



Mapping cultural heritage: CLIO MAP, Montenegro

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CLIO Baza kulturnih dobara

Naziv dobra - lokacije

Ništa

Naziv dobra - područja

Nema podataka

Vrijeme nastanka - jednostavni - lokacije

Ništa

Vrijeme nastanka - detaljni - lokacije

Ništa

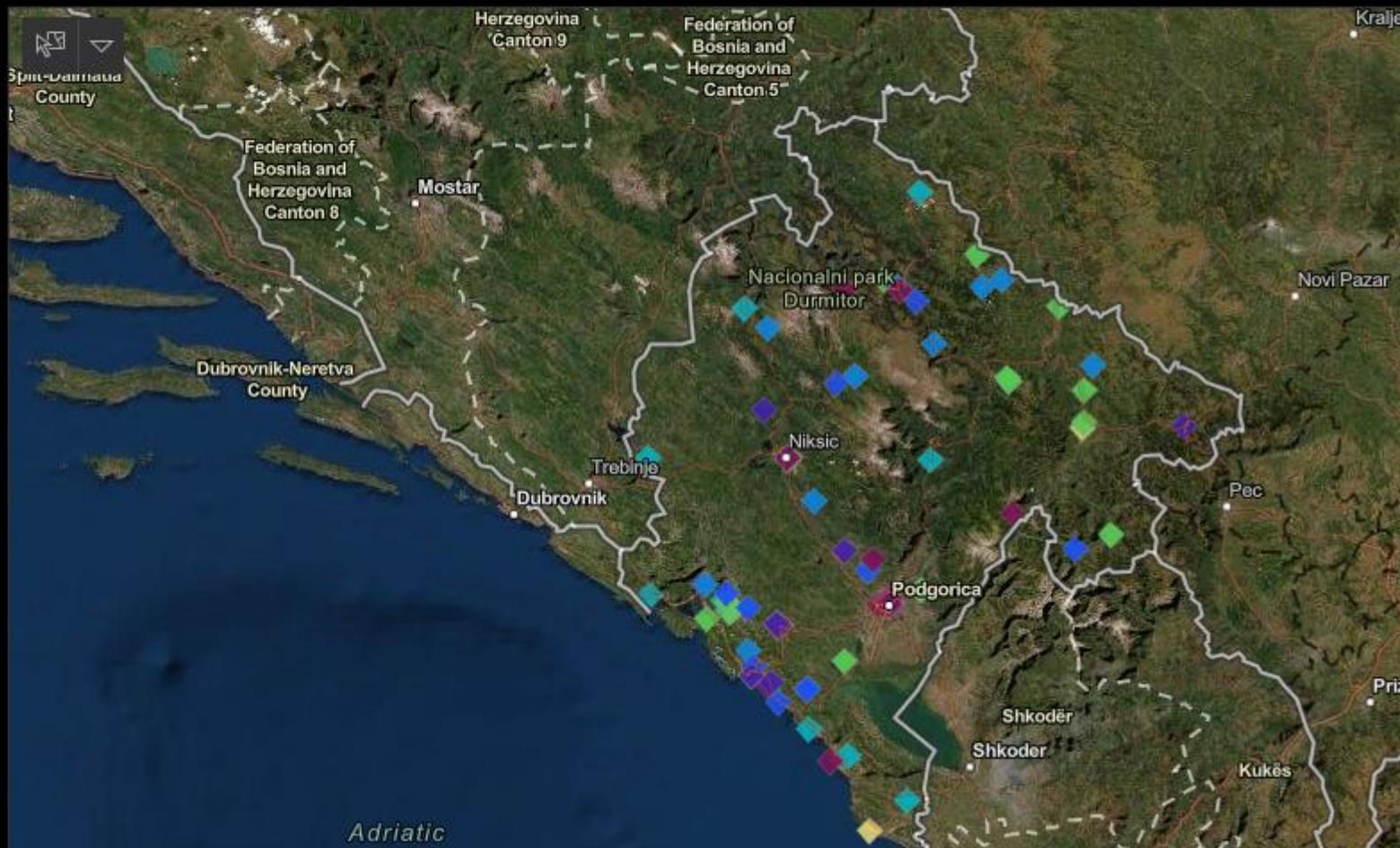
Dobra zaštićena u datumskom periodu - lokacije

Ništa

[Ručno \(stavi tačku za godinom\)](#)

Zaštićeno dobro - lokacije

Ništa





- The main goals of the CLIO MAP project are to enrich the knowledge base on historical, social, and cultural processes, resulting in the present Montenegrin cultural landscape, determine its characteristics and current incarnations, as well to develop the new, digital tool (commercial mobile application) for their further valorization in commercial purposes and preservation.
- The planned activities cover the continuum from deciphering historical contexts creating certain segments of heritage, its elements, characteristics, monuments, and artifacts. They consist of desk (archival, librarian, and other collections) and field (location survey, drawing plans, taking the photo and video material, interviews) researches.
- It is envisaged to have c.ca 500 monuments and artifacts of cultural-historical heritage on the territory of Montenegro covered in our database and relevant data processed. They are selected according to the chronological, thematic, problem, and territorial dimension. Moreover, we will cover both tangible and intangible cultural heritage in addition to the sometimes neglected field of creative industries.
- Data collected will be presented on the project website www.cliomap.me.

- For this project, we have closely followed a Slovenian example, based on ArcGIS Online services.
- Despite similar visual and functional impression, CLIO Map Web GIS developed in almost inverse order.
- The three Web GIS applications within the project have been developed before the digitalization of the register even started. Consequently, some of the decisions, like how to organize, classify, visualize the cultural heritage goods in the database, even which contents and attributes to be included, have been discussed and re-designed iteratively during the project.
- All the information is in visual form (text, maps, photos). The future national database might include also audio materials (like recordings of speech in dialects, storytelling) or multimedia (like video, interactive video).

1. Enter Information

Naziv kulturnog dobra

Opština

Select...

Materijalno kulturno dobro - nepokretno

Select...

Materijalno kulturno dobro - pokretno

Select...

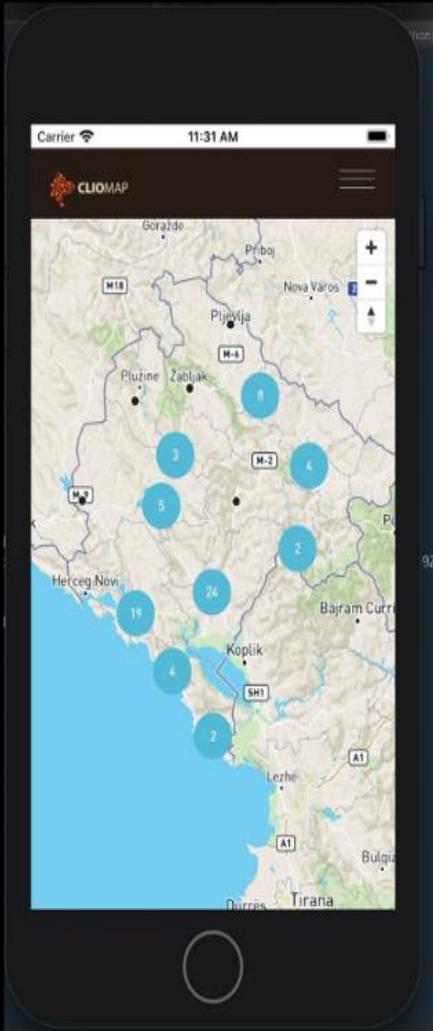
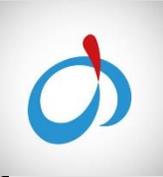
Kulturno-istorijski objekat

Select...

Arhitektonsko djelo

Select...





ClioMap Mobile app is built on Cordova as hybrid app.

We use VueJS with typescript, so in principle, it is a plain frontend single page application. For the API we are using Flask rest for API with Swagger. We use Python for importing data from the GIS database to local MySQL database.

API is exporting swagger generated code with wrapper around it for mobile app. If we decide to go to the native application we can use the same approach for export library that is communicating with API (java, kotlin, swift5).

For the database we use MySQL 5.7, and also use DigitalOcean with Github pipelines.

- The application is developed by the commercial partner, Identity & Promotion, and its lead consultant, Ilija Perić.
- The presentation of cultural heritage rests mostly on appealing visuals.
- In the case of the CLIO Map project, our main target is tourists visiting the country.
- This application, which keeps the potential for constant upgrading and continued relevance, will be maintaining its sustainability for a prolonged period since the market for cultural tourism in the country is expected to grow.



Possible future: 3D reconstructions and visuals; Žabljak Crnojevića, Skadar lake done by our bilateral partner School of architecture, Tianjin University, China



The free narrative formats of historic and cultural heritage research are in opposition to an online setting that relies on structured data for access and use. Any kind of heritage GIS system always integrates inclusive and very detailed documentation data on physical characteristics of heritage properties and settings through textual reports, drawings, and photographs.

Most of these systems have a common problem, they only use GIS for recording properties' position without additional data integration through the geo-referencing approach. We believe we should study and analyze the reality in multidimensional and integrated approaches, fostering at the same time the “socialization” of spatial information.



Thank you!

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