1. INTRODUCTION

The lifeline of international trade is provided by shipping – a sector that is considered by scholars as one of the four cornerstones that fostered globalization. Today, shipping lines are said to operate in a borderless environment where economic priorities are dominant. In this sense, transport geography has largely surpassed political geography and geopolitics. However, until the mid-twentieth century, the prospects of shipping were tied down to the level of economic activity of the place of registry; thus, the interplay between political change, fleet nationality and the evolution of shipping networks was crucial.

The present collaborative work in progress is an empirical attempt to verify this interplay with regard to the decline of Venice as a provider of shipping services to large parts of the Mediterranean and Atlantic world in the late fifteenth and the early sixteenth century. While a general trend of decline is outlined in many scholarly works, the complexity of the subject and its particularities are largely ignored. The yearly fluctuations in the volume and value of trade moving by sea are assessed only in relation to the auctioning of merchant galleys. Information on the movement of dozens of other round ships and hundreds of smaller vessels is so fragmented that, as yet, no scholar has put forward a comprehensive analysis of the fluctuations in Venice’s marine traffic over time. For this reason the picture received, although significant and on the whole correct, oversimplifies the continuous interplay between Venice’s geopolitics, the evolution of shipping networks and trading volumes.

On the basis of historical data on ship positions, extracted from archival sources, we create GIS-based online maps in order to conduct a geospatial analysis of the annual traffic intensity and movement patterns along regional and inter-regional sea routes linking the Venetian port system with Mediterranean ports. In

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this sense, the platform “simulates” modern real-time technologies used to visualize shipping trends per vessel types.2

Our aim is to examine to what extent shipping within the Venetian maritime state remained a closed system. To do so, we address the following questions: How did political and economic factors, such as the oceanic discoveries, Ottoman expansion, piracy, and so on, affect the colonial–Venetian maritime network? How did ship-owners of different socioeconomic backgrounds and geographical origins negotiate their position within this maritime network? Related to these questions are the particular privileged-based legal status of a colonial ship, entangling empires and multiple identities, the practice of “flagging out”, and illegal traffic.3 The project aspires also to contribute to a discussion of larger issues related to the long-term effects of Venetian rule in its overseas territories on economic development, migration, cultural and ethnic identity in these possessions.


maps and trajectory compilations are a highly effective means of showing vessel movement patterns. One such example is the data visualization of oceanic shipping routes of the fleets of Britain, France, Spain and The Netherlands, based on paths recorded in logbooks of ships sailing between 1750 and 1800.\(^6\)

Unfortunately, very few logbooks in connection with Venetian shipping in the sixteenth century have survived.\(^7\) As far as Venice is concerned, information on galleys is relatively abundant and serial in nature, whereas that on the navigations of round ships is scarce, barely known and certainly not serial. Thus, any attempt to reconstruct historical maritime traffic has to start with the collecting of numerous fragmented pieces of evidence scattered across different sources and archives. The present project is distinguished by its adoption of a bottom-up approach that is strengthened by both narratives and visualizations.

In this paper, we present two trajectory maps, each one representing Venice’s maritime traffic in the course of one calendar year. The first map covers the year 1497, and the second map shows Venice’s maritime flows for 1514. The timeframe covers major geographical discoveries, Ottoman expansion, the struggle for hegemony in Europe, and the increased presence of other European powers in the Mediterranean. By comparing both maps, we are able to explore behaviour patterns and geographical coverage, as well as changing trends and anomalies in the shipping market over time. This information is complemented by an analysis of the maritime connections with the port of Candia, and the behaviour patterns of the Corfiot fleet in the year 1514.

Due to the piecemeal nature of the available sources, we had to make several informed guesses regarding the vessel’s identity and itinerary. There is no certainty, for example, that a vessel captured by a Venetian-Cretan subject was Cretan. Likewise, the complete itinerary is generally missing, and the trajectory lines visuali-


\(^7\) In this respect, the diaries of pilgrims and other travellers who embarked on Venetian vessels to and from the Levant are a valuable source of information. For a systematic analysis of the itineraries: R. Gluzman, Between Venice and the Levant: Re-evaluating Maritime Routes from the Fourteenth to the Sixteenth Century, in “The Mariner’s Mirror”, 96, 2010, n. 3, pp. 262-292. Other indicative examples: the diary of Alessandro Magno, a nobleman who had documented his travels on Venetian ships during the 1550s; the diary of Francesco Grassetto da Lonigo, a chaplain who embarked on a Venetian war galley in 1511, contains a detailed account of the itinerary; the logbook of the ship Giustiniana (currently in preparation for publication) is a detailed description of a voyage to Cyprus in 1567; similarly, the diaries of Marino Sanuto include copies of letters written by various military and colonial officials, with details on their vessels’ itineraries, see respectively: A. Magno, Voyages: 1557-1565, ed. W. Naar, Paris 2002 (Schena editore); F. Grassetto, Viaggio di Francesco Grassetto da Lonigo etc., Venezia 1886 (Reale Deputazione Veneta sopra gli studi di storia patria); M. Sanuto, I diari di Marino Sanuto (MCCCCXCVII-MDXXXXIII), R. Fulin, F. Stefani, N. Barozzi, G. Berchet, M. Allegri eds., I-LVIII, Venice 1879-1903, XI, col. 847-850; \(^\text{Ibid.}\), XVI, col. 278-279; \(^\text{Ibid.}\), XXXIV, col. 30-31; \(^\text{Ibid.}\), col. 206-207; \(^\text{Ibid.}\), LVIII, col. 287.
ze maritime networks and connections but not necessarily accurate routes – what’s more, ships never sailed in straight lines.

Key
- White trajectory: merchant vessel
- Yellow trajectory: war vessel
- Blue trajectory: foreign vessel
- Pointer: violence at sea
- Circles: shipwreck

3. TRENDS IN VENICE’S MARITIME TRAFFIC FOR 1497

In the early months of 1497, large parts of northern Italy suffered the effects of famine and the main sources of grain were Sicily, the Ottoman Empire and, to a lesser extent, Alexandria. In order to supply Venice with grain, the Republic signed contracts with ships’ captains and merchants. A deal mediated by Andrea Gritti, then resident in Constantinople, secured the shipment of 20,000 stara of wheat from Ottoman territories, on vessels that were licensed at his end.8

The French invasion of Italy and the onset of the Italian Wars (1494-1499), in which Venice became actively involved in March 1495, had intensified hostilities. In a parallel war against Florence, the Republic supported Pisa (1496-1499).9 The resultant financial burden depleted the public funds of the Monte Nuovo, which exceeded 1.6 million ducats. This was matched by the Senate’s all-too-frequent recourse to the decime (this tithe was applied no fewer than seventy times between 1482 and 1499).10

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8 M. SANUTO, I diarii, cit. I, col. 459, 507-508, 605; see also: G. LUZZATTO, Storia economica di Venezia dall’XI al XVI secolo, Venice 1961 (Centro Internazionale delle arti e del costume), p. 171. Our sources do not indicate the exact grain outlets (carricadori) in Sicily and the Ottoman territories. The trajectories are based on Maurice Aymard’s study on the grain trade in the second half of the sixteenth century. The map on pages 40-41 shows the carricadori along the southern coasts of the island. Anchorages in the vicinity of Manfredonia, Barletta, Trani and Bari in Puglia were important grain providers. The principal carricadori in Ottoman territories were located in the internal channel between the Island of Negroponte and the mainland, Volos, Thessaloniki, and the Gulf of Patras: M. AYMARD, Venise, Raguse et le commerce de blé pendant la seconde moitié du XVII’ siècle, Paris 1966 (S.E.V.P.E.N.), pp. 40-41.


10 R.C. MUELLER, The Venetian Money Market, cit., p. 239.
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10 R.C. MUELLER, *The Venetian Money Market*, cit., p. 239.
Sure enough, the alarming rise in plunder and confiscation at sea and on land caused uncertainty in the markets. Seaborne trade in the Western Mediterranean was particularly hard hit. At least 15 grain-carrying vessels on the route from Sicily to Genoa were captured by the French. Nine vessels laden with sugar from Madeira were attacked by French corsairs in the Ionian Sea; the majority escaped and sought shelter in Venice, Lesina (modern Hvar) and other ports. Much of Venice’s war effort was concentrated in the Tyrrenian Sea, between March and April 1497.

In June of the same year, whilst Venice was contending with the marauding French fleet, a territorial dispute between the Serenissima and the Ottoman Empire over Cattaro (modern Kotor) almost escalated to an armed conflict. In response, a squadron of Venetian light galleys commanded by Domenico Malipiero was ordered to leave Genoa immediately and sail directly to Cattaro, where it was deployed in patrol missions to protect the returning grain caravans, as well as Venetian possessions in Albania. Equally worrying were the raids in the Aegean Sea against small and medium-sized vessels, carried out by the notorious Ottoman privateer Admiral Kemal Reis and his fleet of two galleys, six _fuste_, a _barza_ of 300 _botte_ and several caravels.

However, the Republic was particularly concerned about recent developments in La Rocella (modern Rocella Ionica) in the Sea of Calabria. Conveniently located on the route by which Sicilian grain reached Venice, the town was turned into a pirate haven for the notorious Spaniard corsair Piero Navaro. In the months of July and August, Venice’s merchant marine lost 11 vessels in that area alone. The capture of a _maran_ owned by Andrea Loredan q. Niccolò and a _navilio_ of 250 _botte_ captained by Zuane Fachin, carrying 6,000 ducats in cash and belonging to the same ill-fated merchant, had caused quite a commotion in the Senate.

Violence and lawlessness on the high seas were on the rise, and to secure the main shipping routes three warships (the so-called _barza di Comun_) were commissioned to escort the convoys of galleys and ships to the Levant, and to conduct patrol missions around Sicily. The _barza_ commanded by Andrea Loredan q. Francesco (not to be confused with the ill-fated merchant) sailed to Sicily, while the warship _Pasqualiga_ escorted the _muda_ of galleys from Syria and Alexandria before it turned...

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11 M. Sanuto, _I diarii_, cit., I, col. 626-627.
12 Ibid., col. 640.
13 Despite truce, war fleets attacked merchantmen. Venetian galleys were employed in the Ligurian Sea, which was teaming with Genoese and Spanish fleets: ARCHIVIO DI STATO DI VENEZIA (ASVE), _Senato Mar (SM)_ , reg. 14, fols. 115v, 117v; ASVe, _Arxagoria di Comun, Miscellania Civile e Penale (ACMCP)_ , bus. 4590, fasc. 3; M. Sanuto, _I diarii_, cit., I, col. 329, 332, 451-452, 722-723; D. Malipiero [attributed to P. Dolfin], _Annali veneti dall’anno 1437 al 1500 del senatore Domenico Malipiero_, ed. F. Longo, in “Archivio storico italiano”, VII, Florence 1843, n. 4, pp. 630-633; K.M. Setton, _The Papacy and the Levant_, cit., II, pp. 507, 509; R.C. Mueller, _The Venetian Money Market_, cit., p. 239.
15 Ibid., col. 811.
16 ASVe, _SM_, reg. 14, fols. 115v, 117v; Sanuto, _I diarii_, cit., I, col. 722-723, 743, 771.
westward. The older barza piccola captained by Piero Contarini joined the Loredana at the island of Favignana (in the vicinity of Trapani Sicily) on 19 June. Contarini’s ship was blown off course during a rough navigation from Malta to Syracuse. The ship, already half submerged, limped into the harbour of Zante and on 30 August the Senate ordered her decommission. Earlier, in July, the barza Loredana seized two vessels belonging to a corsair named Antonio de Marcho, off Cape Spartivento in Calabria; the captured vessels were sent to Syracuse. Meanwhile, the ascending galleys from the Barbary Coast fought with Navaro’s galion and two fuste in La Rocella. Only when the barza Loredana launched a land assault on Navaro’s men and terrorized the local population was order restored. Still in the month of August, part of the fleet of war galleys awaiting decommission was sent instead to the southern Aegean Sea, to secure the convoys returning from the Levant.

The lasting impact of these operations on the activity of the Venetian trading companies is amply attested by Andrea Loredan q. Nicolò’s petition to the Provveditori alle biave (the magistracy regulating the import, storage and distribution of wheat, as well as other cereals and legumes). The merchant had undertaken to supply 40,000 stara of grain from Sicily and Negroponte. For this purpose, he leased many vessels, which he loaded with metals, including gold, and spices. Most of these ships were either captured, being easy prey for the powerful corsair Piero Navaro, or detained in various ports for months on end. Consequently, Loredan failed to fulfil his various obligations to the Serenissima.

17 M. Sanuto, I diarii, cit., I, col. 607, 744, 767, 848.
18 Ibid., col. 741, 767-768.
19 The barza di Comun captained by Andrea Loredan left Venice on 18 April. It was commissioned to escort the muda of ships to the Levant as far as the Gulf of Otranto and proceed to Sicily. It stopped at Trapani, Piombino, back to Sicily and remained at anchor in the vicinity of the island of Favignana (16 June). Teamed with the barza of Piero Contarini, the warships sailed in the direction of Cape Bon (Tunis), Lampadusa, Gozo (of Malta) and Syracuse, where the Loredana anchored until 18 July. Then, Loredan was instructed to patrol the seas south to Sicily as far as Tunis. He sailed in the direction of Cao Passera (the SE tip of Sicily), spotted suspicious vessels and chased them back as far as 70 Italian miles off Cape Spartivento (Calabria). The captured vessels were directed to Syracuse, where the barza anchored expecting the arrival of the galleys of the Barbary Coast; together they sailed to Tripoli (5 August). Loredan returned via Malta and Syracuse, and launched a land assault against the company of the corsair Piero Navaro in La Rocella: Ibid., pp. 607, 744, 767-769, 745, 771-778, 848; D. Malipiero, Annali veneti, cit., p. 641.
20 Ibid, p. 703.
21 A document approved by the Collegio alle biave attests 10 vessels that were licensed by Andrea Loredan to transport 30 stara of wheat from Sicily and 10,000 stara of wheat from Negroponte. It is assumed that at least two-thirds of these vessels sailed to Sicily:
2. Zaneto di Jacomo – licensed 24 July to transport 2,200 stara wheat / consigned 5 October 1,761 stara.
3. Antonio di Michiel – licensed 24 July to transport 1,600 stara wheat / captured on the outward voyage.
4. Zuane di Michiel – licensed 24 July to transport 1,600 stara wheat / consigned 7 October 1,516 stara.
As our map (Map. 1) shows, despite efforts to secure shipping, there were quite a few incidents in which gripi and caravelle owned by subjects of Venice were captured in the areas of Sicily, Calabria, Saseno (Albania), the Peloponnese and the Ionian and Aegean seas. Larger vessels were not immune from violent attacks either: the pilgrim galley captained by Alvise Zorzi fought with corsairs in the vicinity of Crete on its return voyage from Jaffa. According to our records, four Venetian round ships of over 300 botti were seized that year: nave Contarina of Stefano and Tadiò Contarini sons of Nicolò, captured by the French fleet in the vicinity of Piombino; nave of Zuane dal Cortivo, captured in Cao Passera by French corsairs; nave Veniera candiota of Domenico Venier son of Angelo from Crete, captured by the Ottoman fleet in the Aegean Sea; nave of Piero Contarini da le Malvasie captained by Zuane Querini son of Piero, captured by Zuane Perez in the vicinity of Tunis in the Barbary Coast.

Despite the intensification of hostility, traffic between Venice and Sicily was lively. There was also a steady presence of Venetian round ships in the Tyrrhenian Sea; some were employed as grain carriers from Sicily to Pisa. The North African Coast was frequented by round ships of 600 to 800 botti, flying the San Marco flag; our sources indicate at least four such ships, of which one was licensed by Moorish

6. Felippo Brochetta de Francesco – licensed 27 July to transport 5,500 stara wheat / consigned 13 December 5,259 stara.
7. Felin Nordio – licensed 30 August to transport 3,500 stara wheat / consigned 3 March 1498 2,630 stara.
9. Zuane Barbota – licensed 21 September to transport 1,200 stara / not consigned.
10. Isepo de Zuane – licensed 21 September to transport 3,200 stara / not consigned.

Another document attest however for the successful consignments of all vessels that were licensed by Stefano and Teodosio Contarini and Carlo Contarini q. Battista to transport 20,000 stara of wheat from Sicily or Negroponte:
11. Michiel di Stefano - licensed 14 August to transport 3,500 stara wheat / consigned 3,032 stara 18 December.
14. Polo de Marin – licensed 6 September to transport 2,200 stara wheat / consigned 1,960 stara 3 January 1498.
15. Pasqual di Zuane – licensed 7 September to transport 2,600 stara wheat / consigned 1,829 stara 9 December.
17. Piero Contarini – licensed 26 September to transport 3,800 stara wheat / consigned 3,607 stara 22 December.

ASVE, Deliberazioni, Miste (CXDM), fil. 12, fasc. 11 con all.
22 It then resumed the voyage to Venice, stopping also in Candia (in Crete) and Lesina (Hvar): M. SANUTO, I diarii, cit., col. 702-703, 728-732, 739, 845; D. MALIPIERO, Annali Venezi, cit., pp. 154, 158.
24 E.g., M. SANUTO, I diarii, cit., I, col. 535.
merchants to sail from Alexandria to Tripoli in North Africa. In the same year there was an apparent dynamism of shipping in the Levant. Indeed, although there was political instability in Egypt and Syria was stricken by plague, the forecast of a bad year for investments in trade proved false. In 1497, four galleys sailed to Beirut and Tripoli, four to Alexandria, three to the Barbary Coast and three on the route called *trafego* (Tripoli, Tunis and Alexandria).

Apart from merchandise, ships were also transporting money. The silver coinage minted in Europe and sent to Egypt alone amounted to as much as 300,000 ducats. In spring, a galley bound for Alexandria carried well over 12 metric tonnes of silver coinage, although some of it returned to Venice. The galleys and round ships heading for Syria carried 70,000 and 50,000 ducats respectively. The autumn *muda* to Alexandria was crowned with success and the returning convoy carried 4,320 colli of spices and additional 80 colli on a licensed ship (*nave a rata*). The galleys to Beirut returned with less, due to elevated freight rates in Syria (2,639 colli of spices and 220 colli of silk).

However, the late return of this *muda* also saw one of the biggest catastrophes of the decade, the wreck of two galleys at the entrance of Porto Cigala (modern Çikat), in stormy conditions in November. The salvage attempts explain the anomaly we see on the map (Map. 1). Another insight is related to the traffic of round ships to the Levant: due to the aforementioned plague in Syria, the autumn *muda* of ships sailed only as far as Cyprus. Several other trends for the year 1497 are noted: the lines between Venice, Crete and Constantinople were maintained mainly by *gripi* and other small and medium-sized vessels. So far, we have found only one indication of a Venetian round ship that sailed in this direction.

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26 The young Sultan was still fighting for his existence and almost at the end of his cruel and profigate career (he was assassinated in October 1498). According to Arnold von Harff’s description, Egypt was in turmoil, foreign merchants were assaulted and beaten, and there were fights, plunder and ruin in the streets of Cairo: A. VON HARFF, *The Pilgrimage of Arnold Von Harff*, London 1946, pp. 103-106.


31 A ship (*Sanuda*) captained by Urban di Orsi of Domenico Sanudo sailed from Venice to Constantinople: ASVE, *Miscellanea Gregolin (MG)*, bus. 9, 1497, n. 3.
On the Atlantic front, two large ships, the Foscara of 3,000 botti and the Pasqualiga of 800 botti, completed a voyage to England, even though earlier that year the ship Tiepola (or Foscara) was attacked by a French fleet and wrecked in the Bay of Biscay. Three other round ships were wrecked that year.

4. TRENDS IN VENICE'S MARITIME TRAFFIC FOR 1514

The early decades of the sixteenth century mark the transition from the coexistence of state-organized and private maritime transport to the domination of the latter. Only two galleys to Beirut were operating in 1514. The gradual abandonment of the convoys of galleys gave ship-owners from Venice's colonies and vessels flying other flags the opportunity to take into their own hands a greater share of the freights that had hitherto been transported predominantly by the Serenissima's galleys. The events that led to the outbreak of the War of the League of Cambrai (1509-1516) and those that followed are well known, and there is no need to repeat them here. Instead, we have chosen to highlight several changing trends in shipping.

The loss of territories in the terraferma meant that Venice could no longer import grain from the Padovan and Polesine areas, and the crops in Cyprus provided an alternative source. In fact, they were exploited for that purpose, and Venice's easternmost island nourished the population of Crete as well. A new provision instructed ships bound for Syria to call in at Cyprus on the outward leg, and to load wheat and barley on the return voyage. In a letter to the Council of Ten (14 March), the Governor of Nicosia guaranteed to provide enough grain to fill twelve round ships. The trajectory map for 1514 (Map. 2) suggests that the line Venice–Cyprus was exploited by round ships and medium-sized vessels chartered at both ends for that purpose. Several ships managed to complete two round voyages to Cyprus in 1514.
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32 *Nave Tiepola* (or *Foscara*) of Hieronimo Tiepolo q. Andrea and Polo Foscari q. Urban wrecked in the Bay of Biscay in late 1496 or early 1497: ASVe, SM, reg. 14, fols. 137v-138r.

33 *Nave Contarina* of Vido and Hieronimo Contarini sons of Priamo wrecked in the vicinity of Tripoli in North Africa; *nave Pisana e Contarina* owned by Nicolò Pisani q. Andrea and Alvise Contarini q. Ferigo Minoto wrecked in Sapienza off the coast of Modon in winter; *nave* of Zuane Castrofilaca from Crete wrecked in the vicinity of Zara in April: ASVe, SM, reg. 14, fol. 120r; ASVe, CXDM, reg. 27, fol. 122v; M. SANUTO, *I diarii*, cit., I, col. 605; D. MALIPIERO, *Annali veneti*, cit., p. 635; K.M. SETTON, *The Papacy and the Levant*, cit., II, p. 509.


the same year and stopped in Syria at least once.\textsuperscript{37} Other vessels combined a voyage to Cyprus with a shorter itinerary, such as Venice–Constantinople. With respect to our findings for the year 1497, there is an evident increase in the number of round ships that sailed to Constantinople.\textsuperscript{38}

Taking a different stance, one of the significant contributions of geospatial analysis is the identification of anomalous activities. While movement of ships along the established routes is generally predictable (as it largely follows a pattern consistent with Venice’s sea laws), irregular movements of anomalous ships are less predictable. In 1514 the Republic was practically unable to police the seas and this, in turn, gave rise to illegal trade. The 500 \textit{botti} ship captained by Luca Gobo sailed from Constantinople to Ancona carrying merchandise belonging to Anconians, Florentines and Venetians;\textsuperscript{39} a \textit{barzoto} licensed to merchants from Apulia carried salt from Ibiza to Lombardy via the River Po; the captain of a \textit{marciliana} was forced to alter his course and stop at Lissa, where he was accused of engaging in illegal traffic between Pesaro and Ragusa. Other vessels completed their cargo in Ancona and in ports “\textit{sottovento}” (the west coast of the Adriatic Sea). So great was the extent of illegal traffic from the Peloponnese to destinations in the Adriatic Sea that the Senate re-enforced the obligation for all ships to stop first in Corfu.\textsuperscript{40} On 18 May, the Senate stressed the prohibition on such practices, with reservation in regard to olive oil, almonds, other nuts and chestnuts shipped to Alexandria, Crete, Beirut, and Venice. A few Dalmatian towns and Cattaro were granted privileges with respect to shipping their local products. The transport of wine from territories “\textit{sottovento}” to Alexandria was authorized as well.\textsuperscript{41}

Once again, the presence of sea rovers in the Eastern Mediterranean was alarming. Three French \textit{barze} and Spaniard corsairs raided colonial-Venetian vessels and ships flying other flags.\textsuperscript{42} The evident risk in Syria moved the captain of a big Genoese ship to seek refuge in the port of Famagusta. Vessels that were not suffi-

\textsuperscript{37} Such an itinerary was taken by the \textit{Pasqualiga} of 900 \textit{botti}; \textit{Morosina} of 800 \textit{botti}; that of \textit{Contarini} of 600 \textit{botti}; \textit{Faldiera e Duoda} of 600 \textit{botti}; \textit{Semitecola} of 300 \textit{botti}, \textit{op. cit.}
\textsuperscript{38} E.g., the \textit{Mosta} of 400 \textit{botti} and that of Luca Loredan of 500 \textit{botti}; the ship of 600 \textit{botti} of Piero de Nicolò Pezaro da Londra transported timber to Chios, and was expected to return with salumi from Constantinople and 6,000 \textit{stara} of barely from Cyprus: ASVE, SM, reg. 18, fols. 51\textit{v}, 57\textit{v}; ASVE, CXDM, fil. 37, fasc. 33; M. SANUTO, \textit{I diarii}, XVIII, col. 383, 399, Ibid., XIX, col. 82-83, 89, 357, 349.
\textsuperscript{39} The ship-owners claimed that they obtained a special license to trade “\textit{sottovento}”: ASVE, SM, reg. 18, fol. 51\textit{v}; ASVE, CXDM, fil. 33, 462; \textit{Ibid.}, fil. 35, filf. 317, 401; M. SANUTO, \textit{I diarii}, XVIII, col. 383, 399.
\textsuperscript{42} A Cypriot \textit{caravella} heading to Crete was attacked by a French ship; two Venetian ships fought with a Spanish corsair based in Rhodes, off the northeast tip of Crete; Luca Gobo’s ship had a fateful encounter with French warships in the vicinity of Cape Maleas; a \textit{caravella} laden with wine and cheese was captured by a Biscayan \textit{barzoto}; an unidentified \textit{naveta} licensed to Alvise Pisani was captured in the Aegean Sea and sent to Rhodes to be sold: M. SANUTO, \textit{I diarii}, cit. XVIII, col. 190, 253, 242, 272, 278-279; \textit{Ibid.}, XIX, col. 232-233, 257.
ciently protected were retained in Cyprus for months. The trajectory map (Map. 2) represents the extent of violence at sea, as well as seven notable maritime disasters.43

Arguably, foreign shipping companies controlled a larger share in the shipping market that connected Venice and the Levant with the western basin of the Mediterranean and Atlantic ports. We found indications of three barze from Biscay, a ship captained by Luca da Lucari da Ragusa, and a vessel captained by Ortunio de Zauri that carried about 3,000 butts of wine from Crete to England and other destinations.44 Our records do not mention even one Venetian ship that accepted such freights. Apparently, the presence of Venice’s ships in Sicily and the Tyrrhenian Sea dwindled too. It is unclear what share of this traffic was still in the hands of the Venetians. We know for certain that a Spaniard and vessels from Puglia received safe conducts to complete their return voyage from Venice to Messina, Lipari, Siena and Trapani.45

5. MARITIME CONNECTIONS WITH THE PORT OF CANDIA IN 1514

The wealth of literature on Venetian shipping is not sufficiently linked to documents existing in regional archives. Instead, it relies largely on sources of official character found in the Archives of Venice, in other words, produced by the centre of power.46 For this reason, the picture that emerges is for the most part consistent with the Republic’s protectionist policies in shipping and trade. Namely, Venice as principal port of call for Levantine goods in the Adriatic Sea, the ports of Crete (Candia, Rethymno, Sitia and Chania) as providers for the Republic’s shipping interests, and Venetian patricians as protagonists in offering such services. Without dismissing these views entirely, we wish to re-examine government intervention in trade and shipping matters in the overseas territories on the basis of evidence found in regional rather than Venetian records.

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43 The ship captained by Zuane Moro son of Damian was wrecked in the vicinity of Lagusta in Croatia; the ship of 300 botti of Zuane Caxaruol son of Bortolo and relatives was wrecked in Istria on the return voyage from Constantinople in the winter; the ship Contarina of Bertuzzi Contarini son of Andrea & bros. was wrecked in the vicinity of Crete in the winter; a Candiot ship captained by Sfasi was wrecked in the Quarner in the winter; the ship of Nicolò Catelan from Crete, laden with wine and carrying 80 passengers, was wrecked in the vicinity of Ancona in the winter; the ship Semitecola of Galeazzo Semitecolo was wrecked on the sandbar in Venice in the winter; the ship Molina of 600 botti of Marco da Molin and Domenico and Fantino Malipiero captured by Nicolò Bianco was wrecked after combat with a Spanish corsair on the return voyage from Cyprus: ASVE, CXDM, fil. 37, fasc. 33; M. SANUTO, I diarii, cit., XVIII, col. 335; Ibid., XIX, col. 45, 257-258, 328.

44 ASVE, Duta di Candia, bus. 33 (Memoriai, Serie II), fols. 88v, 89v, 97r, 111r, 128v; M. SANUTO, I diarii, cit., XVIII, col. 160.

45 E.g., the records of the Venetian Collegio for this year: ASVE, Collegio, Notatorio (CN), reg. 17, fols. 88r, 89v, 90r, 99r.

The archives of Venetian Crete (now located in Venice) are a rich and valuable source of information on the maritime history of the island, the surrounding region and the Mediterranean in general. The factual basis for the discussion at hand consists of the daily records of the Governor of Candia (Duca di Candia, series "Memozil"), which contain fragmented official reports. These records are sometimes discontinuous and sometimes in bad condition; gaps in coverage are therefore to be expected. To give an example, the series "Memozil" lacks information on the year 1497. On the other hand, the two registers covering the year 1514 are in a good state of preservation and include safe conducts inscribed to various vessels that stopped in the port of Candia. The vessels’ taxonomy and their next port of call are usually indicated too, and thus the maritime connections with the port of Candia for that year can be largely reconstructed.

Located at a crossroad between the Levantine ports, Constantinople and the western basin of the Mediterranean, the ports and harbours of Crete were important stopping points that connected regional and interregional routes. The island was excessively frequented by local and other merchant fleets. Indeed, our analysis for the year 1514 (Map. 3) shows that Candia was connected by sea with Canea (Chania); towns in the Peloponnese: Coron under Ottoman rule, Monemvasia, Napoli di Romania; and the islands of Stamalia, Skiros, Naxos and Sifnos in the Archipelago by small sailing vessels. Crete was also well connected with Rhodes and Cyprus. As mentioned already, many Greek commercial vessels stopped in Cyprus to load grain in 1514. Quite a few Venetian round ships stopped in Crete on their return voyage from Syria. Crete was connected with Constantinople by vessels flying other flags as well. We noted a ship from Lesina, another captained by Giorgio Capodassi, a Ragusan ship named Santa Maria captained by Andrea di Elia di Ragusa, and another captained by Martinum Pastalis. Similarly, a gripeto captained by Calbo Sussolo sailed from Crete to Syria and then to Constantinople. The fact that the majority of the carriers transporting Cretan wine to England and Flanders were foreign is corroborated by evidence from the local archive. In 1514, Crete was also connected to Messina, Ragusa and other destinations in the Adriatic Sea (the exact ports were not indicated). Our findings also suggest that Ragusan ships increased their activity in the Venetian port system and the Levant at the expense of ships flying the San Marco flag. Clearly, these assertions have to be complemented by scrutiny of the in-between years.
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47 Marco Contarini; Antonio Otobon; Nicolo Cipriano; Piero di Bartolo; Vicenio de la Riva: ASVe, Duca di Candia, bus. 33bis, fols. 18v, 20r, 30r-30v, 81r.
48 Ibid., fols. 18v, 20, 31r, 39v, 95r; ASVe, Duca di Candia, bus. 4, fol. 89v. A gripo chartered by Francesco Foscari q. Filippo completed the voyage in eight or nine days: M. SANUTO, I diarii, cit., XVIII, col. 434; Ibid., XIX, col. 9, 257-258, 232-233. In the winter, letters from Venice were transmitted to Cyprus via Crete: ASVe, CapCX, Lettere rettori, bus. 288, n. 97.
49 ASVe, Duca di Candia, buss. 4, fol. 89v; Ibid., 33, fols. 102r, 112v, 129r, 135v.
50 Ibid., bus. 33, fols. 88v, 89v, 97r, 111v, 128v.
51 Ibid., bus. 33, fols. 95r, 103r, 110r, 122v-123r.
The study of the movement patterns of the colonial fleets of small and medium-sized vessels can be considered as one of this project's major contributions. Indeed, as far as the period examined here is concerned, we know very little about the maritime activity of ships operating from ports under Venetian rule. Vessel tracking has the potential to define the regional preference of the various fleets under Venetian rule and to clarify in what way the territorial belonging of a shipping enterprise defined its activity. Questions raised are: To what extent was Corfu connected to a wider sea area by local rather than other ships? Did the fleet of Corfu become more regional over time, while other fleets showed a net increase in the share of other ports?

The following trajectory map (Map. 4) offers a glimpse at such an analysis, by representing the regional preference of the Corfiot fleet for 1514, based on records found in the regional archive of the island. A vessel typed as *xylo*, of about 63 tons, connected Corfu with Epirus; Saiada (Epirus); Saiada – Dalmatian Coast (Sklavonia); Saiada – Apulia; Apulia (Kastres); Otranto; San Cataldo – Otranto; Dragomestro (Aitoloakarnania) – Venice; Taranto – Prevesa – Calabria; Lessio – Cattaro; Arta; Ambracian Gulf (“kolpos tis Artas”); Cephalonia (quite a few vessels carrying livestock – rams, goats); Katochi (Aitoloakarnania) – Venice; Venice. Smaller vessels of about 31-39 tons connected Corfu with Lepanto, Zante and Venice. Other sources complement this information: a Corfiot *caravella* carried wine from Parga to Zara; other *caravelle* sailed to places unspecified in the Adriatic Sea; the *gripo* of Zacaria da Corfu set sail from Corfu to Alessandria and Cyprus; the Corfiot *navilio* of Zacaria Megagnani sailed to Rhodes and Damietta. Crosschecking of this information with data extracted for the year 1497 suggests a lack of connection by local vessels to destinations in Sicily (Cao Spartivento, Syracuse), Valona and Constantinople in 1514.52

In fact, 1514 is a year of transition with respect to Corfiot shipping enterprises. The 18 May ban had significant implications for the local fleet in the following years. Previously, the particular confluence of historical circumstances allowed Corfu’s commerce to deviate from the legal strictures imposed by Venice and to grasp the opportunity to promote Ottoman trade in Ancona and at the fairs in Lanciano and Recanati. But in 1514, when the Corfiots requested an exemption from the ban on trade in Lanciano and Recanati, they were denied it by the Venetian Senate. This clipped the wings of Corfu’s shipping, which was just beginning “to become autonomous” and was starting to seek out new markets that competed with Venice. The importance the Corfiots attached to their request is demonstrated by the fact that although it was turned down, it was redrafted eight years later, as a proposal to allow one voyage a year to Recanati. Once again, however, the petition was rejected, even though the Corfiots reminded the Senate of the exemption it had granted to their Dalmatian colleagues to trade with regions of the “sottovento.” Needless to say, 52 These data are drawn from notarial documents in the Archive of the Prefecture of Corfu (GSA): G.D. PAGRATIS, *Trade and Shipping Corfu 1496–1538*, in “International Journal of Maritime History”, 16, 2004, n. 2, pp. 169-220; IDEM, *Ships and Shipbuilding in Corfu*, cit., pp. 237-246.
6. **BEHAVIOUR PATTERNS OF THE CORFIOT FLEET IN 1514**

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the ban was violated whenever the opportunity arose, and the following years were marked by a more intensive Venetian effort to control the entrepreneurial behaviour of Corfiot merchant-mariners.\(^53\) In this respect, it would be interesting to produce similar trajectory maps for the subsequent years, so as to represent how the maritime connections of the islanders using local fleets changed.

**CONCLUSIONS**

The adoption of a bottom-up approach and the extraction of data on vessel movements from regional archives, strengthened by both narratives and visualizations, generate a more complex picture of Venice’s maritime network than the one usually portrayed in scholarly works. The trajectory maps produced for the years 1497 and 1514 present changing trends along regional and inter-regional sea routes, influenced by both political and economic forces: such as a significant drop in the traffic of round ships to Constantinople two years before the outbreak of the 1499–1502 war, whereas commercial exchange between both capitals was lively in 1514; or the various political and climatic factors that affected the preferred grain outlets; or the Republic’s dramatic abandonment of the Atlantic shipping lanes and the taking over of these by foreign shipping companies, etc.

The dramatic reduction in shipping services provided by Venetians in the western basin of the Mediterranean and beyond prompts reflection on the effects of a downturn in shipping on the political, economic and social life in Venice. However, it is worthwhile reminding ourselves first of the historiographical context within which the prediction of Venice’s resiliency in the sixteenth century was made.

In the early twentieth century, scholarship ascribed what was then considered to be the decline of Venice and its merchant marine to the great oceanic discoveries and the consequent abandonment of the system of merchant galleys. While Albert H. Lybyer (1915) may deserve pride of place in postponing the decline of the Mediterranean spice trade to a much later period, it was only the work of Frederic C. Lane, first published in 1933, which granted this thesis substantial support through a careful assessment of the Venetian merchant fleet and its capacity over the centuries.\(^54\) Lane stressed that the effects of the Portuguese discoveries on Venetian trade have frequently been misrepresented due to the failure to distinguish between long ships (galleys) and round ships. Historians confused the growth or decline in the size of galley convoys with that of Venetian shipping and the spice trade as a whole. Lane concluded that the decline of merchant galleys was disproportionately related to any decline in Venetian commerce in the first half of the sixteenth century.

Whereas Lane’s conviction that the state merchant galleys had been superseded by private merchantmen in liner shipping is substantially correct, our findings sug-

\(^53\) Ibidem.

gests that the round ships too experienced a considerable decline between the last years of the fifteenth century and 1514. Thus, the decline in the system of merchant galleys does seem to reflect a decline in other sectors of shipping.

To the contrary, some trends prove to be resilient, notwithstanding political unrest and imminent danger at sea: for example, more or less regular liner shipping services (galleys and/or round ships) to Syria and Alexandria; or all-year-round traffic between Crete and the ports of Rhodes, Cyprus, and Venice.

We have seen the potential of our methodology to contribute to a discussion on the role of Crete in the wider context of Mediterranean maritime networks. Similarly, study of the behaviour patterns of the Corfiot fleet adds a particular weight to the issue of ships’ registry. We have seen too how Venice’s subjects coped with an ad-hoc imposition that aimed to jeopardize their ongoing pre-Venetian connections. It remains to be seen in what way the maritime network represented older privileges, even multiple affiliations, in shipping and trade (e.g. with the Sublime Porte).55

Clearly, it is impossible to draw conclusive conclusions on the changing patterns in Venice’s maritime activity in this early stage of the project. First of all, the in-between years have to be included in our scrutiny. Secondly, it must be borne in mind that the ability of our sources to represent a comprehensive picture of shipping is limited. Therefore, it is of the utmost importance to extend our research and include records found in other archives. Nevertheless, the preliminary results interact with recent scholarly works that seek to reach a more holistic understanding of Venetian overseas rule, by drawing attention to the mechanics of “brokering” empire against a backdrop of a complex geographical, cultural and traditional substruc-
ture.56 In this perspective, our findings highlight the political-actor role of subalterns in creating spaces of opposition to the conceptions of the hegemonic geo-economic system.57

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56 M. O’Connell, Men of Empire: Power and Negotiation in Venice’s Maritime State, Baltimore 2009 (Johns Hopkins University); E.N. Rothman, Brokering Empire, cit.; G. Christ et al., Trading Empire, cit.