

**Beyond East and West: Geocommunicating the Sacred Landscapes of “Duklja” and “Raška”
through Space and Time (11th-14th Centuries) [FWF DFG I 4330-G]
Final Project Report**

1. Report on Research Work

1.1 Information on the Development of the Research Project

The project lasted from 1 March 2020 until 31 August 2023. It aimed at doing research on three interrelated research questions, which are mirrored in the project’s three case studies and which were addressed consequently in three distinct work packages [“The Latin and Byzantine (Orthodox) Churches and Their Respective Influence as Mirrored in Local Rulership (11th-12th Centuries)”]; “The Latin and Byzantine (Orthodox) Rite as Mirrored in the Local Ecclesiastical Edifices (11th-13th Centuries)”]; “Objects of Art as Intermediaries between the Latin and Byzantine Worlds, especially in the Time of Queen H el ene d’Anjou (ca. 1250-1314)”].

The project has drawn primarily upon published Byzantine, Latin and Slavonic written sources, archaeological and art historical data as well as geo-data, on all of which tools of Cartography and Digital Humanities were applied. Our project team ( AW: B. Koschi ek-Krombholz, M. St. Popovi , D. Schmid, D. Vargov ; University of Vienna: M. Breier, F. Korn, L. Kreil-Brunauer, K. Kriz, D. Nell, L. Neugebauer, E. Pieringer, A. Pucher, D. Salim; HTWK Leipzig: J. Tripps, B. Vrane evi ) has structured the work plan accordingly and has followed the respective work plan throughout the entire duration of the project.

Since the *Case Studies No. 1* and *No. 2* are thematically intertwined, we focussed strongly on data acquisition from written sources, secondary literature as well as from archaeological and art historical publications on churches, monasteries, fortresses and settlements in the area of research in the first one and a half years of our project. This facilitated the compilation of a catalogue of Latin and Byzantine (Orthodox) churches and monasteries in the area of research, which ultimately led to their description and analysis (dating, ground plans, decoration, art historical influences etc.) and the embedding of the respective data into our project’s *OpenAtlas* database. Moreover, geo-data on the area of research was gathered systematically in order to create a digital map layer of today’s Montenegro and adjacent areas, which served equally our needs for designing maps for our scholarly publications as well as for using it in our project’s *Frontend*.

The first one and a half years of our project were crucial for its outcome, because we aimed to create a solid basis of various data sets, which we then queried and compared systematically in our *OpenAtlas* database in order to address our research questions. From the part of the Art Historians in our team 155 churches and monasteries from the 6th to the 14th centuries were researched, described and the respective data and localisation embedded into our database, which was of the utmost importance for our surveys in the area of research in the years 2021 and 2022 (see below).

Moreover, we managed to join forces with another scholarly project entitled “Cultural Heritage in Times of World War I: The Case of the Austro-Hungarian Relief Map of Montenegro (1916-1918)” (<https://tib.oeaw.ac.at/subprojects/montenegro>), which enabled us to make a 3D scan and model of the relief map of Montenegro from 1916/17 (<https://tib.oeaw.ac.at/static/3dhop/relief.html>) with the help and expertise

of M. Hernández Cordero (Österreichisches Archäologisches Institut of the ÖAW) during a survey to Montenegro from 1 March until 10 March 2020 and which we used for the modelling of the transportation network in our area of research.

All of the aforesaid was the prerequisite for our first joint publication entitled “On the Crossroads between East and West: Geocommunicating Medieval Sacred Landscapes in Today’s Montenegro – First Project Results” (<https://maps-of-power.oeaw.ac.at/projects/holdura#publications>), in which we explained our data acquisition, its quality and future paths of analysis in great detail as well as presented our first results.

These prerequisites enabled us in the project’s second and third year to do in-depth research on our data and to write scholarly publications as well as to engage in the development of content and the technical framework for the envisaged geocommunication.

There have been no changes in the research orientation between the beginning and the end of the project. Regarding the workflow, we were forced to adapt our plans in two points due to the outbreak of the COVID pandemic in March 2020. Firstly, we had to postpone our surveys in the area of research due to three consecutive COVID waves and respective lockdowns in Austria as well as in Montenegro. These surveys were of the utmost importance for our project in order to localise the respective churches and monasteries, to describe them, to make digital photographs and drone images as well as drone movies and to do research on the artefacts in the churches and monasteries themselves, here especially in the treasury of the Monastery of *Sveti Petar Cetinjski* in Cetinje.

The second task, which we had to adapt because of the pandemic, was the planned International Workshop on the first results of our research in Vienna and their thorough discussion with national and international scholars in our project’s second year. Here, we used the International Medieval Congress Leeds 2022 as a platform for presentation and discussion by submitting three sessions entitled “Mapping Borders and Cultural Heritage beyond the Eye” comprising altogether nine papers. This enabled us to promote our scholarly results to a wide audience and to engage in fruitful discussions, thus substituting fully the workshop in Vienna. Finally, we also took part in the International Medieval Congress Leeds 2023 with three sessions entitled “Entanglements across Medieval Space, Objects, and Data” in order to present main aspects of our final project results.

1.2 Most Important Results and a Brief Description of Their Significance

a) Firstly, we engaged in the research question, in which way the historical region of Duklja underwent a transformation from an ecclesiastical point of view in the period from the 6th to the 11th centuries. For this reason, we introduced the local toponymy into our analysis after having embedded relevant data into our *OpenAtlas* database. Based on this, we created “distribution maps”, thus amending the evidence from the written sources and enriching the restricted view on the relation between the Latin, Slavonic and Byzantine worlds in Duklja. The toponomastic evidence shows clearly that the Latin population and language can be localised in three clusters in the South-West, the North-West and the North-East of the area of research, but that we can discern a “missing link” between the coast and its hinterland to the North and especially to the North-East of the modern city of Podgorica.

Then we also introduced medieval Latin sources in order to illustrate the relation between Rome and Constantinople in Duklja and developments within the local church from the 6th century to the year 1054.

Here, it becomes evident, how the political influence by Byzantium led to a political orientation of the area of research towards the East. The establishment of the Archbishopric of Ohrid (1019/20) meant that the interior part of the former *Illyricum* came under a strong influence of the Patriarchate of Constantinople, a process, which had already begun in the first half of the 8th century. Still, Papal policy tried to upkeep its claim on a local level, which becomes manifest in the coastal areas of Duklja and the influence exercised by the Archbishopric of Ragusa (Dubrovnik). In order to connect this source-based outline on the ecclesiastical organisation in the area of research from the 6th century to the year 1054, we again resorted to “distribution maps” to discern the pattern of ecclesiastical monuments (i.e. churches and monasteries) in the area of research in the aforesaid period. Thus, we have been also able to highlight, in which way they share Western and Eastern influences in architecture.

While we can identify a strong cluster of ecclesiastical monuments in the coastal area of Duklja in the period mentioned, only two of them are to be found far in the hinterland to the North-East in Zaton and Bijelo Polje. This fact raises new questions on the connection between the coast and its hinterland and the respective medieval road network, which we have reconstructed based on the Austro-Hungarian Relief Map of Montenegro (see above). It leads us to the finding that the described “missing link” remains in the historical region of Duklja until the year 1054.

b) After that, we addressed various episodes in the history of Duklja and Raška in the times of Stefan Nemanja. Our starting point has been Stefan Nemanja’s baptism, which highlights the existence of Latin and Orthodox clergy in the area of research. At the same time, it emphasises the contact of this Serbian ruler to both religious denominations. From Stefan Nemanja’s baptism we have shifted our view to the macro-level and have asked, what the “Sacred Landscape” could have looked like in Duklja and Raška in his times.

Therefore, we have resorted to data on *patrocinia* of churches and monasteries as well as on their denominations (Orthodox or Latin or mixed) and on funeral monuments (*stećci*) embedded in our *OpenAtlas* database. This approach enabled us to create “distribution maps” and to test our research questions. In the case of the *patrocinia* we would hypothesise that the *patrocinium* of Saint George has been linking the coast and the hinterland, i.e. Duklja and Raška. While we cannot locate centres of the Bogomils, who were fought by Stefan Nemanja, we discern that Orthodox monuments are located mainly in the hinterland to the North-East, with two exceptions on the coast itself, and that Latin monuments for their part are to be found solely along the coast. Furthermore, we realise that in the area in the North-West, where the *stećci* are mainly located, are neither Orthodox nor Latin churches and monasteries in the period under research. The question remains what the connection was/is between these three entities of monuments.

Such a pattern of distribution of monuments needs input and analysis from Art History as well. Here, the Early Medieval Church of St. Stephen in Sušćeapan and its parapet slabs serve as a vivid case study. Since the medieval written sources have been analysed in detail in many publications and cannot bring forth exceptional new results on the “Sacred Landscape” of Duklja and Raška, Eastern and Western influences in art are helping us to define the areas of contact, interaction and delimitation more adequately.

c) We put a special emphasis on objects of art, which derive mainly from the time of Queen Héléne d’Anjou (ca. 1250-1314), but also from the centuries before her reign. We embedded 52 respective artefacts into our

OpenAtlas database. For this purpose, J. Tripps made a trip to Belgrade from 29 May 2022 to 6 June 2022. He visited, together with B. Vranešević, the museums *Narodni muzej*, *Muzej Srpske pravoslavne crkve*, *Istorijski muzej* and *Muzej Jugoslavije* in order to analyse objects of art and gather data for the database. Consequently, they selected two objects in order to elaborate paradigmatically, in which way Western and Eastern influences can be encountered in them. B. Vranešević focused on the iconography of the parapet slab from the Church of St. Thomas in Kutu, while J. Tripps and B. Vranešević analysed the crown of the Serbian King Stefan Uroš III Dečanski in-depth regarding prototypes, dating, influences, material etc. Both approaches resulted in articles, which are/will be published in the *Zbornik Matice srpske za likovne umetnosti*.

d) As indicated in our project proposal, an integral part of our project is dedicated to geocommunication and outreach. Seminal for these aspects were our surveys in the area of research. The first took place from 24 September 2021 to 10 October 2021 (M. Breier, M. Hernández Cordero, B. Koschiček-Krombholz, L. Neugebauer, M. St. Popović, B. Vranešević), while the second was undertaken from 1 September 2022 to 8 September 2022 (J. Tripps, B. Koschiček-Krombholz, M. St. Popović). Both were crucial for the successful development of the project.

The Team University of Vienna (K. Kriz, A. Pucher, M. Breier, L. Neugebauer) processed the geo-data gathered during the survey in 2021. They created 3D models of monuments and developed a customised homepage for our project's geocommunication to tell the story of our research to the public as well as to the scholarly community: <https://map.geo.univie.ac.at/bew/>

The video footage made by a drone was edited into a short clip to be presented at various events. Multiple versions were created (with and without sound, subtitles, different cut versions) to cater the technical needs of the respective events. The video clip was shown at the "Lange Nacht der Forschung" on 20 May 2022 in Vienna as well as at the IMC Leeds 2022 and was uploaded on the team's Youtube channels (<https://youtu.be/QeR2yPcxY18>; <https://youtu.be/Nhdx2OeWkN8>). Furthermore, a version of the video was submitted to the "ClujShorts" International Short Film Festival, Romania (<http://clujshorts.ro/>), which will take place in April 2024. It will also be submitted to other, similar festivals in the spring of 2024. Moreover, two articles on our project were published in popular scientific journals (in *Forschungsmagazin der HTWK Leipzig Einblicke 2023* and *Antike Welt, Zeitschrift für Archäologie und Kulturgeschichte*).

All of the project's data can be queried freely and maps of the results can be downloaded via our Frontend "Maps of Power": <https://maps-of-power.oeaw.ac.at/frontend>

B. Koschiček-Krombholz has programmed a new homepage to promote our project within the scholarly community (<https://maps-of-power.oeaw.ac.at/>) and an individual web interface for our project data, which enables an open access to all our data and offers a download function: <https://maps-of-power.oeaw.ac.at/projects/holdura#explore>

The database software *OpenAtlas* is open access (open source) and can be found via: <https://github.com/craws/OpenAtlas>

Our project is of huge relevance for many areas of research, namely for Historical Geography, Byzantine Studies, South-East European Studies, Church History, Art History, Geography, Cartography,

Geocommunication and Digital Humanities. It contributes to all of these fields through its scholarly results and digital tools as well as applications, thus being itself transdisciplinary and fostering transdisciplinarity.

1.3 Information on the Execution of the Project

The project lasted from 1 March 2020 until 31 August 2023. Apart from a drone, no major items of equipment were purchased, and there has been no significant deviation from the original plan. Regarding the workflow, we were forced to adapt our plans in two points due to the outbreak of the COVID pandemic in March 2020, which has already been outlined above (cf. 1.1).

2. Career Development

The respective scholarly co-workers have been provided the opportunity to participate for a longer period in the research activities of the Austrian Academy of Sciences, the University of Vienna and the Hochschule für Technik, Wirtschaft und Kultur Leipzig, to gain additional experience in research as well as software engineering and to develop their (scholarly) careers.

D. Vargová enriched her scholarly skills in the analysis of Latin sources and in the writing of articles as well as presenting research results. She has started to work part time for the Institute for Habsburg and Balkan Studies of the ÖAW. B. Koschiček-Krombholz has joined the *OpenAtlas* team of the Austrian Centre for Digital Humanities and Cultural Heritage (ACDH-CH) of the ÖAW in a permanent position, which is an important step in his career development. M. Breier is continuing to teach at the University of Vienna (here amongst others “Map Production and Publication Techniques”) and has started to work for the renowned publishing house Hölzel Verlag in Vienna. L. Neugebauer has begun to work for the administration of the city of Dornbirn in Vorarlberg (Austria) as GIS technician. B. Vranešević had the opportunity to publish her research within the framework of an interdisciplinary project and thus meets the requirements to become a regular Professor at the University of Belgrade.

The project’s significance for the project leaders M. St. Popović, K. Kriz and J. Tripps consists of a methodical development of the disciplines of Historical Geography, Geocommunication, Art History and Digital Humanities. Our project has without doubt raised the awareness for our area of research in the scholarly community as well as in the interested public.

3. Effects of the Project beyond the Scientific/Scholarly Field

Our project has engaged actively in public outreach and dissemination by communicating scholarly results in an understandable way to a wider audience via the aforesaid measures (“Lange Nacht der Forschung”, film festivals, YouTube, articles in popular scientific journals, courses at Universities).

4. Other Important Aspects

Six articles deriving from our project have been published. Two articles are in print at the moment.

All publications can be freely accessed and downloaded as pdf via:

<https://maps-of-power.oeaw.ac.at/projects/holdura#publications>

24 papers have been given at national and international conferences and workshops by our project team specifically on our project.

A complete list of papers can be found via:

<https://maps-of-power.oeaw.ac.at/projects/holdura#presentations>