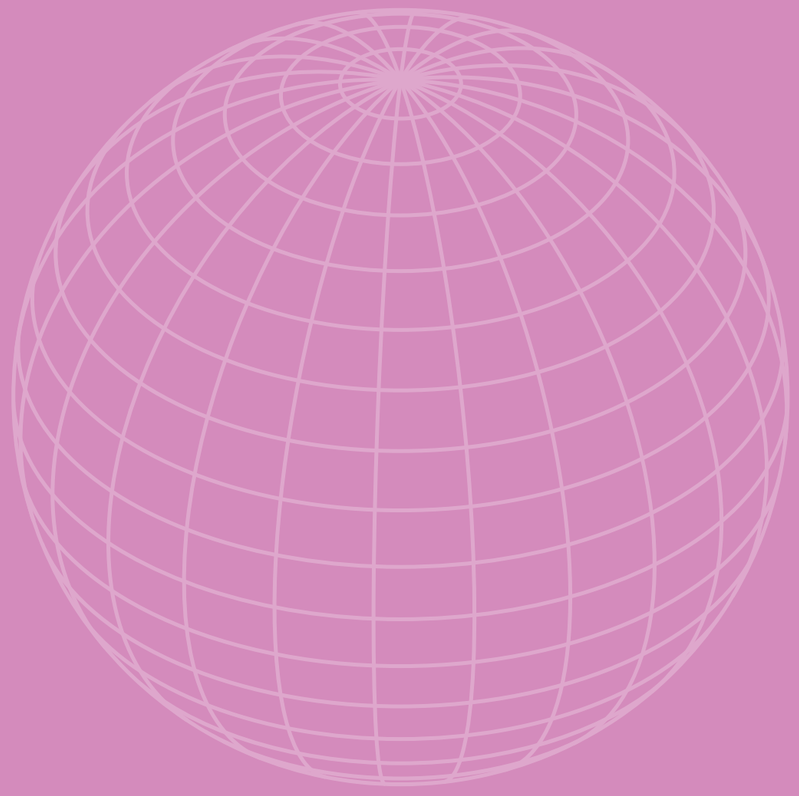
PORTFOLIO



EMMA _
GARCIA BOADAS

Copernicus Master

in Digital Earth

I´m a Geology Student from Catalonia, Spain.

I have had the privilege of receiving an Erasmus & funded scholarship for the joint programme Copernicus Master in Digital Earth which I am undertaking at Paris Lodron University Salzburg (PLUS) and Palacký University Olomouc.

During my first year at Salzburg University I progressed with my knowledge and ability within the topics of Data analysis, remote sensing and spatial data. I was lucky to expand my working knowledge with ArcGis Pro, eCognition, R and Google Earth Engine (GEE).

I then moved to the eastern Czech Republic city of Olomoucs, to commence my final year of my Masters degree in which I focused on Cartographic production and design and geovisualisation. I learned the skills of creating interesting infographics and meaningful data visualisation that was easy to comprehend and well designed using creative suites like Adobe.

This Portfolio is a short reel of what I have created in the past two years during my Masters.

COPERNICUS MASTER IN DIGITAL EARTH

PARIS LODRON UNIVERSITY SALZBURG

Palacký University Olomouc

CONTENTS

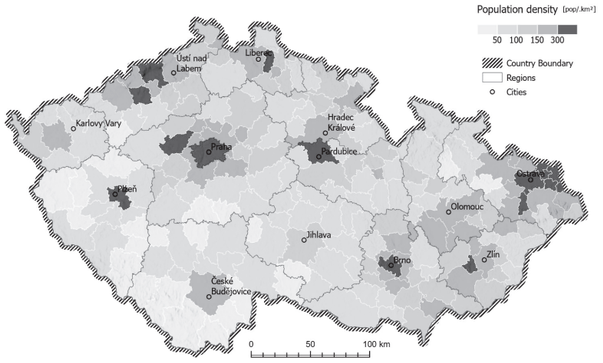
- MAPS
- POSTERS
- DIGITAL

MAPS

The following series of Maps show some demographic characteristics of Czech Republic.

POPULATION DENSITY

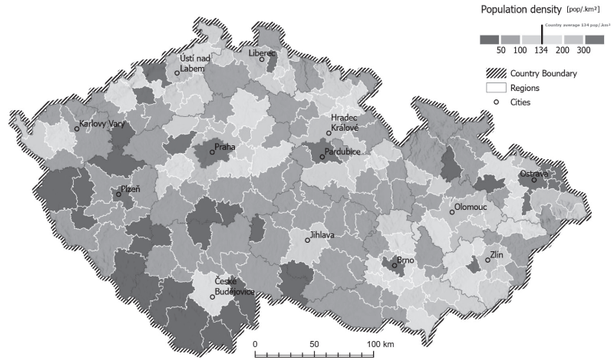
Czech Republic, administrative districts communes, 2023



This map was created by Emma Garcia Boadas with collaboration with Salzburg University and Palacký University Olomouc, the data used: Open Street Maps and Open Database, the map is for educational proposes.

POPULATION DENSITY RESPECT AVERAGE

Czech Republic, administrative districts communes, 2023



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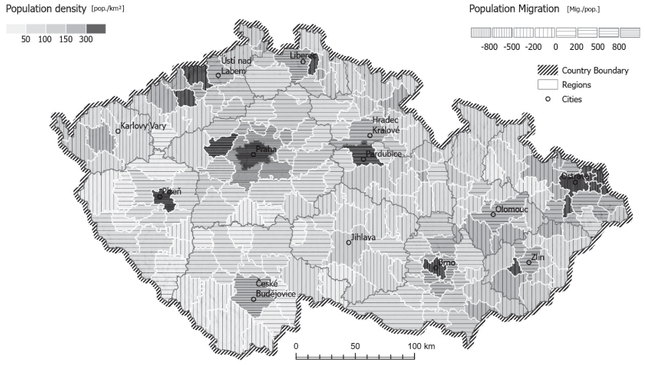
POPULATION DENSITY + POPULATION MIGRATION

Czech Republic, administrative districts communes, 2023



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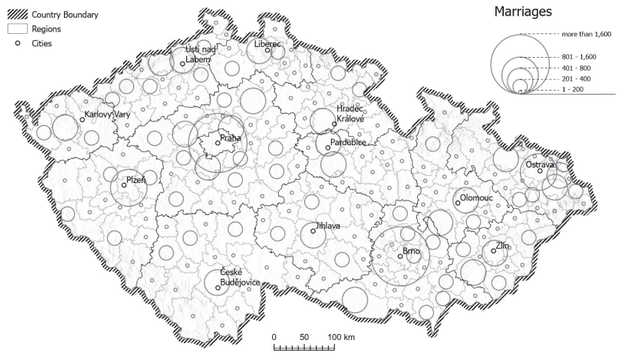
MARRIAGES Graduated Symbols

Czech Republic, administrative districts communes, 2023



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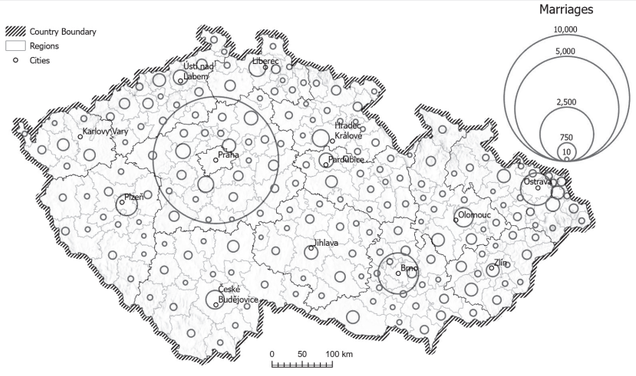
MARRIAGES Proportional Symbols

Czech Republic, administrative districts communes, 2023



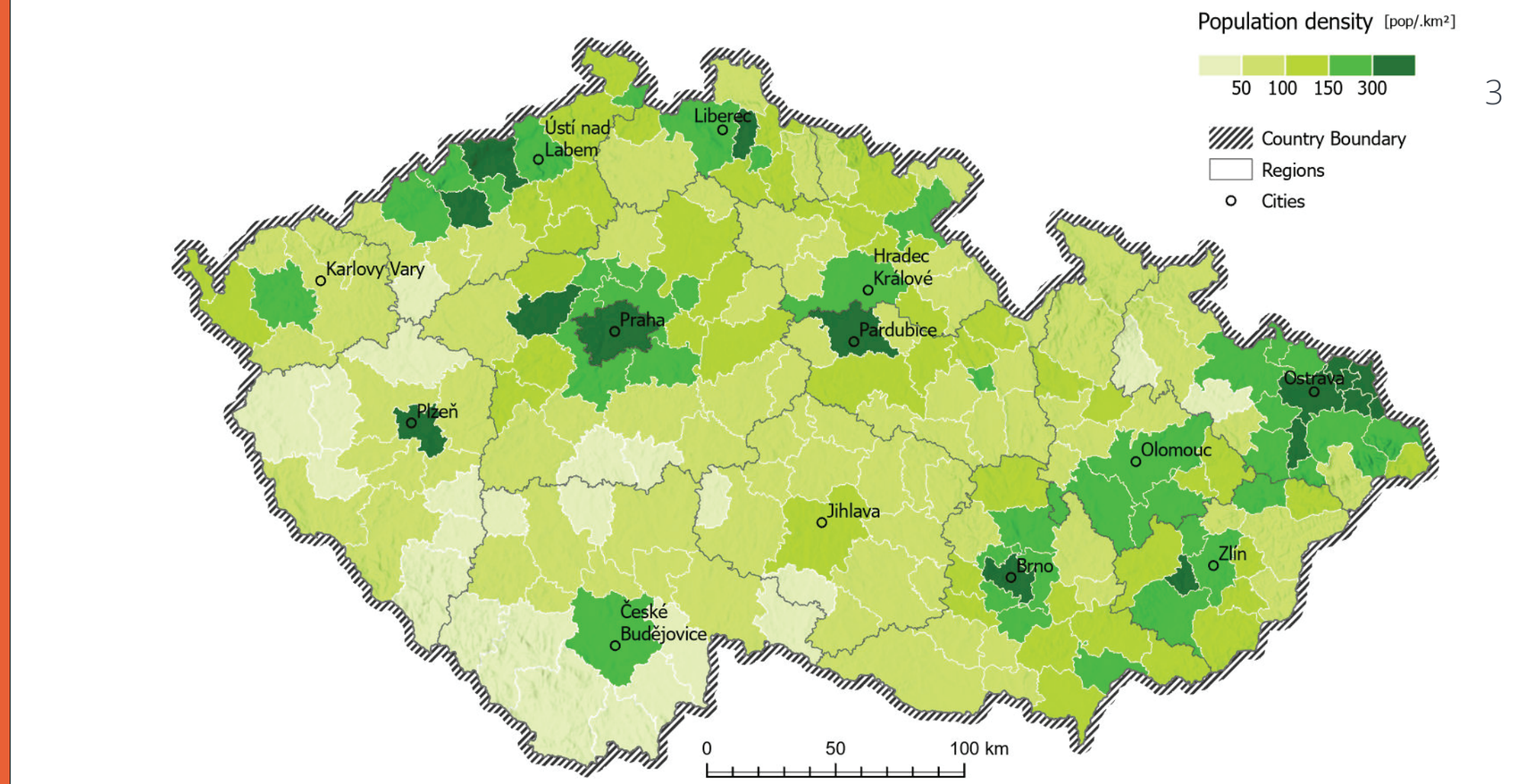
This map was created by Emma Garcia Boadas with collaboration with Salzburg University and Palacký University Olomouc, the data used: Open Street Maps and Open Database, the map is for educational proposes.

Poulation Density Map

The choropleth map represents the population density of the Czech Republic.

POPULATION DENSITY

Czech Republic, administrative districts communes, 2023



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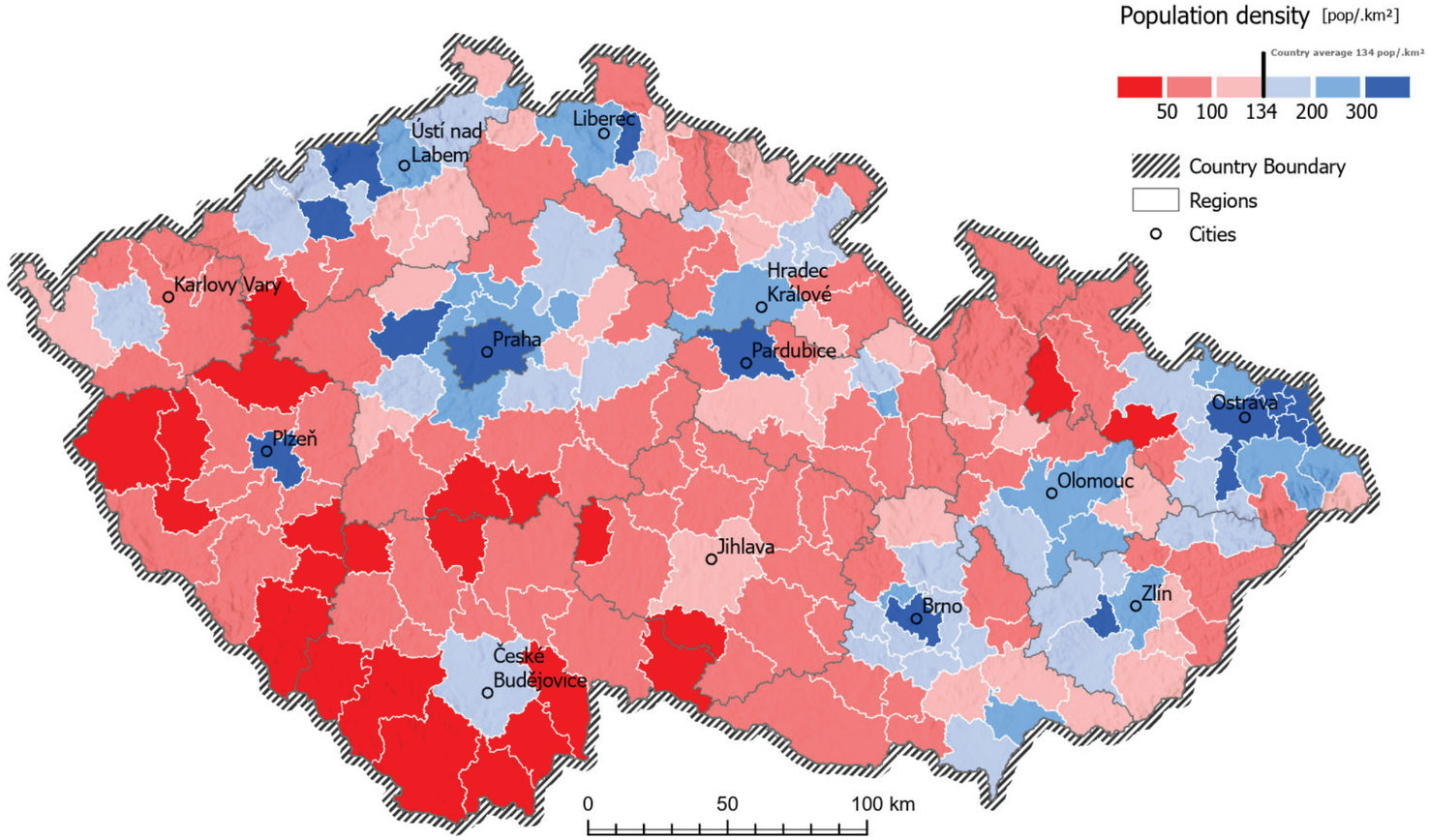
Population Density Map Respect Average

The bivariate choropleth map represents the population deviation density of the average population of the Czech Republic.

POPULATION DENSITY RESPECT AVERAGE

Czech Republic, administrative districts communes, 2023



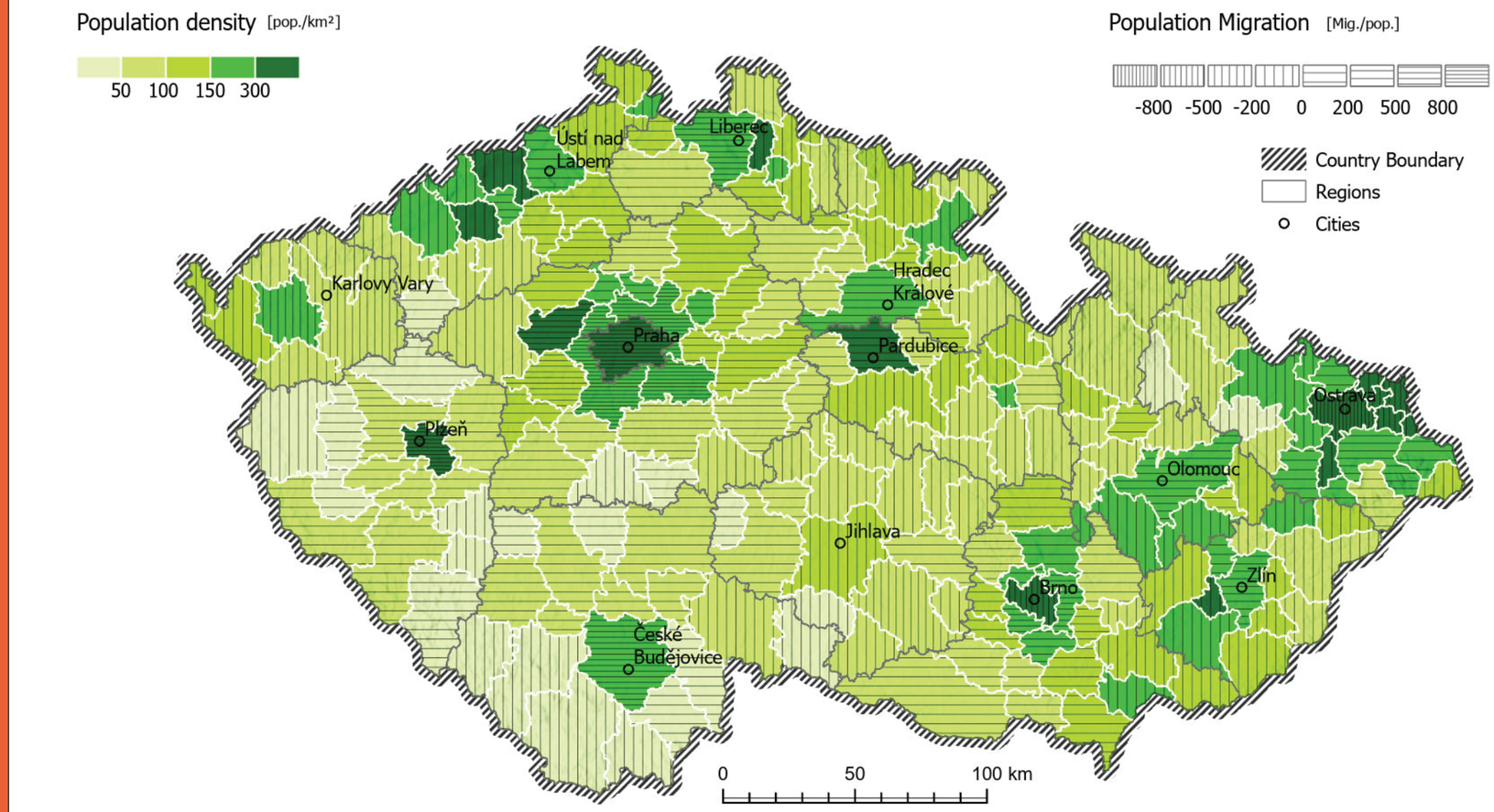
This map was created by Emma Garcia Boadas with collaboration with Salzburg University and Palacký University Olomouc, the data used: Open Street Maps and Open Database, the map is for educational proposes.

Population Density and Migration

The choropleth map of population density has superposed data on population migration, with infill hashed effect, in the different communes in the Czech Republic.

POPULATION DENSITY + POPULATION MIGRATION

Czech Republic, administrative districts communes, 2023



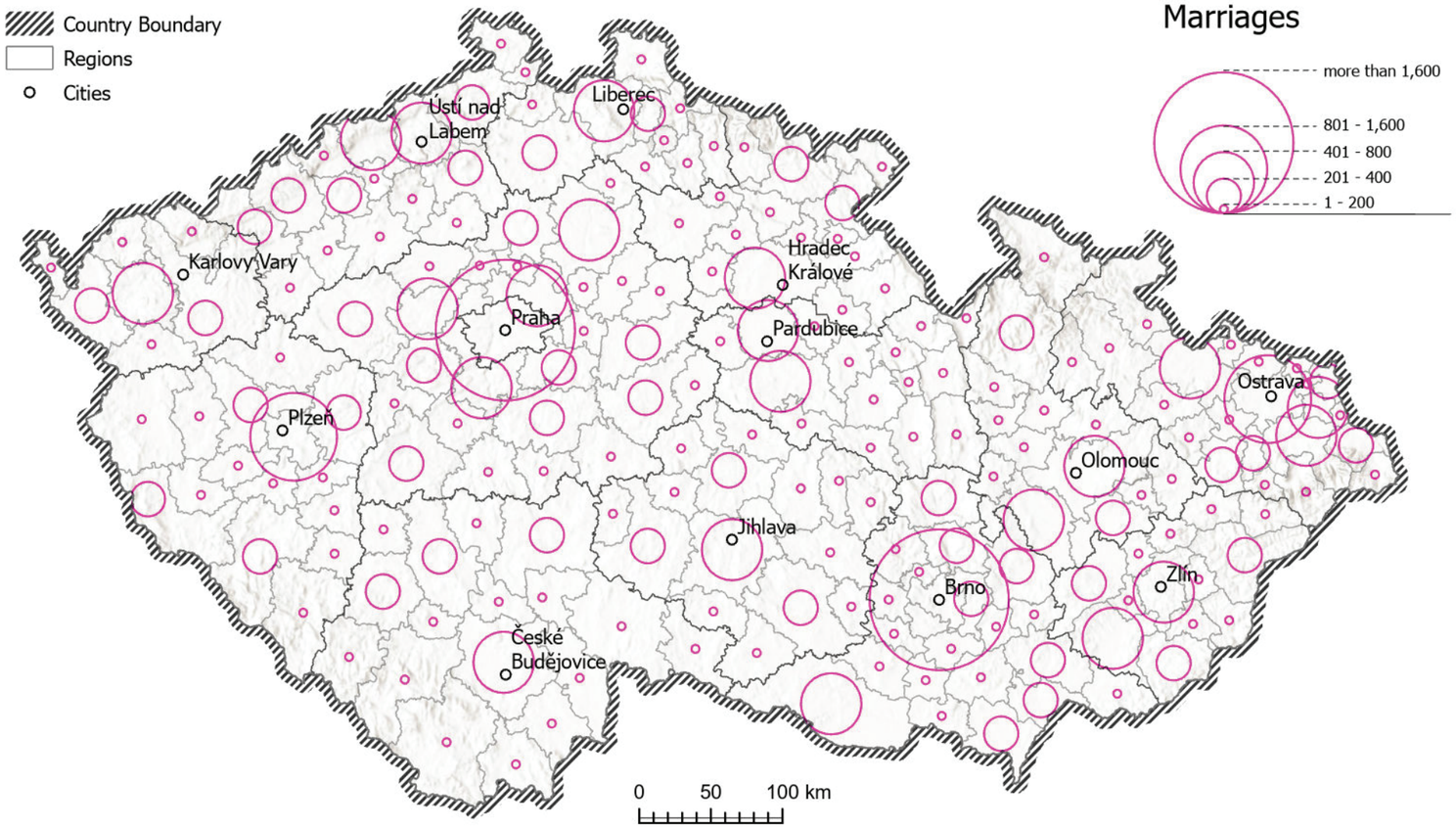
This map was created by Emma Garcia Boadas with collaboration with Salzburg University and Palacký University Olomouc, the data used: Open Street Maps and Open Database, the map is for educational proposes.

Marriages

The graduated map for the Czech Republic represents the number of marriages. The symbol is graduated, meaning the values are compressed between ranges in the representation.

MARRIAGES Graduated Symbols

Czech Republic, administrative districts communes, 2023



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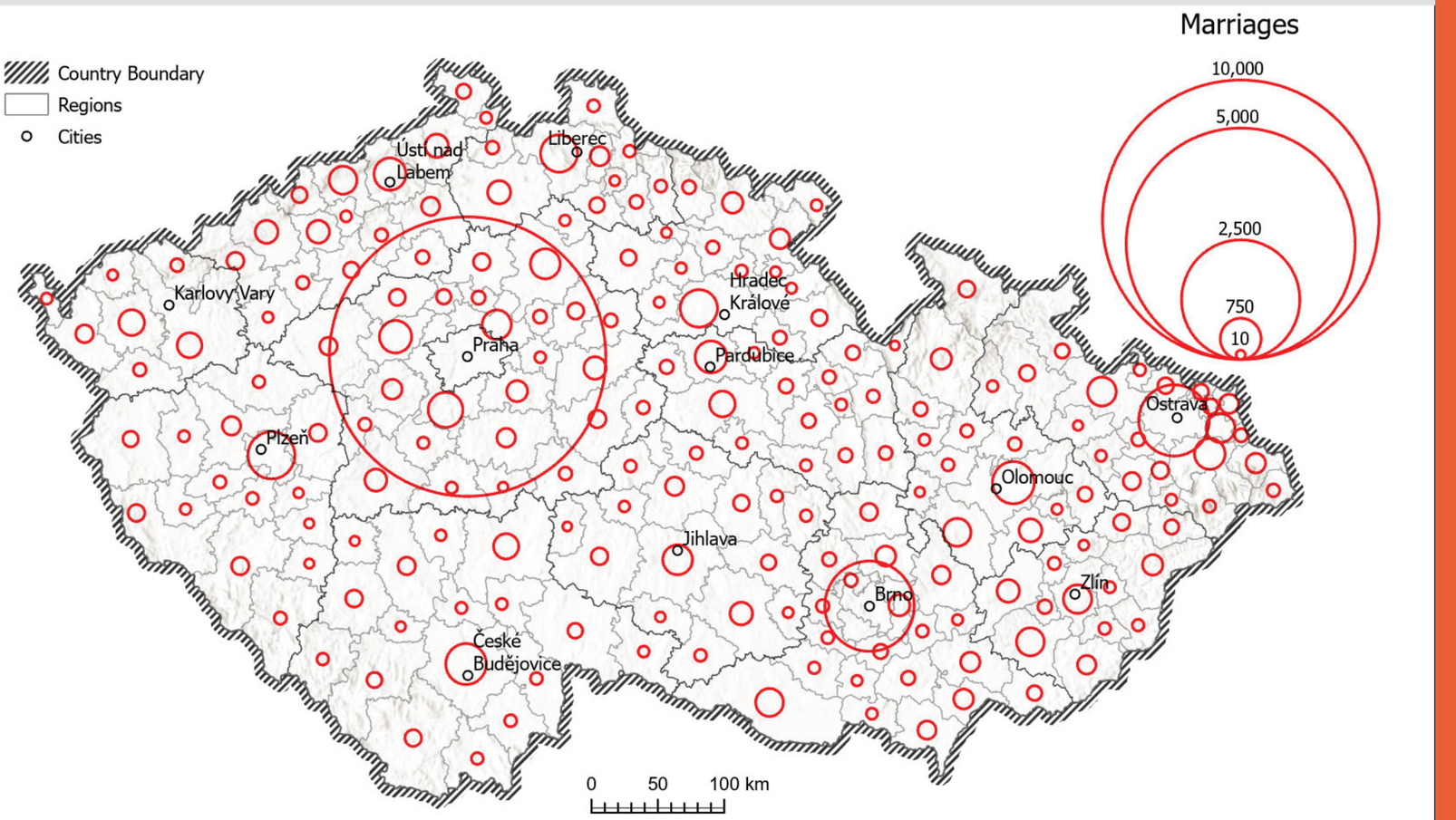
Marriages

The proportional map for the Czech Republic represents the number of marriages in a more realistic way. The symbol is proportional to the actual value of the marriage number. This visualization is more representative of reality.

MARRIAGES Proportional Symbols

Czech Republic, administrative districts communes, 2023



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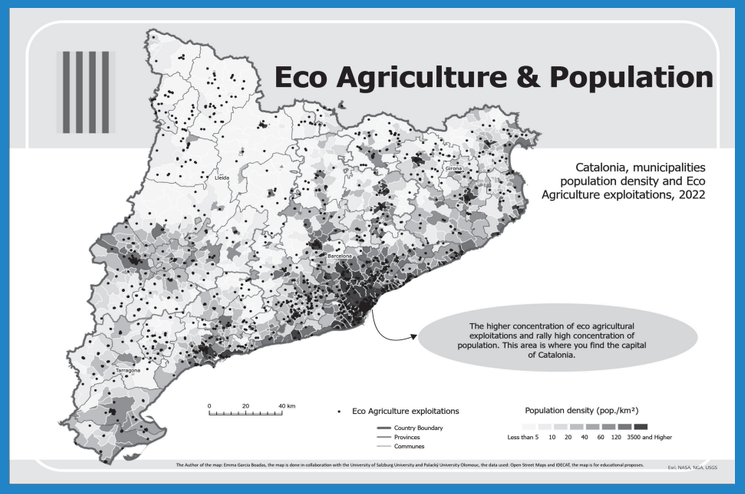
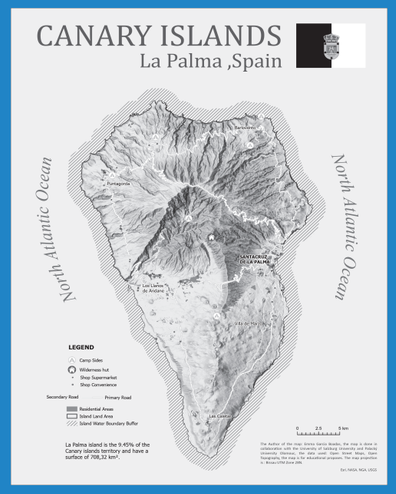
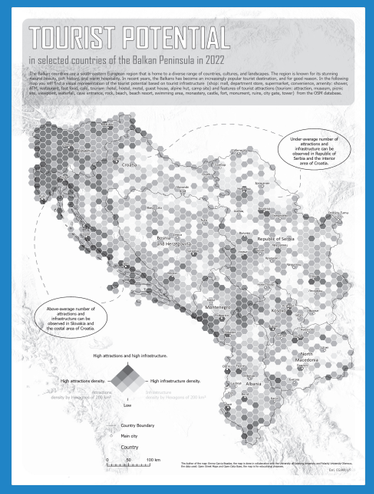
POSTERS

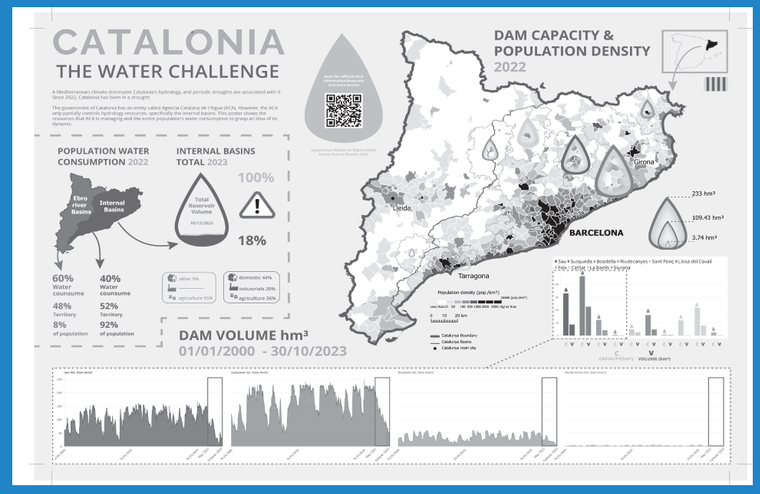
The following maps were created during the past few semesters in Olomoucs, Czech Republic and are sequentially ordered from one to four.

The aim of the posters was to showcase my ability to create compelling infographics and visualise large amounts of data in an interesting layout.



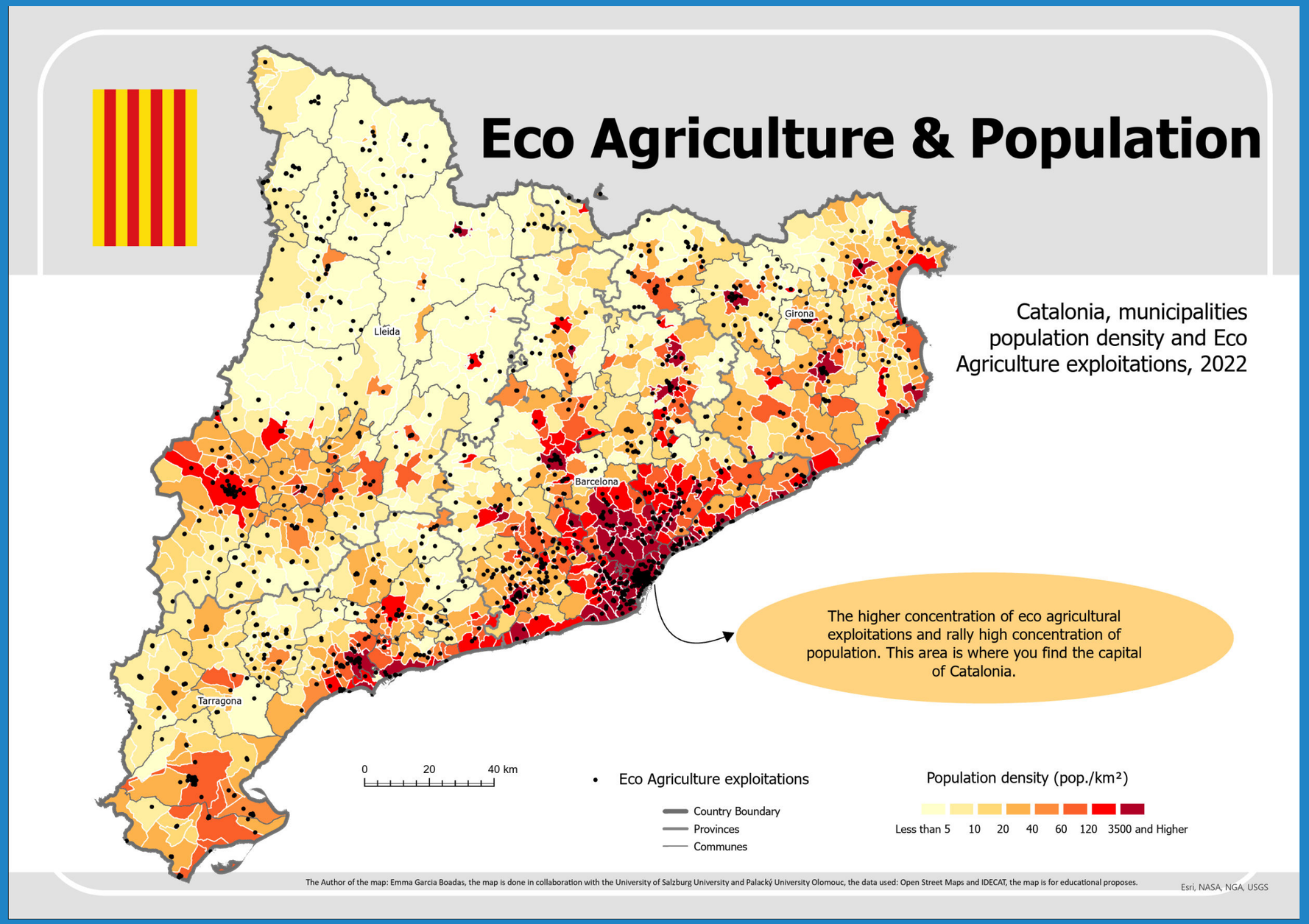






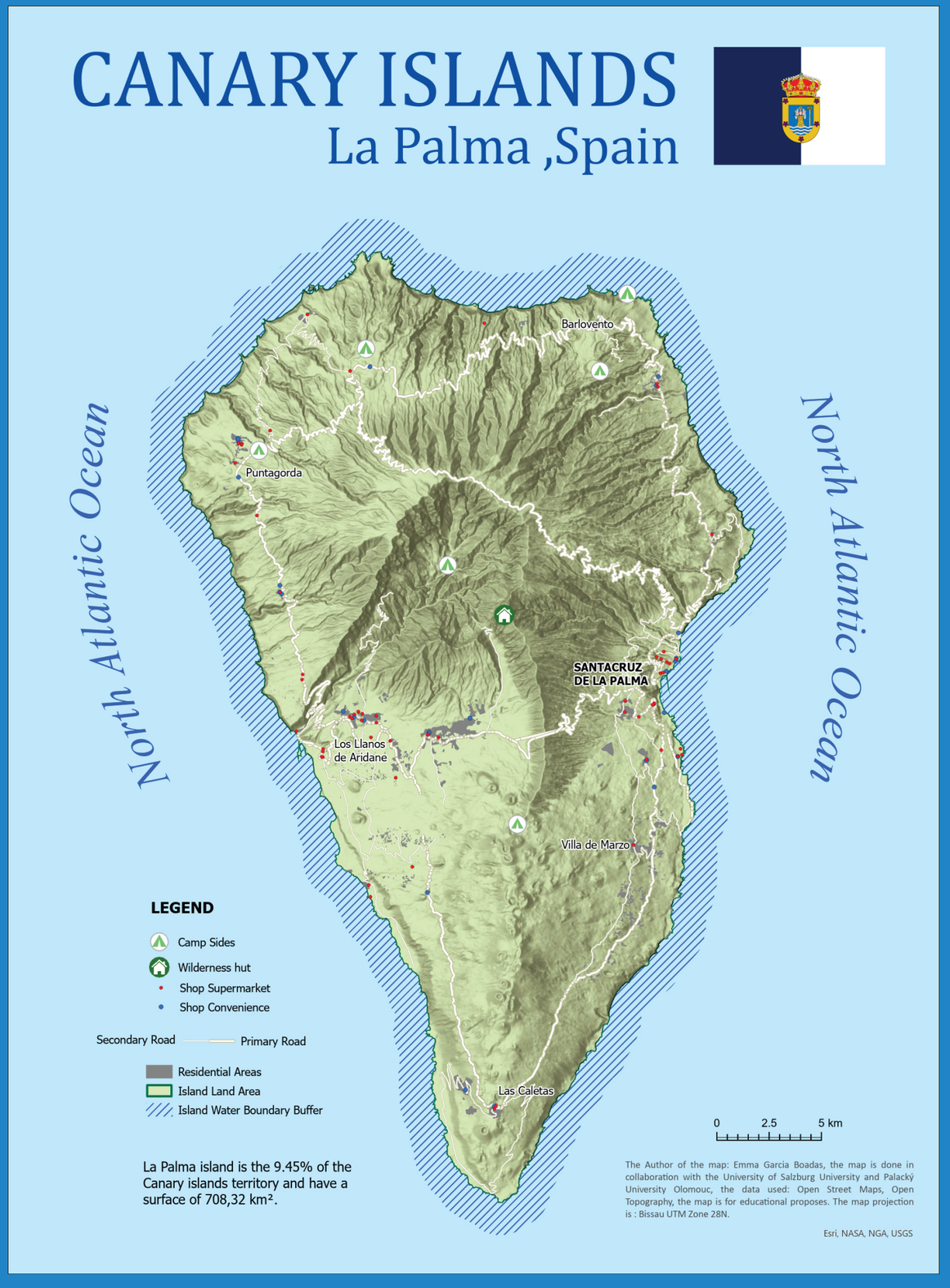
Population Density and Eco-Agriculture

The poster shows the density of ecological agriculture using a density dot method and the density of the population using a choropleth map of Catalonia.



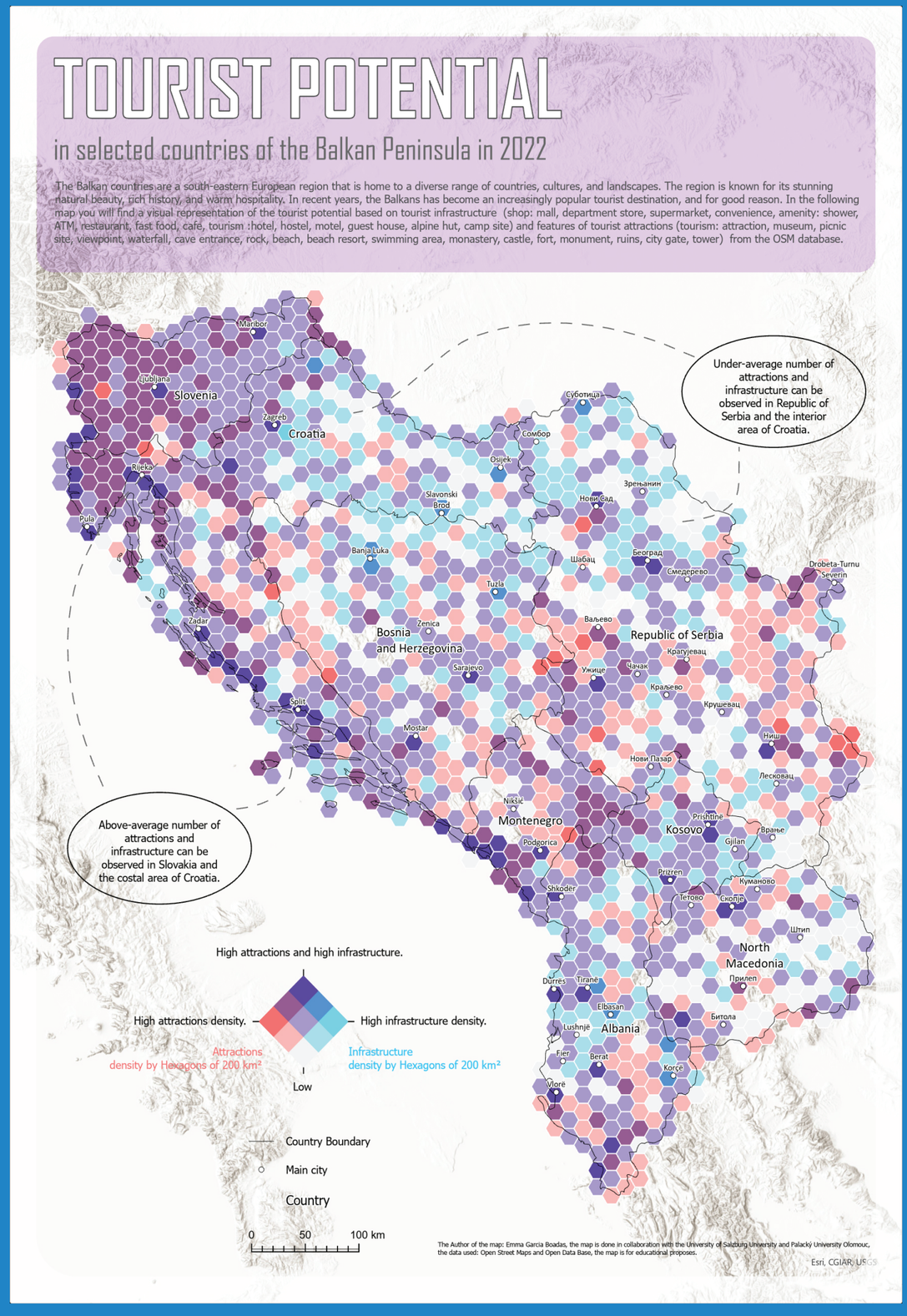
La Palma island

The poster of La Palma island is an excellent artistic visualization of the topography and geography of the island.



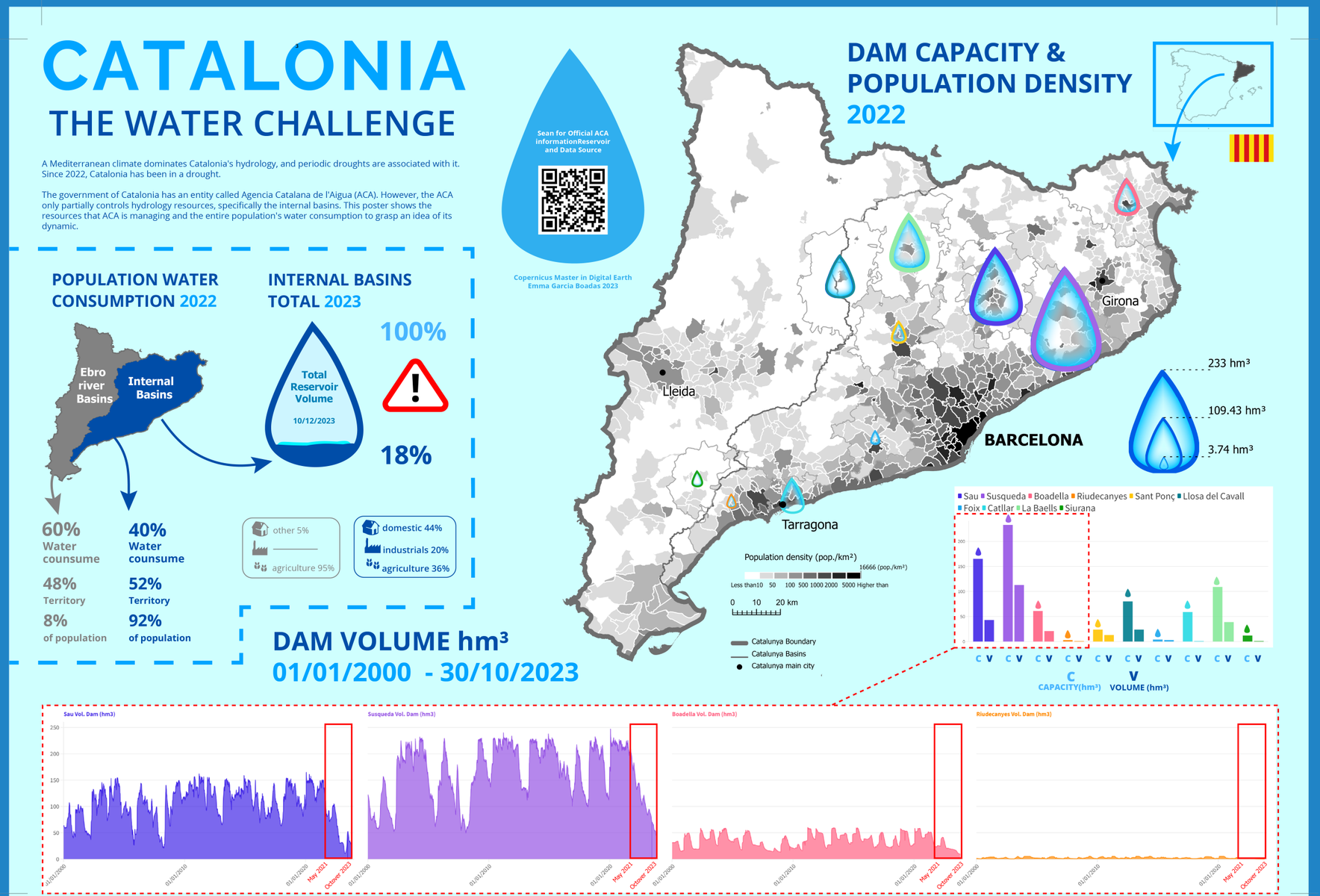
The Balkans Tourist Potential

This poster shows the potential for tourism in the Balkan countries based on attractiveness and infrastructure in 2022.
It is a multivariate map is used to represent the number of facilities available in the Balkan to represent the number of tourist points in each aggregated region.



The Catalonia Hydric Drought

This poster shows the hydric stress causing Catalunya to suffer a severe drought in 2023. The main map shows the choropleth representation of the population and the proportional symbols of the damps in the internal basins of Catalunya. The graphs on the base show the impact of drought on the dams, which is the decrease in water volume over time. Another element of the poster is the infographic owere, which summarizes the water consumption across Catalonia and the natural reserve of water.



DIGITAL

The following links are some examples of digital creation and interactive queries using SQL and ArcGis story maps.

The aim of this was to learn techniqes to digitalise information in a pleasing visual way.

Barcelona Markets: historical and cultural city essentials

The Markets in Barcelona are part of the culture of the city and also some of them are emblematic architectonic buildings. Most of the citizens use them to realize they diary groceries.

This **ArcGis story map's** aim is to create different distance analyses and network analysis. The target is to analysis the relations thought the Municipal Markets of the city , specific address far of the city center (Home) and the Market distribution hub.

https://storymaps.arcgis.com/stories/093644c243224e3cb9c8b5421d31c911

SQL for spatial queries

This Document explores different combinations of spatial operations with **SQL queris**:

Selecting by non-spatial attributes.

Selecting data by spatial properties.

Selecting data by location.

Combination of spatial operations.

https://egarcibo14.github.io/wp-content/uploads/2022/12/Assigment3_E06_EGBs1093348_query.pdf

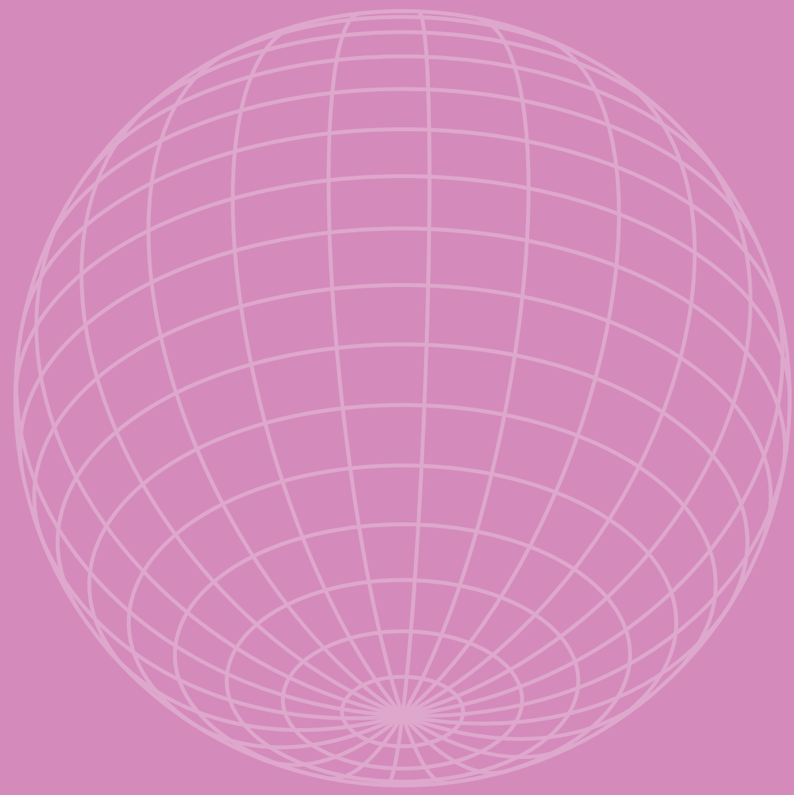
ACKNOWLEDGEMENT

This portfolio is the result of the lecture during the winter semester of 2023 at Palacký University Olomouc.

I am very gratfull for all the shared knowladge and the advice recived from the following staff members:

- Professor Vít Voženíle,
- Dr. Radek Barvir
- Ph.D. Candidate Jakub Koníček
- Dr. Alena Vondráková

My time spent here has been incredibly insightful and I am looking forward to progressing further with the knowledge I have aquired.



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