Desislava Dimkova, Emil Kelevedjiev, Jordan Tabov (Institute of Mathematics and Informatics, Bulgarian Academy of Sciences)

THE NAMES *MACEDONIA*, *ROMANIA* AND *TURCIA* IN OLD GEOGRAPHICAL MAPS (A.D. 1450–1750)

Abstract: A study concerning the presence of names like "Turkey" and "Macedonia" in some old geographical maps (1400–1700 AD) is considered. There are examined more than twenty digitized maps of that period, including the maps of Bianco (1436), Ptolemy (1490, 1503, 1511), Mercator (1575), Ortelius (1579) and others. We found some unexplainable lack of names referred to Turkey or the Ottoman Empire and some prevalence of the name "Macedonia" till 17th century on the maps showing the regions of South-Eastern Europe and Asia Minor.

Some aspects of digitizing maps and suitable forms of storing are pointed to discusion. 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 presented.

Key words: old geographical maps, map digitizing.

Introduction

The old maps give us a good source of knowledge about the past times. The 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. The scientists have been studying olds maps for many years.

Here, we describe a particular study concerning old maps. Our research was carried out due to the progress of the modern computer technologies for digitizing, which helps us collecting and processing rich information based on the Internet, and finally representing the results.

The current study comprises 51 old maps chosen according to the interval of their creation to be between A.D. 1450 - 1750 and showing mainly the Balkan Peninsula (as a part of Europe, or as a part of the Mediterranean region) or, a larger part of it. We believe the considered maps are the majority of the maps of that period and region, which are freely accessible in the Internet.

The target of the study is focused on the names of three political or administrative (or geographical) entities appearing on maps of the Balkan Peninsula:

- *Turkey* (Turcia, Turquie, Turquie Europene, Turquie in Europe, Empire Ottomane, Turque in Asia etc.);
- Romania (Rumeli);
- *Macedonia* (Macedonia).

Our goal is to trace back to the origin, usage and eventually disappearing of each of these names on the maps.

Our research was carried out due to the progress of the modern computer technologies for *digitizing*, which helps us collecting and processing rich information based on the Internet.

The source data are summarized in the Table 1 (part 1 and 2). The left column in the table presents the maps by the chronological order. They are denoted by the year of their printing and author's name, when it is known. The row in the table for each map row presents more information about this map.

In the Table 1, there are separate columns named "Turcia", "Macedonia" and "Romania"; a cell is filled with "1", when the corresponding name exists in the map, associated with this row, otherwise the cell is left empty.

	Turcia	Romania	Macedonia
1460-Mauro			1
1477-Ptolemy			1
1490-Ptolemy			1
1503-Ptolemy			
1513-Strasburg	1		
1520-Ptolemy			
1540-Ptolemy			
1560-Shepherd		1	
1575-Mercator			
1579-Ortelius		1	1
1580-Munster			1
1589-Mercator			1
1595-Mercator			
1598-Heyns-Europe			1
1614-Blaeu		1	
1614-Blaeu			
1628-Munster		1	
1630-Mercator		1	
1635-Blaeu-Sclav		1	
1635-Blaeu-Sclav			
1640-Jansson		1	
1643-Boissot		1	
1647-Laurenbergio			1
1651-Merc-Janss	1		

Table 1 (part 1)

	Turcia	Romania	Macedonia
1651-Sanson		1	1
1655-Blaeu-Gre		1	1
1656-Sanson-Tur			
1661-Cluver	1		
1661-Cluver-Tur	1		
1670-Sanson		1	1
1671-Jaillot		1	1
1680-Morden		1	
1684-Da-Vignola	1	1	1
1695-De-Fer		1	
1695-De-Fer-1	1		
1696-Allard		1	1
1696-Sanson	1	1	1
1700-DeL'Isle	1		
1704-Bodenehr		1	
1705-Cellarius			1
1707-De-L'Isle			1
1712-Price			1
1716-Chiquet	1	1	1
1716-De-Fer	1	1	1
1719-Chiquet	1	1	1
1726-Van-der-Aa	1	1	
1730-Moll			1
1741-Harenberg	1		1
1746-De-Fer	1	1	1
1750-Janvier	1	1	1

Table 1 (part 2)

The data of the Table 1 are transformed into the Table 2, applying the following:

- The interval [1450, 1750), containing the years from 1450 till 1750. is divided into 10-year periods: [1450, 1460), [1460, 1470), [1470, 1480), and so on, till [1740, 1750].
- These 10-year periods are arranged by the chronological order in the lefthand column of the table.
- Each period corresponds to a separate row in the Table 2.
- For each name "Turcia", "Macedonia" and "Romania", there is a separate column in the Table 2, in the same way as in the Table 1.

The Table 2 is filled according to the following rules:

A) For each 10-year period there was computed the number of maps, which are dated to that period; if there are no such maps, the sign "0" is written.

B) If maps are found in a chosen 10-year period, the total sum of 1's taken from the corresponding rows of the Table 1 is written in the row belonging to this period; when there does not exist any "1", a sign "-1" is written.

Numerical data of each column, named respectively "Turcia", "Romania" and "Macedonia", are considered as function values depending on time and the graphs of these functions are depicted on the Figures 1, 2 and 3. A shadow area on each Figure is shown below (and slightly above) the horizontal axis. We call it a *forgetfulness area*.

	Turcia	Romania	Macedonia
1460	-1	-1	1
1470	-1	-1	1
1480	0	0	0
1490	-1	-1	1
1500	-1	-1	-1
1510	1	-1	-1
1520	-1	-1	-1
1530	0	0	0
1540	-1	-1	-1
1550	0	0	0
1560	-1	1	-1
1570	-1	1	1
1580	-1	-1	2
1590	-1	-1	1
1600	0	0	0
1610	-1	1	-1
1620	-1	1	-1
1630	-1	2	-1
1640	-1	2	1
1650	1	2	2
1660	1	-1	-1
1670	1	2	2
1680	-1		1
1690	2	3	2
1700	2 2 2 1	1	-1 2 1 2 2 2 4
1710	2	3	4
1720	1	1	-1
1730	1	-1	1
1740	1	1	2
1750	1	1	1

Regarding Figure 1, the graph "*Turcia*" is placed in the *forgetfulness area* till 1650 (with an exception in the map of 1513). After 1650 it appears and constantly presents in all the maps till 1750 (with an exception in the map of 1680). We come to the hypothesis that the concept about the power of the Dynasty of Osmans over its possessions and the formation of a whole empire with the name Turkey (or its equivalent, Turkish Empire, Ottoman Empire) becomes an entire reality in the second half of 17^{th} century.





Regarding Figure 2, the graph "*Romania*" is placed definitely high after 1600. This graph lies in the *forgetfulness area* till 1600 (with two exceptions in maps around the middle of the 16th century). We recall that the name "Romania" is related mainly to the Crusades, the presence of crusaders and their possessions in the European lands near Constantinople. According to the mentioned argument, the fact of existence the name "Romania" after 1600 might be used to set up some interesting questions.



Figure 2

Regarding Figure 3, the graph "*Macedonia*" is placed high in the most part of the time interval [1450-1750]. However, this graph goes into the *forgetfulness area* for two intervals, [1490, 1570) and [1600, 1640), the first of them being comparatively large.



Figure 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 travelers, 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

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