

Electronic Publications of Old Geographical Maps and Studying Names on them

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Abstract

Some aspects of digitizing old printed maps and suitable forms of storing are pointed to discussion. Questions arising about practical use of a resolution level, which is necessary for a proper identification of names on maps, and how to identify them, are considered. A case study is presented.

Keywords: old geographical maps, map digitizing, names in old maps

Introduction

Old maps [1] give us a good source of knowledge about the past times. These maps reflect many objects of physical geography, including coastlines of seas and oceans, river's beds, and so on, as well represent information about political divisions of states and territories, locations of main cities, names of provinces, rivers, towns, etc. Many particular studies may concern old maps. Research may be carried out due to the progress of the modern computer technologies for digitizing.

Study

As an example we present a study that comprises 51 old maps chosen according to the interval of their creation to be between 1450 and 1750, which showing mainly the Balkan Peninsula, or a part of the Mediterranean region. We believe the considered maps are the majority of the maps of that period and region, which are now freely accessible in the Internet. Among them are the maps of Bianco (1436), Ptolemy (1490, 1503, 1511), Mercator (1575), Ortelius (1579), and others.

The target of the study is focused on the names of three political or geographical entities: Turkey (Turcia, Turquie, Turquie Europeene, Turquie in Europe, Empire Ottomane, Turque in Asia etc.), Romania (Rumeli), and Macedonia (Macedonia).

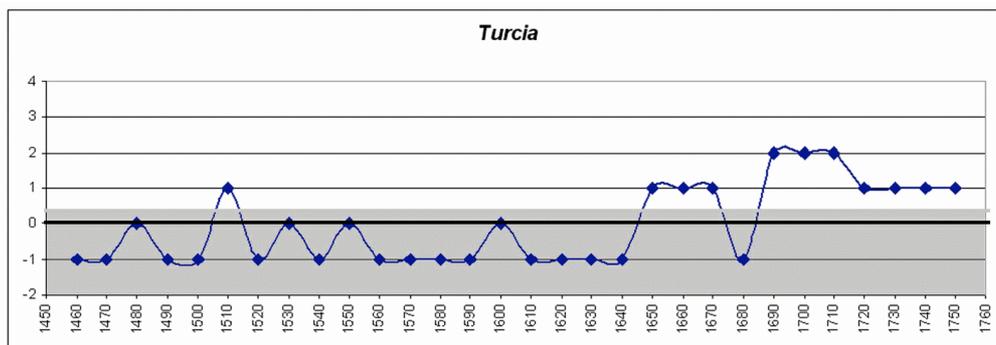


Figure 1: Graph "Turkey"

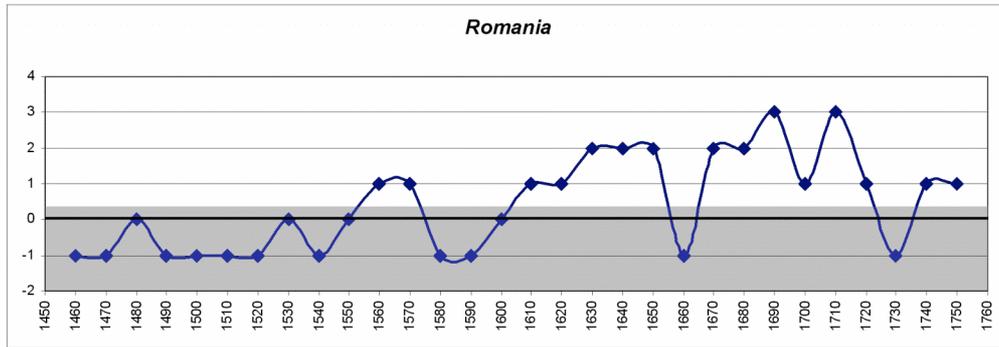


Figure 2: Graph "Romania"

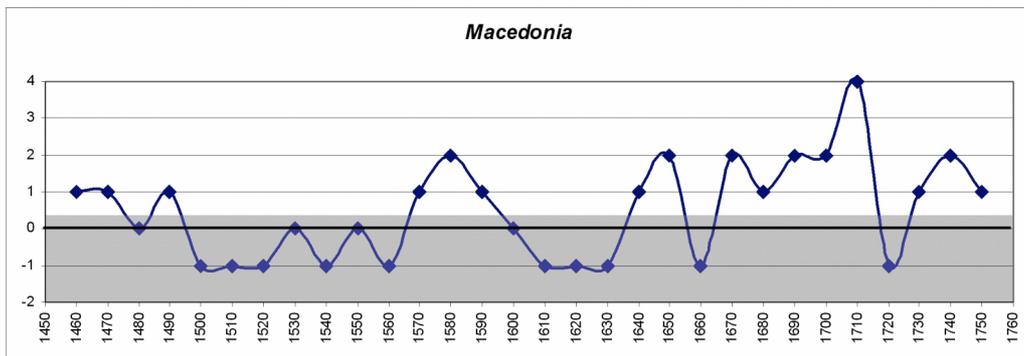


Figure 3: Graph "Macedonia"

The goal was to trace back to the origin, usage and eventually disappearing of each of these names on the maps. The interval [1450, 1750], containing the years from 1450 till 1750 we divided into 10-year periods. For each period we computed the number of maps that contain names related to "Turcia", "Romania" and "Macedonia". Numerical data for each name we consider as function values depending on time and the graphs of these functions we depicted for visualization. An area appeared to contain no data, we call a forgetfulness area. Briefly, the results show that:

- The graph "Turcia" is placed in the forgetfulness area till 1650 (with exception in the map of 1513). After 1650 it appears and constantly presents in all the maps (see Fig. 1);
- The graph "Romania" is placed definitely high after 1600. This graph lies in the forgetfulness area till 1600 (see Fig. 2);
- The graph "Macedonia" is placed high in the most part of the time interval [1450–1750] (see Fig. 3).

Conclusions

The maps involved in our study were widely in use at their times. They were printed out in thousands of copies. Evidently, they have been used for practical purposes by many travellers, merchants and military men. We believe these maps correctly reflect changes in the geographical and political situation in the region and their careful study should be continued. The modern technology of digitizing and the Internet connection provide for acceptable scientific research without using the printed material. It is not necessary to use the maximal graphics resolution of the examined documents in their digital form in order to state some qualitative conclusions.

References

- [1] Images of old geographical maps that can be freely found in the Internet, e.g. <http://www.google.com/search?hl=en&q=old+geographical+maps>