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SHIPS AND SHIPBUILDING IN CORFU IN THE FIRST HALF OF THE SIXTEENTH CENTURY

For Venetian merchant shipping, the early decades of the sixteenth century mark the transition from the coexistence of state-organised and private maritime trade, to the domination of the latter. The gradual abandonment of the convoys of galleys and the consequences of this for Venetian trade gave non-privileged shipowners, such as the Greek subjects of Venice and several foreigners, the opportunity of taking into their own hands the transport services that had hitherto been the privilege of their Venetian colleagues¹.

When we speak of private or free trade, we should make clear that this is not an activity carried out by a group of people with uniform characteristics. Among the private shipowners, factors decisive for individual differentiations were: a) the legal regime, which for Venetian subjects translates as higher taxation in relation to Venetian nobles and citizens (*cittadini*)², b) their financing abilities, which for the nobles and *cittadini* of Venice meant easy access to big shipping capital, and last c) the means available to them, which for the Venetian nobles and *cittadini* were, as a rule, the big round-bellied ships, while for the subjects were small and medium capacity cargo vessels that essentially operated complementarily to the former.

However, although we know much about the maritime trade of the leading social groups in Venice, the same does not apply to that of the Serenissima's subjects. As emerges from various appraisals of Venetian maritime historiography, whereas a large part of this was interested in the Venetian dominions in the eastern Mediterranean – the *Stato da Mar* – and its importance from a geo-strategic and commercial viewpoint, there has not been corresponding interest in the people living in the possessions and in their merchant-shipping

¹ The bibliography on these arguments is very extended. See e.g. in F.C. Lane, *Venetian Shipping during the Commercial Revolution*, «American Historical Review», vol. 38, n. 2 (1933), pp. 229-239. Idem, *Venice, a maritime republic*, John Hopkins University Press, Baltimore 1973, pp. 132-134. G. Luzzatto, *Navigazione di linea e navigazione libera*, in *Studi di Storia Economica*, Cedam, Padova, 1954, pp. 53-58.

See also in J.C. Hocquet, *L'armamento privato*, in A. Tenenti, U. Tucci (a cura di), *Storia di Venezia*, Istituto della Enciclopedia Italiana, Roma, 1991, vol. 3, *Il mare*, pp. 397-400. B. Doumerc, *Le galere da mercato*, *ibid.*, pp. 357-393.

² See in G.D. Pagratis, *Trade and Shipping in Corfu (1496-1538)*, «International Journal of Maritime History», vol. 16, n. 2 (2004), pp. 173-177.

activities³. Among the few exceptions are the studies by Maria Fusaro, which place the beginnings of the shipping enterprises of one of the ethnic categories of Venetian subjects, the Greeks, in the late sixteenth century⁴. The activities that Fusaro describes, take place when the transition of the Venetians from the phase of exclusive investment in sea trade to the phase of diversification of their capital on land and sea has already been completed⁵. It was precisely this void of the transitional phase that the shipowners of Zante took advantage of by keeping open, for a few years, the trade route linking Venice and its possessions in the Levant with England, so connecting the local trading network of the subjects with the inter-regional network of Venice and international trade.

It is obvious that the emergence of all these exceptional cases of Ionian merchants and shipowners in the late sixteenth and the early seventeenth century presupposes the existence not only of the favourable coincidence of international circumstances but also of the substrate on which the subjects acquired the necessary experience. The local merchant fleets and their activities constituted the substrate which would have helped the subject shipowners to upgrade. The present article aims to document the quantitative and qualitative characteristics of the merchant fleet that developed in Corfu and engaged in particularly important entrepreneurial activities. This case is significant because it is by no means usual for us to have knowledge in depth of the quantitative and qualitative characteristics of economic activities of this kind. Furthermore the case of Corfu represents the first fleet built up by subjects of Venice in the early modern period, almost one hundred years before the involvement of the

³ U. Tucci, *La Storiografia Marittima sulla Repubblica di Venezia*, in A. Di Vittorio (a cura di), *Tendenze e orientamenti nella storiografia marittima contemporanea*, Lucio Pironti Editore, Napoli, 1986, pp. 151-173. G. Zalin, *Considerazioni sulla storiografia marittima veneziana tra Basso Medioevo e Settecento*, in A. Di Vittorio, C.B. López (a cura di), *La Storiografia Marittima in Italia e in Spagna in età moderna e contemporanea. Tendenze, orientamenti, linee evolutive*, Cacucci Editore, Bari, 2001, pp. 121-154.

⁴ See M. Fusaro, *Commercial Networks in the Early Modern World*, in D.R. Curto, A. Molho (a cura di), *EUI Working Papers HEC No. 2002/2*, European University Institute, Firenze 2002, pp. 121-147. Eadem, *Les Anglais et le Grecs. Un réseau*

de cooperation commercial en Méditerranée vénitienne, «Annales. Histoire, Sciences sociales», vol. 3 (2003), pp. 605-625. Eadem, *Coping with transition: Greek merchants and shipowners between Venice and England in the late sixteenth century*, in I. Baghdiantz McCabe, G. Harlaftis, I. Pepelasis Minoglou (a cura di), *Diaspora Entrepreneurial Networks: Four Centuries of History*, Berg Publications, New York, 2005, p. 103.

⁵ See in A. Stella, *La crisi economica veneziana nella seconda metà del secolo XVI*, «Archivio Veneto», serie 5a, n. 93-94 (1956), pp. 17-69. U. Tucci, *La psicologia del mercante veneziano nel Cinquecento*, in *Navi, mercanti, monete nel Cinquecento veneziano*, Il Mulino, Bologna, 1981, pp. 43-94.

Zakynthians in the trade between Venice and England; details of the local shipping substrate of the Zakynthians continue to elude us.

In general, Venice, a state with a strict protectionist policy, did not prevent the growth of merchant fleets in her possessions in the Levant, on the precondition that the various protectionist decisions of the metropolis were observed. And this because the subjects thus secured the products necessary for their own sustenance, as well as for victualling the numerous military forces in the possessions. Concurrently, Venice had an extra advantage: in an age when the boundaries between commercial and martial shipping were somewhat blurred, with the virtually self-evident possibility of turning cargo ships into warships, Venice was able to reinforce considerably its marine military machine. It attached great importance to this prospect, given the heightened insecurity due to the threatening Ottoman presence in the Mediterranean.

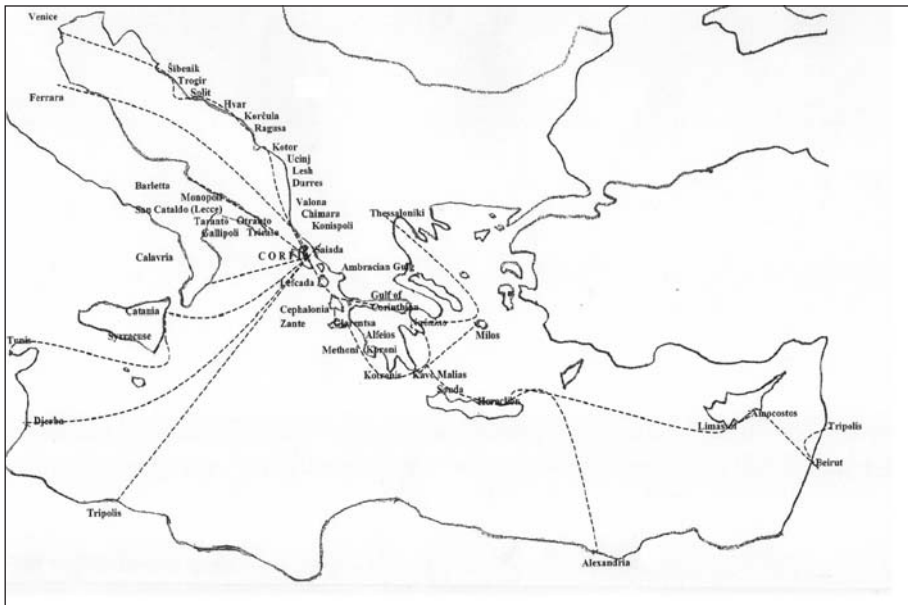


Fig. 1. Geography of Corfiot Maritime Trade

During the period under study, the Corfiots' ships were adapted to the kind and to the geographical ambit of their trading-transporting necessities. This is confirmed, in large part, through examination of the traffic in the harbour of Corfu, in the first half of the sixteenth century, which permits the distinction of two major categories of such activities: on the one hand, the local petty trade with the coast of Epirus, opposite the island, which covered the everyday dietary needs of the Corfiot population, and on the other hand, the trade in the sea space stretching from the Adriatic, through the Ionian Sea, and as far

as the southeastern Mediterranean. Protagonists in this second category were the shipowners of Corfu and other subjects of the Serenissima Repubblica and of the Sublime Porte, who carried to Venice agricultural products from their regions of provenance and exported from Venice textiles and other manufactured goods⁶.

This kind of differentiation in the maritime trade of Corfu is reflected directly in the types of ships. Their constructional features were subject either to special trade and transport needs, or to the possibilities of the local shipyards, or to the availability of investment capital from the men of the sea.

classes	types	n.	%	capacity (tons)	crew (aver.)
c. medium cargo ships	marciliana	8	0,9	70-250	
	schirazzo	8	0,9	62,5-240	
	caravella	5	0,5	96-192	35-40
	gallion	3	0,3	50-100	
b. small cargo ships	xylo (lignum)	367	43,7	63	
	grippo	183	21,8	31-39	13-50
	fusta	3	0,3		24-32
	frigate	2	0,2		20-80
	karavi	6	0,7		
a. Boats	sandali	12	1,4		
	monoxylo (canoe)	4	0,4		4-8
	barca	1	0,1		
	korito	1	0,1		
	unprecised	235	28		
TOTAL		840	100	39	

Table 1: Ship types of Corfu

On the criterion of capacity, we can distinguish three large classes of ships: a) boats (sandali, korito, monoxylo), which served local petty trade and are not, as a rule, recorded in the sources, b) cargo ships of small (xylo, grippo, fusta, frigate, karavi) and c) medium capacity (gallion, marciliana, caravella, schirazzo), which voyaged in the Adriatic, the Ionian Sea and the southeastern Mediterranean.

Boats appear only infrequently in our sources (2%), but this does not necessarily reflect their true number. Common sense, which the numerous examples in the international bibliography⁷ concur, would suggest that the kind of trade aimed at servicing everyday dietary needs is rarely recorded in the sources. Principal trait of the small seacraft of this category was their comparatively simple construction.

⁶ G. Pagratis, *Trade and Shipping in Corfu* cit., pp. 177-197.

⁷ See e.g. in G.V. Scammell, *English Mer-*

chant Shipping at the End of the Middle Ages: Some East Cost Evidence, «The Economic History Review», vol. 13, no. 3 (1961), p. 329.

Most of them had an almost flat bottom and they were used either for fishing in lakes or shallow and relative safe waters, such as in salinas and lagoons, or for small-scale and short-distance transport skirting the coasts, or to carry passengers from the shores to the open sea, where bigger ships had dropped anchor.

The most widely used type of vessel in this category was the sandali, a ship with a long history, which can be identified from as early as the eleventh century in Byzantine sources, as a fishing boat. As its name indicates, it resembled a sandal, due to the lack of keel. It had just one sail with rigging, from two to four oars and sail, and a crew of at least four seamen. It ranged in length from 7 to about 8.5 metres and its maximum width was of the order of 1.5-2 m. This vessel had no deck, just benches for the oarsmen, as well as one trapezoidal sail, the *sacoleva*. Its rudder was usually made of beechwood. Sandali were used for fishing in calm waters, such as the Butrint lagoon, or along the coastline, for carrying twigs-fuel to kilns for firing bricks and tiles, and in general for trips no further than the opposite mainland and between Corfiot harbours⁸.

Analogous to the percentage of boats was that of medium-size cargo ships (2.6%), which were represented by four ship types, as a rule of mixed propulsion: *marciliane*, *schirazzi*, *caravelle* and *gallions*. The capacity of all ranged from 60 to 250 tonnes, while they were crewed by 35 to 40 seamen. Their radius of activity was much the same as that of small cargo ships, such as the *grippo*. They covered the relatively long voyage from Tripoli in Libya as far as Venice, via Corfu, as well as transport needs from Leucas, Zante and the Gulf of Corinth (Stiri and Livadostra) to Venice and Corfu.

Of these three categories, the small cargo ships served more massively and more effectively the trade and transport needs of the Corfiots, representing almost two-thirds of the fleet. Ship types like *grippi*, *fuste* and frigates ranged in capacity from 30 to 63 tonnes and required a crew of 13-14 seamen.

The *grippo*, a quite widely diffused cargo ship in the Adriatic area and in the eastern Mediterranean, is the ship type distinctive, more than any other, of Corfiot sea trade in the first half of the sixteenth century. It was built in large number already from the last quarter of the fifteenth century. The mass-production of *grippi* is also documented quantitatively through our sources, since they represented about 22% of Corfiot sailing vessels. So, there is nothing strange in the fact that in 1506, in a period of fiscal problems for Venice, due to the continuous wars in which it was embroiled, the *Serenissima*

⁸ General State Archives of Corfu (henceforth = Gsa), Notaries, Antonios Metaxas (Corfu), b. M 180, cc. 51r, 326r. Gsa,

Notaries, Vassileios Vlassis (Lefchimmi), b. B 94, filza 3, c. 312v & filza 5, c. 203v.

decided to tax merchandise imported to the port of Corfu on grippi and not on ships of other types⁹.

Principal technical feature and comparative advantage of the grippi was their flexibility, since they could cover trading and carrying services both on local scale and in the eastern Mediterranean, from Venice to Crete and the Middle East, while they were easily transformed into warships or fishing vessels. Typologically they resemble small galleys: they were about 10 metres long, with single mast, one deck, and usually trawled a small boat behind them. They could reach relatively high speeds, since, like the galleys, they were able to use both oars and sails. In the sixteenth century the voyage from Crete to Venice took 22 days¹⁰. Grippi were manned by a crew of 13 to 18 sailors, which could increase to 50 at most in the case of conversion into warships¹¹.

In terms of quantity, the small cargo ships known in Greek as *xyla* (= "woods", lat. *lignum*) occupy first place. This is a rather vague generic term, sometimes denoting the grippo, sometimes the *schirazzo*, and so on. Indeed, even in the same notarial act a ship referred to initially as 'xylo', may appear later on in the document as a different type. It is not improbable that 'xylo' at some time rendered the Italian term 'ligno', which during the Middle Ages corresponded to a light, swift little ship capable of carrying 30 to 100 tonnes¹². However, in the sixteenth century the *xyla* of Corfu started from 7 m. to 14.5 m. in length and reached up to 24 m. The norm seems to veer towards the last estimate (24 m.). Examples of *xyla* concur with this view, such as of Simos Karavias, of capacity 63 tonnes, which in 1511 was able to carry at least 100 passengers, or of Georgios Skiadas, which in the same year carried 19 soldiers with their horses from Corfu to Venice¹³.

With regard to the building of all these ships, research has shown that on the shores around the port of Corfu and in the southern part of the island, privately-owned shipyards (*tarsanades*) were in operation since at least the fifteenth century. In these were built small cargo ships, such as *sandali*, grippi and *fuste*¹⁴. The Corfiots' particular preference for grippi should therefore be attributed not only to the special needs of their trade, but also to the specialization of the local shipyards.

Materials for shipbuilding came either from the island itself or, as a rule, from areas in close vicinity. Timber was felled on the island's

⁹ C.N. Sathas, *Documents inédits relatifs à l'histoire de la Grèce au moyen âge*, Maisonneuve et C^{ie} Editeurs, Paris, 1889, vol. V, p. 253.

¹⁰ M. Sanudo, *I Diarii*, Reale Deputazione Veneta di Storia Patria, Venezia, 1889, col. 522.

¹¹ Gsa, Notaries, Gheorghios Moschos (Corfu), b. M 245, c. 93r. Gsa, Notaries,

Emmanouil Toxotis (Corfu), b. T 11, cc. 22v, 126r. State Archives of Venice (henceforth= Asv), Senato Mar, reg. 15, c. 1v.

¹² J.C. Hocquet, *Il sale e la fortuna di Venezia*, Jouvence, Rome, 1990, pp. 23-24.

¹³ Gsa, Notaries, Emmanouil Toxotis (Corfu), b. T 11, cc. 21r-v, 105v. Gsa, Notaries, Mihail Glavas (Corfu), b. G 54, c. 200r.

¹⁴ C. Sathas, *Documents cit.*, vol. III, p. 470.

mountains and in the forests of Parga, Louros, Arta and Leucas, the sails were sewn in Ioannina, ropes were twined in Naupaktos and standing riggings in Preveza¹⁵.

The shipwrights were locals or people from Parga, a small city in the ottoman territory in front of Corfu, residing permanently or temporarily on the island, such as master-Ioannis Skiadopoulos, who in 1514 undertook to build a xylo approximately 7 metres long¹⁶. In a period in which professional specialization was low, Skiadopoulos and his colleagues were ordinary carpenters who were also skilled in the shipwright's craft, but who still took commissions for all manner of wooden constructions, such as a hut, a mill, pieces of furniture, etc. Some of these shipwrights succeeded in working also in Venice. The Corfiot Francesco da Thodaro is a case in point, first master of the 'carpenters' (priore dei marangoni) in the Naval Station of Venice, who in 1527 was considered a specialist in building warships such as nave, galleys and barze¹⁷.

As a rule, a ship-building was financed by collective contribution of capital, which provided the right of ownership of a fixed share (*carato*) in the vessel, each one of which could be expropriated or acquired separately. The system of co-ownership gave the possibility not only of amassing a capital sum far larger than that one person was able or willing to invest on his own, but also of apportioning possible losses from the commercial exploitation of the vessel¹⁸.

The view formed from the multifaceted information available is that during the period under discussion the Corfiot mercantile marine was enjoying a relative heyday. The first relevant snippets of information come from one of the chapters of the embassy of the Community of Corfu to the Venetian Senate in the year 1542, according to which, during operations in the period 1474-1538 in which Venetians were involved, the Corfiots equipped at their own expense 50 "grippi"¹⁹. Perhaps these numbers seem exaggerated. After all, the Corfiots' aim was to convince the Venetians of their loyalty and service to the Serenissima, in order that she agree to spend the enormous sums demanded for building a wall round the suburbs. Even so, they are at least

¹⁵ M. Sanudo, *Diarii* cit., vol. 2, col. 234 & vol. 3, col. 450. S. Mastraca, *Descrizione dell'isola di Corfù*, Venezia, 1869, pp. 20-21. Cfr. N. Karapidakis, *The landscape and the terror of the city*, «Historica», vol. 7, n. 2/13 (1990), pp. 105 (in Greek).

¹⁶ Gsa, Notaries, Mihail Glavas (Corfu), b. G 54, c. 150r.

¹⁷ Asv, Senato Mar, reg. 21, c. 73r.

¹⁸ For the co-ownership in Corfu see in G.D. Pagratis, *Maritime Trade in Venetian-ruled Corfu, 1496-1538*, PhD Thesis,

Ionian University, Corfu, 2001, pp. 216-217 (in Greek).

¹⁹ Gsa, «Enetokratia», vol. 97 (*ambasceria* 1542), cc. 1v-4r; N. Karapidakis, *Corfu and the Venetians: Reading and dynamic of the urban domain*, in E. Concina, A. Niki-phorou-Testone (a cura di), *Corfu: History, Urban Life and Architecture 14th-19th c.*, Politistikos Syllogos Korkyra, Corfu, 1994, p. 47 (in Greek). Vincenzo Capello was "provveditor dell'armada" in 1513. M. Sanudo, *Diarii* cit., vol. 16, col. 606.

indicative of the importance that Corfiot society attached to ownership of ships, in particular “grippi”.

The hints given by the “embassy” of 1542 are confirmed by some more reliable information. According to the diary of Marin Sanudo, in 1499 the Corfiots had placed 23 of their ships in the service of the Serenissima²⁰, while in 1513, 53 Corfiots, the majority feudatories, together with some other shipowners of the town, offered an equal number of “grippi” with their crews for the campaign in Apulia, where – as Sanudo refers – they expected to gain other significant profits too. The commonest sailing craft of Corfu, the “grippo”, seems to have been an essential appurtenance of a fortune that was made up on the one hand of land properties and was maintained from their revenues, and on the other hand of incomes from the leasing of taxes and baronies, the exercise of public offices and involvement in commercial activities. The 53 feudatories-shipowners, apart manifesting their fidelity and loyalty to the Serenissima (sentiments they hoped to cash in for her protection as well as some material recompense) also foresaw direct profits from the military engagements²¹.

In our efforts to check the above numbers, we proceeded to a study of the entire corpus of notarial registers (twenty notaries in the city and countryside of the island), which are deposited in the state archives of the island. For the period 1496 to 1538 were recorded 840 ships, mostly small cargo vessels, a number that corresponds to a mean of 27 ships a year. We estimated that the total capacity of the Corfiot fleet was about 39,000 tonnes. These quantitative data are not far removed from the arguments made by the representatives of the Community of Corfu to the Venetian Senate in 1542, as well as from those snippets of information preserved in the diary of Marin Sanudo. They confirm, moreover, to a considerable degree both the particular dynamism of the commercial fleet of Corfu and the particular preference of the Corfiots for the grippo.

A comparison with other contemporary fleets might help us to understand the magnitude of the island’s merchant fleet. For the first half of the sixteenth century it wasn’t easy to find out data of this kind, with the exception of Ragusa, a case comparable to Corfu for geographical and population reasons. In the third decade of the sixteenth century, shortly before the great boom in Ragusan shipping, which is dated in the middle years of the century, the overall capacity of the local fleet was 22,800 tonnes²².

During the period studied, as can be seen from the diagram, the critical year for Corfiot merchant shipping is 1514, when the

²⁰ M. Sanudo, *Diarii cit.*, vol. 2, coll. 1243, 1247.

²¹ M. Sanudo, *Diarii cit.*, vol. 16, coll. 606, 610-613; cfr. N. Karapidakis, *Corfu and the Venetians cit.*, pp. 46-47.

²² G. Fenicia, *Politica Economica e Realtà Mercantile nel Regno di Napoli nella prima metà del XVI secolo (1503-1556)*, Cacucci Editore, Bari, 1996, pp. 104-105.

dynamism of the fleet began to decline appreciably, with very few notable fluctuations, until 1538. Analytically, the mean annual size of the Corfiot commercial fleet dropped from 34.6 ships in the first phase (1496-1548) to 20.8 ships in the period 1515-1538. In the first phase (1496-1514) Corfiot trade obviously took advantage of the conjuncture of the Italian wars, which was unfavourable for Venice, as well as of the Serenissima's with the Ottomans (1499-1502) and the discovery by the Portuguese of the new route to the Indies, which were all situations that hit the Venetian economy and weakened Venice's ability to control trade with the East and in the Adriatic. It is, moreover, not fortuitous that in the same year the regular sailings of the mercantile galleys for Romania were suspended²³. The particular coincidence of historical circumstances allowed Corfiot trade to deviate from the legal sealane terminating in the city of the doges, responding to the lure of profit promised by promoting Ottoman trade in the port of Ancona and the fairs of Lanciano and Recanati²⁴.

The Venetian State, on account of its involvement in the Italian wars and in the wars with the Ottoman Empire, was only able to react to these activities in 1514, when it banned them²⁵, causing the gradual shrinking of the Corfiot fleet, as emerges also from the diagram, which essentially confirms the complaints of the Corfiots to Venice.

The Corfiots, on their part, were obliged – according to the Venetians – to stay within their own “Lebensraum”, confining themselves to the coast of Epirus on the mainland and the surrounding Greek regions. This does not mean, of course, that the Venetians were in a position to deal effectively and fully with all the smuggling activities of their subjects in all possible marine zones. Some two decades later, the ban was still officially in force and was violated whenever the opportunity presented itself. The illegal voyage of a crew of Corfiots to Ancona and Ferrara, with a cargo of acorns, was ratified by a notary. The charterer and the shipowner-cum-skipper both agreed to share any damage (and fines) incurred, over and above the ordinary, “since they want to go sot-tovento”²⁶. One more case, of the Corfiot merchant and shipowner who in 1532 carried grain from Egypt to Jerba in Tunisia, is possibly representative of the new directions in the subjects' entrepreneurial activity²⁷.

To recapitulate: the example of the merchant shipping of Corfu allows us to document quantitatively and qualitatively the develop-

²³ A. Tenenti, C. Vivanti, *Le film d'un grand système de navigation: Les galères marchandes vénitiennes XIVe-XVIIe siècles*, «*Annales*», vol. 16 (1961), pp. 83-86.

²⁴ See in more details in G. Pagratis, *Trade and Shipping in Corfu*, cit., pp. 175-177.

²⁵ C. Sathas, *Documents cit.*, vol. V, pp.

249-250, 255.

²⁶ Gsa, Notaries, Antonios Metaxas, b. M 180, c. 164r.

²⁷ B. Arbel, *Trading Nations. Jews and Venetians in the Early Modern Eastern Mediterranean*, Brill, Leiden, 1995, p. 39.

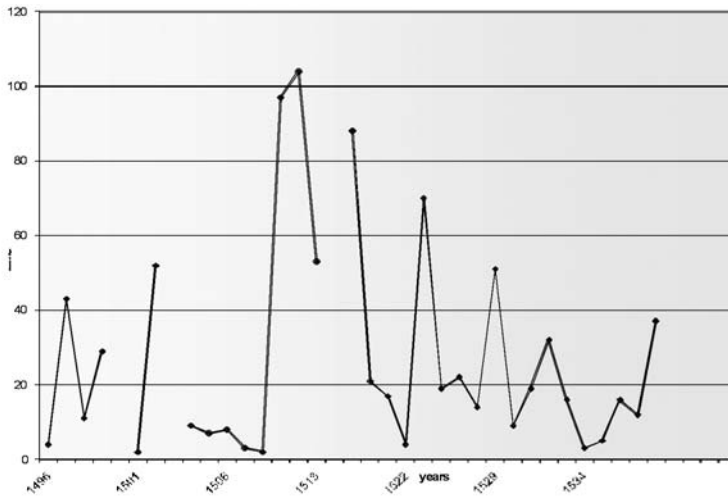


Diagram 1. Number of corfiot ships per year

ment of a notable merchant fleet, orientated towards serving both local and inter-regional trade by subjects of Venice in a transitional period that is marked by the abandonment of state-organised trade of the convoys and the almost absolute domination of private merchant-shipping activities. This fleet, adapted to special trade and transport needs, to the shipbuilding capabilities of the place and the financial possibilities of the local men of the sea, had been formed mainly by small cargo ships, about 10 metres long and of 30 to 63 tonnes capacity. Comparative advantage of the Corfiot ships was their speed, which was due to their long narrow shape and their propulsion by rowing, in combination with the use of sails, properties characteristic of vessels imitating galleys.

The formation of the Corfiot merchant fleet and the preference for specific types of ships seems to have served two main aims: on the one hand to satisfy the islanders needs for foodstuffs and other goods, through trade, transport and fishing, and on the other to reinforce the Venetian war machine at sea, with cargo ships that were easily transformed into warships, by adding the appropriate weaponry, or that were simply used as auxiliary vessels of the large fighting ships of the Republic of Venice.