Frančula, Nedjeljko (2016): *Otvorena znanost* // *Geodetski list*, 70, 4; 394–394. (<https://www.bib.irb.hr/868500>)
- Frančula, Nedjeljko (2016): *Položajna točnost snimaka Google Eartha na području Rima* // *Geodetski list*, 70, 2; 198–199 (<https://www.bib.irb.hr/830941>)
- Frančula, Nedjeljko (2016): *Primjena Twittera nakon potresa u Japanu 2011.* // *Geodetski list*, 70, 4; 405–405 (<https://www.bib.irb.hr/868505>)
- Frančula, Nedjeljko (2016): *Primjene Google Eartha u geodeziji i kartografiji – Izbor iz literature* // *Geodetski list*, 70, 2; 196–198 (<https://www.bib.irb.hr/830936>)
- Frančula, Nedjeljko (2016): *Robotičko kartiranje* // *Geodetski list*, 70, 2; 176–176 (<https://www.bib.irb.hr/830781>)
- Frančula, Nedjeljko (2016): *Sadašnje stanje u masovnom prikupljanju geoinformacija* // *Geodetski list*, 70, 2; 201–202 (<https://www.bib.irb.hr/830948>)
- Frančula, Nedjeljko (2016): *Sudjelovanje javnosti u znanstvenim istraživanjima* // *Geodetski list*, 70, 1; 95–96 (<https://www.bib.irb.hr/812663>)
- Frančula, Nedjeljko (2016): *UN-GGIM: Budući trendovi u digitalnom kartografiranju* // *Geodetski list*, 70, 1; 98–99 (<https://www.bib.irb.hr/812671>)
- Frančula, Nedjeljko (2017): *Analiza prometa primjenom dobrovoljnih geoinformacija* // *Geodetski list*, 71, 3; 266–267 (<https://www.bib.irb.hr/909008>)
- Frančula, Nedjeljko (2017): *Digitalna zbirka Hrvatske akademije znanosti i umjetnosti* // *Geodetski list*, 71, 4; 365–366 (<https://www.bib.irb.hr/933273>)
- Frančula, Nedjeljko (2017): *Digitalna Zemlja i veliki podaci* // *Geodetski list*, 71, 1; 97–97 (<https://www.bib.irb.hr/877613>)
- Frančula, Nedjeljko (2017): *Ere mrežnog kartografiranja* // *Geodetski list*, 71, 4; 361–362 (<https://www.bib.irb.hr/933175>)
- Frančula, Nedjeljko (2017): *Geodetski list uvršten u Emerging Sources Citation Index* // *Geodetski list*, 71, 4; 364–365 (<https://www.bib.irb.hr/933184>)
- Frančula, Nedjeljko (2017): *Google Znalac u preporuci Rektorskog zbora* // *Geodetski list*, 71, 3; 256–257 (<https://www.bib.irb.hr/909005>)
- Frančula, Nedjeljko (2017): *Kartografski sadržaji na Facebooku.* // *Kartografija i geoinformacije*, 16, 28; 128–131
- Frančula, Nedjeljko (2017): *Kartografski sadržaji na Twitteru* // *Kartografija i geoinformacije*, 16, 27; 162–165
- Frančula, Nedjeljko (2017): *Polish Cartographical Review* // *Kartografija i geoinformacije*, 16, 27; 160–161
- Frančula, Nedjeljko (2017): *Primjena dobrovoljnih geoinformacija u državnim geodetsko-kartografskim agencijama* // *Geodetski list*, 71 (94), 2; 178–179 (<https://www.bib.irb.hr/903325>)
- Frančula, Nedjeljko (2017): *Primjena Twittera u obrazovanju* // *Geodetski list*, 71, 1; 98–98 (<https://www.bib.irb.hr/877614>)
- Frančula, Nedjeljko (2017): *Računalstvo u oblaku budućnost je kartografije* // *Geodetski list*, 71, 3; 267–268 (<https://www.bib.irb.hr/909010>)
- Frančula, Nedjeljko (2017): *U povodu 65. rođendana prof. dr. sc. Miljenka Lapainea* // *Geodetski list*, 71, 4; 367–369 (<https://www.bib.irb.hr/933276>)
- Frančula, Nedjeljko (2017): *U spomen* // *Spomenica povodom 55. godišnjice samostalnog djelovanja Geodetskog fakulteta Sveučilišta u Zagrebu 1962–2017* / Frangeš, Stanislav (ed), Zagreb: Sveučilište u Zagrebu - Geodetski fakultet, 355–360 (<https://www.bib.irb.hr/923934>)
- Frančula, Nedjeljko (2017): *Web 3.0 - semantički web* // *Geodetski list*, 71 (94), 2; 163–163 (<https://www.bib.irb.hr/903324>)
- Frančula, Nedjeljko (2018): *Besplatna knjiga na internetu: Mapping and the Citizen Sensor* // *Geodetski list*, 72, 2; 170–171 (<https://www.bib.irb.hr/949832>)
- Frančula, Nedjeljko (2018): *Big Data & Society* // *Geodetski list*, 72, 1; 69–69 (<https://www.bib.irb.hr/938413>)
- Frančula, Nedjeljko (2018): *Bolje je hrvatski* // *Geodetski list*, 72, 3; 231–233 (<https://www.bib.irb.hr/969637>)
- Frančula, Nedjeljko (2018): *Digitalni blizanci* // *Geodetski list*, 72, 4; 311–311 (<https://www.bib.irb.hr/983758>)
- Frančula, Nedjeljko (2018): *Geodetski list uvršten u ESCI već od 2005. godine* // *Geodetski list*, 72, 3; 235–236 (<https://www.bib.irb.hr/969666>)
- Frančula, Nedjeljko (2018): *Geomatika u eri velikih podataka* // *Geodetski list*, 72, 1; 67–68 (<https://www.bib.irb.hr/938412>)

- Frančula, Nedjeljko (2018): Izrada kataloga uličnih drvoreda iz Google Mapsa // *Geodetski list*, 72, 1; 67–67 (<https://www.bib.irb.hr/938406>)
- Frančula, Nedjeljko (2018): Kartofonija // *Geodetski list*, 72, 3; 233–233 (<https://www.bib.irb.hr/969648>)
- Frančula, Nedjeljko (2018): Masovno opažanje // *Geodetski list*, 72, 2; 133–133 (<https://www.bib.irb.hr/949831>)
- Frančula, Nedjeljko (2018): Rudarenje podataka. // *Geodetski list*, 72, 1; 67–67 (<https://www.bib.irb.hr/938394>)
- Frančula, Nedjeljko (2018): Znanost s masovnom podrškom // *Geodetski list*, 72, 3; 231–231 (<https://www.bib.irb.hr/969375>)
- Frančula, Nedjeljko (2019): Masovno podržana izrada karata cesta za autonomna vozila // *Geodetski list*, 73 (96), 1; 84–84 (<https://www.bib.irb.hr/995158>)
- Frančula, Nedjeljko (2019): Mrežne karte Švicarske s 3D prikazom svih zgrada // *Geodetski list*, 73 (96), 1; 83–83 (<https://www.bib.irb.hr/995154>)
- Frančula, Nedjeljko; Bačić, Željko (2015): Odbor stručnjaka Ujedinjenih naroda za upravljanje geoprostornim informacijama // *Geodetski list*, 69, 4; 307–308 (<https://www.bib.irb.hr/793237>)
- Frančula, Nedjeljko; Tutić, Dražen (2016): Lokacijske usluge u zatvorenim prostorima // *Geodetski list*, 70, 2; 192–193 (<https://www.bib.irb.hr/830794>)
- Frančula, N., Lapaine, M. (2016): Mirjanka Lechthaer, In memoriam, *Kartografija i geoinformacije*, Vol. 15, Br. 26, 130–131
- Frančula, Nedjeljko; Tutić, Dražen (2018): Mrežne stranice za usporedbu kartografskih projekcija. // *Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva*, 17, 30; 116–117 (podatak o recenziji nije dostupan, prikaz, ostalo)
- Frančula, N., Lapaine, M. (2017): In memoriam doc. dr. sc. Mirjanka Lechthaler (1947–2016), *Godišnjak 2016–2017, Sveučilište u Zagrebu, Geodetski fakultet*, ed. M. Zrinjski, 23–25
- Frančula, N., Lapaine, M. (2018): Auxiliary Surfaces and Aspect of Projection / O pomoćnim ploham i aspektu projekcije, *Kartografija i geoinformacije*, vol. 17, br. 29, 84–89
- Frančula, N., Lapaine, M. (2018): Waldo Tobler (1930–2018), In memoriam / Waldo Tobler (1930–2018), In memoriam, *Kartografija i geoinformacije*, vol. 17, br. 29, 90–91
- Frangeš, Stanislav; Frančula, Nedjeljko (2015): Kartiranje i/ili kartografiranje // *Geodetski list*, 69, 1; 57–59 (<https://www.bib.irb.hr/760786>)
- Frangeš, Stanislav; Frančula, Nedjeljko; Marketić Pašić, Sonja (2017): Djelatnici Fakulteta // *Spomenica povodom 55. godišnjice samostalnog djelovanja Geodetskog fakulteta Sveučilišta u Zagrebu 1962–2017* / Frangeš, Stanislav (ed), Zagreb: Geodetski fakultet Sveučilišta u Zagrebu, 52–64 (<https://www.bib.irb.hr/979590>)
- Frangeš, Stanislav; Frančula, Nedjeljko; Odošić, Dražen (2015): O prikazu Zagreba na OpenStreetMapu // *Geodetski list*, 69, 3; 242–245 (<https://www.bib.irb.hr/779629>)
- Galić, Zdravko; Poslončec-Petrić, Vesna; Leventić, Jerko (2016): Strategija uspostave i održavanja infrastrukture prostornih podataka Federacije Bosne i Hercegovine (ekspertiza)
- Gashi, F., Lapaine, M. (2018): Fjalor shpjegues i termave dhe i shprehjeve të kadastrës, *Explanatory dictionary of terms and expressions in cadastre / Fjalor shpjegues i termave dhe i shprehjeve të kadastrës*, *Objasnidbeni rječnik termina i izraza u katastru, Kartografija i geoinformacije*, vol. 17, br. 29, 78–83
- Gašparović, M., Ante Seletković, Alen Berta, Ivan Balenović (2017): The Vertical Agreement Assessment of Photogrammetric-Based DSM from Low-Cost UAV with LiDAR-Based DSM, *South-east Eur for 8 (2): early view*. doi: <https://doi.org/10.15177/seefor.17-16>
- Glaudić, Mate; Beban-Brkić Jelka; Tutić, Dražen (2016): Graph Colouring and its Application within Cartography. // *KoG : znanstveno-stručni časopis Hrvatskog društva za konstruktivnu geometriju i kompjutorsku grafiku*, 20, 99–114 (podatak o recenziji nije dostupan, članak, stručni)
- Gorički, Martin; Poslončec-Petrić, Vesna; Frangeš, Stanislav; Bačić, Željko (2017): Analysis of Solar Potential of Roofs Based on Digital Terrain Model. // *The international archives of the photogrammetry, remote sensing and spatial information sciences (Print)*. XLII-4/W3; 37–41 (članak, znanstveni)
- Hećimović, Željko; Župan, Robert; Duplančić-Leder, Tea (2015): Unique Grid Cell Identification of Croatian Official Map Grids // *Journal of maps* 11, 3; 506–514 (članak, znanstveni)
- Hržina, D. (2016): Sky map, format 68 × 48 cm, published by the Zagreb Astronomical Observatory
- Husnjak, S., A. Bensa, V. Kušan, D. Jungić, I. Turšić (2015): Acidity of soils in Croatia, 7th Congress of the European Society for Soil Conservation, Moscow, Russian Federation, May 18–22, 2015, *Book of Abstracts*, 22
- Husnjak, S., V. Kušan (2016): Značajke i mogućnosti korištenja tla otoka Vira, u: Magaš, D., *Otok Vir, znanstvena monografija, Sveučilište u Zadru, Grad Vir*, 79–95, ISBN: 987-953-331-107-4

Idrizi, Bashkim; Pashova, Lyubka; Kabashi, Ismail; Mulić, Medžida; Krdžalić, Dževad; Tutić, Dražen; Vučetić, Nada; Kević, Karlo; Nikolić, Gojko; Đurović, Radovan (2018): Study of Length Differences from Topography to Map Projection within the State Coordinate Systems for some Countries on the Balkan Peninsula. // Proceedings of the FIG Congress 2018 – Embracing our smart world where the continents connect: enhancing the geospatial maturity of societies Istanbul, Turska, 9602, 20 (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Ivić, Majda; Kilić, Jelena; Racetin, Ivana (2018): Blockchain i njegova primjena u zemljišno-knjižnom registru. // Zbornik radova VI. hrvatski kongres o katastru / Roić, Miodrag (ed), Zagreb: Hrvatsko geodetsko društvo, 99-106 (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Jantol, N., Alen Berta, Davor Korman, Zrinka Mesić, Vladimir Kušan (2018): Remote Sensing of Burned Forest Areas Using Sentinel 2 Imagery – Comparison of Different Approaches, Natural Resources, Green Technology & Sustainable Development-Green/3 (Oral presentation, 5-8 June 2018, Zagreb, Croatia)

Jantol, N., Z. Mesić, A. Ostojić, D. Korman, S. Sviben, V. Kušan, A. Berta (2018): Black Locust (*Robinia pseudoacacia* L.) in private forests of central Croatia – current situation and possibility for remote sensed monitoring, Book of Abstracts, S. D. Jelaska (ur.): 3rd Croatian Symposium on Invasive Species, 26-27 November 2018 Zagreb, Croatia (predavanje, međunarodna recenzija, sažetak, znanstveni), p. 43, <http://www.ekolosko-drustvo.hr/3CSIS-book-of-abstracts.pdf>

Jogun, Tomislav; Vučetić, Nada; Tutić, Dražen (2016): Generalizacija geoinformacija sažimanjem. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 15, 26; 22–36 (međunarodna recenzija, pregledni rad, znanstveni)

Jovanović, Nataša; Župan, Robert (2017): Analiza stanja vegetacije prije i nakon šumskih požara pomoću satelitskih snimaka Sentinel-2 na području Dalmacije. // Geodetski list : glasilo Hrvatskoga geodetskog društva. 71 (94), 3; 233–248 (pregledni rad, znanstveni)

Jurjević, Luka; Gašparović, Mateo; Župan, Robert; Marjanović, Hrvoje; Balenović, Ivan (2018): Algoritam za modeliranje i procjenu opsega debela na temelju fotogrametrijskog oblaka točaka. // Geodetski list. 72 (95), 3; 181–196 (članak, znanstveni)

Klein, Ulrike; Tutić, Dražen (2018): Wishes and Realities in SDI Education - a Practical Example from the Western Balkans. // International Federation of Surveyors (FIG) Commission 3 Workshop and Annual Meeting "Spatial Information in the Era

of Data Science: Challenges and Practical Solutions" Naples, Italy (predavanje, međunarodna recenzija, neobjavljeni rad, stručni)

Kljajić, I., Lapaine, M. (2015): Analiza sadržaja Klobučarićevih prikaza Kvarnerskog primorja. Abstract in: Knjiga sažetaka znanstvenog skupa s međunarodnim sudjelovanjem Sedam stoljeća augustinskog samostana u Rijeci (ed. N. Kudiš), Rijeka, 22–24. 10. 2015., 24–25

Kljajić, I., Lapaine, M. (2016): Boškovićeve i Maireove karte Papinske Države / Bošković's and Maire's Maps of the Papal States, u: Ruđer Bošković i geoznanosti / Ruđer Bošković and the Geosciences (ed. M. Lapaine), Geodetski fakultet Sveučilišta u Zagrebu, Državna geodetska uprava, Hrvatska komora ovlaštenih inženjera geodezije, Zagreb, 251–295

Kljajić, I., Lapaine, M. (2018): An Analysis of Klobučarić's depictions of the Kvarner Littoral / Analiza sadržaja Klobučarićevih prikaza Kvarnerskog primorja, Kartografija i geoinformacije vol. 17, br. 30, 46–66

Kljajić, I., Mlinarić, D. (2016): Kartograf mirovnih razgraničenja: Johann Christoph Müller (1673. – 1721.), in: (eds Čoralić, L. et al.), Ljudi 18. stoljeća na hrvatskom prostoru. Od plemića i crkvenih dostojanstvenika do težaka i ribara, Hrvatska povjesnica, Monografije i studije III/70, Zagreb: Hrvatski institut za povijest, pp. 477–484

Kljajić, Ivka (2015): 15. godišnja skupština Hrvatskoga kartografskog društva. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 15, 25; 150–157 (podatak o recenziji nije dostupan, ostalo)

Kljajić, Ivka (2015): Dodjela zahvalnica na natječaju za dječju kartu svijeta "Moje mjesto u današnjem svijetu" (podatak o recenziji nije dostupan, dodjela priznanja)

Kljajić, Ivka (2015): Rezultati natječaja za dječju kartu svijeta „Moje mjesto u današnjem svijetu“ u Hrvatskoj za 2015. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 14, 23; 118–125 (podatak o recenziji nije dostupan, prikaz, ostalo)

Kljajić, Ivka (2016): Internet – izvor prostornih podataka. // 14. festival znanosti - Znanost i umjetnost, Zagreb, Hrvatska (predavanje, neobjavljeni rad, znanstveni)

Kljajić, Ivka (2017): 16. izvanredna skupština Hrvatskoga kartografskog društva. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 16, 27; 166–167 (podatak o recenziji nije dostupan, ostalo)

Kljajić, Ivka (2017): 17. godišnja skupština Hrvatskoga kartografskog društva // Kartografija i geoin-

formacije : časopis Hrvatskoga kartografskog društva, 16, 27; 168–173 (podatak o recenziji nije dostupan, ostalo)

Kljajić, Ivka (2017): 200 godina Franciskanskog katastra, Izložba, Geodetski fakultet Sveučilišta u Zagrebu. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 16, 27; 92–97 (podatak o recenziji nije dostupan, prikaz, ostalo)

Kljajić, Ivka (2018): 18. godišnja skupština Hrvatskoga kartografskog društva // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 17, 29; 92–99 (ostalo)

Kljajić, Ivka; Černjul, Robert (2015): Interaktivna karta ruralnog turizma područja Labinštine. // 11. savjetovanje o kartografiji i geoinformacijama u povodu Međunarodne godine karata, Program / Sažetci / Katalozi izložbi // 11th Conference on Cartography and Geoinformation on the Occasion of the International Map Year, Program / Abstracts / Exhibition Catalogues / Lapaine, Miljenko (ed), Zagreb: Hrvatsko kartografsko društvo, 20–20 (predavanje, domaća recenzija, sažetak, znanstveni)

Kljajić, Ivka; Kuveždić Divjak, Ana (2016): Natječaj Hrvatskoga kartografskog društva za dječju kartu svijeta "Volimo karte" // Geodetski list : glasilo Hrvatskoga geodetskog društva, 70 (93), 3; 286–288 (podatak o recenziji nije dostupan, poziv na natječaj, ostalo)

Kljajić, Ivka; Kuveždić Divjak, Ana (2017): Dodjela zahvalnica na natječaju za dječju kartu svijeta "Volimo karte" (podatak o recenziji nije dostupan, dodjela priznanja)

Kljajić, Ivka; Kuveždić Divjak, Ana (2017): Otvoren natječaj za dječje likovne radove "Volimo karte". // Meridijani, 23, 194; 8–9 (podatak o recenziji nije dostupan, poziv na natječaj, ostalo)

Kljajić, Ivka; Kuveždić Divjak, Ana (2017): Rezultati natječaja za dječju kartu svijeta "Volimo karte" u Hrvatskoj za 2017. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 16, 27; 178–187 (podatak o recenziji nije dostupan, prikaz, ostalo)

Kljajić, Ivka; Lapaine, Miljenko (2015): Analiza sadržaja Klobučarićevih prikaza Kvarnerskog primorja. // Knjiga sažetaka znanstvenog skupa s međunarodnim sudjelovanjem Sedam stoljeća augustinskog samostana u Rijeci / Kudiš, Nina (ed), Rijeka: Filozofski fakultet u Rijeci, 24–25 (predavanje, domaća recenzija, sažetak, znanstveni)

Kljajić, Ivka; Lapaine, Miljenko (2015): Izložba dječjih likovnih radova "Moje mjesto u današnjem svijetu". // 11. savjetovanje o kartografiji i geoinformacijama u povodu Međunarodne godine karata, Program / Sažetci / Katalozi izložbi / Lapaine, Miljenko (ed), Zagreb: Hrvatsko kartografsko društvo, 31–44 (ostalo, cjeloviti rad (in extenso))

Kljajić, Ivka; Lapaine, Miljenko (2015): Otvoren natječaj za dječju kartu svijeta s temom "Moje mjesto u današnjem svijetu". // Meridijani, 21, 185; 8–10 (podatak o recenziji nije dostupan, poziv na natječaj, ostalo)

Kljajić, Ivka; Lihter, Sonja (2017): Maximilian de Traux's Atlas with Plans of Croatian Towns // Special Collections in the Context of Cultural Heritage Protection and Cultural Development Fostering - <https://conference2017nls.wordpress.com/agenda/>, Beograd, Srbija (predavanje, međunarodna recenzija, sažetak, znanstveni)

Kljajić, Ivka; Mlinarić, Dubravka (2016): Kartograf mirovnih razgraničenja: Johann Christoph Müller (1673. – 1721.) // Ljudi 18. stoljeća na hrvatskom prostoru. Od plemića i crkvenih dostojanstvenika do težaka i ribara / Čoralić, Lovorka ; Horbec, Ivana ; Katušić, Maja ; Klaužer, Vedran ; Novosel, Filip ; Radoš, Ruža (eds), Zagreb: Hrvatski institut za povijest, 477–484

Kljajić, Ivka; Popčević, Iva (2016): Karta Ugarske Johanna Christopha Müllera // 12. savjetovanje Kartografija i geoinformacije kojim se obilježava Svjetski dan GIS-a, Program i sažetci / 12th Conference Cartography and Geoinformation commemorating the World GIS Day, Program and Abstracts / Lapaine, Miljenko (ed), Zagreb: Hrvatsko kartografsko društvo, 38-39 (predavanje, domaća recenzija, sažetak, znanstveni)

Kljajić, Ivka; Razum, Matija (2016): Izolari Antonija Milla s kartama hrvatskih otoka. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 15, 25; 86–118 (međunarodna recenzija, pregledni rad, znanstveni)

Ključanin, Slobodanka; Poslončec-Petrić, Vesna; Bačić, Željko (2018): Osnove infrastrukture prostornih podataka. Sarajevo : Dobra knjiga, ISBN: 978 9958 27 414 5

Knežević, Mirko; Čurović, Milić; Barović, Goran; Vujačić, Duško; Poslončec-Petrić, Vesna; Bačić, Željko (2018): Spatial Data Infrastructure in Green Education // Green Room Sessions 2018 International GEA (Geo Eco-Eco Agro) Conference - Book of Abstracts / Spalevic, Velibor (ur.). Podgorica : Faculty of Philosophy, University of Montenegro, 170–170 (predavanje, međunarodna recenzija, sažetak)

Korman, D., Alen Berta, Nela Jantol, Zrinka Mesić, Ana Ostojić, Vladimir Kušan (2018): Improving Accuracy Of Sentinel 2 Based Forest Biomass Assessment Models By Integrating Sentinel 1 Data And Additional Environmental Variables Using Various Machine Learning Algorithms, Natural Resources, Green Technology & Sustainable Development-Green/3 (Oral presentation, 5-8 June 2018, Zagreb, Croatia)

Kos, M., Lapaine, M. (2018): On Winged Wheels to the Opatija Riviera / Na krilatim kotačima do Opatijske rivijere, *Kartografija i geoinformacije* vol. 17, br. 30, 88–91

Kosanović, M., Lapaine, M. (2018): Old Maps and Plans of Istria / Stgare karte i planovi Istre, *Kartografija i geoinformacije* vol. 17, br. 30, 92–95

Kozličić, M., Mlinarić, D., Andrić, M. (2015): Zadarski akvatorij u Pîrî Reisovoj Knjizi pomorstva iz 1526. godine: Pomorsko-geografske slike dijela hrvatskoga Jadrana / The Zadar maritime zone in Pîrî Reis' Book of Navigation of 1526: maritime and geographical images of part of the Croatian Adriatic, *Geoadria, Zadar*, vol. 20, no. 2, 119–147

Kozličić, Mithad; Faričić, Josip (2016): Značenje Vira u pomorsko-geografskom sustavu Jadrana u prošlosti. // *Otok Vir / Magaš, Damir* (ed), Zadar: Sveučilište u Zadru i Općina Vir, 255–276

Kranjčić, Nikola; Medak, Damir; Župan, Robert; Rezo, Milan (2019): Support Vector Machine Accuracy Assessment for Extracting Green Urban Areas in Towns. // *Remote Sensing* 11 (6):655, 1–13, doi: 10.3390/rs11060655

Kranjčić, Nikola; Župan, Robert; Rezo, Milan (2018): Satellite-based hyperspectral imaging and cartographic visualization of bark beetle forest damage for the city of Čabar // *Tehnički glasnik - Technical Journal* 12, 1; 39–43 (prethodno priopćenje, znanstveni)

Krtalić, A., Racetin, Ivan (2018): Uncertainty in Mine Risk Visualization within Non-technical Survey, *Zbornik radova 15. Internacionalnog simpozija Humanitarian Demining 2018*, Slano 9–12. travnja 2018.

Krtalić, Andrija; Kuveždić Divjak, Ana; Župan, Robert (2018): Visualization of Land Mine Danger, Svilaja Region (Croatia). // *Journal of Maps*, 15, 1; 21–29 doi:10.1080/17445647.2018.1552209 (međunarodna recenzija, članak, znanstveni)

Krtalić, Andrija; Poslončec-Petrić, Vesna; Vrgoč, Sandra (2018): Koncept otkrivanja ilegalnih odlagališta otpada na području grada Zagreba primjenom metoda daljinskih istraživanja. *Geodetski list*. 72, 1; 37–54 (pregledni rad, znanstveni)

Kušan i dr. (2015): CORINE pokrov zemljišta Hrvatska – prikaz projekta, publikacija, Hrvatska agencija za okoliš i prirodu, 29 str., <http://isite-admin.azo.hr/CORINELandCover?dm=2>

Kušan i dr. (2015): Pokrov i korištenje zemljišta u RH - stanje i smjerovi razvoja 2012., publikacija, Hrvatska agencija za okoliš i prirodu, 61 str., <http://isiteadmin.azo.hr/CORINELandCover?dm=2>

Kuveždić Divjak, Ana (2018): Narrative Cartographic Representations: Mapping the Spatiotemporal Complexity of Stories // *SDI Days 2018 and*

14th International Conference on Geoinformation and Cartography, Program and Abstracts / Lapaine, Miljenko (ed), Zagreb: Hrvatsko kartografsko društvo, 31–31 (predavanje, međunarodna recenzija, sažetak, znanstveni)

Kuveždić Divjak, Ana; Lapaine, Miljenko (2018): Crisis Maps – Observed Shortcomings and Recommendations for Improvement // *ISPRS International Journal of Geo-Information*, 7, 11; 436, 19 doi:10.3390/ijgi7110436 (međunarodna recenzija, članak, znanstveni)

Kuveždić Divjak, Ana; Nevistić, Zvonimir (2017): Festival znanosti 2017, Promatrajmo Zemlju uz Copernicus, Zagreb, 26. travnja 2017. // *Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva*, 16, 27; 70–71 (podatak o recenziji nije dostupan, članak, ostalo)

Kuveždić Divjak, Ana; Poslončec-Petrić, Vesna; Nevistić Zvonimir (2017): Promatrajmo Zemlju uz Copernicus // *Festival Znanosti Zagreb, Hrvatska* (predavanje, neobjavljeni rad, ostalo)

Landek, I., Lapaine, M., Dudok, D., Marjanović, M., Vilus, I. (2018): Razvoj Državne geodetske uprave od 1947. do 1990. In: Lapaine, M., Landek, I. (eds): 70 godina Državne geodetske uprave, Državna geodetska uprava, Zagreb, ISBN 978-953-293-803-6, 9–27

Landek, Ivan (2017): Unapređenje modela topografskih podataka Republike Hrvatske, doktorska disertacija, Geodetski fakultet, Zagreb

Landek, Ivan, Marjanović, Marijan; Šimat, Ivana (2015): Model podataka Hrvatskog topografsko informacijskog sustava CROTIS 2.0. // *Kartografija i geoinformacije ; časopis Hrvatskoga kartografskog društva*, Vol. 13, Br. 21; 30–51 (podatak o recenziji nije dostupan, prethodno priopćenje, znanstveni)

Landek, Ivan; Cvitković, Saša; Rezo, Milan (2019): Proposed Changes to the CROTIS Topographic Model for the Basic Package and the Object Entity of Hydrography // *Tehnički glasnik*, 13, 1; 51–56 (međunarodna recenzija, članak, znanstveni)

Landek, Ivan; Frangeš, Stanislav; Marjanović, Marijan (2017): Proposal for establishment of the basic national topographic model (BNTM) in the Republic of Croatia // *Geodetski vestnik*, 61, 2; 263–277 doi:10.15292/geodetski-vestnik.2017.02.263-27 (međunarodna recenzija, članak, znanstveni)

Landek, Ivan; Marjanović, Marijan; Šimat, Ivana (2015): Izrada baze podataka u mjerilu 1:250 000 // *Geodetska politika za budućnost / Ivana Racetin* (ed), Osijek: Hrvatska komora ovlaštenih inženjera geodezije, 120–125 (predavanje, domaća recenzija, cjeloviti rad (in extenso), stručni)

- Lapaine, M. (2015): Hrvatska u Međunarodnom kartografskom društvu: 20. obljetnica / Croatia in the International Cartographic Association: 20th Anniversary, *Kartografija i geoinformacije*, Vol. 14, Br. 24, 88–91
- Lapaine, M. (2015): Određivanje površina s planova i karata, 4. kongres sudskih vještaka i procjenitelja, Zagreb 23–24. 10. 2015., *Zbornik radova, Sekcija za geodeziju*, 1–14
- Lapaine, M. (2015): Skupovi, uspjesi, izložbe, javna predavanja, in: *Godišnjak 2014–2015*, Sveučilište u Zagrebu, Geodetski fakultet, ed. Dražen Tutić, 23–26
- Lapaine, M. (2016): 11. savjetovanje o kartografiji i geoinformacijama, *Buzetski zbornik*, 2016, 42/43, 329–336
- Lapaine, M. (2016): 12. savjetovanje o kartografiji i geoinformacijama uz obilježavanje Svjetskoga dana GIS-a / 12th Conference on Cartography and Geoinformation Commemorating the World GIS Day, *Kartografija i geoinformacije*, Vol. 15, Br. 26, 84–87
- Lapaine, M. (2016): 14. izvanredna skupština Hrvatskoga kartografskog društva / 14th Extraordinary General Assembly of the Croatian Cartographic Society, *Kartografija i geoinformacije*, Vol. 15, Br. 25, 148–149
- Lapaine, M. (2016): Boškovićeve diferencijalne formule sferne trigonometrije / Bošković's Differential Formulae of Spherical Trigonometry, in: *Ruđer Bošković i geoznanosti / Ruđer Bošković and the Geosciences* (ed. M. Lapaine), Geodetski fakultet Sveučilišta u Zagrebu, Državna geodetska uprava, Hrvatska komora ovlaštenih inženjera geodezije, Zagreb, 207–214
- Lapaine, M. (2016): Branko Puceković, doktor tehničkih znanosti / Branko Puceković, PhD in Technical Sciences, *Kartografija i geoinformacije*, Vol. 15, Br. 26, 56–59
- Lapaine, M. (2016): Geoheritage of the Island of Korčula / Geobaština otoka Korčule. Abstract in: Lapaine, M. (ed): *Program i sažetci / Progran and Abstracts*, 12. savjetovanje *Kartografija i geoinformacije*, Zagreb, 16–18. 11. 2016. Hrvatsko kartografsko društvo, Zagreb, 42–43
- Lapaine, M. (2016): George Biddell Airy and His Contribution to Map Projections Theory, *Proceedings, 6 th International Conference on Cartography and GIS*, 13–17 June 2016, Albena, Bulgaria, ISSN: 1314-0604, eds. Bandrova T., Konecny M., 334–342
- Lapaine, M. (2016): GIS Database of Protected Areas on the example of Geoheritage Objects / GIS baza podataka zaštićenih područja na primjeru objekata geonasljeđa. Abstract in: Lapaine, M. (ed): *Program i sažetci / Progran and Abstracts*, 12. savjetovanje *Kartografija i geoinformacije*, Zagreb, 16–18. 11. 2016. Hrvatsko kartografsko društvo, Zagreb, 40–41
- Lapaine, M. (2016): Projekti, sudjelovanja na konferencijama, suradnje, uspjesi, članstva. In: *Godišnjak 2015–2016*, Sveučilište u Zagrebu, Geodetski fakultet, ed. M. Zrinjski, 53–55
- Lapaine, M. (2016): Riječ urednika / Editorial, in: *Ruđer Bošković i geoznanosti / Ruđer Bošković and the Geosciences* (ed. M. Lapaine), Geodetski fakultet Sveučilišta u Zagrebu, Državna geodetska uprava, Hrvatska komora ovlaštenih inženjera geodezije, Zagreb, 5–13
- Lapaine, M. (2016): Ruđer Bošković i geoznanosti / Ruđer Bošković and the Geosciences, *Godišnjak 2015–2016*, Sveučilište u Zagrebu, Geodetski fakultet, ed. M. Zrinjski, 59–64. Published also in *Geodetski list* 2016, 4, 406–10
- Lapaine, M. (2016): Ruđer Bošković i geoznanosti, *Monografija* 15 autora, Universitas, br. 80, lipanj 2016, 19
- Lapaine, M. (2016): Ruđer Josip Bošković and the 250th Anniversary of the Vienna Meridian Survey, *Proceedings* (eds. R. Paar, A. Marendić, M. Zrinjski), *International Symposium on Engineering Geodesy SIG 2016*, Varaždin, 20–22 May 2016, 85–98
- Lapaine, M. (2016): Uvedba novoga koordinatnega sistema na Hrvaškem / Introduction of the new coordinate system in Croatia, *Povzetek, Sažetak*, *Zbornik prispevkov*, 44. geodetski dan, Laško, 4. 3. 2016., 13–15
- Lapaine, M. (2016): Monografija Ruđer Bošković i geoznanosti – Ruđer Bošković and the Geosciences / The monograph Ruđer Bošković i geoznanosti – Ruđer Bošković and the Geosciences, *Kartografija i geoinformacije*, Vol. 15, Br. 25, 142–147
- Lapaine, M. (2017): 12. savjetovanje o kartografiji i geoinformacijama uz obilježavanje Svjetskog dana GIS-a. In: *Godišnjak 2016–2017*, Sveučilište u Zagrebu, Geodetski fakultet, ed. M. Zrinjski, 34–36. Published also in *Geodetski list* 2016, 4, 396–397
- Lapaine, M. (2017): 13th International Conference on Geoheritage, Geoinformation and Cartography / 13. međunarodna konferencija o geobaštini, geoinformacijama i kartografiji, *Kartografija i geoinformacije*, vol. 16, br. 28, 106–112
- Lapaine, M. (2017): 28th International Conference and 17th General Assembly of the International Cartographic Association / 28. međunarodna kartografska konferencija i 17. generalna skupština Međunarodnoga kartografskog društva, *Kartografija i geoinformacije*, vol. 16, br. 28, 114–121

- Lapaine, M. (2017): Anica Kisić (1940–2017), In memoriam / Anica Kisić (1940–2017), In memoriam, *Kartografija i geoinformacije*, vol. 16, br. 28, 138–139
- Lapaine, M. (2017): Basics of Geodesy for Map Projections. In: Lapaine, M., E. L. Usery (eds.): *Choosing a Map Projection, Lecture Notes in Geoinformation and Cartography*, Springer, 327–343
- Lapaine, M. (2017): Branko Puceković, doktor tehničkih znanosti, *Geodetski list* 1, 95–96
- Lapaine, M. (2017): Developable Surfaces in Map Projections – A Pandemic. Abstract published in: Lapaine, M. (ed): *13th International Conference Geoheritage, Geoinformation and Cartography, Program and Abstracts, Program i sažetci*, Selce, 7–9 September 2017, ISBN 978-953-95815-6-3, 25
- Lapaine, M. (2017): Loxodrome in the Web-Mercator Projection. Abstract published in: Lapaine, M. (ed): *13th International Conference Geoheritage, Geoinformation and Cartography, Program and Abstracts, Program i sažetci*, 7–9 September 2017, ISBN 978-953-95815-6-3, 37
- Lapaine, M. (2017): Map Projection Definition / Definicija kartografske projekcije, *Kartografija i geoinformacije*, vol. 16, br. 28, 136–137
- Lapaine, M. (2017): Modelling the World. In: *The Routledge Handbook of Mapping and Cartography*, eds. Alexander J. Kent, Peter Vujakovic, ISBN 9781138831025, Routledge, Taylor & Francis Group, 2017, 187–201
- Lapaine, M. (2017): Short History on Map Projections. In: Lapaine, M., E. L. Usery (eds): *Choosing a Map Projection, Lecture Notes in Geoinformation and Cartography*, Springer, 247–257
- Lapaine, M. (2017): Standard Parallel and Secant Parallel in Azimuthal Projections / Standardna paralela i presječna paralela kod azimutnih projekcija, *Kartografija i geoinformacije*, vol. 16, br. 28, 72–88
- Lapaine, M. (2017): Standard parallels and secant parallels in conic projections, *SJCE, Scientific Journal of Civil Engineering*, Vol. 6, No. 2, 127–134
- Lapaine, M. (2017): Standardization of Map Projections Symbols. Abstract published in: Lapaine, M. (ed): *13th International Conference Geoheritage, Geoinformation and Cartography, Program and Abstracts, Program i sažetci*, Selce, 7–9 September 2017, ISBN 978-953-95815-6-3, 26
- Lapaine, M. (2017): Svečana akademija u povodu 80. rođendana prof. emer. Nedjeljka Frančule / Solemn Academy on the Occasion of Professor Emeritus Nedjeljko Frančula's 80th Birthday, *Kartografija i geoinformacije*, 2017, Vol. 16, Br. 27, 174–177
- Lapaine, M. (2017): Svečana akademija u povodu 80. rođendana prof. emer. Nedjeljka Frančule. In: *Godišnjak 2016–2017, Sveučilište u Zagrebu, Geodetski fakultet*, ed. M. Zrinjski, 14–16
- Lapaine, M. (2017): The Novi Vinodolski Astronomic and Trigonometric Point / Astronomska točka i trigonometar Novi Vinodol, *Kartografija i geoinformacije*, vol. 16, br. 28, 46–56
- Lapaine, M. (2018): 7th International Conference on Cartography and GIS / 7. međunarodna konferencija o kartografiji i GIS-u, *Kartografija i geoinformacije*, vol. 17, br. 29, 52–55
- Lapaine, M. (2018): Dejan Lovrinčević, PhD in Technical Sciences / Dejan Lovrinčević doktor tehničkih znanosti, *Kartografija i geoinformacije* vol. 17, br. 30, 72–77
- Lapaine, M. (2018): Geographic Names in the Act of the State Survey and Cadastre of Real Estate / Geografska imena u Zakonu o državnoj izmjeri i katastru nekretnina, *Kartografija i geoinformacije* vol. 17, br. 30, 124–125
- Lapaine, M. (2018): The Forestry Map Exhibition / Izložba Šumarske karte, *Kartografija i geoinformacije*, vol. 17, br. 29, 58–63
- Lapaine, M. (ed, 2016): Program i sažetci / Program and Abstracts, 12. savjetovanje Kartografija i geoinformacije, Zagreb, 16–18. 11. 2016. Hrvatsko kartografsko društvo, Zagreb, ISBN 978-953-95815-5-6, 1–76
- Lapaine, M. (ed, 2016): Ruđer Bošković i geoznanosti / Ruđer Bošković and the Geosciences, *Geodetski fakultet Sveučilišta u Zagrebu, Državna geodetska uprava, Hrvatska komora ovlaštenih inženjera geodezije*, Zagreb
- Lapaine, M. (ed, 2017): 13th International Conference Geoheritage, Geoinformation and Cartography, Program and Abstracts, Program i sažetci, Selce, 7–9 September 2017, ISBN 978-953-95815-6-3, 1–44
- Lapaine, M., E. L. Usery (2017): Preface. In: Lapaine, M., E. L. Usery (eds): *Choosing a Map Projection, Lecture Notes in Geoinformation and Cartography*, Springer, v–vii
- Lapaine, M., E. L. Usery (eds. 2017): *Choosing a Map Projection, Lecture Notes in Geoinformation and Cartography*, Springer
- Lapaine, M., Frančula, N. (2015): Map Projection Aspects, Extended Abstract. Published in "Proceedings of the 1st ICA European Symposium on Cartography", edited by Georg Gartner and Haosheng Huang, EuroCarto2015, 10–12 November 2015, Vienna, Austria, 219–220

- Lapaine, M., Frančula, N. (2016): Map projection aspects, *International Journal of Cartography*, 1–21, doi: 10.1080/23729333.2016.1184554
- Lapaine, M., Frančula, N. (2017): Planar projections / Ravninske projekcije, *Kartografija i geoinformacije*, vol. 16, br. 28, 134–135
- Lapaine, M., Frančula, N., Usery E. L. (2017): Glossary of Map Projections. In: Lapaine, M., E. L. Usery (eds): *Choosing a Map Projection, Lecture Notes in Geoinformation and Cartography*, Springer, 345–355
- Lapaine, M., Jogun, T. (2017): Approximation of a Great Circle by using a Circular Arc on a Mercator Chart, *The Journal of Navigation*, doi: 10.1017/S0373463317000583, Published online: 29 August 2017
- Lapaine, M., Kuveždić Divjak, A. (2017): Famous People and Map Projections. In: Lapaine, M., E. L. Usery (eds): *Choosing a Map Projection, Lecture Notes in Geoinformation and Cartography*, Springer, 259–326 doi:10.1007/978-3-319-51835-0_12
- Lapaine, M., Landek, I. (2018): Riječ urednika. In: Lapaine, M., Landek, I. (eds): *70 godina Državne geodetske uprave, Državna geodetska uprava, Zagreb*, ISBN 978-953-293-803-6, 3–6
- Lapaine, M., Landek, I. (2018): Sažetak / Summary. In: Lapaine, M., Landek, I. (eds): *70 godina Državne geodetske uprave, Državna geodetska uprava, Zagreb*, ISBN 978-953-293-803-6, 386–389
- Lapaine, M., Landek, I. (eds, 2018): *70 godina Državne geodetske uprave, Državna geodetska uprava, Zagreb*, ISBN 978-953-293-803-6, 2018, 1–390
- Lapaine, M., Viličić, M. (2015): Hrvatska na međunarodnoj izložbi karata u Rio de Janeiru, *Zbornik radova 8. simpozija Hrvatske komore ovlaštenih inženjera geodezije* (ed. I. Racetin), Opatija 23–25. 10. 2015., 112–119
- Lapaine, M. (2019): Sekushchie paralleli v azimutal'nykh proektsiyah [Secant Parallels in Azimuthal Projections]. *Geodesy and Cartography = Geodezija i kartografija*, vol. 80, Nr. 4, pp. 39–54. (In Russian). doi: 10.22389/0016-7126-2019-946-4-39-54 / Лапэн М.: Секущие параллели в азимутальных проекциях // Геодезия и карто-графия. – 2019. – Т. 80. – № 4. – С. 39-54. doi: 10.22389/0016-7126-2019-946-4-39-54
- Lovrinčević, Dejan (2016): Towards a More Accurate Automated Sounding Selection: New Method for Selection of Soundings Alongside Berths and Depth Contours. // *Proceedings of the 12th International Symposium on Integrated Ship's Information Systems & Marine Traffic Engineering Conference*, Hamburg (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)
- Lovrinčević, Dejan (2017): Quality Assessment of an Automatic Sounding Selection Process for Navigational Charts. // *Cartographic journal*, 54, 2; 139-146 doi:10.1080/00087041.2016.1195031 (međunarodna recenzija, članak, znanstveni)
- Malić, B., Frangeš, S. (2019): The Map of the Bosnia or Đakovo and Syrmia Diocese, *Tehnički vjesnik / Technical Gazette*, Vol. 26, No. 3, doi: 10.17559/TV-20170310083225
- Marelić, Tome; Faričić, Josip (2017): Everyone Makes Mistakes: how the Wrong Triangle Peak Was Selected Two Hundred Years Ago for the Cadastral Survey of the Croatian Coastal Area. // *13th International Conference on Geoheritage, Geoinformation and Cartography*, Selce, Hrvatska, (predavanje, neobjavljeni rad, ostalo)
- Mirošević, Lena; Faričić, Josip (2015): Reflections of Political-Geographic Shifts in the Use of the Geographic Name 'Dalmatia' on Maps in the Early Modern Period. // *Annales-Anali za Istrske i Mediteranske Studije- Series Historia et Sociologia*, 25, 4; 845–860 (međunarodna recenzija, članak, znanstveni)
- Mirošević, Lena; Katić, Mario; Faričić, Josip (2016): Sacred Records in the Landscape: The Mirila of the Dalmatian Hinterland. // *Landscape research*, 41, 8; 869–879 doi:10.1080/01426397.2016.1229461 (međunarodna recenzija, članak, znanstveni)
- Mlinarić, D., Gregurović, S. (2018): Prilog promišljanju oblikovanja hrvatskih granica u povijesnoj i suvremenoj perspektivi / Contribution to the Croatian Boundary Shaping in Historical and Contemporary Perspective, *Geoadria*, vol. 23, no. 2, 153–175
- Mlinarić, D., Miletić Drder, M. (2017): Zbirka Novak : *Mappae Croaticae u Zbirci zemljovida i atlasa NSK, Nacionalna i sveučilišna knjižnica u Zagrebu, Zagreb*, 2017; pp. 248
- Mlinarić, D., Župarić-Iljić, D. (2017): Ranonovovjekovna melioracija, protomoderne migracije i ekonomski razvitak vranskog posjeda, *Migracijske i etničke teme*, vol. 33, no. 1, 37–63
- Mlinarić, Dubravka; Kljajić, Ivka (2017): Cartographic versus Statistical Records of the Early Modern Dalmatian Environmental and Demographic Change on the Multiple Borderlands. // *Natures in between: Environments in areas of contact among states, economic systems, cultures and religions / S, N* (ed), Zagreb, Hrvatska, 26-26 (predavanje, međunarodna recenzija, neobjavljeni rad, znanstveni)
- Nikolina Bakšić, Alen Berta, Višnja Šteko (2015): GIS based landslide risk assessment: Varaždin-

Krapina motorway, 5th Croatian geological congress (oral presentation, September 2015, Osijek)

Poslončec-Petrić, Vesna; Vuković, Valentina; Frangeš, Stanislav; Bačić, Željko (2016): Voluntary Noise Mapping for Smart City // First International Conference on Smart Data and Smart Cities, 30th UDMS (Volume III-4/W1) / Zlatanov, S., Laurini, R., Baučić, M., Rumor, M., Ellul, C., Coors, V. (eds). Split : ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 131–137 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni)

Poslončec-Petrić, Vesna; Bačić, Željko (2016): BESTSDI – regionalni projekt ERASMUS+ za unaprjeđenje akademske nastave iz područja infrastrukture prostornih podataka // 12. savjetovanja o kartografiji i geoinformacijama / Program i sažetci / Lapaine, M. (ur.). Zagreb : Hrvatsko kartografsko društvo, 62–63 (predavanje, međunarodna recenzija, sažetak)

Poslončec-Petrić, Vesna; Bačić, Željko; Tutić, Dražen; Nevistić, Zvonimir (2017): Infrastruktura prostornih podataka i promjene na Zemlji. // 15. festival znanosti Zagreb, Hrvatska (<https://www.bib.irb.hr/915399>) (predavanje, podatak o recenziji nije dostupan, neobjavljeni rad, ostalo)

Poslončec-Petrić, Vesna; Frangeš, Stanislav (2016): Kartografija - znanost i umjetnost predočavanja prostora // Festival znanosti; Program i sažeci. (predavanje, domaća recenzija, sažetak, znanstveni)

Poslončec-Petrić, Vesna; Ključanin, Slobodanka (2016): Uspostava infrastrukture prostornih podataka Federacije Bosne i Hercegovine // 12th International Scientific and Professional Conference on Contemporary Theory and Practice in Construction / Antunović, Biljana (ur.). Banja Luka : University of Banja Luka, Faculty of Architecture, Civil Engineering and Geodesy, 563–571 (predavanje, međunarodna recenzija, objavljeni rad, stručni)

Poslončec-Petrić, Vesna; Šlabek, Lovro; Frangeš, Stanislav (2016): With the Crowdsourced Spatial Data Collection to Dynamic Noise Map of the City of Zagreb // International Symposium on Engineering Geodesy SIG 2016 / Paar, Rinaldo ; Marendić, Ante ; Zrinjski, Mladen (eds), Zagreb : Croatian Geodetic Society, 411–426 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni)

Pribičević, Boško; Đapo, Almin; Babić, Luka; Župan, Robert (2016): Creating a methodology and determining the contents of cartographic backgrounds for the State Spatial Development Plan, 2016 (study, in Croatian).

Puceković, B., Lapaine, M. (2016): User's View of the Quality of Croatian Topographic Map at the Scale 1:25 000, Geodetski glasnik, Vol. 50, Issue 47, 22–32

Puceković, B., Lapaine, M. (2017): Quality control and new data-quality measures for the aesthetics of a Croatian topographic map at the scale of 1:25,000, International Journal of Cartography, Vol. 3, Issue 2, doi: 10.1080/23729333.2016.1278191, 187–200

Puceković, Branko (2016): Estetika u kartografiji od antike do renesanse. // Geodetski list : glasilo Hrvatskoga geodetskog društva, 70(93), 1; 75–94 (podatak o recenziji nije dostupan, članak, stručni)

Puceković, Branko (2016): Estetika u kartografiji od renesanse do danas. // Geodetski list : glasilo Hrvatskoga geodetskog društva, 70 (93), 4; 337–354 (međunarodna recenzija, pregledni rad, znanstveni)

Puceković, Branko (2016): Novi kriteriji za poboljšanje kvalitete topografskih karata. 2016., doktorska disertacija, Geodetski fakultet, Zagreb

Puceković, Branko; Lapaine, Miljenko (2016): User's view of the quality of Croatian topographic map at the scale 1:25000. // Geodetski glasnik, 50, 47; 22–32 (podatak o recenziji nije dostupan, pregledni rad, ostalo)

Racetin, Ivana (2015): Feature definitions in feature catalogues. // Cartographic journal, 52 (2015), 1; 67–72 doi:10.1179/1743277413Y.0000000039 (međunarodna recenzija, pregledni rad, znanstveni)

Racetin, Ivana; Ivić, Majda; Kilić, Jelena (2018): Blue geoinformation. // 18th International Multidisciplinary Scientific Geoconference SGEM 2018 Conference Proceedings Volume 18, Issue 1.5, Sofia, Bulgaria: 227–233 doi:10.5593/sgem2018/1.5 (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Racetin, Ivana; Ivić, Majda; Kilić, Jelena (2019): STOKIS and ZIS – Possibilities of Common Updating. // Conference Proceedings 7th International Conference Contemporary Achievements in Civil Engineering 2019 / Gabrić, Ognjen ; Kozarić, Ljiljana ; Vojnić Purčar, Martina (eds), Univerzitet u Novom Sadu, Građevinski fakultet, Subotica, 1027–1033 doi:10.14415/konferencijaGFS2019.095 (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Razumović, Ivan; Triplat Horvat, Martina (2016): Boškovićeva metoda izjednačenja. // Ruđer Bošković i geoznanosti = Ruđer Bošković and the Geosciences / Lapaine, Miljenko (ed), Zagreb: Geodetski fakultet Sveučilišta u Zagrebu, Državna geodetska uprava, Hrvatska komora ovlaštenih inženjera geodezije, 327–358

Romić, D., S. Husnjak, V. Kušan (2017): Vrednovanje prirodnih resursa za razvoj poljoprivrede donje Neretve, u: Steiner S. (ur.): Valorizacija intermodalnoga logističkoga koridora Ploče – Mostar – Sarajevo – Vukovar (srednji Jadran – Podunav-

lje), HAZU Zavod za promet, Znanstvena knjiga, 53–58

Sajko Hlušička, P., Gašparović, I., Lapaine, M. (2018): SDI Days 2018 and 14th International Conference on Geoinformation and Cartography / Dani IPP-a 2018. i 14. međunarodna konferencija o geoinformacijama i kartografiji, Kartografija i geoinformacije vol. 17, br. 30, 96–103

Seletković, A., Ivan Balenović, Alen Berta, Mario Ančić, Martina Kičić (2017): Using LIDAR and field data survey in measuring tree height in urban areas, *New Forestry Mechanisation* 38, 43–56

Slukan Altić, Mirela (2015): The Croatian Contribution to the Exploration and Mapping of the States of Mato Grosso and Paraná. // 27th International Cartographic Conference, Rio de Janeiro: International Cartographic Association (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan Altić, Mirela (2016): German Contribution to the 19th Century Cartography of European Turkey With Special Regard on the Map of Heinrich Kiepert. // *Historical Maps, Atlases and Toponymy* / Moser, Jana (ed), Leipzig: Leibniz-Institut für Länderkunde, 79–89

Slukan Altić, Mirela (2016): Jesuits at Sea: José Quiroga and José Cardiel – Two Different Views of Patagonia 1745–1746 // *The Mariner's Life: At Home, Abroad, and At Sea*, Newport, RI, USA (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan Altić, Mirela (2016): The Croatian contribution to the exploration and mapping of the states of Mato Grosso and Paraná. // *Acervo Revista do Arquivo Nacional*, 29, 31–47 (podatak o recenziji nije dostupan, izvorni znanstveni rad, znanstveni)

Slukan Altić, Mirela (2018): Johannes Janssonius's Map of Dalmatia and the Ottoman–Venetian Borderland (1650) // *Imago Mundi*, 70, 1; 65–78 doi:10.1080/03085694.2018.1382113 (međunarodna recenzija, članak, znanstveni)

Slukan-Altić, Mirela (2014, 2015): Jesuit Accounts of the Colonial Americas: Intercultural Transfers, Intellectual Disputes, and Textualities. Edited by Marc André Bernier, Clorinda Donato and Hans-Jürgen Lüsebrink. Toronto: University of Toronto Press, in association with the UCLA Center for Seventeenth and Eighteenth-Century Studies and the William Andrews Clark Memorial Library, 2014. // *Terrae Incognitae - Journal of the Society for the History of Discoveries*, 47, 2; 164–165 (podatak o recenziji nije dostupan, prikaz, stručni)

Slukan-Altić, Mirela (2015): Baja California in 1739: An Early Exploration of Ferdinand Konščak. // *Terrae Incognitae – The Journal of the Society for the History of Discoveries*, 47, 2; 106–125

(podatak o recenziji nije dostupan, izvorni znanstveni rad, znanstveni)

Slukan-Altić, Mirela (2015): Dalmatia and the Southern Ottoman Borderland in the Eyes of Jan Janssonius. // *Theatre of the World in Four Dimensions: Space - Time - Imagination - Spectacle* / Depuydt, Joost (ed), Antwerpen: Felix Archief, 40–40 (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2015): Early Admiralty Charts of the Adriatic with Special Regard to the Contribution of Captain W. H. Smyth // 56th Annual Meeting Society for the History of Discoveries, London, UK (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2015): K istorii pervogo anglijskogo posol'stva v Butan i Tibet 1774–1775: Dzhordzh Bogl i ego "Memorandumy"/On the History of the First British Embassy in Bhutan and Tibet (1774–1775): George Bogle and His Memorandums. By Alexei V. Postnikov // *Terrae Incognitae - The Journal of the Society for the History of Discoveries*, 47, 1; 80–81 (podatak o recenziji nije dostupan, prikaz, stručni)

Slukan-Altić, Mirela (2015): Rediscovering the Sea: The 19th Century Charting of the Adriatic Sea and the Development of Modern Hydrography // The International Geographical Union (IGU) Regional Conference, Moscow, Russian Federation (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2015): The Medieval Planned Town in Croatia // *Lords and Towns in Medieval Europe* / Anngret Simms and Howard B. Clarke (eds), Farnham (UK) - Burlington (USA): Ashgate, 305–320

Slukan-Altić, Mirela (2015): Российская картография Черногории. Картография XIX века на службе дипломатии., Moscow: Russian Academy of Science, Institute for the history of sciences and technology, (znanstvena monografija)

Slukan-Altić, Mirela (2015): Формирование Ита-ло-Югославской границы (1945–1954) в контексте международных отношений после окончания Второй мировой войны // The second world war: Prehistory. Events. Lessons: papers of International scientific conference dedicated to the 70th anniversary of Great Victory over German fascism and Japanese militarism / E. V. Drobotushenko (ed), Chita, Ruska Federacija: Zabaikalsky State University, 132–140 (pozvano predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Slukan-Altić, Mirela (2016): Between Secrecy and Silent Cooperation – The Dissemination of Knowledge about the Republic of Dubrovnik in the

Context of the Ottoman–Venetian and Napoleonic Wars. // 6th International Symposium on History of Cartography, Dubrovnik, Hrvatska (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2016): British Contribution to the Charting of the Adriatic Sea. // *Cartographic journal*, 53, 4; 305–317 doi:10.1080/00087041.2015.1108659 (međunarodna recenzija, članak, znanstveni)

Slukan-Altić, Mirela (2016): Gomirje: povijest, identitet i fenomeni prožimanja., Gomirje - Rijeka: LAG Gorski Kotar, Naklada Kvarner (monografija)

Slukan-Altić, Mirela (2016): Kartografski izvori u povijesnim znanostima // *Pro tempore: časopis studenata povijesti*, 10-11, 45–49 (članak, znanstveni)

Slukan-Altić, Mirela (2016): Povijesna topografija otoka Krka., Zagreb - Rijeka: HAZU, Zavod za povijesne i društvene znanosti u Rijeci (monografija)

Slukan-Altić, Mirela (2016): The Peace Treaty of Versailles: The role of Maps in Reshaping the Balkans in the Aftermath of WWI. // *History of Military Cartography* / Liebenberg, Elri ; Demhardt, Imre Josef ; Vervust, Soetkin (ed), Heidleberg - New York - Dordrecht - London: Springer Verlag, 1–10

Slukan-Altić, Mirela (2016): The Sea Chart : The Illustrated History of Nautical Maps and Navigational Charts // *Cartographic journal*, 54, 2; 185–186 doi:10.1080/00087041.2017.1307038 (podatak o recenziji nije dostupan, prikaz, stručni)

Slukan-Altić, Mirela (2017): Between Secrecy and Silent Cooperation – Dissemination of Knowledge on the Republic of Dubrovnik in the Context of the Ottoman–Venetian and Napoleonic Wars. // *Dissemination of Cartographic Knowledge (series Lecture Notes in Geoinformation and Cartography)* / Altić-Slukan, Mirela ; Demhardt, Imre Josef ; Vervust, Soetkin (eds), Heidleberg - New York - Dordrecht - London: Springer International, 55–74

Slukan-Altić, Mirela (2017): Jesuit Cartography of Americas: comparative case study of Baja California, Tarahumara and the Amazon. // *Barry Lawrence Ruderman Conference on Cartography*, Stanford CA, USA (pozvano predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2017): Jesuit cartography of the New France: Missionaries in the Search of Northwest Passage // *From the Midwest to the Arctic: Exploration and its Impact in the Northland*, Milwaukee, WI, USA (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2017): Jesuit Contribution to the Mapping of the Philippine Islands: A Case of

the 1734 Pedro Murillo Velarde Chart // *Mapping Asia: Cartographic Encounters between East and West*, Leiden, The Netherlands, (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2017): Jesuits at Sea: José Quiroga and José Cardiel – Two Complementary Views of Patagonia 1745-1746. // *Terrae Incognitae – The Journal of the Society for the History of Discoveries*, 49, 2; 149–173 (međunarodna recenzija, izvorni znanstveni rad, znanstveni)

Slukan-Altić, Mirela (2017): Mapping a Tropical Frontier: Cartography of the Jesuit Province of Moxos. // *27th International Conference on the History of Cartography*, Belo Horizonte, Brazil (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2017): Mapping the WWII: G.S.M.S./A.M.S. Topographic Map Series of the Balkans (1939–1945) // *28th International Cartographic Conference*, Washington, DC: International Cartographic Association (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2018): Fighting the Great War at the Adriatic Sea: Charts by Hydrographic Office of the Austro-Hungarian Navy. // *International Journal of Cartography*, 4, 3; 348–356 doi:10.1080/23729333.2018.1511221 (međunarodna recenzija, članak, znanstveni)

Slukan-Altić, Mirela (2018): Military or Missionary Map? The First Topographic Map of Northern New Spain (1725–1729) // *Mapping Empires: Colonial Cartographies of Land and Sea*. Oxford, UK, 32–47 (predavanje, međunarodna recenzija, sažetak, znanstveni)

Slukan-Altić, Mirela (2018): Nineteenth-Century Ottoman Topographic Mapping of the Balkans // *Cartographic journal*, 55, 4; 326–340 doi:10.1080/00087041.2018.1548189 (međunarodna recenzija, članak, znanstveni)

Slukan-Altić, Mirela (2018): Once Upon a Time When Jesuits Mapped the Gold Fields. // *Great Mountains of American West*, Golden, Colorado, SAD, 1–10 (predavanje, međunarodna recenzija, sažetak, ostalo)

Slukan-Altić, Mirela (2019): Changing the Discourse: Post-Expulsion Jesuit Cartography of Spanish America // *The Journal of Jesuit Studies*, 6, 101–116 (međunarodna recenzija, članak, znanstveni)

Slukan-Altić, Mirela (2019): Jesuit Contribution to the Mapping of the Philippine Islands: A Case of the 1734 Pedro Murillo Velarde Chart // *Mapping Asia: Cartographic Encounters Between East and West* / Storms, Martijn ; Cams, Mario ; Demhardt, Imre Josef Demhardt ; Ormeling, Ferjan (eds), Heidleberg - New York - Dordrecht - London:

Springer International, 73–94 doi:10.1007/978-3-319-90406-1_5

Sluklan-Altić, Mirela (2015): The Croatian Contribution to the Exploration and Mapping of the States of Mato Grosso and Paraná // *Maps Connecting the World*, Rio de Janeiro (predavanje, međunarodna recenzija, sažetak, znanstveni)

Škunca M., Mesić Z., Šteko V., Berta A., Peternel H. (2015): Area evaluation from the aspect of biodiversity: method designed for overcoming data gaps, 6th Balkan botanical congress (oral presentation, September 2015, Rijeka)

Štanfel, Matjaž; Tutić, Dražen (2017): GIS Mapping of Croatian Landform Diversity Using the Geomorphons Approach. // 13th International Conference Geoheritage, Geoinformation and Cartography / Lapaine, Miljenko (ed). Zagreb: Croatian Cartographic Society (predavanje, međunarodna recenzija, sažetak, znanstveni)

Štanfel, Matjaž; Tutić, Dražen (2018): Modeling of Risk Assessment Support System for Outdoor Recreation in Croatia // *Proceedings of the 7th International Conference on Cartography and GIS* / Bandrova, Temenoujka ; Konečný, Milan (eds). Sofia: Bulgarian Cartographic Association, 942–951 (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Šugar, D., Lapaine, M. (2017): GNSS seminar 2017 na Institutu za geodeziju u Brnu / GNSS seminar 2017 at the Institute of Geodesy in Brno, *Kartografija i geoinformacije*, Vol. 16, Br. 27, 62–65. Published also in *Godišnjak 2016–2017*, Sveučilište u Zagrebu, Geodetski fakultet, ed. M. Zrinjski, 36–40

Topoljak, J., Lapaine, M., Tuno, N., Mulahusić, A. (2017): Analiza vanjskih elemenata sadržaja katasarskih planova stare izmjere Bosne i Hercegovine, *Geodetski list* 1, 55–76

Triplat Horvat, M., Lapaine, M. (2015): 10. jubilar-na međunarodna konferencija o digitalnom pristupu kartografskom nasljeđu / 10th Jubilee International Conference on Digital Approaches to Cartographic Heritage, *Kartografija i geoinformacije*, Vol. 14, Br. 24, 70–75

Triplat Horvat, M., Tutek, Ž., Lapaine, M. (2016): Raspon deformacija u uspravnoj ekvidistantnoj konusnoj projekciji, *Geodetski list* 2, 139–160

Triplat Horvat, Martina; Lapaine, Miljenko (2015): 9. međunarodna radionica o digitalnom pristupu kartografskom nasljeđu // *Kartografija i geoinformacije* : časopis Hrvatskoga kartografskog društva, 14, 23; 126–127 (podatak o recenziji nije dostupan, prikaz, ostalo)

Triplat Horvat, Martina; Lapaine, Miljenko (2015): Determination of definitive standard parallels of normal aspect conic projections equidistant along

meridians on an old map. // *International Journal of Cartography*, 1, 1; 32–44 doi:10.1080/23729333.2015.1055645 (podatak o recenziji nije dostupan, članak, znanstveni)

Triplat Horvat, Martina; Lapaine, Miljenko; Tutić, Dražen (2015): Problems in Standard Parallels Reconstruction // 10th Jubilee Conference on Digital Approaches to Cartographic Heritage, Krf, Grčka, 14–14 (predavanje, međunarodna recenzija, sažetak, znanstveni)

Triplat Horvat, Martina; Lapaine, Miljenko; Tutić, Dražen (2015): Problems in Standard Parallels Reconstruction // *Conference proceedings 10th Jubilee Conference Digital Approaches to Cartographic Heritage*, Corfu, Greece: ICA Commission on Digital Technologies in Cartographic Heritage, 1–21. (<https://www.bib.irb.hr/808993>) (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Triplat Horvat, Martina; Tutek, Željka; Lapaine, Miljenko (2016): Raspon deformacija u uspravnoj ekvidistantnoj konusnoj projekciji. // *Geodetski list* : glasilo Hrvatskoga geodetskog društva, 70 (93), 2; 139–160 (međunarodna recenzija, pregledni rad, znanstveni)

Triplat Horvat, Martina; Tutić, Dražen; Čudina, Valentina (2018): Kartiranje urbanih područja u OpenStreetMapu na primjeru grada Novske. // *Geodetski list*, 72 (95), 4; 293–309 (<https://www.bib.irb.hr/985555>) (domaća recenzija, članak, stručni)

Triplat Horvat, Martina; Viličić, Marina (2017): Dva pristupa analizi planimetrijske točnosti starih karata. // *Geodetski list*, 71 (94), 1; 1–24 (podatak o recenziji nije dostupan, izvorni znanstveni članak, znanstveni)

Tutić, Dražen; Frančula Nedjeljko (2016): Lokacijske usluge u amsterdamskoj zračnoj luci // *Geodetski list* : glasilo Hrvatskoga geodetskog društva, 70, 2; 193–194 (<https://www.bib.irb.hr/830805>) (podatak o recenziji nije dostupan, prikaz, stručni)

Tutić, Dražen; Frančula, Nedjeljko (2016): 3D kartiranje Googleovim pametnim telefonima // *Kartografija i geoinformacije* : časopis Hrvatskoga kartografskog društva, 15, 26; 128–129 (podatak o recenziji nije dostupan, prikaz, stručni)

Tutić, Dražen; Frančula, Nedjeljko (2016): Google Maps – suvremena internetska autokarta // *Kartografija i geoinformacije* : časopis Hrvatskoga kartografskog društva, 15, 26; 110–113 (podatak o recenziji nije dostupan, prikaz, stručni)

Tutić, Dražen; Jogun, Tomislav; Kuveždić Divjak, Ana; Triplat Horvat, Martina (2017): World political map from OpenStreetMap data // *Journal of Maps*, 13, 1; 67–73 doi:10.1080/17445647.2017.

1323683 (međunarodna recenzija, članak, znanstveni)

Tutić, Dražen; Lapaine, Miljenko; Viličić, Marina (2015): Kartografija u Hrvatskoj 2011–2015. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 14, 23; 50–111 (podatak o recenziji nije dostupan, pregledni rad, stručni)

Tutić, Dražen; Poslončec-Petrić, Vesna; Bačić, Željko (2017): Kompetencije za IPP – lekcije naučene u okviru projekta BESTSDI. // 9. NIPP i INSPIRE dan u sklopu konferencije "Dani IPP-a 2017." Zagreb, Hrvatska (<https://www.bib.irb.hr/915396>) (predavanje, recenziran, pp prezentacija, znanstveni)

Tutić, Dražen; Štanfel, Matjaž; Jogun, Tomislav (2017): Automation of Cartographic Generalisation of Contour Lines // Unbounded Mapping of Mountains - Proceedings of the 10th ICA Mountain Cartography Workshop / Buchroithner, Manfred ; Schröter, Benjamin ; Heidig, Uta (eds), Dresden: Technische Universität Dresden, Institute of Cartography, 65–77 (predavanje, međunarodna recenzija, cjeloviti rad (in extenso), znanstveni)

Tutić, Dražen; Štanfel, Matjaž; Kuveždić Divjak, Ana; Triplat Horvat, Martina (2017): Poles of Inaccessibility in Croatia. // Abstracts – 20th Scientific-Professional Colloquium on Geometry and Graphics / Došlić, Tomislav; Jurkin, Ema (ur.). Zagreb: Croatian Society for Geometry and Graphics, 39-39 (predavanje, međunarodna recenzija, sažetak, znanstveni)

Tutić, Dražen; Štanfel, Matjaž; Triplat Horvat, Martina (2018): Multi-Criteria Land Evaluation of Suitability for the Sport of Foot Orienteering: A Case Study of Croatia and Slovenia. // ISPRS International Journal of Geo-Information, 7, 6; 227, 17 doi:10.3390/ijgi7060227 (međunarodna recenzija, članak, znanstveni)

Viličić, M., Lapaine, M. (2016): Hrvatska milja na starim kartama / The Croatian Mile on Old Maps, Kartografija i geoinformacije, 2016, Vol. 15, Br. 25, 4–22

Viličić, M., Lapaine, M. (2017): The Problem of Double Longitudes on Glavač's Map, The Cartographic Journal, doi: 10.1080/00087041.2017.1386343

Viličić, Marina (2019): Kartografska analiza karte Stjepana Glavača iz 1673. godine. 2019., doktorska disertacija, Geodetski fakultet, Zagreb. (<https://www.bib.irb.hr/985552>)

Viličić, Marina; Lapaine, Miljenko (2016): Hrvatska milja na starim kartama. // Kartografija i geoinformacije : časopis Hrvatskoga kartografskog društva, 15, 25; 4–22 (međunarodna recenzija, članak, znanstveni)

Viličić, Marina; Lapaine, Miljenko (2016): Likovni elementi na karti Hrvatske Stjepana Glavača iz 1673. godine. // Festival znanosti, Zagreb, Hrvatska (predavanje, neobjavljeni rad, znanstveni)

Viličić, Marina; Lapaine, Miljenko (2018): Map Projection of the Glavač's Map. // SDI Days 2018 and 14th International Conference on Geoinformation and Cartography / Lapaine, Miljenko (ed), Zagreb: Hrvatsko kartografsko društvo, 41–41. (<https://www.bib.irb.hr/962206>) (predavanje, međunarodna recenzija, sažetak, znanstveni)

Viličić, Marina; Lapaine, Miljenko (2018): The Problem of Double Longitudes on Glavač's Map. // Cartographic journal, 55, 3; 217–234 doi:10.1080/00087041.2017.1386343 (međunarodna recenzija, članak, znanstveni)

Vilus, Igor; Landek, Ivan; Marjanović, Marijan (2015): Topografska karta u mjerilu 1:25 000 (TK25) – drugo izdanje // 11. savjetovanje o kartografiji i geoinformacijama / Lapaine, Miljenko (ed), Buzet: Hrvatsko kartografsko društvo, 26–26 (poster, sažetak, ostalo)

Vuković, Valentina; Hamin, Sandra; Poslončec-Petrić, Vesna; Frangeš, Stanislav; Župan, Robert (2015): Volontersko prikupljanje podataka u svrhu praćenja buke u realnom vremenu // 11. savjetovanje o kartografiji i geoinformacijama, Program i sažeci / Miljenko Lapaine (ur.). Zagreb : Hrvatsko kartografsko društvo, 11–12 (predavanje, domaća recenzija, sažetak, znanstveni)

Župan, R. (2018): Lecture at elementary school "Ivan Goran Kovačić", 3rd class, "About maps in general, orientation in space and the world", 9. 10. 2018.

Župan, R. (2018): Participation at a scientific picnic with an interactive exhibition / exhibition of cinematic sand and visualization of the height of the sand, 25–27 May 2018 / Lake Jarun, Island of the Universe, Zagreb.

Župan, Robert (2015): Kartografiranje "IoT" // XVIII susret hrvatskih geodeta, Zaton, Hrvatska, 12–14 June 2015

Župan, Robert (2019): Competences and business matters of professional surveyors and cartographers in Croatia // 47th Slovenian Land Surveying Day and 8th Evropski dan geodetov, 14–15 March 2019, Novo Mesto, Slovenia

Župan, Robert; Frangeš, Stanislav (2015): Map of the Diocese of Požega (Dioecesis Posegana) // Journal of Maps 11, 3; 496–505 (članak, znanstveni)

Župan, Robert; Frangeš, Stanislav (2019): Boje na kartama // Festival znanosti : Tehnički muzej, Zagreb, 2019. (predavanje, ppt prezentacija)

Župan, Robert; Frangeš, Stanislav (2015): Web-cartography . Zagreb : Geodetski fakultet

Župan, Robert; Frangeš, Stanislav; Jagetić, Jurica (2018): Roman Catholic Diocese of Varaždin (Diocesis Varasdinum) // Journal of Maps 14, 2; 509–516 (članak, znanstveni)

Župan, Robert; Frangeš, Stanislav; Rezo, Milan (2016): Analiza planova i karata grada Zagreba na hrvatskim kartografskim web servisima i portalima. // Geodetski list : glasilo Hrvatskoga geodetskog društva. 70 (93), 1; 39–58 (pregledni rad, znanstveni)

Župan, Robert; Poslončec-Petrić, Vesna; Frangeš, Stanislav (2016): Karte uz hidrotehničke ekspertize Ruđera Boškovića // Ruđer Bošković i geoznanosti / Miljenko Lapaine (ur.). Zagreb : Geodetski fakultet Sveučilišta u Zagrebu, Državna geodetska uprava, Hrvatska komora ovlaštenih inženjera geodezije, str. 297–314

Župan, Robert; Župan, Katarina; Frangeš, Stanislav; Vinković, Adam (2018): Automatic Procedural 3D Modelling of Buildings. // Tehnički glasnik - Technical Journal 12, 3; 166–173 (članak, znanstveni)