Charles Perthées maps of palatinates (1:225,000, 1783-1804): a digital edition

Tomasz Panecki *, Tomasz Królik

Tadeusz Manteuffel Institute of History of the Polish Academy of Sciences, tpanecki@ihpan.edu.pl, tkrolik@ihpan.edu.pl

* Corresponding author

Abstract:

Charles Perthées, who was a leading cartographer of King Stanisław August Poniatowski at the dawn of the Polish–Lithuanian Commonwealth, drew detailed maps of 11 palatinates of the Crown (1:225,000, 1783-1804). It was a very first map series of the Crown covering this area with the full settlement network, administrative borders, and natural environment. These maps were drawn with almost no field measurements but on the basis of textual descriptions prepared by the Catholic Church parsons from 1778 to 1785. Although the planimetric precision is much lower than on Austrian or Prussian maps of these times, Perthées' maps are much in detail (Fig. 1). For 21 years Perthées managed to elaborate 12 maps for 11 palatinates of the Crown after the First Partition. The maps serve as a primary source of information for settlement network reconstruction of the end of the 18th century and are extremely valuable for historians and geographers (Buczek 1966). The aim of the paper covering the ongoing project is to describe the idea behind their digital edition, the digital representation of the maps and their content (Panecki 2021) and present the early stage of the finished works.
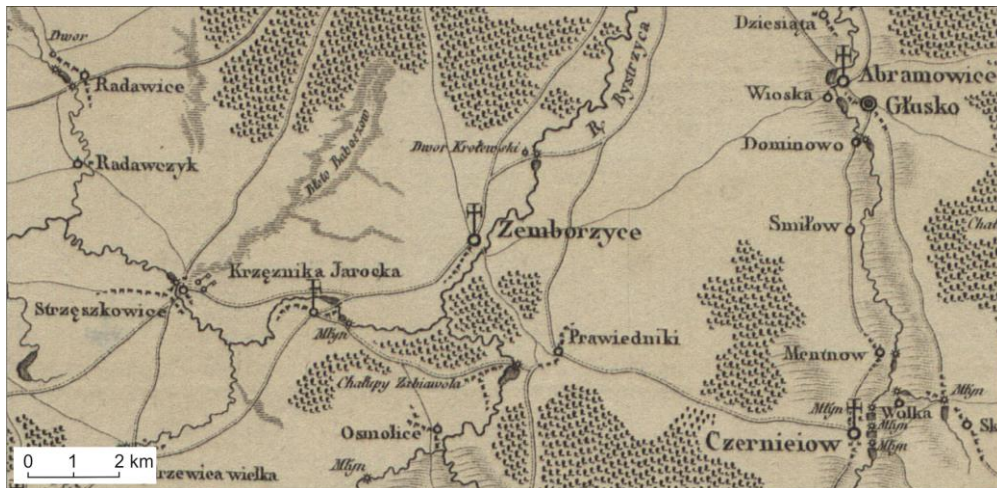
Figure 1. Fragment of the map covering Zemborzyce parish near Lublin (currently eastern Poland).

Editing of the maps has two objectives: (1) preparing maps and data derived from them (2) providing a set of information for the development of a historical map presenting settlements and boundaries of the Crown in the second half of the 18th century. The first objective requires that the map and its content should be represented digitally in the "source-driven" model: as close to the source as possible. The second entails that the data obtained from the maps should be georeferenced and related to the actual historical location of the features they represent. The "source-driven approach", assumes treating maps as images with only a local reference system, and the data model is subordinated to the map legend (Szady, Panecki 2022). The approach involves three steps. In the first, the map sheets are entered into a GIS application and placed next to each other. Secondly, a database structure has been developed for maps' indexation consisting of five tables designed to represent the structure of the map content: "Maps", "Units", "Features", "Symbols" and "Annotations" (Fig. 2). Ultimately, map content is indexed (vectorized).
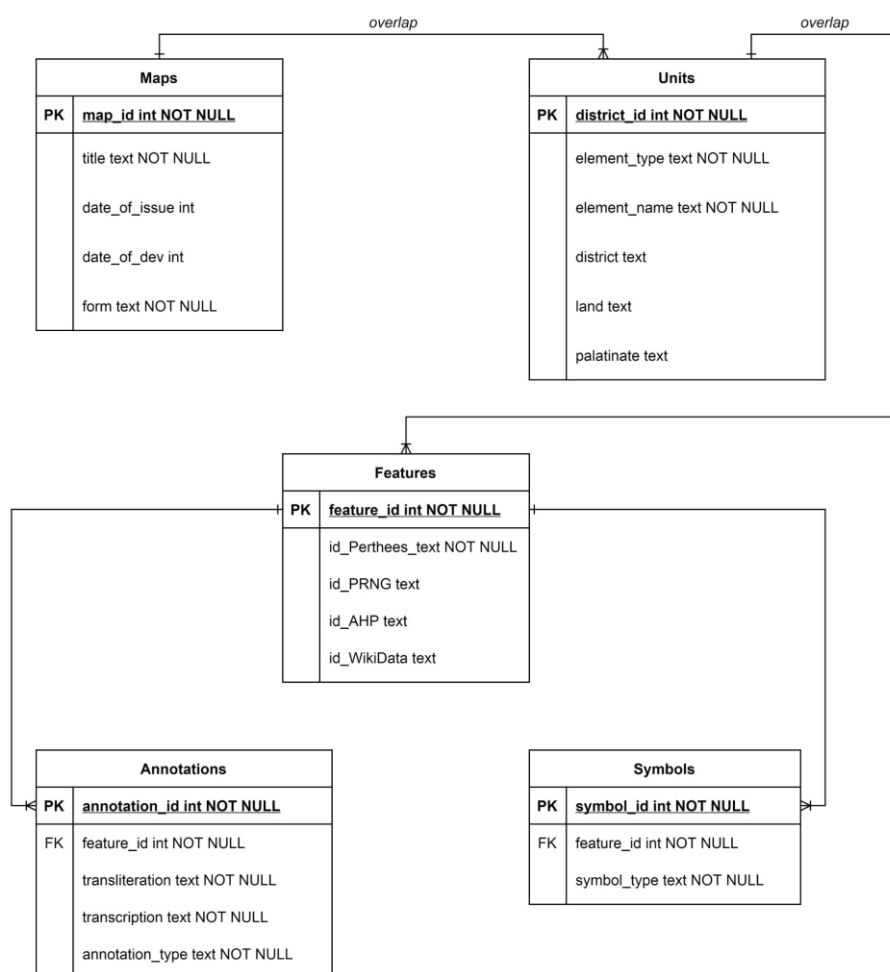
Figure 2. Database scheme for indexing the content of maps of palatinates.

The "Maps" table contains maps sheets frames with basic information about the particular map sheet. In the "Units" table, data on homogeneous areas that can be distinguished on the map are collected. The areas can be of either geographical (district, palatinate) or graphic character (scale bar, legend, title, etc.). To maintain a "source-driven" model, it was decided to separate map symbols from map annotations and collect them in two different tables: "Symbols" and "Annotations" respectively. Preliminary studies have shown that it is often difficult to clearly link a symbol (e.g. village or mill) to its description (e.g. village name). Symbols and annotations, when indexed, have no relationship with each other. The polygons in the "Features" table, which spatially overlap with specific map symbols and annotations, allow relating them functionally and technically.

In the presentation, we would like to present an early stage of a finished digital edition of Perthées's maps. We have collected more than 40,000 symbols and annotation which are linked by nearly 40,000 topographic features (representing 18th century reality). Most of the features are settlements and as such are supplemented by external identifiers allowing them to be linked with other historical and modern data repositories. The result will be present on maps' facsimiles and on the georeferenced basemap.

Acknowledgments:

References:

Buczek, K. (1966). *The History of Polish Cartography from the 15th to the 18th Century*.

Panecki, T. (2021). *From Historic Cartography to Historical Mapping: Creating a Digital Edition of the Gaul/Raczyński Map of Greater Poland (1807−1812)*. The Cartographic Journal, 1–18.

Szady, B., & Panecki, T. (2022). *Source-driven data model for geohistorical records' editing: a case study of the works of Karol Perthées*. Miscellanea Geographica, 26(1), 52–62.