4

Logistics and Strategies

> The battle was hard and cruel between them […] at the first strike our galleys seized four of the aforementioned vessels of the Turks; of the rest they in fact had only their retreat. They all fled to the land of the island of Chios, with the exception of twelve ships, which our galleys could not overcome or seize at all in view of the fact that night had now come upon them; of the aforementioned vessels we finally overcame and seized twenty, on which we took more than two thousand Turks, living or dead, and this not through our own merits, but by divine grace. Indeed, the rest, who fled to the land, were all killed or captured, with the result that finally not a single one of them escaped.
>
> Gerard of Pins, papal *vicarius* of the Hospitallers, letter to Pope John XXII reporting a naval victory against the Turks, 1 September 1319.[1]

Now that an overview of the evolution of the naval leagues has been given, it is time to make some observations on the logistics and strategies adopted during the campaigns. This will help to place the leagues within the wider context of medieval naval warfare and also to explain the overwhelming supremacy which the Latins enjoyed at the time. Fortunately the communications preserved in the papal and Venetian archives between the Latin powers over the formation of a league contain enough detail to draw some conclusions regarding the assembly of the fleets and their activities in the East. This includes information on their composition, in terms of both vessels and manpower, the types of tactics they adopted in combat, and the numbers of the enemy they faced.

Ship Types

Since the time of the First Crusade, the shipyards of the Italian maritime cities were producing some of the largest and most technologically advanced vessels in the Mediterranean.[2] These consisted of two basic varieties, which

[1] Gatto, 'Martino Zaccaria', 337–9, doc. 1.

[2] There are a great many studies into medieval ship types. For an introduction to those used from the twelfth to fourteenth centuries, see in particular J.E. Dotson, 'Ship types and fleet composition at Genoa and Venice in the early thirteenth century', in *Logistics of Warfare in the Age of the Crusades*, ed. John H. Pryor (Farnham, 2006), pp. 63–75; Idem,

were often (but not always) utilized for contrasting roles: sail-powered ships for commerce and oar-powered ships for war. The most well-known versions of these two ship types were the *navis* and the *galea*, which were also regularly mentioned by authors reporting on naval conflicts in the Aegean. By the thirteenth century, the Venetians, Genoese and others were commonly using the *navis* for commercial purposes. *Navis* corresponded to the English 'ship', but invariably meant a capacious, broad-beamed cargo vessel, separated by two or three decks and carrying sails on two or three masts. The primary oared vessel was the *galea* (galley), which was understood to be a long, narrow-beamed vessel capable of being sailed occasionally but designed primarily for propulsion by oars. In very basic terms the *navis* and the *galea* had obvious contrasting characteristics: galleys were fast, slender-hulled vessels, but they had limited capacity and were very demanding in terms of crew numbers and provisions. Broad sail-powered ships, on the other hand, were slower, less manoeuvrable and reliant on wind, but they had a much greater capacity for cargo and men. As well as this, sources reporting on the Aegean frequently mention *husserium*, *barcha* and *ligna*, the latter of which literally meant 'plank' and was analogous to the English word 'vessel', referring to water craft in a general sense. *Barchae* were smaller craft, sometimes considered as lifeboats kept on board larger vessels (such as *barcha de parascelmo*).[3] *Husseria* (*cum equis*) were horse transports. These came in various forms and could be large sailed transports or oared transports. The ones used in the Aegean are specified in the sources as those powered by oars, some of which would have probably been fitted with a horse port at the stern to allow both horse and rider to disembark.[4] Hybrid

'Merchant and naval influences on galley design at Venice and Genoa in the fourteenth century', in *New Aspects of Naval History: Selected Papers Presented at the Fourth Naval History Symposium, United States Naval Academy*, ed. C.L. Symonds (Annapolis, 1981), pp. 20–32; Idem, 'Everything is a compromise: Mediterranean ship design, thirteenth to sixteenth centuries', in *The Art, Science, and Technology of Medieval Travel*, ed. R.O. Bork and A. Kann (Farnham, 2008), pp. 31–40; Pryor, *Geography, Technology and War*, pp. 25–86; Idem, 'The naval architecture of crusader transport ships: A reconstruction of some archetypes for round-hulled sailing ships', in Idem, *Commerce, Shipping and Naval Warfare in the Medieval Mediterranean*, Variorum Reprints (London, 1987), VII, pp. 171–219, 275–92, 363–86. Other useful studies include F. Ciciliot, 'Sources for medieval nautical archaeology: Genoese notarial records', *International Journal of Nautical Archaeology* 25/3–4 (1996), 239–42; L.V. Mott, 'Serving in the fleet: crews and recruitment issues in the Catalan-Aragonese fleets during the war of the Sicilian Vespers (1282–1302)', *Cross-cultural Encounters on the High Seas (Tenth–Sixteenth Centuries)*, ed. K.L. Reyerson = *Journal of Medieval Encounters* 13 (2006), 56–77; R. Gertwagen, 'Nautical technology', in *A Companion to Mediterranean History*, ed. P. Horden and S. Kinoshita (Chichester, 2014), pp. 154–69, esp. pp. 161–4.

[3] Dotson, 'Ship types and fleet composition at Genoa and Venice', p. 65.

[4] On horse transports, see L.R. Martin, 'Horse and cargo handling on medieval Mediterranean ships', *The International Journal of Nautical Archaeology* 31 (2002), 237–47; Pryor, 'The naval architecture of crusader transport ships', pp. 171–219, 275–92, 363–86; Idem,

ships combining features of both oared and sailing vessels also existed, as well as sailing ships which used oars on occasion.

In military terms, over the course of the thirteenth century the composition of western war fleets in the Mediterranean changed considerably, evolving from the mixture of galleys, smaller oared vessels and sailing ships seen in earlier decades to fleets dominated primarily by the galley in the latter half of the century. The galleys used at this point were typically biremes, which had two men on a rowing bench, each with an oar. Biremes usually had twenty-seven benches to a side, making 108 rowers in total. The oarsmen could only fight once contact had been made with an opposing vessel, so they were complemented by twenty to thirty crossbowmen or marines, as well as officers and other crew, bringing the full number of men to around 165 per ship. The change to largely galley-based war fleets does not, however, mean that biremes were the only fighting vessels used during this period; large *naves* (the round-hulled sailing ships mentioned above) could also be effective fighting ships. They were virtually immune to oared vessels because of their high freeboard and could also carry significantly more fighting men on board, sometimes as many as five hundred. However, their lack of speed and agility made them impractical for offensive operations. Moreover, large sailed ships were considerably more expensive to produce than galleys, making them less common in Mediterranean waters.[5]

Over the course of the fourteenth century the Genoese in particular would pioneer the use of even heavier cargo ships, and eventually carracks, but when resisting the Turks in the Aegean the galley remained the vessel of choice for the Latin naval powers.[6] The lower cost of galleys was one reason for this, but also the natural conditions of the Aegean meant that galleys were more suited to the region. Although the sea was interspersed with many islands and ports, sailing could be made difficult because of strong seasonal winds, currents and stretches of treacherous coast. For example, the Meltemi winds, known as the Etesian in Antiquity, blow steadily from May to September from the north-east and could slow down voyages considerably, especially when sailing against the winds from the south west of the sea to the Dardanelles and on to Constantinople.[7] The waters of the

'The naval architecture of crusader transport ships, revisited', *The Mariner's Mirror* 76 (1990), 255–73.

[5] On the comparison between galleys and round ships, see Dotson, 'Ship types and fleet composition at Genoa and Venice', pp. 63–75; Idem, 'Everything is a compromise', pp. 33–5.

[6] S. Stantchev, '*Devedo*: The Venetian response to Sultan Mehmed II in the Venetian-Ottoman conflict of 1462–79', *Mediterranean Studies (The Journal of the Mediterranean Studies Association)* 19 (2010), 43–66, at 46–9; Rose, *Medieval Naval Warfare*, pp. 85–8.

[7] On the Meltemi winds, see Pryor, *Geography, Technology and War*, p. 20. Despite the strength of the Meltemi winds, sailing against them was unavoidable in the Aegean and therefore commonplace: Gluzman, 'Between Venice and the Levant', 272–3.

eastern coast of Asia Minor were also strewn with islands, reefs and shoals, making sailing treacherous, and ships often had to wait to enter the Dardanelles from Tenedos because of the currents in the straits and the prevailing winds.[8] These are only a few examples of the natural conditions which posed difficulties to sailors in the Aegean. Considering these factors, the galley, with its superior manoeuvrability, low draft and oared propulsion, was a far more suitable vessel for offensive operations.

In terms of ship production, Venetian fleets were constructed at the famous state Arsenal in the lagoon, whilst Genoese fleets consisted of a mixture of communal and private vessels. Up until the mid thirteenth century this had always been a disadvantage to Genoa, whose system was administratively more cumbersome than that of Venice, but in later years the greater technical innovation of the Genoese system became an advantage.[9] This led to two important developments at the end of the thirteenth century: the introduction of the compass (allowing winter navigation) and, significantly, the birth of a new breed of fighting vessel – the trireme – which came to replace the lighter biremes of the earlier years. Unlike the bireme, the trireme sat three oarsmen per bench, each with an oar. Because of this, it had to be built with a wider hull (roughly 5 metres, compared with 3.7 metres for a bireme), but it remained the same length (approximately 40 metres). A broader hull would usually result in a reduction in speed, but the additional oarsmen meant that a trireme was capable of about the same speed as its predecessor, or even slightly swifter. This resulted in a heavier and more stable vessel, with a capacity at least three times greater at the cost of a 50 per cent increase in crew size. The larger capacity for marines and mechanical artillery, coupled with greater stability – at little or no cost to speed and manoeuvrability – made this a far more effective fighting vessel.[10] Furthermore, the increased capacity made triremes more economical when not used for fighting, resulting in their regular employment as cargo vessels in the fourteenth century, especially for the shipment of high value merchandise.[11] The galleys of the first naval league, for

[8] The natural conditions of the Aegean are discussed in detail by Pryor, *Geography, Technology and War*, pp. 97–9.

[9] See Chapter 1 (pp. 23–4) and also Dotson, 'Venice, Genoa and control of the seas', pp. 123–4; Rose, *Medieval Naval Warfare*, pp. 6–12.

[10] Dotson, 'Everything is a compromise', pp. 33–5; Idem, 'Merchant and naval influences on galley design', pp. 23–5; Pryor, *Geography, Technology and War*, pp. 64–7. By the middle of the fourteenth century, the governments of the merchant republics had introduced detailed regulations on the sizes of their galleys. Reproductions of these, including a Genoese galley of Romania from 1333 and a galley described by Marino Sanudo, can be found in Dotson, 'Merchant and naval influence on galley design', pp. 26–30.

[11] Dotson, 'Everything is a compromise', pp. 34–7.

example, were initially permitted to carry merchandise, although this was later forbidden by the pope in order to expedite their progress.[12]

Manpower

The galleys used in the Aegean during the fourteenth century would have been mostly triremes, holding in the region of twenty-five to twenty-eight benches per side, with three oarsmen on each bench, giving around 150–168 oarsmen on each galley. The rowers were free men who were employed primarily to propel the vessel, but they were also expected to fight in boarding actions or even on land if required. Sometimes the third oarsmen on each bench were also used as archers, known as *terzaroles*, who could either fight or row according to what was necessary.[13] The usefulness of oarsmen for land-based fighting or as *terzaroles* was, however, questionable. Philip de Mézières complained that all of the Christian sailors fled 'in a cowardly manner' after being attacked by the Turks when returning to their galleys at Lampsakos in 1359 and Ramon Muntaner declared that the advantages *terzaroles* gave in terms of speed were far outweighed by the use of professional crossbowmen in battle.[14] In addition to this, galleys would have had a number of specialist marines, sailors, medics and officers on board, possibly in the range of thirty to forty men, increasing the total numbers onboard to around 180–208 men.[15] This fits roughly with the figures given by the Venetians to Pope John XXII in preparation for the league of 1333–4, where the doge advised that forty armed galleys be equipped 'in each of which there should be two hundred men', as well as fifty horse transports, each carrying 'at least 120 oarsmen and twenty horsemen'.[16] For the papal galleys contracted for the same league the numbers were similar, at 174–180 oarsmen, with twenty-five crossbowmen or marines, as well as retinues, scribes, other officials and the ship's manager (*patronus*). Suitable provisions and equipment were also listed for each of these papal galleys, such as biscuit, sails, cordage and anchors, as well as arms, including 130 cuirasses, 150 helmets, 180 shields, 130 gorgets, 4,000 crossbow bolts, 250 lances and

[12] John XXII, *Lettres secrètes*, vol. 4, doc. 5495; *Documents on the Later Crusades*, p. 73, doc. 20.

[13] J.H. Pryor, 'The naval battles of Roger of Lauria', in Idem, *Commerce, Shipping and Naval Warfare in the Medieval Mediterranean*, Variorum Reprints (London, 1987), VI, pp. 179–216, at pp. 186–7; Dotson, 'Merchant and naval influences on galley design', p. 24.

[14] *Documents on the Later Crusades*, pp. 83–5, doc. 25; Pryor, 'The naval battles of Roger of Lauria', p. 187. See also Marino Sanudo, 'Liber Secretorum', pp. 57; Lock trans., pp. 102–3.

[15] A description of the specific duties involved for these other crewmen is given by Mott, 'Serving in the fleet', 60–1.

[16] *DVL*, vol. 1, doc. 124, p. 241; Theotokes, *Thespismata*, vol. 2.1, p. 140, doc. 27; Setton, *Papacy and the Levant*, vol. 1, pp. 181–2, n. 88; Theotokes, 'E prôte summachia', 287–8.

500 small javelins.[17] For the naval league of 1343, the Venetians maintained these numbers when advising Clement VI. On this occasion, they recommended that thirty galleys, each carrying up to 200 men, along with sixty horse transports each of 120 oarsmen and twenty horsemen, be assembled for use against the Turks.[18] The exception to these numbers can be found in the 'Liber Secretorum' of Marino Sanudo, where the author advocated the use of larger galleys with four oarsmen per bench. He consequently recommended that those equipped for his provisional league in the early 1320s should carry up to 250 men, but no other sources suggest that these bigger galleys were ever used against the Turks.[19]

From the figures given above, it is possible to make some estimations regarding the numbers of men serving in each of the naval leagues and their galley strength, so that they can be compared with other campaigns of the period. In terms of the numbers of vessels used in the leagues, it is safe to assume that the documents outlining the final agreements can be trusted, as on both occasions they are corroborated by other independent sources.[20] If this is the case, then officially the 1333–4 league was made up of thirty-four galleys (not including the six promised by the Byzantines which never turned up) and the league that captured Smyrna was made up of twenty.[21] If the numbers of men on board each galley are taken to be around 200, then the galley-strength of the leagues was made up of roughly 6,800 and 4,000 men respectively. When compared with the greatest maritime campaigns of the period, namely the Genoese-Venetian wars, in terms of galley strength this was not particularly large. For example, in the first war of the mid thirteenth century, the average fleet size was around thirty galleys, so not dissimilar to the first naval league. However, in the second and third wars, which spanned the end of the thirteenth and most of the fourteenth century,

[17] *Documents on the Later Crusades*, p. 72, doc. 20.

[18] Full text in Theotokes, *Thespismata*, vol. 2.1, pp. 216–19, doc. 9; summary in Thiriet, *Sénat*, vol. 1, doc. 142; Setton, *Papacy and the Levant*, vol. 1, p. 183, n. 95.

[19] Marino Sanudo, 'Liber Secretorum', pp. 30–1 (marginal note); Lock trans., pp. 62–3. For his general crusade Sanudo also recommended smaller galleys with fewer men, as well as larger ones with five men per bench: 'Liber Secretorum', pp. 5, 30, 56–7, 60, 63–6, 75–8; Lock trans., pp. 26, 61, 102–3, 107–8, 111–15, 128–32.

[20] See the accounts of the leagues discussed in the previous chapter as well as Zachariadou, *Trade and Crusade*, pp. 21–62 and Setton, *The Papacy and the Levant*, vol. 1, pp. 180–223.

[21] The 1334 league was made up of ten galleys from Venice, ten from the Hospitallers, six from Cyprus and eight from the papacy and France together, see Chapter 3, note 42. The 1343 league was made up of six from Venice, six from the Hospitallers, four from the papacy and four from Cyprus, see Chapter 3, note 48. The provisional league of 1332, agreed between the Venetians, Hospitallers and Byzantines, was the same size as that of 1343 and significantly smaller than that of 1334. It was to consist of 20 galleys; ten from Byzantium, six from Venice and four from the Hospitallers, see Chapter 3, note 36. The smaller league of 1350, which never materialized, was meant to be formed of only eight galleys; three each provided by Venice and the Hospitallers, and two from Cyprus, see Chapter 3, note 65.

the average fleet size was double, at around sixty galleys. On one occasion, in 1295, the Genoese even constructed a fleet of 165 galleys, but this was an exception for the period. The wars between the two cities should be considered as representing the pinnacle of galley numbers at this time.[22]

On the other hand, if the naval leagues are compared with other maritime engagements of this period in the Mediterranean, such as during the war of the Sicilian Vespers, the sizes of the fleets are not dissimilar. For example, in 1283 and 1284 the famed Calabrian admiral Roger of Lauria won two notable victories over the Angevins at Malta and at Naples with fleets numbering around twenty to twenty-nine galleys. Later in the war, the fleets would grow in size, but nevertheless those equipped for the leagues against the Turks are not insubstantial when compared with those used in the Sicilian war.[23] Moreover, when compared with other fleets assembled or proposed for action in the Aegean at this time, the fleets for the leagues are far greater in size. For example, the combined Hospitaller–Zaccaria fleet of 1319 had only four galleys along with other vessels and the league proposed by Marino Sanudo in the early 1320s numbered ten.[24] Even the large forces equipped by Hugh of Cyprus in the late 1330s, which were said to have numbered twenty-one galleys on one occasion and twelve on another, were less substantial than the combined forces of the first league.[25]

It is also worth noting that the total numbers of men and vessels involved in the naval leagues would have been far greater than the galley-strength alone. Venice, for example, advised that fifty horse transports be equipped for the first naval league and sixty for the second. These were each to consist of 120 oarsmen and twenty horsemen, equating to an extra 6,000 oarsmen and 1,000 horsemen for the first league, and 7,200 oarsmen and 1,200 horsemen for the second.[26] It is not known whether all of these horse transports were constructed, but if they were then the numbers of men serving in the leagues would have more than doubled, to 13,800 in 1333–4 and 12,400 in 1343 – a significant number indeed. It is also highly likely that other ships, such as smaller *barchae*, necessary for successful amphibious warfare, would have been equipped by the various members of the league even if they were not mentioned in the official agreements; the success the leagues enjoyed

[22] These fleets are discussed in Dotson, 'Venice, Genoa and control of the seas', esp. pp. 125–6.

[23] Detailed descriptions of the fleet sizes used by Roger of Lauria in the Sicilian war are provided by Pryor, 'The naval battles of Roger of Lauria', esp. pp. 184, 190–2, 195–6, 201–2, 205, 209.

[24] Delaville le Roulx, *Hospitaliers à Rhodes*, pp. 365–7, doc. 2; Gatto, 'Martino Zaccaria', 337–9, doc. 1; Marino Sanudo, 'Liber Secretorum', pp. 30–1 (marginal note); Lock trans., pp. 62–3.

[25] *Le Liber pontificalis*: *Texte, introduction et commentaire*, ed. L. Duchesne, 3 vols (Paris, 1886–92), vol. 2, p. 527; Coureas, *The Latin Church in Cyprus: 1313–1378*, p. 100.

[26] See above, notes 16, 18.

on land certainly suggests that this was the case. Similarly, it was expected that armed merchant galleys trading in the Aegean would have assisted the leagues when called upon to do so, especially if they owed allegiance to one of the member states.[27] These composite fleets and informal alliances were, after all, common features of maritime warfare in the Aegean. This was the case with the allied fleet assembled by the Hospitallers and Zaccaria in 1319, which was made up of four war galleys, but also included two horse transports and around twenty-five other smaller vessels. Moreover, on the eve of the battle against the Turks the numbers of this fleet were bolstered by the arrival of eleven more Genoese galleys which ultimately resulted in a victory for the Latins.[28]

There is also specific evidence of the leagues increasing in size during the period in which they were at sea. This is especially the case for the second naval league when, after the capture of Smyrna in 1344, even more galleys and recruits flocked to the Aegean. These included a flotilla of Peter of Arborea in western Sardinia who, as part of a pilgrimage to the Holy Land, had pledged to travel with four galleys to the East to spend six months fighting against the Turks.[29] A year later, the force led by Humbert of Viennois sailed to the Aegean, which consisted of four galleys and probably a number of other smaller vessels.[30] These additions, which could have feasibly numbered over eight galleys and 2,000 men, would have increased the size of the second league to something similar to that of 1334, without even factoring in others who took the cross at this time, especially those from northern Italy where the response to crusade preaching was especially great.[31] When these unofficial contributions are added to the numbers of men serving on the galleys and horse transports, it is quite feasible that each of the leagues could have had a total fighting strength of over 15,000 men, with perhaps three-quarters of those being oarsmen. These are considerable numbers, even if they do not match the great Genoese-Venetian wars of the period.

It is also worth considering the strength of the Turkish fleets which the leagues faced. According to the sources, these numbered twenty-three vessels at Amorgos in 1312;[32] twenty-nine or thirty-two at Chios in 1319;[33] 150–250

[27] This was suggested by Marino Sanudo, 'Liber Secretorum', pp. 30–1 (marginal note); Lock trans., pp. 62–3.

[28] Delaville le Roulx, *Hospitaliers à Rhodes*, p. 366, doc. 2.

[29] ASVat, *RS* 7, fol. 79v (30 Nov 1344).

[30] For the numbers of Humbert's expedition, see Carr, 'Humbert of Viennois and the Crusade of Smyrna', 240, n. 8; Setton, *Papacy and the Levant*, vol. 1, pp. 195–7.

[31] Recruitment and participation in the Crusade of Smyrna is also discussed in Chapter 5, pp. 114–18.

[32] *Chroniques d'Amadi et de Strambaldi*, ed. Mas Latrie, vol. 1, p. 391.

[33] Delaville le Roulx, *Hospitaliers à Rhodes*, pp. 365–6, doc. 2; Gatto, 'Martino Zaccaria', 337–9, doc. 1.

at Adramyttion in 1334;[34] fifty-two or sixty at Longos in 1344;[35] and 118 at Imbros in 1347.[36] The sources should probably be treated cautiously in regard to these figures, but nevertheless it seems that the Turks often outnumbered the Latins, sometimes by more than four to one. In terms of ship types, it is likely that the Turkish fleets were made up of smaller craft, such as light galleys and transports.[37] One reason for this was that the Turks were concerned primarily with raiding in order to seize captives and livestock, or to create a buffer-zone in the eastern Aegean, rather than engaging the Latins at sea. This is certainly the impression given by sources reporting on their raids at the turn of the fourteenth century.[38] As the century progressed, the Turks became more ambitious and their fleets became stronger. The flotilla from Aydin that attacked Chios in 1319 allegedly contained ten galleys, while Ibn Battuta later reported that Umur used war-galleys to raid as far afield as the environs of Constantinople.[39] However, these were probably exceptions and Turkish fleets were still mostly made up of lighter vessels, which were ideal for raiding and piracy, but were no match for the heavier triremes of Latins when confronted at sea. Also, as Marino Sanudo was eager to point out in the 'Liber Secretorum', it was the quality of the crews of the galleys, and not their quantity, which ultimately resulted in success.[40] The Turks were inexperienced sailors and although some Greeks living in Anatolia undoubtedly crewed Turkish ships as well, their Latin opponents were invariably highly-skilled mariners, led by experienced captains.[41] This was especially the case with the Hospitallers under Fulk of Villaret and Albert of Schwarzburg, and even more so with merchant crusaders, such as Martino Zaccaria, and those who fought on the galleys of the Venetian Republic.

[34] Various sources report the battle of Adramyttion, see Chapter 3, p. 73.

[35] John Kantakouzenos, *Historiarum Libri IV*, vol. 2, bk. 3, ch. 69, pp. 422–3; Guglielmo Cortusi, *Chronica de novitatibus Padue et Lombardie*, p. 109.

[36] Clement VI, *Lettres à la France*, vol. 2, doc. 3336.

[37] On vessels used by the Turks, see Pryor, *Geography, Technology and War*, pp. 67–8, 167–70; Zachariadou, 'Holy war in the Aegean during the fourteenth century', pp. 215–17.

[38] See, for example George Pachymeres, *Relations historiques*, vol. 4, bk. 10, ch. 29, pp. 376–7; Ramon Muntaner, *The Catalan Expedition to the East*, p. 52; Marino Sanudo, 'Liber Secretorum', p. 29; Lock trans., p. 59. The nature of the Turkish raids is also discussed in Chapter 1, pp. 21–2 and Chapter 2, pp. 44–9.

[39] Delaville le Roulx, *Hospitaliers à Rhodes*, pp. 365–6, doc. 2; Ibn Battuta, *The Travels*, vol. 2, pp. 446–7; Zachariadou, 'Holy war in the Aegean during the fourteenth century', pp. 215–17.

[40] Marino Sanudo, 'Liber Secretorum', pp. 30–1; Lock trans., pp. 61–2.

[41] Pryor, *Geography, Technology and War*, pp 69, 145–6, 154.

Tactics

From the sources it is likely that the Latins of Romania won at least eight major sea-battles over the Turks in the first half of the fourteenth century. Three of these were by the forces of the Knights Hospitallers of Rhodes and the Zaccaria of Chios from 1312–1328 (including the victories at Amorgos and Chios); at least one significant victory was won at Adramyttion by the first naval league in 1334; Hugh of Cyprus defeated the Turks twice in 1336–7; and the second naval league was victorious at Longos and Imbros in 1344 and 1347 (see Map 4). However, to piece together a detailed picture of these maritime conflicts is an extremely difficult task, primarily because of the vagueness and unreliability of many of the sources which are scant on specific or accurate information regarding maritime combat. This is not surprising considering that most of the accounts we have were recorded by those unfamiliar with naval warfare and distant from events in the Aegean, such as papal letters and chroniclers in the West. Nevertheless, by analysing these accounts in the wider context of medieval naval warfare, some tentative observations on the strategies employed by the captains of the leagues can be made.

In regard to naval tactics, to quote John Pryor, galley warfare in the Middle Ages was 'not naval warfare in the modern sense, but rather amphibious warfare, in which skilful use of coastal geography and the nexus of the fleet to the land was equally important as mastery of the sea itself'.[42] This close relationship between land and sea was mostly a result of the relatively small capacity of galleys and the high numbers of oarsmen they required, which meant that they could not stay out at sea for long. Typically galleys of the period could last for no more than two weeks at sea without re-provisioning their water supplies, with the result that they needed to dock for provisioning frequently and hugged the coast most of the time.[43] The

[42] See Pryor, 'The naval battles of Roger of Lauria', pp. 185–6. For a discussion of galley warfare in a later period, see J.F. Guilmartin Jr., *Gunpowder and Galleys: Changing Technology and Mediterranean Warfare at Sea in the Sixteenth Century* (London, 1974), pp. 57–84, and for amphibious warfare in particular: D.J.B. Trim and M.C. Fissel, 'Amphibious warfare, 1000–1700: Concepts and contexts', in *Amphibious warfare 1000–1700: Commerce, State Formation and European Expansion*, ed. D.J.B. Trim and M.C. Fissel (Leiden, 2011), pp. 1–50.

[43] Oars dominated galley design and little space was left for anything but oarsmen and benches. If raised platforms and light projections extending from the hull etc., are neglected then around 95 per cent of a galley's deck space was devoted to oarsmen and benches. A typical Mediterranean galley of the early sixteenth century, of 144 oarsmen and thirty to forty soldiers, sailors and officers, would need about ninety gallons of water per day. Twenty days at sea would require around 1,800 gallons, or 100 eighteen-gallon barrels – a considerable amount considering the size of the galleys. See Guilmartin Jnr., *Gunpowder and Galleys*, pp. 62–3, 71; Rose, *Medieval Naval Warfare*, pp. 19–21. It is worth noting that most medieval

repeated successes of the Latins in the Aegean suggests that their captains had mastered this relationship between land and sea far better than their Turkish counterparts. In particular, they exploited the geographical makeup of the Aegean to far greater effect, especially in surprising the enemy, which explains why the majority of their victories were achieved on land, where the Latin marines and other crewmen pursued and defeated the Turks who had fled from their boats.

Evidence of the effectiveness of Latin amphibious warfare can be found in the earliest encounters in the Aegean. This was the case in 1312 when the Hospitallers defeated a Turkish fleet of twenty-three vessels from Menteshe and pursued the remaining Turks onto the island of Amorgos, where they apparently killed eight hundred, with the loss of only fifty-seven knights and three hundred infantrymen.[44] Similarly, in 1319, the Hospitallers and the Zaccaria hunted down a number of Turks who had fled to the shore of Chios after a defeat at sea, with the result that 'not a single one of them escaped'.[45] In the second naval league, the captains utilized their greater geographical understanding of the region to such good effect that they completely surprised a numerically superior Turkish fleet on two occasions, in both instances forcing the Turks to flee from their boats before the crusaders could engage them. This was the case in 1344 when the league came upon around fifty to sixty Turkish vessels laying at anchor in the harbour of Longos. Here the crusaders captured and destroyed their vessels, before chasing the Turks onto land and slaughtering them.[46] Finally, at Imbros in 1347 the galleys of the league again surprised a large fleet situated off the island, this time numbering 118 vessels. The Turks were taken by surprise and fled to land for safety. But they were soon surrounded on the island by the crusaders, who received reinforcements of two galleys and

galleys would have had slightly larger crews than those used for the calculations above, suggesting that the number of days they could spend at sea would have been even lower. See the comments by Marino Sanudo, 'Liber Secretorum', p. 28; Lock trans., pp. 57–8; Pryor, *Geography, Technology and War*, pp. 74–80. It should also be noted that the oarsmen required significant amounts of food to maintain their high level of activity, which also put a strain on the provisioning of galleys, see Mott, 'Serving in the fleet', 67–8.

[44] *Chroniques d'Amadi et de Strambaldi*, vol. 1, p. 391. A report of an Aragonese ambassador at the Council of Vienne, dated 22 April 1312, also recounts the Hospitaller victory, but with inflated numbers of the dead. It states that 1,500 Turks and seventy-five Knights were killed: H. Finke, *Papsttum und Untergang des Templerordens*, vol. 2, pp. 298–302 (doc. 146).

[45] Delaville le Roulx, *Hospitaliers à Rhodes*, p. 366, doc. 2; Gatto, 'Martino Zaccaria', 338, doc. 1.

[46] John Kantakouzenos, *Historiarum Libri IV*, vol. 2, bk. 3, ch. 68, pp. 422–3; Guglielmo Cortusi, *Chronica de novitatibus Padue et Lombardie*, p. 109; a rather fantastical account puts the number of Christian dead at only 300, compared with over 18,000 on the Turkish side: John of Winterthur, *Chronica*, p. 250.

one *ligna* from the Hospitallers on Rhodes, and then captured them.[47] Even during the assault on Smyrna – which was not strictly a maritime encounter – the forces of the league managed to make another impressive land-based victory by seizing the harbour fortress from the powerful Umur Pasha.[48] The league may have been fortunate on this occasion, as Umur was absent from Smyrna with his main force at the time, but considering the crusaders' habit of surprising the Turks, the timing of the attack may well have been deliberately planned and based on prior intelligence.[49]

Considering that most encounters with the Turks ended on land, it would be useful to reconstruct the details of the confrontations which took place on the Aegean islands. However, unfortunately the sources are very vague in this regard, and apart from the numbers of Turks killed, they yield almost no information about the tactics or strategies employed. From the above, we can glean that the Turks were often surprised and forced to flee in panic onto land, after which they were pursued by the Latin crews who had disembarked from their ships. Typically the beyliks, like the Seljuks before them, relied on formidable light cavalry, especially horse archers, which were best suited to open conditions where rapid movement and fire-power could break up the formations of their enemies.[50] Clearly amphibious warfare and combat on the mountainous, rocky and wooded interiors of the Aegean islands, probably with few or no horses, was the antithesis of the preferred Turkish style of combat. A good example of this is given at Amorgos in 1312, where the Turks were forced to flee to the mountains and to throw rocks down at the Hospitallers in a vain attempt to halt their advance.[51] Considering that the primary objective of the Turks was to carry out surprise raids, which were intended to avoid direct combat with an opposing army, it is not surprising that the crews of the Turkish ships, as well as the vessels themselves, were not suited to direct confrontation with experienced Latin opponents. This contrasts markedly with the successes of the Turks in Anatolia and Greece, where they proved to be formidable,

[47] Clement VI, *Lettres à la France*, vol. 2, docs 3336–7; *Duca di Candia: Quaternus consiliorum*, docs 164–5; Delaville le Roulx, *Hospitaliers à Rhodes*, p. 108, n. 2; Sarnowsky, 'Die Johanniter und Smyrna (Teil 2)', 50, doc. 3.

[48] No detailed description of the capture of the harbour-fortress of Smyrna exists, but a vivid account of a similar engagement, the assault and capture of the fortress of Lampsakos in 1359, is given by Philippe de Mézières: *Documents on the Later Crusades*, pp. 83–5, doc. 25.

[49] Enveri, *Le destān d'Umūr Pacha*, pp. 111–13 (verses 1913–68); Nikephoros Gregoras, *Byzantina Historia*, vol. 2, bk. 13, ch. 4, p. 689; John Kantakouzenos, *Historiarum Libri IV*, vol. 2, bk. 3, ch. 68, pp. 419–20.

[50] J. France, 'Philippe de Mézières and the military history of the fourteenth century', in *Philippe de Mézières and His Age: Piety and Politics in the Fourteenth Century*, ed. R. Blumenfeld-Kosinski and K. Petkov (Leiden, 2012), pp. 283–93, at pp. 285–6.

[51] *Chroniques d'Amadi et de Strambaldi*, vol. 1, p. 391.

especially against Byzantine armies.[52] This may explain why the Aydin Turks were far more effective at resisting the crusaders once the latter had seized the harbour fortress of Smyrna and combat had moved onto the land. In this instance Umur was able to lay siege to the harbour fortress and successfully hem the crusaders in, despite repeated reinforcements.[53] In January 1345 he also won a significant victory when he managed to kill a number of Latins, including the crusade leaders, at the abandoned church of Saint John outside the city walls. The exact details of the encounter are obscure but it seems that Umur secretly led his army to the church, where they fell upon the crusaders during mass. Some of the crusaders saw the approaching Turks and managed to escape back to the harbour fortress, but the majority were slain.[54] Evidently the Turks were most effective against the Latins when ships were not involved.

Of the encounters reported in the sources, only one of the sea battles is described in any detail, that off Chios in 1319. Unfortunately, a letter of Sanudo describing the battle of Adramyttion in 1334 is now badly damaged and little information is given about the two victories won by Hugh of Cyprus in 1336 and 1337.[55] In addition, although the Hospitaller victory at Amorgos in 1312 began as a conflict at sea, the accounts provide only rudimentary details of the engagement before the Turks were pursued onto the island.[56] In terms of battle tactics, galley warfare in the Middle Ages was a highly complex and skilful art. One of the most common tactics adopted was to ram an enemy ship so that marines could board it, hopefully leading to its capture. Typically a battle would commence with a bombardment from archers or crossbowmen, followed by the advance of the fleet, which commonly went into battle in crescent moon formation, as was advocated by Marino Sanudo.[57] Galleys were strongest at the prow or stern, where

[52] Muntaner, for example, regularly praised the martial prowess of Turks: Ramon Muntaner, *The Catalan Expedition to the East*, pp. 46–63, 109–10.

[53] Enveri, *Le destān d'Umūr Pacha*, p. 114 (verses 1997–2012); Lemerle, *L'émirat d'Aydin*, p. 190.

[54] Several sources recount this event: Enveri, *Le destān d'Umūr Pacha*, pp. 114–15 (verses 2013–86); John Kantakouzenos, *Historiarum Libri IV*, vol. 2, bk. 3, ch. 95, pp. 582–3; Giovanni Villani, *Nuova cronica*, vol. 3, bk. 13, ch. 39, pp. 389–90; Anonimo Romano, *Cronica*, pp. 109–14; John of Winterthur, *Chronica*, pp. 252–3; *Lettere di Mercanti a Pignol Zucchello*, pp. 31–2, doc. 13. See also Lemerle, *L'émirat d'Aydin*, pp. 191–3; Setton, *Papacy and the Levant*, vol. 1, pp. 192–3.

[55] For Adramyttion see Kunstmann, 'Studien über Marino Sanudo', 811–12 (letter 7); Roddy trans., p. 296 (letter 35). For Hugh of Cyprus, see above, note 25.

[56] *Chroniques d'Amadi et de Strambaldi*, vol. 1, p. 391; Finke, *Papsttum und Untergang des Templerordens*, vol. 2, pp. 298–302, doc. 146.

[57] Marino Sanudo, 'Liber Secretorum', pp. 82–5; Lock trans., pp. 139–42. By the fourteenth century guns were being used on ships in northern Europe, but it was probably not until the War of Chioggia in 1378–81 that they were widely used in Mediterranean galley warfare, see Dotson, 'Venice, Genoa and control of the seas', p. 133; Idem, 'Everything is a compromise', p. 38; Lane, *Venice*, p. 195; Rose, *Medieval Naval Warfare*, pp. 96–7, 110–11.

archers and catapults could be massed, but weakest amidships where few defenders could be stationed because of the oarsmen. It was hoped that the wings of the advancing fleet could close around the enemy and attack them side on, crashing into the line of oars to create chaos. Thereafter, the marines on each galley could board and gain access to the weakly defended rowing benches and access gangway which ran down the enemy vessel.[58]

Another favourite tactic was manoeuvring to put the sun behind one's back and in the enemy's eyes, as Roger of Lauria and Benedetto I Zaccaria had done on several occasions. One such example comes from 1284, when Roger of Lauria defeated an Angevin fleet in the Bay of Naples. Lauria's movements began in the morning when he lured the Angevins from their base at Naples by means of a feigned retreat and withdrew eastward towards Castellamare where a reserve squadron was concealed. Once the Angevins were sufficiently far from their base, Lauria brought out his reserve squadron and turned to give battle with the rising sun at his back and in the eyes of the Angevins.[59] In the Hospitaller–Zaccaria victory over the Aydin Turks off Chios in 1319, this tactic may have also been employed. The two letters reporting the encounter to the pope, written by the captain of the Hospitaller fleet, the Grand Preceptor Albert of Schwarzburg, and Gerard of Pins, both remark that the battle commenced at sunset. As it is known that the Latin galleys sailed out from Chios Town to engage the Turks two miles from the island, and that the Turks were approaching from the east (Ephesos), then the sun could have feasibly have been setting behind the Hospitaller and Genoese fleet approaching from the west.[60] This may explain why after entering into battle the Latin galleys managed to seize four of the Turkish vessels 'at the first strike'.[61]

However, this hypothesis remains speculative and another more convincing reason for the Latin victory is given by Albert of Schwarzburg. He mentioned that eleven galleys 'of Genoese citizens' met up with the Latin fleet whilst they were waiting at anchor for the Turks. The Hospitallers initially thought that these galleys had been dispatched by the Greek emperor to assist the Turks, but after a scout was sent to identify them this was proved not to be the case. Strangely Schwarzburg specifically reported that these galleys had sailed from Genoa, which considering their arrival on the day of the battle at the precise location, seems highly unlikely.[62] In fact, presuming that these galleys had been sent for by Martino Zaccaria, who

[58] Pryor, 'The naval battles of Roger of Lauria', pp. 193–4.

[59] Pryor, 'The naval battles of Roger of Lauria', pp. 191–2.

[60] Delaville le Roulx, *Hospitaliers à Rhodes*, pp. 365–6, doc. 2; Gatto, 'Martino Zaccaria', 337–9, doc. 1.

[61] Gatto, 'Martino Zaccaria', 338, doc. 1.

[62] Delaville le Roulx, *Hospitaliers à Rhodes*, p. 366, doc. 2: *supervenerunt XI galee Januensium intrinsecorum de Janua*.

had heard of the intentions of the Turks some weeks before, it is more plausible that this flotilla was formed by a coalition of Genoese merchant galleys operating in the region, possibly dispatched from the nearby colonies at Pera or Phokaia. It is known that vessels could sail from Pera to Chios in as little as three days if the conditions were favourable, which makes that option conceivable.[63] However, considering that this fleet arrived on the day of the battle and in exactly the right location, the most reasonable explanation is that it had sailed from nearby Phokaia and was concealed north of Chios and out of sight of the Turks, where it awaited instructions to advance. This is a similar tactic to that which Roger of Lauria used for his reserve fleet in the Bay of Naples forty years earlier.

Either way, the episode is evidence of the high level of communication that existed between the Zaccaria and the other Genoese in the Mediterranean which, combined with a shared intelligence network with the Hospitallers, proved to be a great advantage in protecting the eastern Aegean from the Turks. In the naval leagues also, efficient communication between the different powers, as was demonstrated by the Hospitaller reinforcements on Imbros, coupled with prior warning of enemy ship movements which resulted in the surprise attacks at Longos, Smyrna and Imbros, seem to have been the principal reason for the successes of the Latins. As well as this, the fame and reputation of the Latin captains should be considered. Martino Zaccaria became renowned for his military achievements over the Turks and his successes may have boosted morale and ensured discipline amongst his crews, just as they did for Roger of Lauria during the Sicilian Vespers.[64] Martino's standing was so great that in 1343 Clement VI appointed him as the captain of the papal galleys for the Crusade of Smyrna, despite concerns that he would divert the league to Chios.[65] Evidently this risk was worth taking considering the benefits that Martino's fame and reputation would bring to the fleet. From this discussion of logistics and strategies, it is therefore clear that the anti-Turkish naval coalitions were highly effective enterprises, which combined powerful and well-equipped fleets with skilled captains and crews. The tactics adopted by the galley captains, especially the element of surprise coupled with effective communication, resulted in a series of overwhelming victories. This maintained supremacy on sea and meant that maritime warfare would be the preferred method of resisting the Turks.

[63] Pryor, *Geography, Technology and War*, p. 98.

[64] See Mott, 'Serving in the fleet', 73–5; Pryor, 'The naval battles of Roger of Lauria', pp. 211–13.

[65] Appendix 4, doc. 5, pp. 161–2; Clement VI, *Lettres à la France*, vol. 1, docs 404 (16 September 1343), 1113–14 (18 September 1344), 1464 (1 February 1345).