

THE MAP OF DACIA BY ABRAHAM ORTELIUS

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Abstract. The paper attempts to make short presentations of the famous cartographic representation of the territory of Dacia, the heart of the ancestors of the Romanian people. This will be achieved via a historical approach of two such maps: the one made by Abraham Ortelius and the ancient one of Claudius Ptolemy.

Key words: cartography – maps – maps of Romania.

1. INTRODUCTION

During the period of the Renaissance the rediscovery of the Latin and Greek classics, the appearance of the printing press and of the techniques of cartographic engraving (in copper), the development of mathematical cartography, as well as the development of observational instruments and of technique in general led to more precise cartographic measurements and to a special evolution of the science of cartography.

Especially in the 16th century cartography registered a great progress from ancient historical cartography. Based on the work of ancient scholars and geographers, such as Strabon, Renaissance maps represented the world in a more comprehensive manner, under the form of atlases. Abraham Ortelius created the first modern atlas of the world, by putting together all ancient sources available. It was a piece of cartography that served geographers and cartographers many decades from then on. It also preserved for posterity historical and geographical sources that otherwise might had been lost.

On the other hand, many centuries ago, Claudius Ptolemy had made a map of the world known at that time, (2nd century AD). Thus, in the following we shall present these two great geographers, their work, as well as their historical maps limited to the area covered by Romania today. Furthermore, we shall examine and compare the areas in

which the Gets and Dacians lived along with the areas presented in the two foregoing mentioned maps.

2. ABOUT THE WORK OF ABRAHAM ORTELIUS

Ortelius is generally recognized as the creator of the first modern atlas, the *Theatrum Orbis Terrarum*, (*Theater of the World*). This is considered the first true atlas in the modern sense: a collection of uniform map sheets and sustaining text bound to form a book for which copper printing plates were specifically engraved. It was published in a first edition in 1570, in Latin, and consisted of seventy maps (56 of Europe, 10 of Asia and 4 of Africa) on fifty three sheets with accompanying texts. By 1612 it was issued in 31 editions and due to the fact that Ortelius constantly improved it, it came to number 167 maps and 183 references.

The atlas is sometimes referred to as the summary of sixteenth-century cartography. Many of the atlas maps were based upon sources that no longer exist or are extremely rare. More than an original concept, *Theatrum Orbis Terrarum* was also the most authoritative and successful such work during the late sixteenth and early seventeenth centuries. Cut to uniform size and printed as a single-sized compilation of maps, historical narratives and source references, the atlas was from the start an unprecedented encyclopedic description of the world. Ortelius was not only a historical geographer, but also a great empirical scientist and the maps were logically organized to represent continents, groups of regions and nation states, with a text providing relevant information and further references. For the first time so far maps were represented according to the scale of the format adopted.



Fig. 1 – The map of Dacia by Ortelius, 1612.

There is a map of Dacia included by Ortelius into the historical section of the book of maps *Theatrum Orbis Terrarum*, called *Parergon sive Veteris Geographiae Tabulae* (Addenda to the *Theater of the World or the Maps of Old Geography*), started in 1578. “*Parergon*” is the Greek word *πάρεργον* and means secondary work, not the principal one. The map is called *Daciarum, Mosesiarumque vetus description*, (*A Description of Dacia and Moesia*), and was made in 1595. It was engraved on a cartoon with a copper printing plate and has the size of 35.2 cm × 46.3 cm. It was rendered at a scale of 1:3,000,000. It was issued several times, the reproduction presented here being printed in 1612, (Fig. 1). It is accompanied by an explicative text in Latin printed on the back of the map. It was inspired from ancient authors such as Herodotus, Strabon, Plinius, Jordanes.

The territory named Dacia had the following boundaries: N- the Carpathian Mountains, S-W – the course of the Danube, E- the mouths of the Danube flowing into the Black Sea. It was a territory inhabited by a branch of Thracians called Gets. Herodotus called the inhabitants of these territories «Γέτες», *Gets*, saying that they lived on both sides of the river Danube. Strabon in his work with the title «Γεωγραφικά», *Geographica*, made the distinction between the Gets that inhabited the eastern part of the above mentioned territory and the Dacians situated to the west: «*But there is also another division of the country, because some of the people are called Δάκες, Dacians, whereas others are called Γέτες, Gets. Gets: these who lived to east and the Pontus and Dacians: those who incline in the opposite direction towards Germany and the fountains of the river Istrus. The strength of the nation of the Gets got its maximum during Boirebista times, and although was injured (diminished) by their disagreements and by the Roman attacks, they are able to prepare 40,000 men for the army*», (Strabon, «*Geographica*», VII, Chapter 3, §12).

And Strabon continues: «*Their whole country is crossed by the river Marisos, which is finally flowing into the Danube; and the Romans used this river to carry supplies to their army in case of war. Actually the Romans called Danube the upper part of the river, from its fountains, the falls, and the part crossing the Dacians' country. Its down (lower) part that crosses the Get's country till Pontus they called Istrus*», («*Geographica*», VII, Chapter 3, §13).

Strabon continues referring that the Gets and the Dacians had the same language, and that they had a strong nation in the past: «*The language of the Dacians is the same as that of the Gets. The Greeks know better the Gets, because they move continuously from one side of the Istrus to the other, and because they are intermingled with the Moisiensians. The same happens with the other Thracian race, the Trivallous. The nation of the Gets and Dacians was so strong that was capable to send outside their country 200.000 soldiers (fighters). This number has been now limited to 40.000 at the most. Thus, they have been almost subdued by the Romans; but they have not been entirely submitted, because they hope to the Germans who are Romans' enemies*», («*Geographica*», VII, Chapter 3, §13).

Strabon describes the Gets' plain, too: «*Between the Gets and the coasts of Pontus, which is extended from Istrus to Tyra, there is the so called Gets' plain, a big plain without water*», («*Geographica*», VII, Chapter 3, §14).

Strabon refers, too: «*Well, the ancient Greeks considered the Gets as being Thracians. They lived originally on both banks of the (river) Istrus, together with the Myssians, or Moissians, as are now called, who are Thracians, too...*», («*Geographica*», VII, Chapter 3, §2).

Moesia was the territory south of the Danube, controlled mostly by the Get-Dacians, as mentioned also by Strabon and also the first Dacian territory occupied by the Romans in the 1st century BC. The name of the region comes from Moesi, Thraco-Dacian peoples who lived there before the Roman conquest.

The map of Dacia by Abraham Ortelius includes much geographical, historical and ethnographic information about the Gets and Dacia gathered from the ancient Greek and Roman historians and also from the geographer Claudius Ptolemy. This map is decorated with three Latin text cartouches. The one on the lower left side comprises the names of Dacians places, waters and mountains. Another text cartouche in the upper right corner mentions that Ortelius was librarian to the Duke of Bavaria's court. On the lower right side are recorded 4 verses written by the poet Ovidius (exiled on the shore of the Black Sea in the 1st century BC), where he praises the Get-Dacians' bravery. Villages and towns are shown as miniature views. The capital Sarmizegetusa is located for the first time on a map on the river Sargetia, a short note in Latin saying that “*Sargetia flu in quo Decebalus rex thesaurus occultaverat*”, namely that the river Sargetia was the place where king Decebal had buried his treasure. It is a historical map of Dacia covering mainly the territory in the southern part of present day Romania, (i.e. the territory south of the Carpathian Mountains, also called Wallachia) and also a part of the territory of present day Bulgaria. These areas are placed between 40°–58° longitude and 43°–50° latitude. Although the longitude is totally wrong, the latitude coordinates are quite approximate, as the present coordinates of Romania are situated between 20° 15' and 29° 41' eastern longitude and 43° 37' and 48° 15' northern latitude. This was certainly due to the fact that from the time of Claudius Ptolemy to the epoch of Ortelius, most cartographers had agreed on latitude, which was calculated starting from the equator, but there was no agreement yet on longitude.

The starting point to count the geographic longitude, i.e. the *first meridian*, was the *Νησιά των Μακάρων*, *Makaroi Islands*, i.e. the *Islands of Happiness*, which now are called *Canary Islands*. It was defined so by Ptolemy, because these islands were the Western known inhabitable world in his times. More accurately, according to Ptolemy, the first meridian was that crossing the *Hierra* island. Later, some of the new geographers – rather from ambition and not because of any other reason – did not continue to use this ancient meridian, but they moved it to other places causing useless confusion, (Νοταράς

«Εισαγωγή εις τα Γεωγραφικά και Σφαιρικά», Τμήμα Γ', Κεφάλαιο Η', Notaras, «*Introduction to Geographical and Spherical*», Part Γ', Chapter Η'). And Notaras continues: «*Stevin, for instance, defined the first meridian from the mount Pico at the Tenerife island, which although one of the Canary Islands, is far from Hierra about 5°.5. Similarly, some others defined it to pass via the Cove and Flores Islands that belong to the Azores. Thus, Ptolemy first meridian is 5.5° western than this defined by Stevin, and 9.5° eastern than that defined by the others*».

3. THE MAP OF DACIA BY CLAUDIUS PTOLEMY

Earlier maps had been based on the work of Claudius Ptolemy, title «*Γεωγραφίας Αφήγησις*», i.e. *Narration of Geography* recorded the classical Greek geographic knowledge in the second century AD and was the chief source for cartographic publications in the early Renaissance era.

Ptolemy's *Narration of Geography* is extremely important due to that it introduced the mechanism of cartographic projections, thus facilitating the technique of cartographic representation. The projection is not only a piece of geographical knowledge. It is the instrument for the representation of a point, a region, independently of localization or the dimension of the area represented. It introduces the principle of analogy in the representation of the terrestrial landscape forms. Consequently, projection is a method of universal description of the world.

It is well known that Ptolemy was the first one to make the distinction between «*χώρος*», *choros* and «*τόπος*», *topos*, i.e. between «*location*» and «*region*». According to Ptolemy, geography does not mean chorography (the qualitative description of the world) but topography and cartography (the description of the world by means of the projection techniques) through the principle of the analogies. To western civilisation, as well as to the evolution of geography, Ptolemy's work is of capital importance, as it generated a mathematical tradition that meant a great progress from philosophical and historical geography.

Claudius Ptolemy's main reference for the map of Dacia included in his work *Narration of Geography* was Marinus von Tyros, a geographer who lived at the beginning of the 2nd century, the first one who determined the longitude and the latitude of land places. Marinus von Tyros' sources of inspiration are not very well known. It is believed that he used Roman military maps, Emperor Trajan's writings on his wars with the Dacians and the maps draw by the Roman general and cartographer Vispanius Agrippa, in 12 BC.

According to Ptolemy «*To the north Dacia borders on that part of the European Sarmatia that stretches from the Carpathian mountains to the mentioned branch of the river Tyras, which, as I have already stated, is placed at 53°–48°30'. To the west Dacia*

borders on the Metanasti Iazigis people, along the river Tibiscos, and to the east on that part of the river Danube that flows from the outflow of the river Tibiscos up to Axiopolis, from there up to Pont and to its mouths the Danube is called Istrus” (*«Narration of Geography»*, III, 8,1).

One can see that Ptolemy gave an almost accurate latitude (48°) for the river Tisa (Tyras). He also gave the positions and the names of 15 Get-Dacian tribes ordained on three columns, as well as the names and positions of other tribes situated in Moesia Inferior, also of Get-Dacian origin. Besides these, Ptolemy quoted a number of 42 places in Dacia and in Moesia, whose names ended in “*dava*” and for some of these he also indicated the latitude and the longitude. He also wrote down places with Roman names. Sarmizegetusa is called «*βασιλειον*», *basileion*=*kingdom*. The limits of Dacia are much more modest than those presented in the texts of Agrippa or Strabon, but much more extended than those of the Roman province with the same name.

The Dacia described by Ptolemy seems to correspond to a large extent to the Dacia ruled by king Decebalus (the last Dacian king) in the 1st century AD, before the Roman conquest. The northern border is represented by the Carpathian Mountains. The western frontier is the river Tisa, to the south the border is the Danube and to the east is the river Siret. The eastern border is also made up of the shore of the Black Sea but an analysis of Ptolemy’s map of Dacia shows that the country of the Dacians extended, in his opinion, only up to the mouths of the Danube. A detailed analysis of Ptolemy’s text led to the conclusion that it presents the situation of Dacia from the 1st century AD, but it also reflects older situations.



Harta Daciei după Ptolemeu

Fig. 2 – Ptolemy’s map.

4. CONCLUSION

The Gets or the Dacians, according to various ancient historical sources, the ancestors of the Romanian people, made a name for themselves in ancient history. Their deeds, character, as well as the territory they inhabited, found a way into the greatest records of world history such as the representations of the world made by Claudius Ptolemy. From there they entered Renaissance European culture through authors such as Abraham Ortelius. Thus, in spite of their tumultuous history and initial lack of native records, the Romanian people's ancient hearth became a part of the world heritage. From the epoch of Claudius Ptolemy until that of Abraham Ortelius cartography survived mainly due to the historical and geographical records. It was the way in which the first maps of Dacia have come down to us, along with other world geographical representations, all due to brilliant traits of the human genius at the start of a new domain: scientific cartography.

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APPENDIX

In this Appendix, short information concerning the various ancient philosophers and authors is given in alphabetic order.

Jordanes: 6th century Roman historian of Got origin, born in Moesia (mid 6th century). His major works are *Romana* about the history of Rome and *Getica* (551 AD) about the early history of the Goths. In *Getica* he mistook the Gets for the ancestors of the Goth people.

Herodotus (484–420 BC): He is known as the Alikarnaseus, as he was born at this town of Asia Minor. Alikarnassos is today named Bodrum. He is also called «*father of History*», because he was the first who wrote the *History* till the Persian wars.

Marinos von Tyros or Marinos of Tyr: Roman cartographer and geographer whose works date from the end of the 1st century and the beginning of the second.

Notaras Chryssanthos (1665?–1731): Patriarch of Jerusalem, 1707–1731. His origin was famous Notaras family from Constantinople, and he was born in a small town at Peloponnesus, Greece. He got excellent education at various European centres where he studied from Theology to Geography and Astronomy. Considered as one of the most educated persons of his epoch, and published the first universal map in the Greek language. He organized both the elementary and the higher education not only in some places of Greece as well as in Jerusalem, but at Jassy and Bucharest, too.

Ortelius Abraham (1527–1598): Flemish scholar, mathematician, cartographer

and geographer. He is known as the creator of the first modern atlas of the world (1570) and for the first issuing of the theory of continental drift.

Plinius Gaius Secundus (23 AD–79 AD), better known as **Pliny the Elder**. He was Roman author, naturalist and natural philosopher. He investigated and wrote on natural and geographic phenomena. His major work is called *Naturalis Historia*.

Ptolemy Claudius (108–160/168): Great mathematician, astronomer and geographer. He born either at Pilousio, or at Ptolemaes, and died at Kanovos. Except his great and significant work «Μεγάλη Μαθηματική Σύνταξις», – *Great Mathematical Treasure*, mostly known with its Arabic title: «*Al Mageste*», i.e. *the Great* – he has also written «Γεωγραφική Αφήγησις», «*Narration of Geography*», in which he described the Earth's surface known in his times. He also prepared a quit accurate universal map. The latter was published at Vasileia, Switzerland, in 1545, while his whole work was published in the same place, in 1551.

Stevin Simon (1548–1620): Flemish mathematician and physicist, professor at the University of Leaden. His works were made mainly on mechanics.

Strabon (64/63 BC – 23 AD): Greek geographer and historian. His work «*Geographica*» has been a trustworthy source for archaeology.

Vispanius Agrippa: (12th century BC), Roman politician and general, also the son-in-law of Augustus. Renowned cartographer, the author of a work on geography and cartography called *Commentaries* and of the most comprehensive world map drew up so far.

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