

Portuguese copper and the sea trade in the Western Mediterranean from 1895 to 1909**

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The sea trade of long course that existed in the Western Mediterranean at the turn of the century was the one linking all the countries of Southern Europe and Northern Africa to the North of Europe. From the South came raw materials (minerals, cork), food supplies (cereals, olive oil, salted fish); from the North came wood, coal, but especially the products of transforming industry. The transport was made by sea, as freights were cheaper, the construction of railways was growing slowly in southern countries, and the products (mostly not perishable) permitted long and slow courses.

The Mediterranean harbours, having multiple functions, were called at by ships that transported diversified goods, and were the center of a polygonal voyage that changed in accordance with the supply of products, the demand for markets or the international events.

By the end of the century, steam vessels were dominating and their presence in the Mediterranean depended on the establishment of strategical places, located for the shipping of coal: Gibraltar (310.000 ton. in 1899), Malta, Algeria, the turkish coast (*Boletim Commercial*, III, 6, 1900, p. 350). The reconstitution of our circuits also takes into account the recognition of those specialized harbours. In some cases, they belonged to the restricted industrialized areas of the Mediterranean countries (Catalonia, Bouches du Rhone), that were called at for the two appointed reasons. A third function of the

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harbours was that they were intermediary ports of call between different types of transport, connecting interior areas of the continent with other ones, overseas. Marseille, for instance, was the point of penetration to Switzerland and to the south of Germany, as Trieste for Austria, or Genova for the interior of Northern Italy.

Since 1859 and for about a century, a mine situated in the south of Portugal around which a valuable network of international trade and navigation was organized, made the country one of the most important copper exporters.

S. Domingo's mine was a typical exploration of English colonization and as many others, it was implanted in the Mediterranean periphery of Europe during the 2nd Industrial Revolution. The mine reached its climax at the turn of the century due to the boom of the German chemical industry and declined with the I World War.

Here we will study the golden years of its exploration, going from the 1894-1895 crisis to the 1908-1909 one. Our research is mainly based upon statistical and diplomatic Portuguese sources mentioned in the bibliography. Through them we will try to reconstruct the sea trade circuits of long course that became possible by the Portuguese copper's exportation: its structure, composition and the areas it comprised, especially the Western Mediterranean.

S. Domingo's mine was discovered in 1857 and rented to the English company Mason and Barry of London, two years later. It is situated in the interior of the country, close to the Spanish border, 60 km from the coastal Algarve, the most meridional and Mediterranean province of Portugal. The access from the coast and its exporting harbour - Vila Real de Santo Antonio - was possible through the Guadiana, that serves as the limit between the two Iberian countries. The Guadiana is a river of subtropical pluvial regime, very irregular but of a fitted and sinuous end, through which the tides enter.

During the 1860s, the Pomarao, a fluvial harbour that developed in its left bank was linked to the mine by a 18 km railway. The minerals transported in wagons were embarked in steam vessels that went up the river or came down in barges until Vila Real de Santo Antonio, where they were transferred to larger ships (P. SEQUEIRA, XIV, 1883, p. 325).

In the mine only labour was not foreign. The owners and qualified workers, capital and machinery, were all British. The totality of minerals was exclusively transported by foreign ships to Great Britain or to the European industrialised countries.

Vila Real de Santo Antonio's harbour which in the middle of the 19th century was a small and quiet nucleus of fishermen, grew rapidly and strongly with the copper exportation of S. Domingos and became the fourth Portuguese harbour in quantity of transacted goods, after Lisbon, Oporto and Setubal. In 1901 the number of steam vessels leaving with freight rose to 320, 5,3% of the totality of the almost twenty harbours interested in long course trading that existed in the country. In 1895 the ore represented 97% of the copper exported by Portugal.

Trade and especially services related to ore exportation (navigation offices, consulates, pilots corporation) were concentrated in Vila Real de Santo Antonio, but there was not a single industrial unit for mineral treatment or transformation.

The long course circuits of ships transporting Portuguese minerals are not simple but reconstructing them allows us to study the international sea trade at the turn of the century. S. Domingos is just an example, a small one that makes it possible for us to imagine the dimension, extension and complexity of the networks created by the Spanish mines of Andalusia or the Italian ones of Sicily (NADAL, p. 4).

The sources through which we tried to rebuild those western Mediterranean circuits, inform us only about the name of the harbour the ships came from, or the destination of each ship that arrived at or left Vila Real de Santo Antonio (*Movimento do Porto... e Entradas e Saídas...*). The maps presented give us an image of those circuits. Although such an image is a partial one it is clear enough to allow us to reconstruct the puzzle with the other sources we have.

Being aware of the range of nationalities of the ships calling at Vila Real de Santo Antonio (English, German and Norwegian ones) and having in mind the distinguishing characteristics of the various navies, we decided to study them separately.

In spite of the great development of its German rival during the 1st decade of the 19th century, both in the number of ships and in tonnage, the British trading navy kept its flagrant supremacy over the other nations during the period of time covered by our research. Solid capitals invested, a vast colonial empire, safe alternative markets, fixed circuits from former times were some of the reasons for the «progressive» decline of the English sea trade (M. KIRBY, p. 4).

The history of the English ships involved in the ore trade of S. Domingos, illustrates very well the stages of industrial development of the United Kingdom and their role in the international context since 1860. For more than 30 years, English ships were the ones

which in largest number and more constantly came to Vila Real de Santo Antonio's harbour. The mid-1890s are the turning point in what concerns the composition of the port's traffic: in 1885, 7 German ships left that harbour, against 54 English ones; in 1896, 120 German ships, against 57 British ones. During the period we are studying Great Britain maintained a constant presence: 80 to 100 steam vessels per year, representing in 1898 and in 1908, 48% of the net tonnage that left the port.

Through the elaborated maps about the origin of English ships one of which is reproduced (Fig. 1), we realize the importance of the Mediterranean and its harbours in the British trade policy: in 1898, 77% of the coming ships had crossed the Straits of Gibraltar and 75% in 1903. In 1908, that index decreased to 44%. The circuits were reorganized differently.

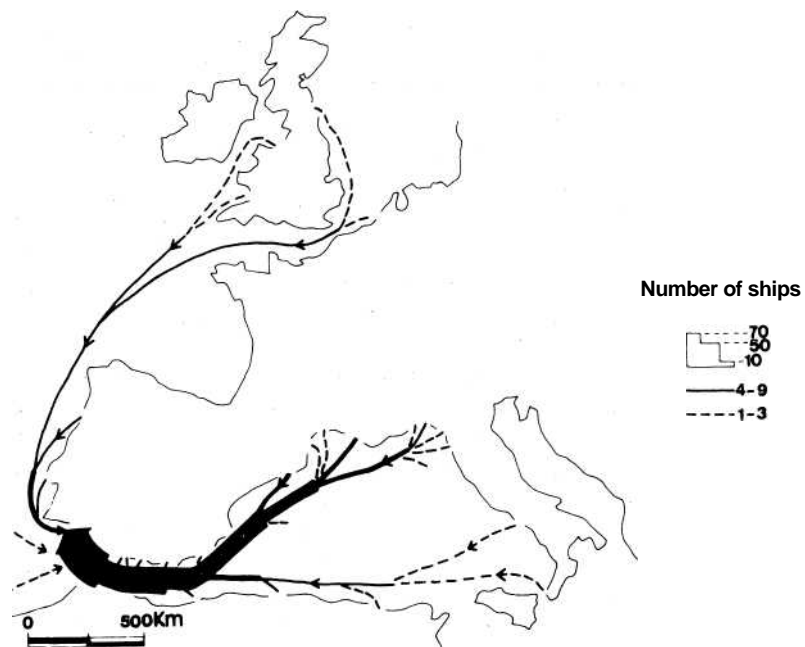


Fig. 1 -English ships arriving at Vila Real de Santo Antonio's harbour in 1898.

The English ships arrived from industrialized areas of the Western Mediterranean: from the harbours of Andalusia, Catalonia, Marseilles and the Gulf of Genova. They also arrived from French Algeria and Sicily. They bring coal. They take coal. What happens in

between is unknown to us, due to specific features of the sources as we have already pointed out. Did they negotiate fruits, wheat, olive oil, colonial articles after having delivered fertilizers, machinery or chemical products?

From Gibraltar, 14 ships arrived in 1898, 16 in 1903. Gibraltar was almost a compulsory port of call for English ships, as it was for their Norwegian allies. Barcelona came second in the list of the ports of origin: 11 ships arrived from there in 1898, 10 in 1903. It was possible for an empty ship to make a voyage of three to four days without great loss. Coming from Alger, Oran, Cartagena or Alicante, the ship anchored after a 2 to 3 day-journey, a 5 to 6 day one from Marseilles, a weekly one from the Italian harbours. The average speed was about 10-12 miles per hour. By the end of the century's 1st decade, the ships features changed, the demand and markets of copper were different: more than half of the British ships, arriving at Vila Real de Santo Antonio were not from the Mediterranean but from the North of Europe, or even America. The same ships sailed backwards.

The pyrites were sold to whom offered more, and the relationship between ship nationality and country of destination is not narrow. If in the 1st decades of the copper exploration in S. Domingos, the largest part was sent to United Kingdom, during the 1890s the German harbours almost received the total amount of minerals. The situation however would change once more. In 1908 it was the American copper that dominated the world market and the raw materials were received in the big centers of pyrite treatment of the United States. Swansea, in Wales had long lost that monopoly (G. PETTENGILL, p. 437). German industry needed raw materials with a different quality. The mineral of S. Domingos once again supplied the English markets and crossed the Atlantic towards Georgia, South Caroline and Florida. One third of the ships which left Vila Real de Santo Antonio in 1908 sailed there.

Reflecting the general development of the Empire, German's trading navy suffered a real boom in the last decades of the century. Between 1871 and 1897, the tonnage of the German fleet increased more than twice. In 1899-1900, it was the second navy in the world with 2.450.000 ton. We also have to consider the dimension of the German harbours: Hamburg (whose trading represents 38% of the European one), Bremen, Stettin, Harburg. We must also consider Antwerp and Rotterdam which although not German ones were for the penetration in the big fluvial courses, that reached the inner parts of the Empire. From all of them there was a re-exportation for the already mentioned harbours. The Portuguese minerals that reached

Sweden (2.623 ton in 1897) or Austria-Hungary (3.360 ton in 1898), passed through them (*Boletim Commercial*, 1906, p. 700-701).

In 1898, 36% of the net tonnage that left from the harbour of Vila Real de Santo Antonio belonged to the German navy. That amount increased to 43% in 1903, that is to say 140 ships per year. Those ships transported almost 100.000 tonns of mineral. In those years S. Domingos represented only 0.7% of the world production but, in what concerns the German imports of pyrites it represented 22% (*Produccion mundial del cobre...*). The search for this raw material did not decrease in the Empire but from Portugal only 9% of the total imported by Germany arrived in 1908 (*Monatliche Nachweise uber...*). There were other sources by then.

The German ships arriving to Vila Real de Santo Antonio between 1896 and 1910 had an average inferior to the one of the English ships (880 ton against 1.342 ton in 1898, 1.365 ton against 1.552 ton in 1908) and an average crew which was also inferior (15 crew members against 18 in 1898, 18 against 20 in 1908). They seemed to be especially intended to transport mineral. The percentage of ships coming from the Western Mediterranean ranged from 9 to 10%. The last visited harbour was almost always Lisbon (94 from the 113 ships that entered in 1894, 35 from the 45, in 1908), which proves that the ships are coming from the North in a forward and backward voyage, linking production to consumer areas.

They sailed up North, in courses that hardly exceeded a week' journey. Hamburg, Antwerp and Bremen received in 1898, 89% of sailed ships (Fig. 2). For some of them however, the journey was extended: sailing round Jutland and entering the Baltic, they reached the harbours of Stettin, Danzig and Memel, which gave access to the interior of the continent through fluvial courses, through the Oder, the Vistula, the Neman.

With a long tradition in the international trade, the Norwegian navy is also involved in the copper's exportation of S. Domingos. Being an ally to Great Britain in the same way as Portugal, Norway was also a peripheric country of the industrialized Europe. She became independent from Sweden in 1905, due to the British protection. The importance of its role in British commercial circuits had not a small part in this political process.

In Vila Real de Santo Antonio, their presence started in the begining of the 1880s: in 1885, 3 Norwegian ships; in 1890, 17; in 1903, 31; in 1908, 40; two years latter, 55. A slow but safe increase. The same happened in the average tonnage of the ships: 930 ton in 1898, 1.100 ton in 1908. The average tripulation was about 15 to 16 men. In 1908 the Norwegian navy represented in Vila Real de Santo

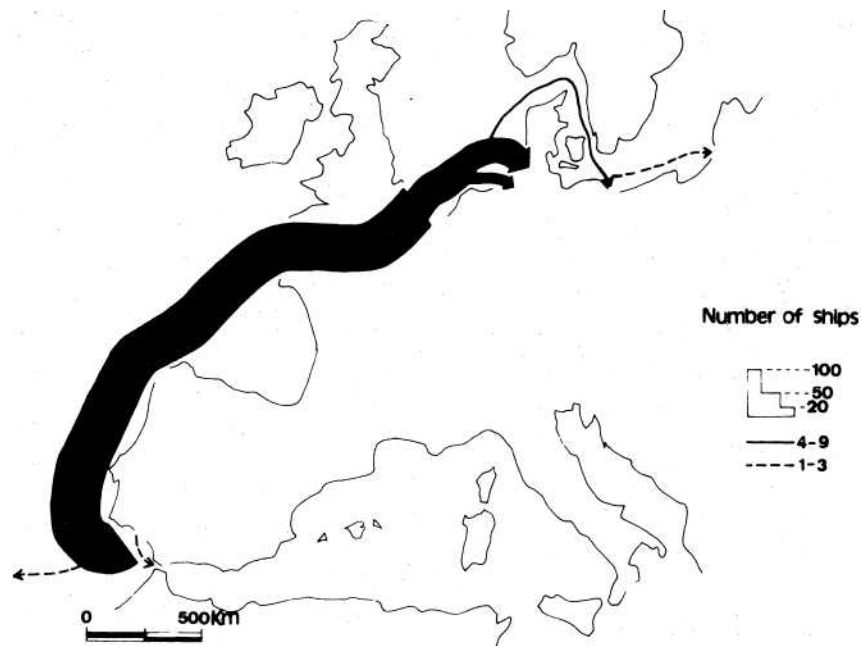


Fig. 2-German ships sailing from Vila Real de Santo Antonio in 1898.

Antonio, 14% of the harbour's traffic. The number of ships that come from the Western Mediterranean rose: 24% in 1890, 54% in 1908: their circuits expanded and diversified. Their destinations partly overlapped the British ones.

At the turn of the century Vila Real de Santo Antonio had a privileged moment in its existence, being one of the knots in that complex and comprehensive network of relationships temporarily established between the Mediterranean world and the Atlantic one. However, that experience was due to the foreign navy and depended on international economic changes. After the 1907-1908 crisis, Europe prepared herself for the war and with it the story of the S. Domingos minerals became different from the one we have just told.

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