

# Aspects of the Maritime Transport Evolution during the Middle Ages

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## 1. ABSTRACT

The evolution of the naval transports during history has not been a linear one, not even a unidirectional one. It has been characterized by moments of isolated development or of downfall, by a non-uniform growth of the transport markets and most of the times there is no sufficient data that attests every transited step.

Generally, the evolution of the naval transports has been a concomitant process with the one of the development of the commerce.

The evolution of the transport fleets was also a parallel process with the evolution of the war fleets, which have determined the political control of the markets.

The Middle Ages were characterized by a fracture of the markets due to the fall of the Roman Empire, fracture that had as a consequence an unprecedented contraction in the history of the world of the maritime transport markets.

This contraction lasted for nearly a millennium, having a powerful reanimation not until around the 1500s, along with the Renaissance.

**Keywords:** *maritime transport, evolution, middle ages.*

## 2. INTRODUCTION

After the fall of the West Roman Empire, around the year 500 B.C., the commerce and the maritime transports had a powerful decline. The main reasons of this downfall were caused by economical, as well as by political and social causes:

- the disintegration of the traditional markets, caused by the dissolution of the political-administrative Roman State
- the drop of the consumption, because of decrease of the level of civilization, of going back to an austere way of life in most of the empire
- the limitation of the navigation routes, as a consequence of the decrease of safety, through the development of the piracy along with the disappearance of the military fleet of defense of the commercial ships.

## 3. THE EVOLUTION OF THE MARITIME TRANSPORTS DURING THE 500s AND 1500s B.C.

In the early Middle Ages, until the Renaissance, the maritime transports were fractured, practically not having a worldwide market, but more likely some local and regional markets:

- The seas from the northern Europe were dominated by the Scandinavian peoples of the Vikings beginning with the 5<sup>th</sup> century until around 1200s B.C.

They were considered to have made the first maritime incursion to North America, probably through Greenland, around the 1000s.

Although they were warriors, most of their activities were dedicated to the commerce with their neighbors from the British islands, from the north and the center of Europe and even from the Mediterranean area.

They exported mainly raw material: skins, furs, wood. In turn, they imported silver from the Arabs, glass and domestic utensils from Rhine, weapons and metal tools from Francia, silk and spices from the Byzantium.

During a time in which commercial routes were insecure, they managed to keep safe routes on the Volga till Kiev, and even a commercial route with the Byzantium.

- In the southern Europe, the Mediterranean Basin, the commercial routes were dominated by the so called Sailor Republics: Venice, Genoa, Amalfi and Pisa. Starting with the 5<sup>th</sup> century, the void left by the Romans was filled by the Venice sailors, who practiced intense commercial exchanges especially in the eastern basin of the Mediterranean Sea and in the Black Sea.

Along with the fracture of the Roman German Empire, Genoa becomes also an independent republic and a great maritime commercial force.

Up until the 16<sup>th</sup> – 17<sup>th</sup> centuries, the Marine Republics dominated the global maritime commerce, developing the first modern financial systems in the

world: the banking system, first insurance system, the check, etc.

After discovering America (by a Genovese – Christopher Columbus), the commercial exchanges from around the Byscia Gulf, the North Sea and the Transatlantic led to the decrease and the collapse of the Mediterranean commerce.

-Between the 7<sup>th</sup> and the 13<sup>th</sup> centuries, the Arab Empire also developed a powerful regional maritime commerce on the Nile, the Tigris and the Euphrates, and the Red Sea.

Byzantium had a well developed commercial fleet, which operated in the Black Sea and the Mediterranean Sea, as a revolving base plate of the commerce between the Orient and the Occident.

Beginning with 1453, after conquering Constantinople, the Ottoman Empire developed strong commercial routes in the Black Sea, on the Danube, to the center of Europe.

The Far East was also dominated since the Ming dynasty (the 14<sup>th</sup> century) by the Chinese navigators, who had developed commercial routes along the Indian Ocean and East China Sea to Japan.

The Somali maritime kingdom also developed powerful commercial routes, after the 1000s, in the Indian Ocean and the Persian Gulf.

Basically, for over a millennium, the maritime commerce crossed a period of growth, characterized though by the fracture of the markets and a certain regional enclave.

However, this period was the age of some important technical, economical and cultural developments, which created the premises for the beginning of a new era of global evolution.

The main evolution factors from that period, which created the premises for the arrival of the great geographical discoveries era, that will coincide with the third technological leap in developing the naval transports, were:

- The invention of the astrolabe, made by the Greeks, and the development of the astronomical navigation, made by the Arabs, which made possible the orientation to very long navigational routes;

- The invention of the magnetic compass, done by the Chinese, which gave the possibility to have a very precise navigation;

- The invention of the central helm, made by the Europeans in the 11<sup>th</sup> and 12<sup>th</sup> centuries, which made possible an easier maneuver of the ships;

- The invention of the circular hand wheel, in the 16<sup>th</sup> century, which made an easier maneuver of the ships by the crew;

- The development and specialization of the canvas and the mast, which allowed the increasingly efficient drive of the ships, autonomy, speed and a bigger transport capacity;

- The introduction of the modern financial systems (the banking system, insurance, check), made by the Genovese, allowed the financing of the fleets, the emergence of more important shipment and the development of markets;

- The emergence and development of the great European states allowed the advancement of some powerful economies, capable of sustaining fleets, which will later lead to the appearance of the great global maritime empires: England, France, Spain, Portugal, Holland, Denmark-Norway;

- The development of science in general and the increase of the interest in art, culture and progress, specific to the Renaissance period, which created a favorable environment for the initiation of some scientific expeditions outside the Old World.

These are only some of the most important factors that facilitated the road towards the third technological leap in the history of the naval transports.

#### **4. HISTORICAL PREMISES OF THE NAVAL TRANSPORTS DEVELOPMENT AROUND THE YEAR 1500**

The evolution of the human societies during the Middle Ages had as a convergent point, in the 13<sup>th</sup> and 14<sup>th</sup> centuries, a pluralism of political, social, economical, and cultural transformations, which had as a consequence the transition of the medieval society towards the modern society.

During that time, a series of quasi-contemporary events took place, which were about to mark a new era- that of Renaissance, an era in which navigation was the revolving base plate of the economical and political development and integration of the entire world.

These gradual events left their mark on the evolution of the human society, which in the course of less than two centuries replaced the old era with a new one:

- The Great Plague ravaged around the year of 1330, first in India and China, being brought by the Genovese sailors in Europe in 1347.

Between 1347 and 1351 it killed nearly half of the European population, continuing with some important waves and disappearing barely at the end of the 15<sup>th</sup> century.

This determined an unprecedented migration of the remaining workforce, an increase of its importance and value, and to unprecedented specialization, social reorganization and urbanization.

The consequence of this fact led to the increasing demand for raw material and consumer goods and to a larger pressure on the relatively under-developed transports.

- The Jewish pogroms were started by the crusaders and continued by the western European monarchies-England, France, Spain, Portugal-during the 14<sup>th</sup> century, culminating in the foundation of the Inquisition by Tomas de Torquemada, in 1482, whose role was to expose the untrue Christians (crypto-Hebrew).

These pogroms had as a consequence the removal of the Jewish from the economical life and the emergence of Christian trades people, who were in an acerbic competition for conquering the uncovered left markets, therefore creating the premises for developing new commercial routes.

- The invention of the typography in 1440, by Johannes Gutenberg, allows for the first time the printing and multiplication, facilitating the wide access to a lot of scientific treaties, maps, and navigational books.

The emergence of the typography was an important step, for the science of navigation and naval transports, in the education of the ones who, only in a few decades, would be the greatest sailors of the world.

- The development of the transport infrastructure and of maritime commercial routes, beginning with the 13<sup>th</sup> century in the Baltic Sea and North Sea basins, through the institution of the Hanseatic League of the cities in that area, created the basis for the war with Holland during 1438-1441. The breakage of the monopoly, created by the Hanseatic League, by Holland established the basis for the appearance of a new power: the Dutch maritime empire.

- The appearance of the assault cannon (invented by a Transylvanian called Orban) and its use on a wide scale, especially after the conquering of Constantinople in 1453, by the Ottoman Empire, made the building of fortified citadels useless, and resulted

in the collapse of the feudal system created around the great medieval citadels.

Therefore a relaxation of the taxation appeared, especially of the local customs fees, resulting in the growth of the international commercial exchanges.

- The falling of Constantinople into the hands of Mohamed The Conqueror in 1453, who transported his fleet by land, to get into the Golden Horn, cutting the provision of the city by Genovese ships, reinforced the Ottoman domination in Eastern Europe and Asia Minor and led to the political and military reorganization, and to a long term stability in the eastern basin of the Mediterranean Sea and to the control of the commercial routes from the Black Sea and subsequently the Danube, by the Ottomans.

- The falling of the Mongol Empire and Timur Lenk's expeditions led to the increase of piracy acts and to the gradual abandonment of the terrestrial routes towards India and China.

The control of Suez, by the Mameluke, and of the Black Sea, by the Ottomans after 1453, resulted in the emergence of an impetuous need for finding a maritime route to the Far East.

- The conquering of North Africa (Senegal, Gambia, and Guinea) and of numerous islands from the North Atlantic, by the Portuguese prince Henry the Navigator, established the basis for the Portuguese maritime empire, 1425 -1460, small Portugal being the first European state ready to become a maritime and colonial force. At the same time, the development of the African slaves' commerce, led to the emergence of a new workforce market, exploited until it was abolished by the USA, after the Civil War.

- Along with the conquering of England by the Normans of Wilhelm the Conqueror, his successors claimed the old domains which they owned in France. The completion of the 100 years war between the House of Valois and the House of Anjou in 1453, ended some periods of successive wars, which had begun four centuries back, and directed the attention of the two royal houses towards the development of two greatest maritime empires of the world: France and England.

- The peace treaty from Lodi in 1454, resulted in the stabilization of the Italian peninsula, of the relations between five states (Venice, Milan, Florence, Napoli, and the Papal State), and of these states with the Ottoman Empire, ensued a period of relative peace of approximately 40 years, in Europe-a favorable period for the development of an economical climate based on growth.

- The ending of a 800 years old domination of the Moor in Spain, through the conquering of the Granada Emirate in 1492 by Castile and Aragon, marked the finality of the Reconquista and created the basis for the great maritime Spanish empire.

- The alliance from Kalmar in 1397 between Denmark, Norway and Sweden, with their possessions, created an important empire in the north of Europe in the 14<sup>th</sup> century, boosting the Old Danish Empire, descendant of the Vikings.

After the denunciation of this union by Sweden, the treaty between Denmark and Norway lays the basis for the future Danish-Norwegian maritime empire.

## 5. CONCLUSIONS

For over 1000 years after the fall of the West Roman Empire, the naval transports did not reach the level of development from the Roman era.

However, the pluralism of events, which took place over less than two centuries-the 14<sup>th</sup> and 15<sup>th</sup> centuries, have led to technological and economical possibilities, as well as to political premises for financing some great expeditions of geographical discoveries, dictated by the desire of some brave people to explore the world and the will of future maritime empires to conquer it.

They led to the beginning of the globalization of economy and of human civilization, and to the passage towards the great geographical discoveries era- a period which basically begins with the Portuguese and Spanish sailors from the beginning of the 15<sup>th</sup> century, a time that coincides with the start of the glorious era of the Renaissance.

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