

## THE HISTORY OF CARTOGRAPHY IN ALBANIA

NIKOLLI P.(1), IDRIZI B.(2)

(1) Faculty of History and Philology, TIRANA, ALBANIA ; (2) State University of Tetova, SKOPJE, MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF

### 1. INTRODUCTION

In the present paper there are introduced documents of the history of cartography in Albania, which represent a small part of the available cartography fund. Cartographers, historians and institutions from various European and others countries of the World have created a lot of maps and atlases, where it is shown the spread of Albanians and of Albania in space and time, beginning from the Homeric age until the end of the Second World War. By that we must admit that the “spread” must be properly understood as the “shrinkage” of our territory. The existence of such an abundant cartographic fund of our country can be explained by following principal reasons:

1. Geographic and strategic position of Albania.
2. Abundant human and natural resources.
3. Ancient and original culture.
4. Frequent wars and conflicts in this area.

The material exposed here will deal with the most important historic events of Albania since the Antiquity and represented by some maps.

### 2. ANTIQUITY

The data drawn from history and from linguistic, archaeological and anthropological studies have led to the conclusion that Albanians are the direct descendants of the ancient Illyrians, which culture is involved from the Stone Age. The earliest known king of Illyria was Hyllus (The Star), who is recorded to have died in the year 1225 BC, but Illyria reached its zenith in the fourth century BC, when Bardhylus (White Star) united under scepter the kingdoms of Illyria, Epirus and a good part of Macedonia. The last king of Illyria was Gents (2nd century).

Authors of antiquity relate that the Illyrians were a sociable and hospitable people, renowned for their daring and bravery at war. Illyrian women were fairly equal in status to the men. The land of Illyria was rich in minerals and Illyrians become skilful in the mining and processing of metals. They were highly skilled boat builders and sailors as well [5].

The Illyrian culture has had a notable development, its distinct impression is evident to nowadays, not only through preserved remnants of monuments, but also through the knowledge of that time, mediated by prominent authors and cartographers of the ancient civilisation. Among the maps we discern the map of Homer, Anaximandros and Herodotus, the map of ancient Greece and the map of Illyrian provinces etc.

Homer's map [12] is believed to be compiled about the year 700 BC, through some historians suppose an earlier time of Homer's life, even in the XII century BC. The geographical and historical knowledge of that time is rather limited: the Earth was considered to be a flat disc surrounded by “The world Ocean”. The fact of great interest for us is the name “Thesprotia”, where Homer indicates the presence of Illyrian tribes. But from the cartographic point of view, the length of the name of bordering units is shorter, compared with the cartographic bordering line, so that the spread of the Illyrian tribes (and kingdoms) is up to the North and down to the South of name “Thesprotia. This fact will be better evident on the other maps. Homer's map was improved by Anaximandros, in year 565 BC

Herodotus's map was compiled in the year 465 BC. On the map is obvious the advance of the knowledge of the geography concerning the countries, which surround the Mediterranean Sea. We are interested in two names - Illyrii and Thermopylac. The name “Illyrii” represent Illyrians, the respective inscription begins at the Venice Bay, while the second name “Thermopylac” stands for the border between Greece and the Illyrian kingdom. Herodotus, which is known as “the father of history”, has thoroughly described the history of peoples living around the Mediterranean Sea. He visited many of the places personally during the course of his long life and was capable of analysis and synthesis. That is why the Herodotus's map is of much better quality in comparison with the ones of his predecessors.

On this map we detect the geographical position of the river (Ister). This river together with a part of the Danube river create frontier of the lands of Pannonia, where our ancestors, the Illyrians, lived. Verity of this fact is displayed on the maps (fig. 1 and 2). So the Illyrians lived from the lands where Bavaria is now,

continuing through North Austria, going down to the South to the Dalmatian shore and along the eastern shores of the Adriatic Sea. At the Ionian Sea their territory bordered the waters of Mediterranean Sea.

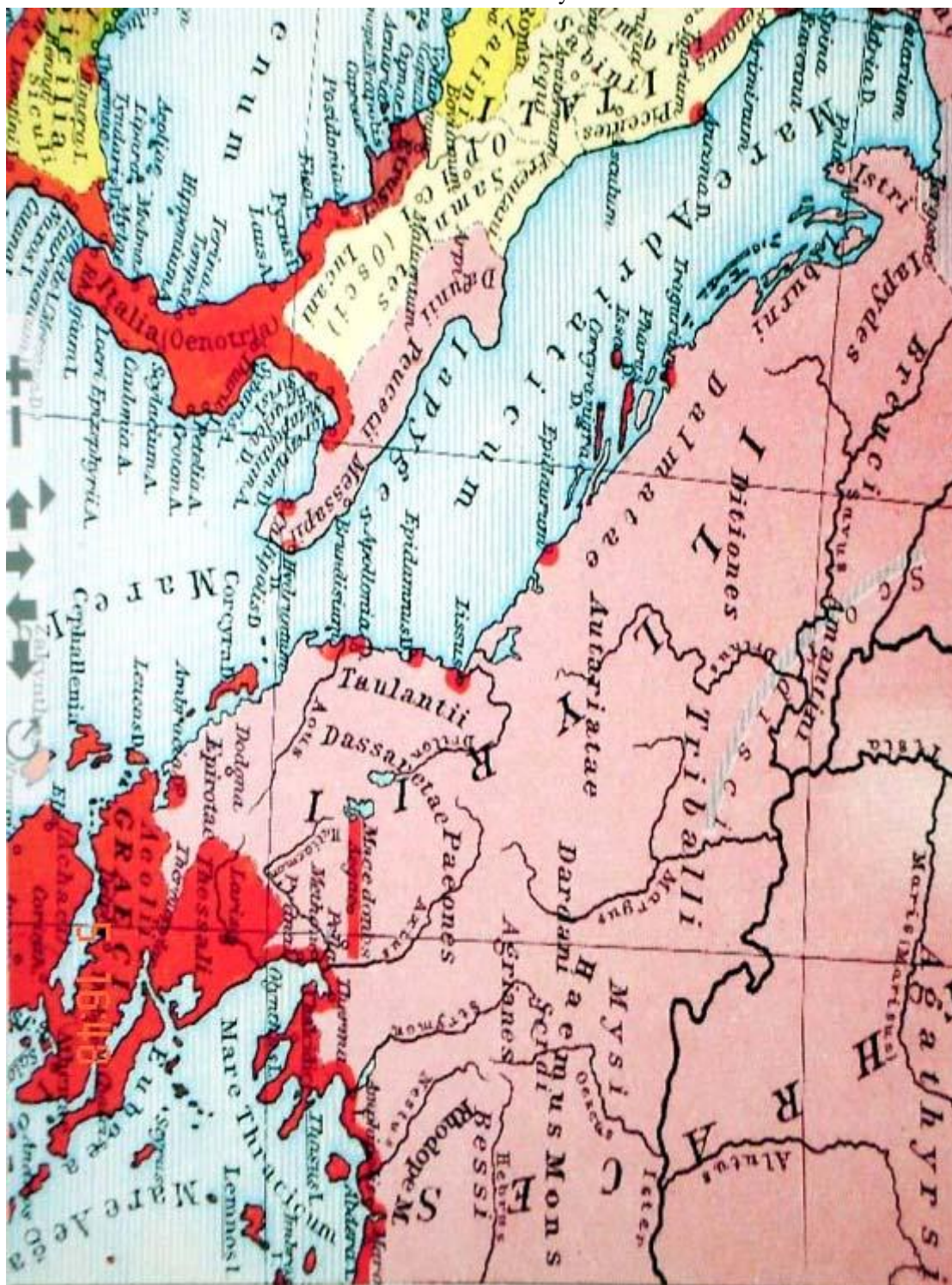


Fig. 1. The Central and South parts of Illyrian territory in the VII century BC

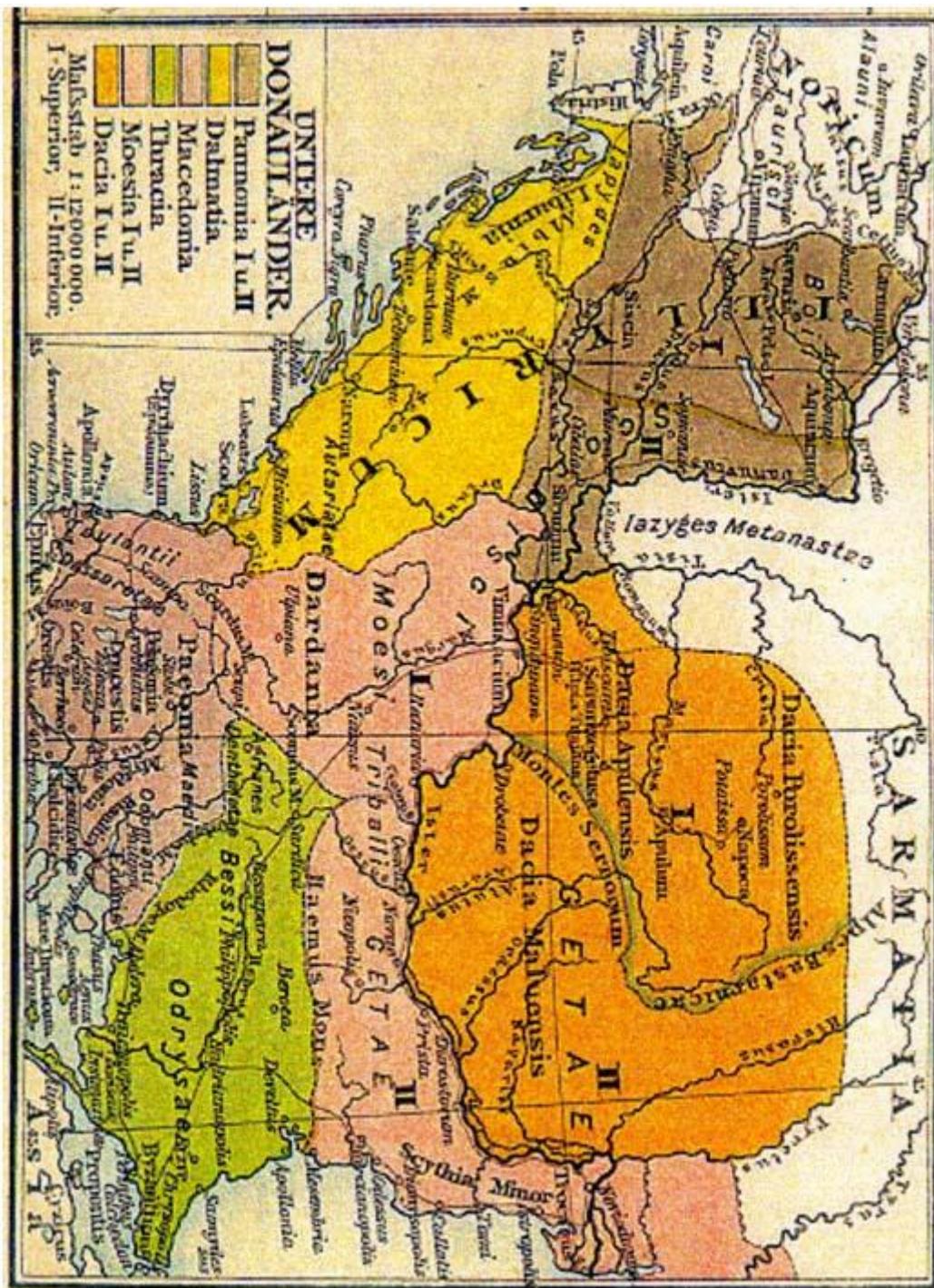


Fig.2. The North and Central parts of Illyrian territory, until the river Drini, in 1 st century AD

The fig. 1 shows the parts of Illyrian territory in the VII century BC [15]. The fig. 2 shows the parts one, until the river Drini, at 1st century AD In this time the Illyrian provinces as Enkalayes, the Taulantes, the Dessarets, the Epirotes, Ardianes and others, together with Macedonia became a Roman dependency.

From the 8th to the 6th century BC the Greeks founded some colonies on Illyrian soil, near the settlements (see fig. 1). The presence of Greeks brought to the Illyrians an advanced civilisation, while they in turn influenced the economic, military and political life of the Greeks. In the 3rd century BC the colonies began to decline. But the Illyrians faced a greater threat from the power of the Romans. Seeing the Illyrian territory as a bridgehead for conquests east of the Adriatic, Rome in 229 BC attached and defeated the Illyrians, and by 168 BC established control over Illyria and ruled it for about six centuries. The Romans saved and further developed the Illyrian's and Greek's culture. Christianity manifested itself in Illyria during Roman rule, about the middle of the 1st century AD. The Illyrians, profiting from a long tradition

of martial habits and skills, had acquired great influence in the Roman military hierarchy. There were 24 emperors of Illyrian origin.

So, for the first four centuries of the new era, Roman Empire (northern frontier were Rhine and Danube rivers) was more civilized than the people that lived northern those rivers, such as the Slavs and nomad peoples, Goths, Vandals, Huns, Avars etc.

The "shrinkage" of our territories evokes the question about its causes. Is it a pacific retreat or a withdrawal as a result of a protracted war? The latter hypothesis is more probable. It is confirmed by different sources, especially by the Roman historian quoted in the many works. He wrote that the Illyrians had fought for more than two centuries to protect their territory, identity and culture. In this bloody war the Illyrians have defended other countries of Europe from the Ostrogoths, Huns, Avars and other barbarians, who tried to occupy them. So, the Albanians have contributed to the protection of the Europe from the barbarians not only in the Scanderbeg's age but even the centuries ago. Afterwards the defeat the members of the Illyrian elite migrated to various European countries. The name Illyrian Province we find in various maps up to the XIXth century, where it is one of the territories occupied by Napoleon. The well known Italian diplomat, R. Fallaschi, has published the paper [3], where he gives a historical synthesis of development of Albanian people and land in space and time. An extract is cited below:

"The Dardanians expanded easily and peacefully toward the southeast, passed the strait which still remembers their name (Dardanelles) and settled themselves in Troja (i.e. "our territory"). In the Iliad, the Trojans are not differentiated from the Dardanians. From Virgil we learn that when they were finally expelled by the newly arrived Hellenes the surviving Trojans landed after an adventurous escape in Italy, where they were fraternally welcomed by another great and civilized Illyrian tribe which spoke the same language - the Etruscans (this fraternity is demonstrated by epigraphic documents). The profound culture of the Etruscans united with the warrior qualities of Trojans created the foundations of the greatness of Rome." A part of Trojans landed in Albanian coasts, too, especially in Butrint, near Apollonia and northern.

There are other prominent Albanologists and Balkanologists who consider the Illyrian civilisation as highly developed in comparison with the contemporary ones.

When in the 395, the Roman Empire was divided in two parts: Byzantine Empire (orthodox) and Western Roman Empire (catholic), the Albanian territories were part of the Byzantine Empire for a number of centuries. During that time the life within the area of western civilization had great influence on the composition of life and culture of the Albanian society. This is the reason why the Albanians were so resistive against the Ottoman occupation for centuries.

During the existence of the Roman Empire there are created some maps: among them we can distinguish the maps of the K. Ptolemy (I-II century) and the Roman maps of the roads (Peuntingeriana maps), where the Albania's territory is represented relatively detailed, apart from a low exactness and missing of the objects. Until 461 Illyria suffered the devastation of raids by Visigoths, Huns and Ostrogoths (fig. 3). Not long after these barbarian invaders swept through the Balkans, the Slavs appeared (between the 6th and the 8th centuries), gradually settled in a big part of Illyrian territories, in much of what is now Slovenia, Croatia, and Bosnia and Herzegovina.

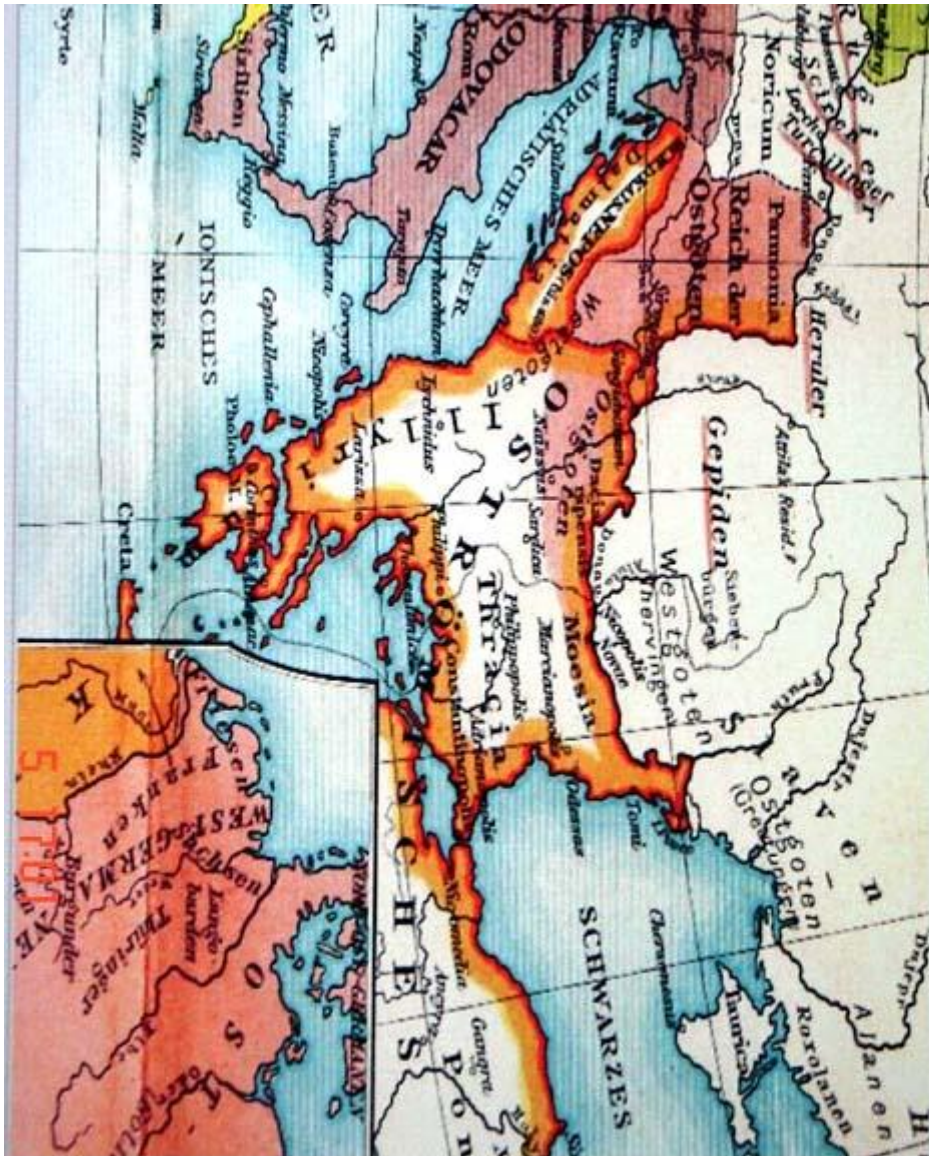
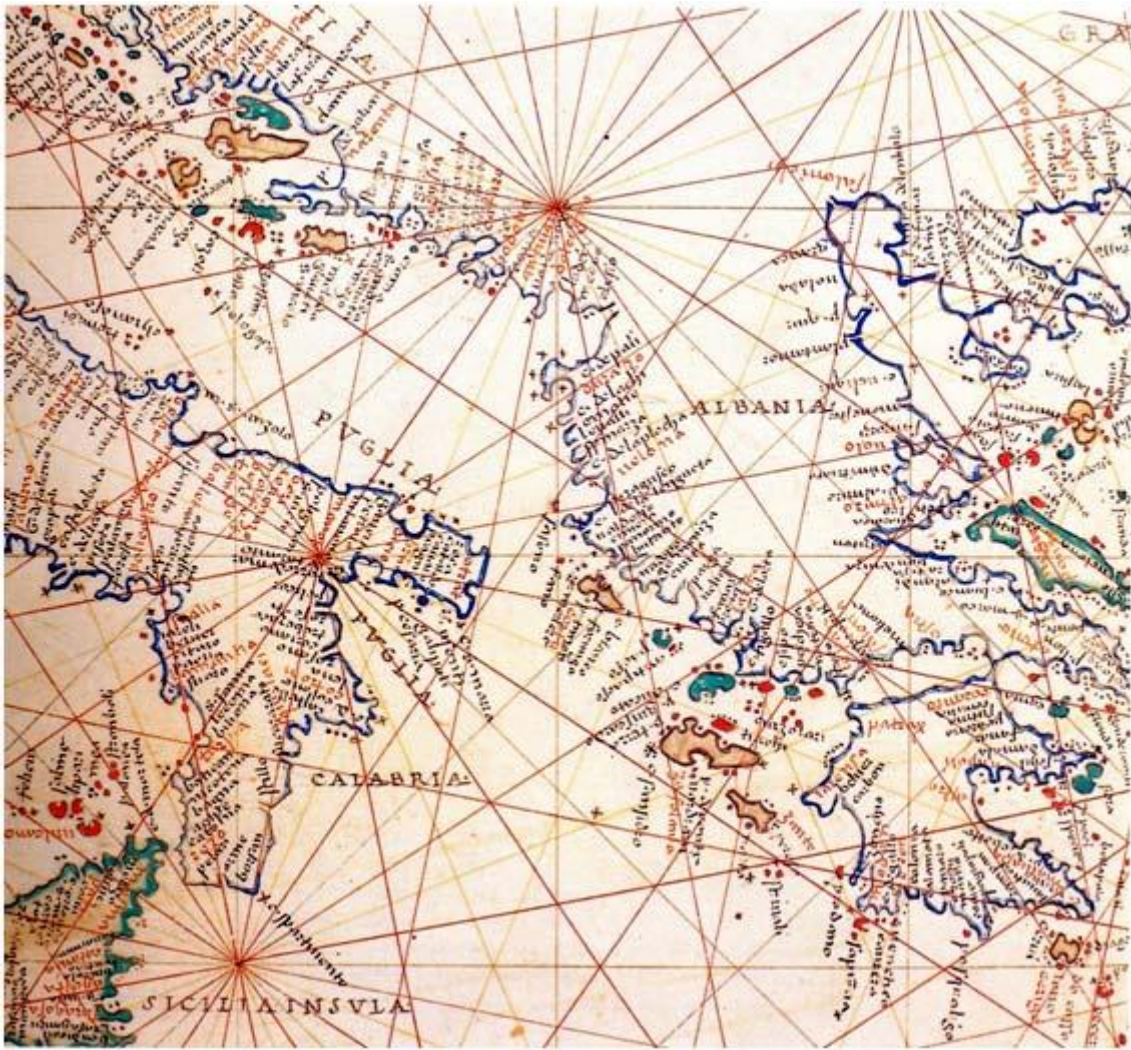


Fig. 3. Illyrian territory in VI-VII century AD

### 3. MEDIEVAL CULTURE

As it is known after the fall of the Roman Empire, all the sciences (including and Cartography) declined seriously in whole Europe. From the 9th to the 12th century the Arab scientists strongly have contributed and in cartography of Europe. Among them, for Albania cartography are known the maps of Al Horezmi (820 year) and Al Idrizi (1156 year). In the map of Al Idrizi there are shown new settlements and other objects of interest. This is explained because in the latter part of the middle Ages, Albanian urban society reached a high point of development. Foreign commerce flourished to such an extent that leading Albanian merchants had their own agencies in Venice, Ragusa, Thessalonica and other cities. The prosperity of the cities also stimulated the development of education and the arts [5]. For example in the eastern part of the portulan map of the 16th century (fig. 4), the name "Albania" is alone.



*Fig. 4. Portulan map of the 16th century*

Owing partly to the weakness of the Byzantine Empire, Albania, beginning in the 9th century, came under the domination, in whole or in part, of succession of foreign powers: Bulgarians, Norman crusaders, the Angevins of southern Italy, Serbs and Venetians. This caused massive migrations of Albanians abroad [5].

In the 1430s Albania was occupied by Turks. But after 1443 Skanderbeg (1405-1468) rallied the Albanian princes (fig. 5) and succeeded in driving the occupiers out. For the next 25 years Scanderbeg frustrated every attempt by the Turks to regain Albania, which they envisioned as a springboard for invasion of Italy and western Europe [3,6,16].



FIG. 5. The map of Albanian territory at XV th century

#### 4. THE OTTOMAN EMPIRE

The Turks ruled Albania for about five centuries, but they weren't able to extend their authority throughout the country, particularly in the highland regions. For many reasons the Ottomans initiated forward the end of the 16 th century to Islamic the population, by the end of which two-third of the people had converted to Islam.

During the Ottoman Empire there are created a lot of maps by Turks and foreign cartographers as: Fra Mauro (1459), P. Reis (1529), G. Gastaldi (1560), G. Canteli (1693), P. Coronelli (1693), De l'Isle (1707), M. Baudrant (1716 - fig. 6), A. Zatta (1770), G. Palma (1816), D. Lapie (1822-1843), J. Hahn (1853), H. Kiepert (1855-1885), B. Nopca (1905), Military Institute of Wien (1914-1918) and many, many others, that we have mentioned and used them in our book [16].

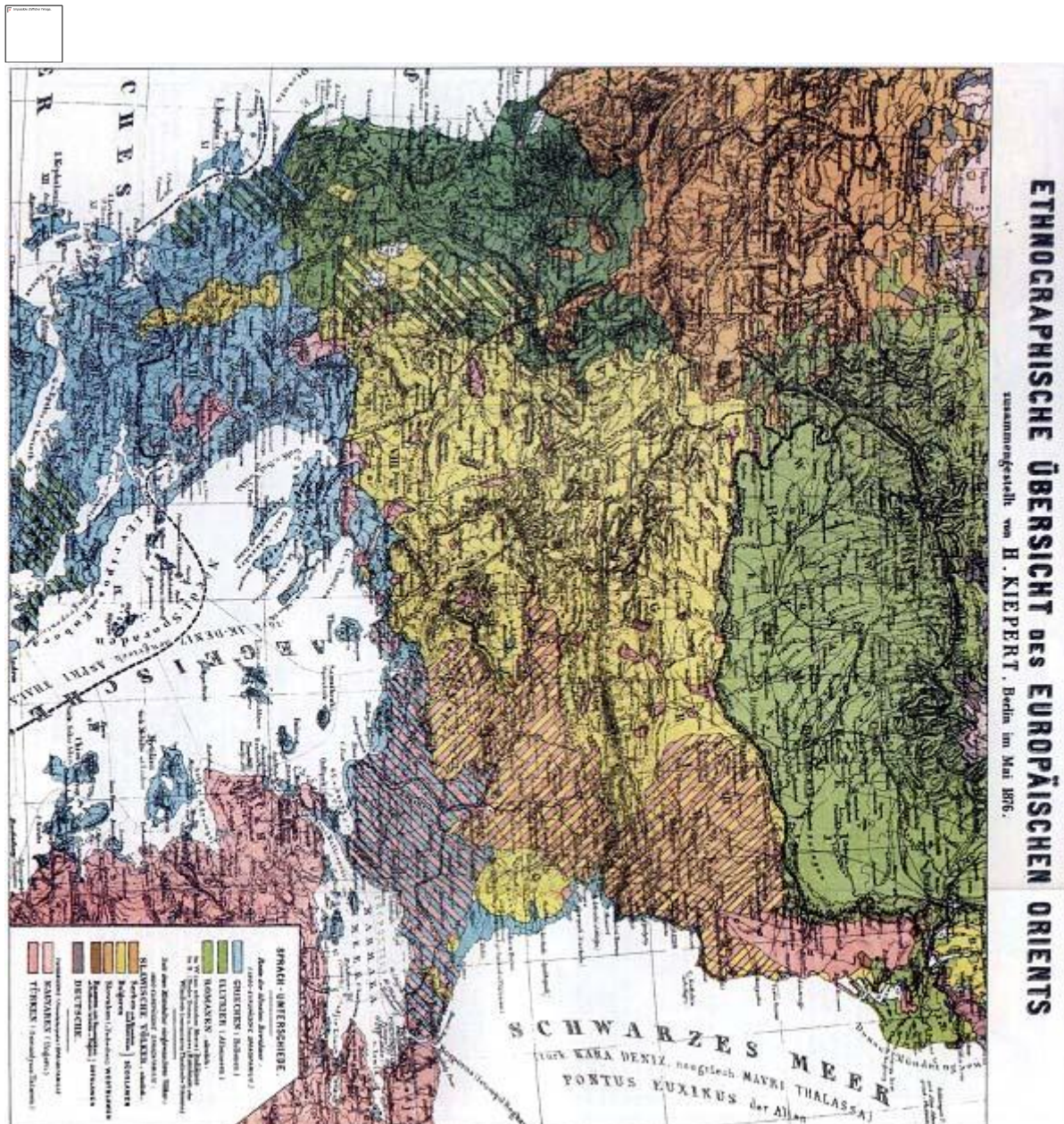


Fig. 6. The map of Albanian territory by H. Kiepert (1876)

In comparison to the maps (fig. 1 and 6), with the map of today boundaries of Albania territory, the reader may have a clearly presentation about the "shrinkage" of the Albanian territory.

After the defeat of Turkey, the conference of ambassadors of the Great Powers (Britain, German, Russia, Austria-Hungary, France and Italy), convened in London 1912, created an independent state of Albania. But, in drawing the borders of the new state, the Great Powers largely ignored demographic realities and ceded the vast region to Serbia, Montenegro and Greece.

### 5. WORLD WAR I and II

During the World War I, the biggest part of territory of Albania has been mapped by the Geographic Military Institute of Wien (the North and Central part of the territory) at 1:75000 scale, by Italian Geographic Military Service (south-west part) at 1:50000 scale, and by French Geographic Military Service (South- East part) at 1:50000 scale, too. In the First World War, Albania was a neutral state.

The Austrian Geographer, H. Loui, undertaken to accomplish the rest of the territory with the topographic surveying at 1:100000 scale (1923-1924) and in 1929, he published the map of Whole Albania at 1:200000 scale. But this scale is unsuitable for many economic, educational and cultural purposes. So the Albanian government signed mutual agreement with the Geographic Institute of Firenze (Italy), to create the topographical maps at 1:50000 for the whole territory of Albania. The works began since 1927 and

continued by 1939. In this year began the war between Italy and Greece, so the geodetic and topographic works were been interrupted, for a part of South territory. This incomplete part was been fulfilled after second World War, by Russian and Albanian institutions still 1957, fully using aerial photographs for whole Albanian territory, i.e. with a new 1:25000 topographic maps.

After the War II till today, the cartographic works in Albania have been developed intensively for topographic maps (at 1:10000-1:1000000 scales), for cadastral maps (at 1:2500-1:10000 scales) and for thematic maps and atlases.

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## 7. BIOGRAPHICAL NOTES OF THE AUTHORS

**Pal NIKOLLI**. Graduated at the Geodesy branch of Engineering Faculty, Tirana University. In 1987 has been nominated lecturer in the Geodesy Department of Tirana University. In 1994 has been graduated Doctor of Sciences in cartography field. During this period, have taught the following subjects: “Cartography” (for Geodesy and Geography students) and “Geodesy” (for Civil engineering & Geology students). Actually he is lecturer and tutor of the following subjects: “Elements of Cartography” (for Geography students), GIS (for Geography students, diploma of first and second degree) “Interpretation of Arial Photographs” (for Geography students, diploma of first degree), “Satellite Images” (for geography students, diploma of second degree) “Thematic Cartography” (for Geography students, diploma of second degree) and “Topography-GIS (for the Geophysics students, diploma of second degree). Mr. Nikolli is the author and co-author 8 textbooks (Elements of Cartography and Topography, Elements of Cartography, Geographic Information Systems, Processing of satellite images, Cartography, etc), 3 monographs (History of Albanian Cartography, Mirdita on Geo-Cartographic view, etc), more than 40 scientific papers inside and outside of the country, more 40 scientific & popular papers, etc. Has participated in several post graduation courses of cartography and GIS outside of the country (1994, 2000 - Italy), etc.

**Bashkim IDRIZI**, was born on 14.07.1974 in Skopje, Macedonia. He graduated in geodesy department of the Polytechnic University of Tirana-Albania in 1999year. In 2004, hot the degree of master of sciences (MSc) in Ss.Cyril and Methodius University-Skopje. In 2005 he had a specialization for Global Mapping in Geographical-Survey Institute (GSI) of Japan in Tsukuba-Japan. On year 2007, he held the degree of Doctor of sciences (PhD) in Geodesy department of Ss.Cyril and Methodius University–Skopje. He worked in State Authority for Geodetic Works from May 1999 until January 2008. From October 2003 up to January 2008, he worked as a outsourcing lecturer in State University of Tetova. From February 2008, he works as a cartography& GIS Professor at the State University of Tetova–Tetova. He continu with working as outsourcing lecturer in geodesy department of the University of Prishtina-Kosova. He is the author of three cartography university books, and more than 60 papers published and presented in national and international scientific conferences related to geodesy, cartography, GIS & remote sensing. From March 2010, he is president of Geo-SEE, South-East European Research Association on Geo Sciences.