

## *Venetian Ship-Owners in the XVIth Century*

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In the XVIth century Venice found itself marginalised by the great geographical discoveries and forced to cede its established monopolies over maritime trade. These conditions might at first sight appear to have condemned the Venetian merchant fleet to decline, making its fortunes in this period of little other than purely local interest. But the rich technical and organizational legacies enjoyed by Venice's merchant fleet made that rapid decline unlikely, even if there were at times also obstacles to innovation. At the same time Venice continued to be directly involved in the changes that were taking place in shipping in this period, and the sea-borne nature of the Republic's possessions, stretching from the great port on the Lagoon to the Dalmatian coastline to Crete, Cyprus and the numerous other islands make it an ideal vantage point for studying some important aspects of the history of shipping and shipbuilding industry.

If we take into account the navy as well as the merchant fleet the case becomes even stronger, since the Republic's battle fleet consisted of a huge force of men and ships that were closely bound to the fortunes of the merchant fleet. It was here that its sailors were trained, while the merchant fleet also provided a huge reserve of large privately owned vessels that could be used in times of emergency. Together they consisted of about a hundred galleys in

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varying stages of construction and levels of efficiency, which during the course of the century in certain periods of increased Turkish pressure on the Mediterranean, numbered as many as 150-60 and gave employment to several tens of thousands in the shipyards, in the docks and on board ship. The merchant fleet played a vital role therefore in the life of a state which depended on maritime transport, and also in the city of Venice itself which continually adopted the structures of a manufacturing economy, even though the importance of the ship-owning interests was perhaps less than they might have been.

Even in this period, Venetian legislation and practice did not make any clear distinction between ownership of a vessel and participation in a maritime venture or voyage. Usually the term *parcenevole* referred to the owner since he normally also took a direct interest in the commercial venture in which the vessel was engaged, and as a result he acted both as owner and commercial entrepreneur of the ship. There were numerous legal requirements that related to ownership, and it was this in particular that determined the Venetian nationality of the ship: something of considerable importance in view of the protectionist legislation of the Venetian state. The role of the commercial entrepreneur, on the other hand, remained less clear because the principal responsibility for the vessel rested with its captain. The latter was frequently a co-owner, but was responsible for the technical and administrative aspects of the venture and enjoyed extremely wide powers given the conditions of virtual autonomy during the voyage. As a result the commercial entrepreneur of the voyage tended to remain a shadowy figure, masked on one side by the owner of the vessel and on the other by that of the patron — a form of organization which reflected the older collective character of maritime undertakings.

It would be a waste of time, therefore, to seek to establish fine legal or institutional distinctions that simply never existed. It was often the future owner who took the major part in building the ship, who provided the necessary funds and also consulted with the appropriate experts to decide on technical specifications rang-

ing from the materials from which the vessel was made to the broader principles of its construction and design.<sup>1</sup>

The organized commercial galley services provided one particular case in which ownership of a vessel and participation in a commercial voyage were quite clearly distinguished. These commercial voyages were organized in Venice from the XVth century onwards, and consisted of state-owned galleys which were chartered to private interests for expeditions at varying intervals to the Levant, the Barbary states, Flanders and England. In this case the distinction was formally established, since the owner of the vessel was the state while the charterer was a private citizen. But the expeditions were conducted on highly organized terms and there were highly detailed and rigid regulations concerning the specific administrative and commercial responsibilities of the commander of the convoy, and the ways in which the charters were to be organized through a common fund. This complex network of regulations and obligations meant that the freedom of the investors was circumscribed to such an extent that they cannot really be described as independent commercial entrepreneurs.<sup>2</sup> Even in this case, therefore, the figure of the merchant investor and contractor remains shadowy.

The term *armare* to mean the organization of a maritime commercial undertaking was already current at the end of the XVth century, but the term *armatore* (which in contemporary Italian means someone who fits out a commercial shipping venture) was from the XVIIth century onwards used only for those who equipped the ship for the privateers.<sup>3</sup> The term used to describe the owner was *parcenevole* which is probably the counterpart of the English word *parcener*, with a common Latin derivation and referring to the division of the enterprise into shares. Throughout the XVIth century the forms of co-ownership that

<sup>1</sup> ASV (Archivio di Stato, Venice), *Esaminador, Notificazioni* reg. 8, ff. 31v-32v).

<sup>2</sup> In opposition, A. SCIALOJA, "Cenni storici esegetici e critici intorno alla qualifica di armatore", *Rivista del diritto della navigazione*, III (1937), pp. 9-10.

<sup>3</sup> *Ibid.*, pp. 43-46.

had been prevalent in the Middle Ages continued, and ships were by convention divided into 24 shares or *carati*. In Venice there is evidence to suggest that the number of shareholders tended to fall and there were many vessels that had a single owner. In other cases there were many more co-owners, yet it was increasingly common for ownership to be divided into larger fractions, thirds, quarters or halves.

The policies adopted from the end of the XVth century by the Republic to stimulate ship-building encouraged more concentrated forms of ownership. First this took the form of bounties for those who built ships, then subsidies for commercial voyages and finally, since 1533, direct subsidies for ship-building in the form of loans which could be repaid through preferential charters for transporting salt.<sup>4</sup> This argument finds some support in the fact that at Ragusa, where such subsidies did not exist, profits from voyages continued, during the XVIIth century, to be divided on the basis of earlier forms of partnership indicating the survival of collective systems of chartering and fitting-out. But at Ragusa the older system whereby the ship crews participated directly in the commercial outcome of the enterprise also survived, whereas in Venice the crew received a wage that was set by the voyage or the month and had no interest in the outcome of the undertaking.

Nor can the tendency towards single ownership in Venice be explained simply on the grounds that it was easier and quicker to make a loan to single individuals who undertook full responsibility rather than to a group of investors. More important was the fact that in a period when there were no intermediary financial institutions, the loans provided by the state made it possible for a single person to undertake a major operation like laying the keel of a ship, which would otherwise have required a collective effort. The heavy increase in the cost of labour and raw materials to which there are repeated references in the documents from the close of

<sup>4</sup> G. LUZZATTO, *Per la storia delle costruzioni navali a Venezia nei secoli XV e XVI*, now in *Studi di storia economica veneziana*, Padova 1954, pp. 37-51.

the XVIth century also contributed to this. Commercial shipping operations did not, in fact, attract capital investment from other branches of commercial or economic activity in Venice and participation in the ownership of a ship was not seen as a safe or rewarding form of investment, and certainly not one that might be preferable to investment in real estate or in the Public Debt which carried much less risk and was possibly also more profitable. This was particularly evident at a time when Venice was experiencing a more general disinvestment in trade and a transfer of capital from commerce to land. Maritime trade was financed therefore entirely by capital that had originated within maritime trade.

It was not only the larger vessels that were the main subject of state subsidies that were found to be the property of a single owner, but also many much smaller ships. Ownership of a small vessel was easier and more matched to the means of individual investors. One important factor here were the efforts of seamen and sailors to better their social condition by purchasing and accumulating shares in ships engaged in short-distance coastal trade. An illustration of this is provided by a caulker from the Venetian Arsenal who in 1546 left his heirs a half share in one ship and a third share of another.<sup>5</sup>

But co-ownership had by no means lost its purpose, and indeed it continued to be the most common form for the organization of maritime commercial venture. This meant that each enterprise was part of an often complex and intricate web of partnerships. A typical example was provided by the patrician Venier family, who in the 1560s owned 9 carats in one and 8 in the other of the two ships that bore their name, while they also held an unspecified number of carats in another vessel, the *Nana e Veniera*, whose name suggests that they shared ownership with the Nani family. But Francesco di Nicolo, who was probably also a Venetian *cittadino* and in 1555 was in command of the two Venier ships on a voyage to Syria, also owned 6 carats in each of the first named

<sup>5</sup> ASV, *Archivio notarile, Testamenti*, 642, n. 309.

vessels and another 4 in the last.<sup>6</sup> It was very common for the captain of a vessel to be a co-owner, and this was something that the original owners were generally keen to bring about since it offered better guarantees of the management of the enterprise and was seen to be in the best interests of all concerned.

The picture that emerges of the organization of Venetian maritime trade and shipping, therefore, is one that reveals the plurality of operators and the multiplicity of owners who held carats in one or more vessels, or even owned a whole ship — but rarely more than one. In Venice the ship never became an instrument of economic power and even less of political power, to be wielded through a certain number of vessels or perhaps through a fleet of some size. Such developments would have been quite alien to the Venetian spirit, and anything that might upset the well-ordered equilibrium of the Republic was viewed with suspicion and concern.

Co-ownership survived down the centuries, and the space devoted to the regulation of the sale of whole ships or individual carats and to controlling the actions of the majority shareholders and to protecting the interests of the minorities in the Maritime Code of 1786 suggests that it was still widely practised. Despite the establishment of insurance contracts, collective ownership and investment also offered protection against risks and following measures that had been employed for centuries made it possible to sell a single carat rather than a whole ship. There is evidence that these transactions were frequent, and although this had certain positive consequences it must also have meant that the structure of collective management was weakened. The frequent transfers of carats must also have hindered innovation and made planned management difficult to achieve.

A positive feature of this structure of ownership was that it meant that transportation was combined with co-ownership of the

<sup>6</sup> U. TUCCI, *Lettres d'un marchand vénitien, Andrea Berengo (1553-1556)*, Paris 1957, pp. 339, 341.

vessel. In the XVIth century transportation was seen simply as an accessory to trade, a service provided from within the commercial enterprise. Only very rarely was transportation treated as a separate activity in which the provision of carriage was seen to have a commercial value in its own right. As a result the ship-owners and fitters were not treated as a distinct group, but formed part of the general commercial community, although some efforts were made to define and represent their collective interests.

In the final quarter of the XVIth century there were several occasions when the shipping interests delegated one or more leaders to negotiate on their behalf with the authorities. Their natural representatives were the *Cinque Savi alla Mercanzia*, an office that had been established on an *ad hoc* basis in 1506 but then became permanent. Its officers exercised powers over land and maritime trade that steadily grew, but in addition to their jurisdiction in matters of shipping and maritime trade they also played an important role in the formulation of economic policy since their advice and comments were often sought by the governing bodies of the Republic.

The representatives of the shipping interests provide valuable information about the social composition of this group. In 1622 they were composed predominantly of ordinary *cittadini*, who elected two of their own in contrast to a single nobleman.<sup>7</sup> In 1677 none of the 41 *parcenevoli* who took part in the election were noblemen.<sup>8</sup> This trend can be retraced to the previous century, when the five individuals who received state loans between 1502 and 1504 were all noblemen, as were also their four partners,<sup>9</sup> while from a list of 22 vessels that was drawn up by in 1509, 16 (or 72.7%) belonged to noblemen. However, of the 11 applications that were made for state loans between 1553 and 1559, only 7 (or 63.3%) were made by nobles. Between 1588 and 1603 this figure

<sup>7</sup> ASV, *Cinque Savi alla Mercanzia*, *Mat. Comm.*, 129 (1622, 12 luglio).

<sup>8</sup> *Ibid.* (1666 mv, 18 genn.)

<sup>9</sup> *Diarii di Marino Sanuto*, ed. by R. Fulin and others, V, 1000.

did not change, although the rise in total applications meant that in percentage terms the applications from noblemen fell to 17.5%.<sup>10</sup>

The overall trend is quite clear. The decline in the role of the nobility illustrates again the very close relationship between shipping and trade, and reflects the patriciate's gradual withdrawal from commerce which was one of the fundamental developments in this period. The falling number of noblemen who took part in shipping activities paralleled their declining presence in the commercial community as a whole. Had they severed their links with trade altogether then their disappearance would probably have been the faster, since although the nobility did not shirk from intervening directly in commercial undertakings and were prepared to conduct sales and expeditions personally, without of course becoming shop-keepers, they never acted as ships' captains either on their own vessels or on those of others. This was not because they were not capable but because the nobility only commanded naval galleys and other warships, whereas the commanders of merchantmen were recruited exclusively amongst the ordinary *cittadini*, the common people as well as from Venetian subjects from Dalmatia and Greece.

Command of a merchant galley was the apex of a career that required no formal education and indeed many ship-masters were illiterate. Captains had often worked their way up from the humblest levels, and had started as ordinary seamen or even as cabin-boys. To command a merchant ship did not rank as a profession, therefore, but was an artisan craft and for that reason not a form of employment open to the nobility. Noblemen were to be found amongst the ship's crew on occasions, but this was simply because merchant vessels were obliged by law to take on one or more noblemen, in order to give them experience and training which they would later need when they served in the Republic's navy.

Given these social distinctions, it is unlikely that the nobility

<sup>10</sup> R. ROMANO, *La marine marchande vénitienne au XVI<sup>e</sup> siècle*, in *Les sources de l'Histoire maritime en Europe, du Moyen Age au XVIII<sup>e</sup> siècle*, Paris 1962, pp. 42-43.

would ever have become involved in commercial shipping even in the role of investor and entrepreneur had it not been for the fact that these activities were not distinguished from trade and commerce in general, which was something in which Venetians of every class had always participated. Normally it was the younger noblemen who engaged most directly in trade, and when they grew older they tended to abandon commerce and dedicate themselves to public affairs. Shipping activities, or even the ownership of a vessel, was important to them only in so far as it contributed directly to their wealth, and therefore played a relatively secondary role in the context of their principal commercial activities. Nor could ships be used for anything other than commerce, since fishing was carried out entirely from much smaller vessels and privateering was strictly forbidden. The Republic maintained an exclusive monopoly over all warlike activities and only allowed private vessels to carry arms for self-defence. The size of the Republic's naval force was such that even in time of war there was no need to call on the merchant fleet to provide privateers.

The withdrawal of the nobility from shipping activities did not lead to the formation of a specialist group of commercial shipfitters, however. Despite the fact that trade itself became increasingly specialised, shipping continued to form a subordinate and secondary activity. Nonetheless, the shipping interests did begin to assume better definition, and to demonstrate a certain openness to technical and organizational change which became evident both in the development of more efficient ships and also in more effective responses to changing economic conditions. These changes were also related to developments that were affecting Venetian maritime trade more generally in this period, one of the most important being the gradual reduction in the use of convoys of state-owned galleys which was virtually abandoned between 1555 and 1560.<sup>11</sup> The convoys had ceased to visit England and Flanders from much

<sup>11</sup> F.C. LANE, *Navires et constructeurs à Venise pendant la Renaissance*, Paris 1965, p. 24.

earlier, and this was an important illustration of the collapse of the network of commercial contacts linking the West and the East which had formerly been controlled by Venice.

This was not simply a matter of substituting one type of vessel with another, but amounted to the abandonment of the late medieval system of maritime trade in which the State operated regular commercial convoy services which private ships were forbidden to engage in unless they paid heavy charges for the privilege. This had effectively brought about a division of labour, in which private shippers traded only in goods of lesser value such as grain, timber, salt and so forth. But the collapse of the system of state convoys provided new opportunities for the private shippers, who were as a result free to carry spices, silks and other high value products on whatever routes they chose. When in the final years of the century a new attempt was made to revive the convoy system on the grounds that this would strengthen trade with the Levant, the opposition of the shipping interests was unequivocal. They argued that since there was already a large number of private ships operating on these routes, the reintroduction of state-run convoys would simply aggravate the problems that were being experienced and further weaken Venetian trade.<sup>12</sup>

The protectionist system and the innumerable regulations and obligations to which private shipping were subjected remained in force, and indeed it would have been difficult to dismantle them even though their original purposes no longer obtained. They were applied in a more flexible manner, however, although in a typically Venetian manner this was not the result of any systematic revision but rather of a series of new measures introduced to meet individual needs which then established new precedents and in effect new regulations.

The protectionist measures that were in force in Venice were common to most medieval maritime cities, however, since it was impossible to maintain trade over long distance — with the Levant

<sup>12</sup> ASV, *Cinque Savi alla Mercanzia*, reg. 137, f. 105 (1584, 7 marzo).

for example — without the support of the State. The Venetian regulations did not serve either to protect a small privileged group, but were the basis for collective enterprises that in practice were open to all social classes and did not impose undue limitations on individual liberties. The gradual expansion of private maritime undertakings did not mean the end of these collective enterprises, since the use of many routes remained determined by seasonal factors while travelling in convoys often reduced the danger of hostile encounters on the high seas. These collective enterprises survived, therefore, as the result of free choice and rational commercial preference.

It remains difficult to judge the extent to which the greater efficiency that came with the expansion of free enterprise was able to compensate the loss of security and privilege that had resulted from state protection. The overall outcome was probably positive, especially when one bears in mind that state protection was not abandoned as the result of a conscious change in policy but came about because the previous policies became inoperable. Venice no longer had the power to maintain its older monopolies and to enforce its regulations. In a situation in which trade and shipping were in practice becoming more competitive, the area in which the Venetian state could enforce its regulations necessarily shrank. It was the crisis of state organization of trade, therefore, that opened the way for private enterprise to expand.

For the ship owners and outfitters, freedom from state control offered many short-term advantages although in the longer run it also carried serious constraints. Yet in the short term this freedom gave the maritime entrepreneurs greater managerial freedom and encouraged the development of more coherent strategies. Such innovations as did occur were the product of this freedom of enterprise.

Adaptation to changing economic conditions was also less slow than would have been the case if the older structure of regulations had still obtained. The declining influence of the State meant for example that the obligation of passing through the port

of Venice was increasingly ignored. This had previously been a major constraint on Venetian shipping and meant that voyages between the two shores of the Adriatic or between the western and eastern Mediterranean had to be separated.

From the 1540s to the Cyprus War the size of the Venetian mercantile fleet continued to grow. At the end of the war with the Turks at the beginning of the century the fleet had been reduced to a mere handful of vessels, most of which were very old. In 1502, for example, there were only 16 vessels over 240 tons, while even the smaller ships were few in number. The Senate believed that the cause lay in the fall in charter rates and in costly and irksome harbour duties.<sup>13</sup> In the late XVth century there had been a general fall in charter rates and state protectionism of various countries had proved incapable of stopping the expansion of competition. Frederick C. Lane has argued that a significant cause lay in the technical advances that had come on one hand with the transition from the ketch-rigged cog to the full-rigged carack, and on the other with the greater security afforded by the placement of artillery on board ship.<sup>14</sup> Voyages became faster and safer, and this in turn encouraged the building of larger vessels, and then the decline in charter rates. In 1507 the Venetian mercantile fleet had increased considerably, but between 1533 and 1540 once again contracted, because of numerous shipwrecks, which are perhaps to be attributed to the keeping of excessively old ships in service, and because of the rise in costs, which, despite the State aid, did not encourage construction.<sup>15</sup>

Because the two sectors were closely inter-dependent in Venice, the increase in the size of naval vessels was quickly reflected in the number and size of the commercial fleet. This inter-dependence was explicitly recognized in a declaration of 1502 which acknowledged that it had been a grievous error to permit foreign vessels to load wines from the ports of North Crete, since

<sup>13</sup> ASV, *Senato Mar*, reg. 15, f. 145.

<sup>14</sup> F.C. Lane, *Venice. A Maritime Republic*, Baltimore 1973, p. 379.

<sup>15</sup> ASV, *Senato Mar*, 1534, 16 luglio and 1539 mv, 24 febbr.

this had meant that Venetian ships had lost not only the outward goods destined for England and Flanders but also the return cargoes of grain and salt for various destinations in the Bay of Biscay. The first had been taken over by the English who had also placed a tax on wines from Crete that were imported in foreign vessels, while the second had been lost to the Portuguese, the Basques and the Spaniards who had not previously ventured into the Mediterranean. The solutions that were proposed revolved around new measures of protection, and although certain of these were implemented the Senate also looked to other strategies as well.

In an attempt to expand the size of the merchant fleet, the Senate laid down minimum charter rates on the Levantine routes for cargoes of cotton and soda ash.<sup>16</sup> This favoured the shippers since an increase in the charter rates was an essential prerequisite for the revival of their affairs, and also encouraged the construction of larger ships. It would be rash to claim that the Senate had deliberately chosen to assist the ship-owners at the expense of the merchants, however, and it was probably widely believed that on the Levantine routes, at least, commerce could well afford the higher charter rates. This indeed proved to be the case since the number of ships involved began to increase.

At first sight it might seem surprising that this was not accompanied by measures obliging merchants to use Venetian ships, and it was not until 1602 that this was stipulated in all national ports and also in the larger foreign ports where there were representatives of the republic, although there were many older laws that prohibited the use of foreign vessels to bring goods to Venice. In the early XVIth century there was as yet little foreign competition on the Levantine routes, although this was not the case on the western routes, where it was still believed that the needs of trade could be adequately met by the annual sailings of the convoys of merchant galleys. But Venetian merchants soon began to make

<sup>16</sup> *Ibid.*, reg. 15, ff. 145-146 (1502).

increasing use of foreign vessels, and these were able to take advantage of the reduction in the number of convoys to get a foothold in trade with Venice. This was explicitly acknowledged when in a clear anticipation of the Navigation Act it was decided in 1543 that foreign vessels should be permitted to carry goods between Venice and their country of origin, providing that they unloaded the bulk of their cargo in Venice. This measure was dictated by political rather than economic objectives and the Venetian legislators were either unwilling or unable to take full account of its commercial consequences but seemed to be following Adam Smith's famous precept that the defence of a country depended very much upon the number of its sailors and ships.

Amongst the measures taken in 1502 to encourage the development of the merchant fleet was the introduction of subsidies on shipbuilding to which we have already referred. This was part of a more continuous policy that adopted different forms over time, but in the early XVIth century consisted primarily of loans that were calculated according to the tonnage of the vessel and were repayable within a fixed period through the transport of salt from the Balearics or from Cyprus at pre-established charter rates. The loans were, in effect, genuine subsidies for shipping and made it possible to support vessels whose size was greater than that normally required in trade. The object was not to increase the size of the fleet as a whole but the number of larger vessels, particularly those of more than 240 tons (although there were additional incentives for those between 350-450 tons). On occasions the subsidies were also provided for small vessels of 150 tons. The aim was clearly to increase the reserve of vessels that in time of emergency could be used for military purposes. The same purpose also lay behind the decision in 1576 to grant special facilities to galleys equipped with lateen sails which were normally fitted on the war-galleys, by providing the merchant sailors with training in their use.<sup>17</sup> But the objectives of these measures also indicates that

<sup>17</sup> ASV, *Cinque Savi alla Mercanzia*, reg. 140, f. 155v (1601, 28 sett.).

defence was always the primary consideration, even when the needs of commerce were also understood.

The documents that relate to these loans reveal widespread forms of fraud. The loans were often used for purposes quite different from those for which they had been granted: lateen rigged galleons were quickly reconverted to square sails once the official inspections had been completed; applications were frequently endorsed by non-existent third parties, so that there were no effective guarantees.<sup>18</sup> Since the sureties demanded by the State were rarely adequate to prevent fraud, probably only a fairly small proportion of these loans were used for the purpose for which they were intended.

The applicants were normally ship-owners, although in some cases the recipients were shipbuilders. This was the case when Bernardino Sebastiano Rosso offered in 1589 to build at least ten ships of more than 600 tons each within a period of ten years.<sup>19</sup> Similarly, Giacomo Zuparin in 1599 offered to build 6 vessels of between 360 and 600 tons within six years.<sup>20</sup> In that sense the loans were a means of protecting the shipbuilding industry, and that this was seen to be their purpose is evident from the repeated decisions to limit them to shipbuilding in Venice and *Dogado*. The ship-owners also benefitted, but they had to pay a purchase price which was much higher than abroad and a cost for buying larger vessels and lower technical specifications than were available elsewhere. But ships built abroad were not permitted to sail under the Venetian flag, while in 1550 foreigners were forbidden to own carats in Venetian ships since this would have enabled them to enjoy the same concessions and bounties as Venetian ship-owners and shipbuilders.

It is not easy to assess how these subsidies benefitted the Venetian merchant fleet. In some years, such as 1535, it has been

<sup>18</sup> *Ibid.* (1599, 27 sett.).

<sup>19</sup> G. LUZZATTO, *Per la storia*, cit., pp. 49-50.

<sup>20</sup> ASV, *Cinque Savi alla Mercanzia*, reg. 14ff, f. 64v (1599, 28 sett.).

argued that these policies "were entirely without result", since the bounties were extended to vessels as small as 150 tons on the grounds that the fleet might otherwise have disappeared altogether.<sup>21</sup> Nor in the years that followed was there much sign of expansion, due to the consequences of the war with the Turks. Recovery did not begin until the years after 1540, and was to some extent the result of a more general revival in trade and maritime activity, although the influence of the State's intervention was evident in the growing number of larger vessels. Between May 1535 and October 1569 120 loans were granted,<sup>22</sup> and by 1567 when the fleet reached its maximum size it consisted of 42 vessels, 9 of which were over 900 tons and another 6 over 600 tons.<sup>23</sup>

But prevailing economic conditions favoured the smaller vessels, and these were preferred by Venetian ship-owners in the late XVIth century. They allowed rapid loading and unloading, and could be adapted to a number of different uses — something that was extremely important at a time when demand was fluctuating. Although the authorities continued to express their preference for larger ships which could be armed and were therefore more secure, it is only the smaller ships that were able to stand up to the increasingly fierce competition from the northern Europeans. One of the most successful was the *marciliana*, a design of ship that was in many respects similar to the Dutch flyboat since both had large cargo capacity yet were cheap to run because they required small crews. The *Marciliana's* flat bottom and low sides made it possible to use even the smallest ports, and it was ideally suited to the needs of Venetian trade at a moment when this was being forced back within the geographical limits of the Adriatic. Although its design followed no set pattern, the *marciliana* tended to become larger and reached as much as 120 tons. This often involved the addition

<sup>21</sup> ASV, *Senato Mar.*, 1535, 4 giugno.

<sup>22</sup> J.C. HOCQUET, *Voiliers et commerce en Méditerranée, 1200-1650*, Lille 1979, pp. 572-73.

<sup>23</sup> Statistics of the Venetian navy in R. ROMANO, *La marine marchande*, cit., pp. 33-34; J.C. HOCQUET, *Voiliers et commerce*, cit., p. 578 ff.

of a second hold, although much of the cargo was always carried above deck thereby increasing the ship's draught and lessening its navigability and safety.<sup>24</sup>

If the figures are accurate, the Venetian merchant fleet in 1567 was one of the largest of its time. But no matter how tentative the comparative situation may be, there can be no doubt that it was in these years that it reached its maximum size.<sup>30</sup> The fleet was in excellent condition, even though the form of protection that it enjoyed (and which served above all to increase the number of large ships) did not give it any commercial advantages. But the severe interruption of maritime trade that followed the Cyprus War and the plague of 1575 proved fatal. In 1576 the Venetian fleet numbered only 18 ships, and of these only 6 were over 600 tons. By 1590 the number had been reduced to 12 by shipwrecks, while the average size was barely 400 tons. The *marciliane* continued to be active and ventured beyond the Adriatic until in 1602 they were forbidden to sail beyond Zante<sup>25</sup> in another attempt to encourage the building of larger vessels that were needed for defence rather than commerce. At the same time, the sea-routes became increasingly unsafe in these years and resulted in a revival of the older overland commercial routes.

The decline of the merchant fleet was not checked even by the introduction in 1581 of new forms of subsidies which covered virtually the entire cost of shipbuilding.<sup>26</sup> In an attempt to reconstruct the fleet the regulations forbidding the naturalization of foreign ships were suspended in 1584 and 1591, and even when these measures were in force they were subjected to frequent exceptions and modifications.<sup>27</sup> In the final years of the century, as the crisis became more acute, loans were granted even for ships

<sup>24</sup> On the features of the *marciliana* see British Library, London, *Add.* 38655, ff. 53 r-v. For the overloading, *Senato Mar*, 105 (1589, 4 nov.).

<sup>25</sup> ASV, *Senato Mar*, 1602, 31 ag.

<sup>26</sup> *Ibid.*, 1581, 4 nov.

<sup>27</sup> For instance, in 1593, to a ship built in Spain, because of big size and "worthy" for having brought corn from England. ASV, *Cinque Savi alla Mercanzia*, reg. 139, f. 9v (1593, 31 maggio), L. 70 (1595, 5 giugno), L. 155 (1596 mv, 27 febr.).

that had been built in Crete and in Holland, which gave the ship-owners a clear advantage over the Venetian ship-builders.<sup>28</sup> In 1601 the Republic even authorized a close inspection of the ten Flemish and two English vessels that were anchored in the port of Venice and then considered making an offer to purchase two of the Flemish ships of 420 and 360 tons respectively that were strongly built and carried 16 pieces of artillery in three tiers, with a view to using them for patrolling against Barbary corsairs.<sup>29</sup>

Yet even in these years the attitude of the Venetian authorities remained contradictory. In 1602, for example, the *Cinque Savi alla Mercanzia* proposed that foreign vessels should not be insured in Venice because the small size of their crews made them an unacceptable risk. The advice was accepted, but the same officers were forced to admit only three years later that the running costs of these foreign vessels were so much lower that even the subsidies available to those built in Venetian yards were insufficient to bridge the gap. They also discussed at length the extent to which Venetian-built ships were able to haul upon the wind, a manoeuvre which foreign ships could accomplish with ease.<sup>30</sup> In 1605, for example, one of the last of the patrician ship-owners, Francesco Morosini, requested permission to sell the five foreign-built ships that he possessed, on the grounds that the privileges given to national shipping in 1602 made it difficult for him to keep them afloat. His request was refused because the size of the fleet had fallen, but there was no suggestion that his ships might take the Venetian flag.<sup>31</sup> The high cost of labour, the difficulty of obtaining adequate supplies of timber, together with anachronistic design and technical specifications were all elements in the decline of the Venetian merchant fleet, and it became increasingly common for

<sup>28</sup> *Ibid.*, reg. 139, f. 167v (1597, 22 sett.); reg. 140, f. 142 (1601, 30 giugno).

<sup>29</sup> ASB, *Provveditori da Terra e da Mar*, 1363, Scrittura Francesco Morosini, 1601, 27 giugno.

<sup>30</sup> *Ibid.*, and Scrittura Pellegrino Venier, 1607, 8 luglio.

<sup>31</sup> ASV, *Cinque Savi alla Mercanzia*, reg. 125, ff. 124v-125.

ships to be purchased abroad and then brought to Venice where they were modified by adding or removing decks and bridges.<sup>32</sup>

In 1602 it was calculated that there were only five or six ships of Venetian construction in service and that the skilled labour force in the Venetian ship-yards was rapidly being dispersed.<sup>33</sup> By now trade with the north was almost entirely in the hands of foreigners, especially the English, who were posing an increasingly serious challenge on the Levantine routes as well. Increasing numbers of Venetian merchants were also choosing to entrust their goods to northern vessels which were faster and safer than Venetian ships.

The decline of the Venetian merchant fleet proved to be irreversible. It cannot be explained in terms of a recession in trade since in the final two decades of the XVIth century there was a marked revival in sea-borne trade in the Mediterranean, but the beneficiaries were mainly new operators whose advantages were won at the expense of Venice. The Venetian ship-owners, amongst whose ranks there were now very few nobles, did not have the political influence to stand out against the Republic's policies which were dictated more by military than commercial considerations. But more importantly, the government's intervention was not directed towards stimulating maritime trade, even though protectionist measures and international competition were becoming increasingly aggressive, but rather towards narrower fiscal ends. For a generation that had experienced the Cyprus War the question of defence and security was paramount, but this had very negative consequences for the Venetian shipping industry.

It must also be said, however, that the ship-builders did not exploit the opportunities they were offered. They failed to imitate the new developments pioneered by the Dutch and the English, with the result that the Venetian fleet was largely untouched by the technical revolution that was taking place in these years. Venetian ships continued to be built in ways that were anachronistic and

<sup>32</sup> For inst. *Asv, Cinque Savi alla Mercanzia, reg. 139, f. 166v (1597, 13 sett.)*.

<sup>33</sup> *Ibid.*, reg. 141, f. 2 ff. (1602, 15 luglio).

costly, leaving them incapable of competing with the rapidly growing numbers of Northern vessels that were coming into the Mediterranean and were able in particular to combine the carriage of high-value products with bulk cargoes. For the Venetians the problems of defence had begun to act as a barrier to technological development.

Even in the new legislation of 1602 that was designed to reorganize shipping and maritime trade there was no attempt to remove the obstacles to the expansion of shipping, and the regulations regarding cargoes and the restrictions imposed on foreign ships simply continued established practices. The burdens of Venice's position as a maritime power were such that it was not possible to permit its maritime commercial interests greater freedom to expand.