

Communication Networks: From Early Modern Moravia to Contemporary Czech Republic

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Abstract:

This poster explores the development of communication networks in the Czech lands from the late 18th century (map of Moravia/ Bohemia, Müller J.C., 1716/1720) to present day. It combines historical cartographic analysis with contemporary spatial data (OSM) to highlight long-term changes in mobility and infrastructure.

The first part focuses on the design of early modern road networks in Moravia at the turn of the 18th and 19th centuries. Based on manuscript maps from the Moravian Archives, a selected road section is georeferenced and compared with its current situation. The analysis identifies mapped features and examines the differences between planned and actual routes over time.

The second part examines the historical connection between Prague and Brno, including early highway concepts from the 1930s and the development of the motorway network in Czechoslovakia and the Czech Republic (see Figure 1). It visualizes the expansion of high-capacity roads and compares their extent over time.

The third part contrasts pre-modern and contemporary mobility by combining Müller's 18th-century maps with modern data. It includes a visualization of travel time between Prague and Brno, illustrating changes in accessibility and speed.

Using vectorised road network as displayed on the old maps, network analyses are performed to capture the differences in the travel situation between then and now, such as travel times between significant cities using various means of transport. By integrating multiple time layers, the poster demonstrates how the road network has evolved from the originally planned routes to accommodate modern transport systems.



Figure 1. Planned communication network in Brno and its surroundings (1870, Map Archive of the Department of Geography, Masaryk University).

References

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