

Representation of the World in Early Maps

Abstract

The thesis deals with an analysis of the representation of the world in early small scale maps in the 16th – 18th centuries. The theoretical framework consists of the outline of the historical context of the given period with emphasis on the representation of the world in connection with the progress of the discoveries and the expansion of the geographical horizon. The development of navigation methods and technical means used to determine the latitude and longitude that had a direct impact on the positioning accuracy of topographic map elements are depicted, too. The practical part of the thesis is focused on the cartometric evaluation of selected map works of European cartographers of the period of 16th – 18th centuries, which consisted of the analysis of cartographic projection and the analysis of the positional accuracy of topographic content. The geometric accuracy of the maps is assessed mainly by the value of the positional deviations in the north-south and west-east directions. Based on the results of the cartometric evaluation, the evolution of the topographic content positioning is determined and the approximate time process of expanding the image of the known world on the contemporary maps is captured. The graphical outputs of the thesis are thematic maps depicting the spatial distribution of latitude deviations and capturing the transformation of the world map image, including the evolution of the selected continents drawings with a focus on the shape and position change over time. The results obtained are discussed in relation with the historical context of the period, especially with the progress of the discoveries and the development of navigation methods.

Key words: history of cartography, old maps, world maps, navigation, discovery, detectproj, GIS, cartometry