Nowadays, more and more researchers, both professional and amateur, uses old maps as a source material for their inquiry. These are not only historians and geographers, but also archaeologists, art historians, biologists and urban planners. On the one hand it results from the need for such analysis, but also comes from the fact that old maps are available not only in archives and libraries, but also at on-line mapping services. Disseminating old maps through the Internet is not a simple procedure, just like providing any other historical sources in a consistent way, e.g. a diary or series of documents. Each source of information about the past should be accompanied by an appropriate commentary, footnotes and annotations (metadata) allowing not only to assess its credibility and relate the map to similar sources of the era, but also mark places illegible, questionable and vague in the context of its interpretation.

The rules of historical sources editing have been developed in relation to written sources and are included in historical workshop called "historical source editing". Although, a similar set of recommendations for old maps edition is still absent. Hence, it is difficult to identify present digital maps editions which would meet the definition of "historical source edition". Very rarely they are accompanied by a commentary, footnotes or other metadata. This information is not to be underestimated especially in the context of old maps, because their design, scope and methods of content depiction underwent significant changes during the technological revolution. Understanding and correct interpretation of cartographic drawings of the nineteenth century can be very difficult without a proper commentary, even for a specialist: a historian or geographer.

In response to this demand a new method of digital cartographic sources edition will be proposed. Map, which will be used as an example of this method implementation is a relatively unknown “Geographic-military and statistical map of Grater Poland". It was being developed in 1807-1812 by German cartographer Ernest Gaul while the patron of this work was Count Edward Raczynski – the founder of Raczynski Library in Poznan. The map is also called: the “Gaul/Raczynski map”. It was designed to cover the Poznań Department in the Duchy of Warsaw in a large and detailed scale but was prepared solely for the 9 out of 14 counties. It is difficult however to say about full completion of these sheets, which are rather pre-developed ones.

The main idea behind the project is to perform the map edition in a way that meets the requirements of modern historical geography. Therefore a set of IT tools, including Geographic Information System (GIS) will be used during the research. GIS has long been used in the natural sciences but nowadays is also increasingly applied by historians. It allows to effectively manage spatial data at the level of its acquisition, analysis and visualization. The method of map edition implies publishing the map on the Internet with the following components:

- Source commentary;
- Digital map image without editing treatments;
- Digital map image after editing treatments: i.e. georeferenced and with cartographic symbols’ color reconstruction;
- Spatial database of selected features;
- Cartographic visualization of the database as a digital map;
- The web application combining these elements.

Old maps’ editing can be impeded by their poor state of preservation. A good example is the Gaul/Raczynski map, which was developed originally as a colorful one but is preserved only in black-and-white photocopies. It was burnt down along with Raczynski Library during World War II, and it was saved by one of the researchers who took photographs of the map. Therefore, the proposed method will involve improving map’s readability what in case of Gaul/Raczynski map means the reconstruction of its original color. As the basis for these analysis other maps from the era that survived in better condition shall be used.

Another issue hindering old maps editions is the unknown mathematical basis, i.e. projection, reference system, coordinates format. That information is important in the context of map georeferencing (calibration). This treatment allows to place the scanned map image in the adopted coordinate system, which allows to make an overlay with the old map and a modern topographic map. Hence, a comparison of changes that have taken place in the geohistorical landscape over 200 years is possible. With georeferenced maps a spatial database for selected thematic layers also can be developed This allows to quickly search for interesting objects, such as: settlements by their name, roads connecting particular cities or economical facilities (e.g. mills or windmills). Georeferenced map with the geodatabase not only will be an important novelty in the field of old maps editions but will also will allow all interested parties to take advantage of this map. These elements will be linked by a web application, so that the project outcomes (scientific and popular science) will be easy to spread.

In summary, the project to develop a digital method of old map’s editing on the example of Gaul/Raczyński map aims to fill a gap in the methodology of historical sources editing. By developing principles and guidelines for old maps’ editing it will be possible to apply the method to other maps of the period, which will also be its verification.