ROMAN CATHOLIC CHURCH ADMINISTRATION IN THE CZECH LANDS IN 1715 AS A GEOGRAPHIC INFORMATION SYSTEM

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Introduction

The poster presents results of spatial reconstruction of the Roman Catholic Church administration in the Czech lands in the early modern period. This topic has not been properly investigated in the community of Czech historical geographers yet. The source of historical data are written and cartographic documents from the 18th and 19th century. The main research outcome is old-state Church administration database, from which is derived an interactive online map presented on the portal *cirkevnimapy.cz*. Freely accessible web mapping application provides, in addition to the Church administration layer, other auxiliary layers such as the Müller's map of Bohemia from 1720, the Second Military Survey maps of Czech lands from the years 1836–1852 and current topographic maps. This map mashup is designed to promote the acquisition of historical knowledge by means of maps confrontation.

Sources for Church Administration

For the reconstruction of historical parish network, two types of historical materials must be collected. Written records with classification of each human settlement toward appropriate parish are the first one. This kind of information for Bohemia, Moravia and Silesia in 1715 can be found in catalogues of benefices, parish registers and clerical questionnaires. Historical maps with boundaries of settlements are the second material. However, there is no suitable cartographic work from the early 18th century which could offer boundaries with proper precision. So, they were obtained from maps of stable cadastre originating in the 19th century. But, for reconstruction of territorial limits, Müller's map of Bohemia from 1720 together with literature were taken into account. Another cartographic sources were utilized to locate smaller settlements that no longer exists – mainly the First and the Second Military Survey.

Reconstruction of Historical State

From the collected data using a geographic information system ArcGIS from ESRI, the spatial database of Church administration was compiled. Two basic classes for the spatial data were created – the first to store polygons of settlements, which make up parish as the lowest level of Church administration, and the second point class designed for residencies of Church authorities. Areas where the colonization of frontier forests around Bohemia took place in the 18th century were the most challenging for processing. In such places, in order to get right reconstruction, it had to be carefully decided which localities have been founded before 1715 and which of them later. Informations about the existence of settlements were drawn from Müller's map of Bohemia and from publications dedicated to the settlement development.

Territories (i.e. polygons classes) of parishes, vicariates and dioceses were derived from the base polygon class by applying aggregation functions of geographic information systems. Reference scale of spatial data precision was set at 1:200,000, which corresponds to the scales used for road atlases.

Outputs and Website *cirkevnimapy.cz*

Nearly 6,000 settlements, covering about a third of the historical territory of Bohemia, has been processed yet. Parish network is fully compiled for Diocese of Litoměřice and partially for Prague archdiocese. Reconstruction for Diocese of Hradec Králové and Olomouc have not begun yet. The reason for this state is very difficult collection of written data sources, which takes a lot of exploratory time.
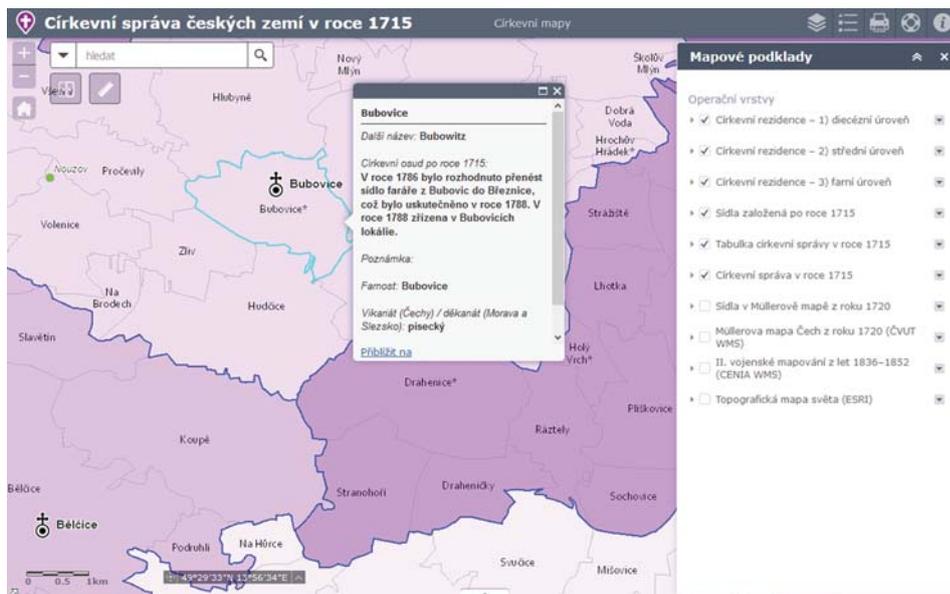
The spatial database served as an origin base for cartographic outputs, one of which is a web map application available on the website *cirkevnimapy.cz*. There are two variants of map application – complex with many interactive tools and simpler with basic functionality.

Moreover, the website contains other useful materials, such as texts about history of Church administration and religious communities in the Czech lands, specialized dictionary of religious terms, map applications help, FAQs, downloads and so on. General public may use website to ease genealogical search for ancestors.

Poster is based on the author's dissertation that required a close interdisciplinary collaboration between social and natural sciences.
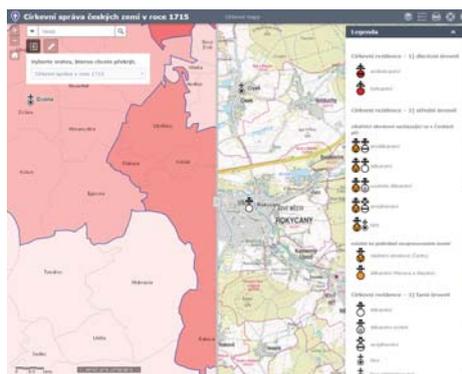
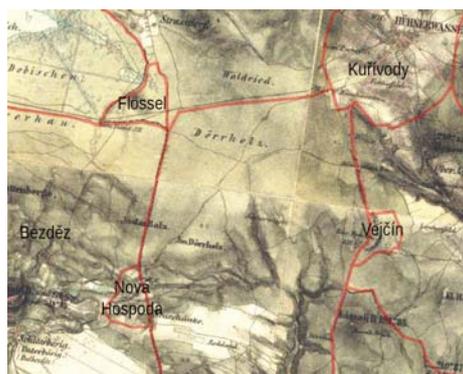## Web Mapping Application – *www.cirkevnimapy.cz/cirkevni-sprava-1715/*

Web mapping application environment with pop-up window describing attributes about settlement Bubovice. At the upper left corner, there are base tools for scale change and search. Other controllers are at right corner, such as opened window for map layers.
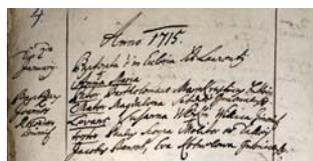
Map Mashup

Use of swipe tool for easy comparison of Church administration layer and current topographic map. On the right side of web mapping application window, map legend panel is turned on.

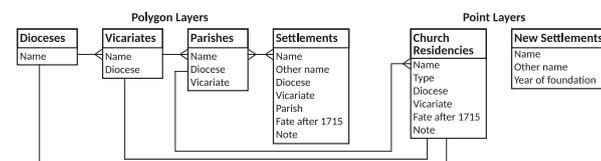### Reconstruction of Historical Boundaries

Some ways how historical boundaries of extinct settlements were obtained – Nová Hospoda and Vejčín separated proportionally; Flössel along the path of the Second Military Survey.
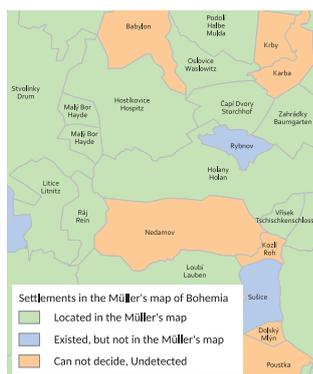
Parish Register Record in 1715

Sample record from parish register of baptized, church of St. Lawrence, Butovice.

Proposal of Spatial Database Structure

Spatial database schema where linkage between classes can be seen. This initial proposal had been further edited and normalized in order to get rid of data redundancy.

Layer Existence of Settlements in 1720

Detail of the auxiliary layer of web mapping application, which shows settlements represented in the Müller's map of Bohemia.

Extend of Processed Area of Church Administration in 1715

Current state of reconstruction of historical parish network in the Czech lands. Proper assignment of settlements to parishes is time consuming job that depends mainly on historians. There are approximately 18,000 settlements which have to be processed.