The Routledge Companion to Marine and Maritime Worlds, 1400-1800

Edited by Claire Jowitt, Craig Lambert, and Steve Mentz

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The Routledge Companion to Marine and Maritime Worlds, 1400–1800 explores early modern maritime history, culture, and the current state of the research and approaches taken by experts in the field.

Ranging from cartography to poetry and decorative design to naval warfare, the book shows how once-traditional and often Euro-chauvinistic depictions of oceanic 'mastery' during the early modern period have been replaced by newer global ideas. This comprehensive volume challenges underlying assumptions by balancing its assessment of the consequences and accomplishments of European navigators in the era of Columbus, da Gama, and Magellan, with an awareness of the sophistication and maritime expertise in Asia, the Arab world, and the Americas. By imparting riveting new stories and global perceptions of maritime history and culture, the contributors provide readers with fresh insights concerning early modern entanglements between humans and the vast, unpredictable ocean.

With maritime studies growing and the ocean's health in decline, this volume is essential reading for academics and students interested in the historicization of the ocean and the ways early modern cultures both conceptualized and utilized seas.

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of the staff and collections at The Folger Shakespeare Library, The John Carter Brown Library, and other repositories of early modern maritime materials. He also values the feedback from audiences who have responded to his works in progress in the maritime humanities, including most recently at Harvard University, the University of Utah, the University of Sydney, and Liverpool John Moores University.

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1

Introduction

Oceans in global history and culture 1400–1800: expanding horizons

Claire Jowitt, Craig Lambert, and Steve Mentz

A fourteenth-century Augustinian monk, John Mirk, thought the sea attracted evil, considering it a chaotic and violent place where devils did their work. He wrote of these marine devils, 'They rearith wars: they makyth tempests in the sea, and drownyth ships and men'.[1] John's ideas about the sea were not peripheral. Across the period of history the essays in this collection discuss, writers and commentators, as well as those traversing oceans, or whose livelihoods were based on extracting resources from the seas, frequently portrayed oceans and seas as dangerous spaces.[2] Ocean depth and seas' sheer vastness have throughout history, challenged human abilities to safely navigate and exploit them, and even to conceptualize their extent and abundance.[3] With 75 per cent of the globe covered by oceans, and while potentially hazardous, between the years 1400–1800 the seas provided seemingly limitless food and resources, and formed sea-lines for diplomatic contacts, trade, communication, and cross-cultural engagements. During the early modern period, the desire to exploit the resources of the sea – often expressed in overconfident and gendered terminology – was believed by many European rulers and polities to be crucial to their survival and enrichment. The very phrase 'master the oceans', often used by writers from this period of history, as well as about the ambitions of the age by later commentators, lays bare these imperial, colonial, and patriarchal assumptions. The period 1400–1800 is particularly pivotal in the development and articulation of European aspirations to exploit and understand oceans and seas, as well as control and *own* them, their flora and fauna, and the lands and peoples they connect.[4] At the same time, non-European maritime nations and peoples, particularly from China and the Arab world had long-standing traditions of seafaring and distinctive maritime experience. Taken together, the essays in *The Routledge Companion to Marine and Maritime Worlds, 1400–1800* seek to provide authoritative, fresh assessments of these traditions, as well as new understandings of the interconnections between them, in order to explore marine and maritime worlds in global contexts.[5]

For Europeans, the years 1400–1800 literally marked a *sea change* in the tenor and extent of marine and maritime engagements. Through advances in navigation, ship technology, and commercial organization, Europe's burgeoning real-and-imagined ocean dominance permitted its polities and emerging nation states to expand their global reach. Nation building went hand-in-hand. Indeed, long before the development of modern digital technologies and systems, Europeans' ambitions to explore and exploit the oceans were crucial to the development of the conception of a globalized, hence modern, world.[6] Visions of the global have been essential to human thinking since antiquity as the Greeks sought to expand their *oikouménē*, but tangible globalization had to wait until the sixteenth century. Maritime expansion resulted in changes to the ways sovereignty through law was established, demands for better welfare for men (*sic*) at sea,[7] and original ways of culturally representing the changing horizons and vistas that were opened. However, control over the sea never was and never could be secure, and violence and exploitation are the keystones of Europe's maritime expansion. At any moment, mariners could find themselves fighting for survival either against forces of nature or against harmful human action. The aim to use oceanic presence to project cultural power was also part of colonial and imperial ideologies that enabled one culture or society to dictate over others. Dominance of the seas permitted European states and monarchs to project their power to faraway places with often devastating results.

This volume of 24 essays addresses aspects of human contact with and experience of the oceans across the globe in this transformative phase in seaborne activity by asking a number of inter-related research questions. How does access to oceans and waterways shape and impact cultures? How did seafarers and other members of maritime societies live and work? What advancements in shipbuilding occurred over this period? How did navigational instruments develop, and how did mariners use them on board ships? How did notions of the sea affect the material, visual, and textual cultures of the societies that had most contact with oceans? What can maps reveal about European expansion and ambitions? How did governments and rulers use the sea and ships to project power and convey splendour? What impact did the development of sea power have on a state's fiscal and social structures? How did governments react to more complex trading relationships and interstate conflict that often produced diplomatic and legal problems? What role did privateering and piracy play in maritime economies and state rivalries, and how did this impact on the development of legal frameworks? As European powers expanded their global reach, what systems did merchants develop to handle longer and more expensive trading voyages, and what effects did this have on indigenous societies? These important questions are explored by a group of world-leading scholars at all career stages, with cross-cutting research specialisms in economic, social, political, legal, naval, and cultural aspects of marine and maritime studies.

Maritime trade created commercial networks, but as so often cultural exchange was the bedfellow of economic contact. The commercial links between the English port of Bristol and Seville, for example, led to a large English émigré community of merchants. Links between Bristol traders and the Casa de Contratación also led to the spread of knowledge of maps. English merchants such as Robert Thorne the Elder

and Robert Thorne the Younger pored over the maps and accounts of navigational achievements of Spanish sailors in the late fifteenth and early sixteenth centuries. In collaboration with Dr John Dee and Sebastian Cabot, they started to formulate ideas as to how England might extend its reach to new lands by exploiting the seas to the north, lands outside the purview of the Treaty of Tordesillas, whereby the Pope had reserved for the Iberian nations the wealth and ownership of the New World.[8] Bristol merchants had previously invested in so-called 'voyages of exploration',[9] and John Cabot, Sebastian's father, had sailed to North America in the 1490s.[10] Trade brought the younger Thorne to Seville, but inhabiting such places developed his intellectual curiosity, which ultimately provided the impetus of the English voyages to Russia and the far north.

The experiences and intellectual curiosities of people like the Thorne merchants were one point on a journey that, for Western Europeans, began centuries earlier. Earlier merchants had also been attracted eastward in a search for new markets and riches. The rapid expansion of the Mongols in the late twelfth and thirteenth centuries encouraged Western Europeans to meet them in order to create alliances against expanding Muslim powers.[11] Rumours circulated around Europe of Prester John, a mythical and wealthy Christian ruler in Africa who might aid Western Europe in its struggle against Muslim states.[12] In 1246, a Franciscan friar Giovanni di Plano Carpini journeyed to the Mongol court, under instruction by Pope Innocent IV, in order to create an alliance, and after his return he wrote his *Historia Mongalorum*. A further Franciscan friar, William of Rubruck, soon followed Carpini, and he too wrote an account of his travels.[13] In combination, these works provided detailed descriptions of the character of the Mongols, their beliefs and ways of life, and other cultural practices. Marco Polo, perhaps the most famous late medieval traveller, also operated within the commercial world of the Mediterranean. His father and uncle were traders in Constantinople and before Marco's famous journey to Cathay (China), they had attempted to venture east to find what lay at the end of the Silk Road. Polo's travel narrative was not only widely disseminated but was important to late medieval Europeans because he describes in great detail Chinese cities and their trades, and compares them with European cities so readers could conceptualize the scale and richness of China.[14]

The potentially violent nature of the sea, however, was never far away from the minds of mariners or the communities that faced or interacted with the sea. In medieval England, for example, churches often featured images of ships as a votive device. Some of these images depicted Noah and the flood, but many reflected the importance of the sea to local communities. Ian Friel, for example, has pointed out that Haddon Hall in Derbyshire, located 50 miles away from the nearest important estuary, features a wall painted in the 1420s to show St Nicholas calming the sea and rescuing shipwrecked mariners.[15] Most likely, such images were produced to reassure people who might have either already travelled by sea for the purposes of pilgrimage or were considering such a journey. Medieval ship-naming practices generally favoured the use of saints' names, no doubt intended to ease the minds of seafarers who looked to divine protection as they voyaged.

The sea was also important as a marker of national identity. Andrew Lambert argues that only a few places developed into what he calls 'Seapower States',[16] and that

Athens, Carthage, Venice, the United Provinces, and Britain constructed sea power as part of their national identities, not just because of their naval strategy. Sometimes external threats impelled 'Seapower States' to create powerful navies that underpinned the creation of seaborne empires, which then provided the capital to sustain and further develop maritime infrastructure. National culture became infused with images, words, and artefacts borrowed from maritime activities. 'Seapower States', Lambert argues, constantly redefined themselves, usually against other powers; those sea powers that failed to adapt lost their 'sea identity'. Their formation and expansion in early modern Europe represents an important shared narrative in many of the chapters in this book.

The collection is structured as four interlocking parts, 'Historiography and the Premodern Sea', 'Material Seas', 'Social and Political Seas', and 'Cultural Seas'. Some chapters provide an authoritative overview of key topics, providing readers with an understanding of critical debates and terms, and the major shifts in historiography, while others offer new research through in-depth examinations of important topics designed to set agendas for future study. They unite, however, in being written by world-leading experts in their respective fields, including informative bibliographies relating to the topic or theme under discussion, and in communicating their insights in concise but comprehensible language.

Part I: Historiography and the premodern sea

Part I of *The Routledge Companion to Marine and Maritime Worlds, 1400–1800* begins with a number of essays that provide broad overviews of the late medieval and early modern sea, and how seas were understood and experienced. In the collection's opening essay, Susan Rose shows that, in the late medieval period, the sea was vital to English ambitions during a time of dynastic struggles with France. As Rose points out, in 1430, the writer of the *Libelle of Englyshe Polycye* advised English rulers to dominate the sea to ensure the wealth and safety of their subjects, and 40 years later John Fortescue argued that English monarchs ought to keep a powerful navy to guarantee the defence of the realm. Yet, in considering the familiar image of the dangerous and deadly sea, we must be careful not to overlook human intimacy with, and dependence on, the great waters. As Rose emphasizes, in Europe the average distance from the sea of any location is 212 miles, whereas in Asia it is 469 miles and in Africa 419 miles. For many Europeans, encountering the sea and sea travel were regular events. Moreover, although frequently described as a hazardous space where ship-to-ship violence was commonplace, there is evidence to suggest that seafarers of different nations shared cultural traits and language, and possibly a sense of community. Robbery at sea certainly happened, but piracy did not always entail acts of severe violence.[17] Indeed, work undertaken by Craig Lambert has identified over 500 English ports, or coastal and riverine settlements, in this period, which ensured that hundreds of communities remained connected to the sea in a variety of ways.[18] Maritime communities have been the focus of a number of important studies. Kenneth Andrews and Geoffrey Scammell have written extensively on mariners and in doing so have done much to reconstruct seafarers' working lives.[19] Other scholars, such as

Cheryl Fury and David Loades, have examined the social and economic institutions that developed to support mariners, while also showing that seafarers were embedded within their communities rather than itinerant absentee members of society.[20]

Military and ideological struggles led to exploration and conquest in parts of the world that Western Europeans only partially and imperfectly understood from the writings of travellers such as Polo, Carpini, and Rubruck. The struggle against Islamic powers was one of the reasons why Portuguese seafarers started voyaging down the West African coast.[21] In the late Middle Ages, ancient texts preserved by Muslim translators circulated once more in Western Europe. In 1410, Ptolemy's *Geography* was reproduced in Latin. Christopher Columbus drew heavily on Ptolemy's ideas, and because the latter underestimated the size of the earth, it led to a mistaken belief that the distance from Western Europe to China was much shorter than the reality.[22] Lincoln Paine's contribution to this volume contextualizes the European age of expansion and 'discovery' by pointing out that much of what Europeans learned about indigenous societies came from European pens, often written in triumphalist terms. Yet, looking at this from local perspectives Paine argues that, for many Africans and Asians, Europeans were just another sort of outsider that came to their land to trade. Indeed, we should remember that as Columbus set out on his voyage in 1492, sophisticated maritime cultures had been developing and operating around the world for centuries, while others were in the process of formation.[23] By the fifteenth century, other societies, including the Islamic world, were significantly more advanced than Christendom in their knowledge of Asia. In the fourteenth century, Muslim travellers, such as Ibn Battuta, had journeyed over Africa, and Arab traders were active in the Indian Ocean long before the Portuguese arrived.[24]

Nonetheless, European contacts with peoples from Asia and the Americas had disastrous consequences.[25] European diseases spread through indigenous societies at alarming rates, and Portuguese voyages along the West Africa coastline helped lay the foundations for the Atlantic slave trade and plantation system.[26] In the Americas, the Spanish conquistadors established the *encomienda* system, which placed indigenous villages under the control of Spanish settlers who could exact tribute in the form of indentured labour.[27] Many Native Americans had to work in mines or to undertake agricultural labour under appalling conditions. The Spanish Crown made some effort to limit or ban the abuses that the *encomienda* system produced, but the chronic shortage of labour in the wake of massive loss of life to diseases and to exploitation meant the system continued in some form for many years. There were also cultural exchanges as Europeans traversed the globe. Portuguese and Indian artists blended creative styles and traditions; Portuguese seafarers both brought back pieces of decorative furniture from India to Europe and transplanted European material culture to Asia. Indian words enriched European languages, and the colonial and imperial reach of the Portuguese into territories on both sides of the Atlantic enabled them to introduce African styles of music to Brazil.[28]

The technical challenges of navigating the world's oceans loomed large as early modern Europeans encountered alien seas, straits, and ports. Scholarship on the history of navigation and ships' instruments is vigorous, from the pioneering work of E. G. R. Taylor and David Waters to the more recent contributions of Margaret E.

Schotte, including her chapter in this volume.[29] As Alistair S. Maeer's contribution makes clear, however, the rise of national schools of marine cartography influenced the maritime expansion of European powers during this period. The rise of cartographic institutions in Lisbon, Seville, and Amsterdam was followed in the later sixteenth and seventeenth centuries by what Maeer terms the 'Thames School', based in London. This English tradition drew particularly on the example of the Dutch, especially the influential work of Lucas Janszoon Waghenaer, whose *De Spieghel der Zeevaerdt* (1584) Anthony Ashley translated into English as *The Mariner's Mirrour* (1588). *The Mariner's Mirrour*, whose title still graces the Society for Nautical Research's quarterly academic journal, would become a central text in English cartographic history. The Thames School that emerged in the 1590s brought together expertise from private merchant companies, unlike the nationalized academies of Spain and Portugal. Designed for practical and mercantile purposes, English charts demonstrated the consequences of a significantly private development of cartographic expertise.

While oceans were often portrayed as dangerous and mysterious places, being able to exploit the sea was fundamental for most states that faced them. Seas provided food, they enabled communities to connect, they permitted states to project power, and access to oceans facilitated trade. Moving goods by water in this period was far cheaper than transporting commodities by land, and overland journeys could be just as dangerous as sea travel.[30] Overland trade also played an important role in the economic life of most states, as many port towns were connected to large hinterlands by networks of traders.[31] Yet even ports like Southampton, which had a large overland trade system, shipped most of their goods by volume by sea. Most research on England's maritime trade between 1400–1800 focuses on overseas commerce.[32] Before 1565, this focus is to be expected, because only after port books were introduced in 1565 did the Crown start to systematically document coastal trade.[33] Even so, coastal and inland trade are often ignored aspects of commercial activity, even though of central importance to most ports.[34] Where we have evidence of coastal trade, such as the information found in the port books and other English archival records, it is clear that by total voyage numbers it dwarfed overseas trade, although in value it might not have been as important.[35] Gary Paul Baker's contribution to this volume focuses on a detailed assessment of coastal trade in King's Lynn and Plymouth. His examination of King's Lynn reveals how coastal trade was an important dimension to English maritime activity, and his case study of Plymouth shows that English maritime trade had a regional character. King's Lynn was well situated to link with the important trade in commodities, such as Newcastle coal, which formed an essential part of the coasting networks centred on London.[36] On the other hand, Plymouth shippers, along with other West Country merchants, were beginning to exploit the 'Atlantic World' by focusing on overseas trade. Their close proximity to the salt and wine producing areas of France meant that Plymouth shippers focused on those markets.[37]

Coastal trading patterns evident in England were mirrored in the activities of shipping of many other nations. French ports, for example, had complex interconnecting trade systems.[38] When the Portuguese entered the Indian Ocean, they not only found an advanced and intricate system of oceanic maritime commerce, but also a sophisticated coastal trade network that linked cities such as Cochin with Calicut.[39] Rila

Mukherjee's chapter documents this history. Polities that existed inland or upstream connected to wider worlds through large waterways. Even places such as landlocked Yunnan used the shells of sea snails as currency. As Mukherjee argues, the complexity of local and global links that formed around waterways, seas, and oceans has led historians to investigate distinct areas as individual units of trade or cultural exchange. The increasing interest in Atlantic History or Pacific History as sub-disciplines within maritime history demonstrates how historians have started to analyse the connections that existed within defined geographical boundaries shaped by the oceans that particular regions faced.[40] Mukherjee's chapter builds on these theories in order to contextualize global maritime history over distinct periods. Voyages of exploration integrated maritime commercial connections and made them more global in outlook. Mukherjee is careful to remind us, however, that even when global trade systems started to develop, smaller economic connections remained important. Thus, Ottoman trade links in the Indian Ocean coexisted with the Portuguese commercial networks that were also developing in the sixteenth century.

Mukherjee's discussion of the Ottoman trade is important, and it is vital to remember that they were also a Mediterranean maritime power. Ottoman expansion through the Mediterranean enabled the extension of their seaborne trade links. The Ottoman conquest of Egypt in the early sixteenth century, for example, improved their access to the Red Sea and from there to the rich trades of East Africa and India. Prior to the defeat of the Mamluks, the Ottomans had absorbed the Byzantine Empire which ensured they dominated the Black Sea and provided a key element in the trade networks that linked (by sea and land) the Far East with the West. The Portuguese were well aware of the position of the Ottomans in this trade, and their voyages to the Indian Ocean allowed them to cut out Ottoman intermediaries and increase profits. Ottoman expansion was also a concern for Western European states, especially those like Spain that had interests in the Mediterranean. The Battle of Lepanto (1571) reduced the threat from Ottoman maritime expansion but they still posed a naval threat to their rivals.[41] Some Western European states saw advantages in maintaining cordial relationships with the Ottomans. England and France both secured trading rights with the Ottomans, and in 1592 Elizabeth I granted a charter to the Levant Company which gave it rights of trade, and allowed the queen to maintain diplomatic contacts with the sultan; here trade went hand in glove with diplomacy. The Ottoman Empire attracted men such as William Strachey (Secretary of the Virginia Colony in 1609) and George Sandys (Colonial Treasurer of the Virginia Company) which provided them with knowledge of Eastern cultures, which in some ways prepared them for the encounters they would have with indigenous peoples from the New World.[42] Rhoads Murphey's contribution to this volume examines Ottoman naval organization, a subject often ignored in Eurocentric historiography.[43] Rather than an all-powerful centralized empire, Murphey argues that the size and complexity of Ottoman lands meant that controlling them was largely aspirational. Nonetheless, as Murphey demonstrates, the Ottomans had officers that ensured they maintained a strong presence at sea, and that trade networks between various states across Europe continued to function and be subject to regulation. Murphey also analyses first-hand

accounts of Ottomans who sailed the seas to show the experiences of early modern seafarers who sailed the Mediterranean and linked the East with the West.

Part II: Material seas

Part II of *The Routledge Companion to Marine and Maritime Worlds, 1400–1800* focuses on material histories of the sea and seafaring. Isaac Land's chapter aims to examine how ports, as opposed to ships, provided opportunities to display splendour and how they housed inhabitants capable of taking on multiple socio-economic roles. As the first points of entry for merchants or government representatives, ports were often places in which newcomers learned about the customs and protocols of the host nation, and where the latter could display power and pomp. Rulers were often concerned about the disruptive tendencies of port inhabitants and, as Land argues, they became places for social experiments. Ports were also spaces where divergent cultural and religious practices coexisted. Many Asian coastal towns housed mosques next to churches and temples. Yet we should not see port towns as isolated because, as Land demonstrates, there were many similarities of cultural practices between coastal and inland towns, which often existed in symbiotic relationships. Overland trade flowed out of port towns to provide hinterlands with foodstuffs and other goods, and members of maritime communities often invested in property and contributed money to local educational and charitable organizations.[44] Land argues that we ought to apply the concept of the 'paramaritime' much more widely than its original focus on Brittany.[45] In other words, maritime societies are pluralistic and multifaceted, with their inhabitants taking on different roles. Indeed, as Daniel Vickers has shown, most fisher folk also practised farming.[46] Likewise, Leanna Brinkley's research on the shipmasters and merchants of Hull, Southampton, and Bristol provides examples of shipmasters working as innkeepers, while many other maritime workers found additional employment as 'tipplers', a role that involved working in alehouses.[47] In 1593, Robert Lymbery, a mariner from Poole, Dorset, bequeathed a shop to his daughter, Thomasine Rackey, showing that he had developed a wide business portfolio.[48]

Fishing remained of paramount importance across the whole period of 1400 to 1800, and it is likely that the late medieval fishing industry was the largest employer of maritime labour.[49] Women were central to the functioning of maritime and fishing communities, often outnumbering men and playing an important role in the fishing industry.[50] Shelia Sweetinburgh's chapter in this volume shows that, in pre-reformation England, fishing formed an important part of the economic and cultural fabric of coastal communities. Moreover, her case study of the Bedyll family gives an important insight into how those involved in fishing made detailed and careful arrangements to pass on their wealth and equipment down the family to their heirs.

Thorne the Younger's connection to Spain reminds us that, in terms of oceanic exploration and exploitation, Iberian powers dominated European rivals.[51] This period also marks an intellectual expansion across Europe. Starting with the Crusades, Northern Europeans learned about the cultures of the Mediterranean and the Levant. They brought home technological 'discoveries' in the form of improvements

in ship design. There is ample valuable scholarship on the development of shipping technology, but much of it focuses on single geographical areas, cultural approaches to shipbuilding such as those of the Vikings, a single type of ship, or vessels used in specific branches of maritime activity.[52] Richard W. Unger's contribution to this volume builds on this extensive literature in order to place changes in ship construction in global contexts. In so doing, he demonstrates how European ship design melded different shipbuilding practices into full-rigged ships. As Europeans sailed to the Indian Ocean and New World, they adopted the building practices of those regions, including types of ships perfectly evolved for sailing the monsoon seas. As the Portuguese ventured into the Indian Ocean, the vast scale of existing commerce, combined with a need to project power and keep cargoes safe, led to the creation of ever-larger vessels. Ultimately, the need to combine cargo holding with naval power and speed, led to the creation of the galleon, a vessel that became the mainstay of the Spanish and Portuguese seaborne empires. Subsequent newcomers to the Indian Ocean would build on the experiences of the Portuguese to develop even larger and more impressive infrastructure to support the building and repair of shipping. By 1660, for example, the Dutch had largely supplanted the Portuguese in South East Asia by developing substantial shipping networks underpinned by a large and rapid increase in shipping tonnage.[53]

Defence of the nation through using naval power was always something rulers of maritime states had to take seriously. It is no surprise, therefore, to find a wealth of research on naval operations, especially those conducted by England against her European competitors.[54] As John B. Hattendorf argues in his chapter, in the late Middle Ages Northern European states did not really develop navies. English monarchs, for example, relied on the requisition of merchant ships to achieve their naval aims. Nevertheless, medieval England could put to sea fleets of over 700 ships, which would transport armies of over 14,000 troops and tens of thousands of horses.[55] Late medieval Northern European states were proficient in naval operations too. France developed the Clos des Galées, a shipyard that could house, supply, and support the use of galley operations in the Channel, while England created a system of *armatas* (heavily armed fleets comprising oared and sailing vessels) to sweep the Channel and undertake costal raiding.[56] As Hattendorf suggests, however, command of the sea was beyond the capabilities of most late medieval states, although as Rose notes in her chapter, late medieval Venice certainly possessed a sophisticated naval infrastructure that enabled it to establish some form of control over the Eastern Mediterranean. Hattendorf argues that the idea of true naval power links to one key political development between 1480 and the end of the seventeenth century: the development of the fiscal-bureaucratic state that permitted Northern European polities to create naval infrastructure and invest in new gunpowder weapons. These states oversaw a massive increase in naval tonnage from 200,000 in 1570, to 800,000 by 1700.

Simply possessing a suitable vessel did not allow seafarers to exploit and explore the oceans, mariners also needed to be able to find their way at sea. Most coastal shippers would rely on pilotage by using geographical features as markers, and drawing upon their memory of tides and currents.[57] Combined with the use of line and lead to test the depth and check changes in the sea bottom, this technique was sufficient

to get a shipmaster from King's Lynn to Newcastle. Once seafarers began to make longer voyages, however, they needed to use navigation, the art of taking ships from one place to another out of sight of land. The early voyages made by Portuguese mariners down the coast of West Africa, for example, kept close to the shore, but on these expeditions, shipmasters and pilots used instruments to help guide their ships. In the 1450s the Venetian explorer Alvise Cadamosto, working under the patronage of the Portuguese, used instruments. In 1488, when Bartholomew Dias swept out into the Atlantic in an attempt to round the Cape of Good Hope, he needed to be able to chart his position without the aid of visible landmarks.[58] To sail further distances, mariners such as Cadamosto and Dias would have used dead reckoning by taking a record of the speed and direction of their ships at regular intervals, but they would also have used instruments such as the compass, astrolabe, and cross staff which allowed them to measure latitude. Each degree of latitude is approximately 69 miles, and a pilot would use a fixed object to calculate how many degrees latitude they were north or south. Using instruments required a rudimentary knowledge of mathematics. The types of instruments, and how technology was used on ships are key topics, and Schotte's contribution to this volume advances debates on the types of instruments that were available to early modern seafarers. Her focus on the dissemination of publications that taught mariners how to use instruments, and how these books improved the skills and training of seafarers, adds important new dimensions. Schotte demonstrates that as seafarers' literacy rates improved, navigational books were written and published in greater numbers. Mariners used such texts to share existing or new knowledge, and to pass on skills to apprentices. Just as importantly, scholars could now write about different types of instruments from scientific and philosophical viewpoints, ensuring an even wider circulation of their work.

As nation states and polities developed larger navies, underpinned and maintained by bigger and more complex bureaucratic and fiscal systems, rulers used ships to display power and status, as well as projecting splendour and opulence. Historians have taken great interest in the decorative carvings on ships.[59] The best-surviving examples are probably the carvings that adorn the *Vasa* (or *Wasa*) in Sweden.[60] Andy Peters has recently combined his experiences as a skilled artisan with that of an historical researcher to analyse the decorative nature of European ships over the period 1680–1780.[61] Benjamin W. D. Redding's work in this volume builds on this to demonstrate how warships became symbols of power and prestige. Redding contextualizes his arguments within a broad timeframe and geographical scale. He begins by discussing the heraldic paintings that adorned Henry V's ships in the early fifteenth century, before examining European ship decorations from the sixteenth to eighteenth centuries. He also provides enriched biographies of vessels to illustrate the use of ship decoration as proxies for power and prestige. State warships were indeed projectors of power and authority and they were valuable assets. When the Dutch captured the *Royal Charles* in 1667 in the raid on the Medway and sailed the ship home to the United Provinces in triumph, they turned the ship into a tourist attraction and often showed it to foreign dignitaries; England's symbol of pride became a source of embarrassment.[62] Now housed at the Rijksmuseum in Amsterdam, in 2012 the stern piece from the *Royal Charles* was temporarily brought back to Greenwich

after more than 300 years for an exhibition at the National Maritime Museum 'Royal River: Power, Pageantry, and the Thames'.

Part III: Social and political seas

Part III explores social and political dimensions of life at sea. The chapter by Craig Lambert shows that shipmasters played important roles in their localities. Possessing a socio-economic status that placed them firmly in what we would now call the entrepreneurial middle class, shipmasters would often own their vessels, which meant they provided a source of employment for fellow residents, and contributed to the socio-cultural life of the communities in which they lived.[63] The shipmaster John Condy founded a chantry in St Mary's Church in Sandwich in 1345, and acts of piety were a practice that many shippers likely followed.[64] Lambert's case studies of the Swetman and Swanley families show how these entrepreneurial shippers made sure that their ships and wealth were passed down through the generations. Maritime communities were also multifaceted places, with some shippers predominantly focused on coastal trade, while others sailed to overseas markets in search of greater wealth.

Traditional accounts of sea history and seamanship emphasize men at work, both as labouring sailors and as expert practitioners in areas such as navigation, cartography, ship design, or naval warfare. The historical record, however, provides substantial evidence of women within these apparently all-male spheres. As Lisa Norling has demonstrated about a slightly later period in her study *Captain Ahab Had a Wife: New England Women and the Whalefishery, 1720–1870*, the global maritime economy integrated women.[65] Women were on board early modern ships both legitimately and openly, as the wives of officers or as passengers, and in more clandestine or cross-dressed roles. Famous eighteenth-century female pirates such as Anne Bonney and Mary Read might have been exceptional, but other cases of women who cross-dressed and sailed the high seas appear in English records, as Margarette Lincoln's chapter in this volume demonstrates. Female sailors were not the norm, but they were also far from unknown. In seaport towns, when large numbers of men were often away from shore, women were deeply involved in economic and public affairs. As Lincoln details, women often emerged into prominence and even public power when men were absent or lost at sea. The legal system adjusted to the increased power of women, who were often accorded power of attorney to handle family business when men were away.

An area that medieval and early modern law was especially interested in was piracy and privateering, and distinguishing between them. One complicating factor in legal cases was that parties were often from different states, and English common law courts were frequently at odds with the admiralty courts. National laws were commonly unsuitable. Law merchant, a set of customary not codified practices, might be applied, as opposed to law maritime. In many cases, the main legal response to piracy was reprisal. In practice, the authorities often permitted the plaintiff to launch a private action against natives of the community that had attacked or injured them. States also used privateering as a way of waging war by damaging an enemy's commercial activities. Ships would be licensed to attack vessels from perceived enemy nations and

allowed to keep the spoils. A complicating factor in privateering was that shipmasters would take letters of marque from foreign powers, which their home governments might not recognize. As Elaine Murphy's chapter in this volume demonstrates, discriminating between piracies and privateering was not easy. For example, while some English rulers were keen to rid coastal waters of pirates, they were happy to invest in voyages that plundered the ports and shipping of other nations. Privateering had always played a role in the economics of port towns, and governments used it to wage proxy wars, or sent large numbers of ships to the sea to claim prizes from opposing nations in times of war.[66] At other times, colonial ambitions connected to piracy and privateering. Humphrey Gilbert's and Walter Ralegh's attempts to found a colony in North America, under patent granted by Elizabeth I, were party influenced by the fact that this location could provide ideal bases for raids against Spanish overseas territories.[67] Piracy and privateering played important roles in the expansion of English, and more generally European, overseas ambitions. That expansion led to profound changes in both legal practices and cultural representations. In the Indian Ocean, for example, the Portuguese introduced a system of *cartaz*, requiring all ships to carry official passes or they could be seized. Such practices were a new phenomenon in the Indian Ocean. As Claire Jowitt has shown, the figure of the pirate was also increasingly used in English culture to announce the nation's arrival on the global stage, to mark shifting political and commercial alliances, and as a frame through which writers offered veiled critiques of state policy.[68]

Control of the sea, whether imagined or real, combined with the expansion and increasing complexity of maritime trade, encouraged governments to introduce legislation to regulate business conducted at sea. The development of law merchant and law maritime has interested scholars for decades. In the early twentieth century, Reginald Marsden produced a collection of documents chosen to illustrate the legal issues relating to piracy, restitution, and to show how the existing common laws of England were not sufficient to deal with maritime cases.[69] In the 1970s, scholars such as Timothy Runyan began to examine the Northern European law codes known as the Rolls of Oléron by examining how these rules influenced the developing admiralty court.[70] Robin Ward's research focuses on the legal responsibilities of shipmasters through an examination of English Chancery court cases, while also charting the rise of the admiral's court in the fourteenth century.[71] Other scholars have taken a multi-national approach better to understand how law merchant and law maritime developed, usually in response to interstate conflict either in war or through trade.[72] In his chapter in this volume, Richard J. Blakemore expands the analysis to cover a longer period and wider geographical scope to assess the development of law merchant and law maritime. He argues that there were two traditions in Europe: one centred on the Mediterranean, and a different one in Northern Europe. These consisted of written law codes that sought to regulate trade at sea by providing a set of rules for traders to follow but, as Blakemore shows, courts often failed to keep to these procedures. He argues that as European powers started to expand in the sixteenth century, political tensions and rivalries helped to shape the development of national maritime law.

As Europeans undertook longer and more distant voyages, they encountered problems of scurvy and other health related matters. Initially Europeans dealt with these

problems in an *ad hoc* way. Crews on the early voyages by Vasco da Gama to the Indian Ocean would usually replenish supplies through fishing, engaging with indigenous peoples, or hunting.[73] However, voyages could end through shipboard disease due to lack of either crew or threatened mutiny. The work by P. E. H. Hair and J. D. Alsop on voyages to Guinea shows that death was frequent among the crewmembers of those voyages, and while their work focused on shipboard cultures, a shared experience among seamen must have been the constant threat from disease.[74] Fury has previously analysed developments in maritime health care and, in this volume, she focuses on how voyages to the Indian Ocean introduced new problems that demanded new solutions.[75] Fury points out that a voyage from England to the East Indies took some two to three years, and the mortality rates on these early voyages from disease and accidents could be as high as 60 per cent. As Fury argues, the need to protect crews gradually encouraged the East India Company to introduce a health care program by carrying surgeons on voyages and improving diets. Other practices, such as refreshing points, which da Gama had used much earlier, were formally planned in a voyage itinerary. Such practices led to lower mortality rates and ensured that the East India Company found ready volunteers for these arduous voyages.

The early modern expansion of the Iberian states encouraged other nations to follow in their wake. The English voyages to Russia heralded English ambitions to develop deep-sea commerce and find a route to the East. An increasingly outward-looking merchant class funded these voyages. English merchant companies had existed in the late Middle Ages, especially in important ports such as London and Bristol, but over the sixteenth century these companies became larger and more sophisticated. Merchants such as Sir Thomas Gresham of London borrowed methods of banking from Antwerp, which he used to improve investment and borrowing practices.[76] With the creation of the Muscovy Company, and later the East India Company, English merchants developed the practice of joint-stock companies.[77] Investors funded voyages, and each would receive a proportion of the profits made from the voyage, linked to the initial sum invested. Merchants companies such as those forming in large cities such as London soon became central to expansion, and developed complex networks of intermarriage and patronage, which allowed members to control and limit access to them in order to control their monopoly in some overseas trades.[78] Edmond J. Smith's chapter in this volume examines the experiences of English trading companies during an important phase of their development. Focusing on their trading privileges as a way to understand how the merchant members of these companies developed a deep understanding of international markets and how knowledge of trade networks enabled companies to build and supply fleets of ships, companies then used their vessels to project power through control of maritime spaces.

Scholars of the relationship between the Americas and Europe in the early modern period often focus on the impact of New World goods such as tobacco on European markets. Edward McLean Test, in his contribution to this volume, places his attention on the more humble but at the time equally exotic potato. Noting that the potato was associated with sexuality and, in particular, with European ideas about eroticized Native American women, Test explores the cultural symbolism of the potato in historical accounts from the early sixteenth century and from John

Fletcher's seventeenth-century play *The Sea Voyage*. Extending the work of his recent monograph, *Sacred Seeds*, which explores the cultural meanings of tobacco, amaranth, guaiacum, and the prickly pear cactus – all American plants that powerfully influenced early modern European culture – Test's essay evokes a time during which the familiar potato was itself exotic, erotic, and symbolically charged.[79]

Part IV: Cultural seas

The final section of *The Routledge Companion to Marine and Maritime Worlds, 1400–1800* shifts focus from material history to the cultural work of late medieval and early modern oceans and seas. In addition to the material changes produced by transoceanic expansion, the early modern period also saw a transformation in imaginative engagements with marine and maritime environments. Sea travel, and even the underwater world, have been staples of imaginative literature since antiquity, and Greek second-century CE classical texts such as Lucian's *Dialogues of the Sea Gods* and Oppian's *Halieutica* ('Of Fishing') were both popular and influential during the Renaissance. Early modern epics such as Luís Vaz de Camões' *Os Lusíadas* adapted classical forms to early modern subjects, in this case the first voyage of da Gama's fleet from Lisbon to India at the end of the sixteenth century. For poets as well as sailors, transoceanic travel stimulated rapid changes. Europeans' exploration of the Americas, and the pioneering of much faster sea routes between Europe, Africa, and Asia, transformed how Europeans understood their place in the watery globe. The mutual entanglement of new geographic knowledge and the dynamic expansion of literary forms generated a diverse array of texts, interpretations, and ways of understanding the relationship between humans and oceans.

The collection's essays on the imaginative and cultural sides of human experience of the watery globe explore long-term developments in human acculturation to the maritime element. While travel to the Americas and increased economic engagements with Africa and Asia drove radical changes in early modern sea literature, those developments built on a rich foundation of medieval ideas about the sea and maritime travel. Looking more directly at the literary culture of early modern maritime Europe, meaningful changes appear in cultural understandings of heroism and of human agency, and the sorts of characteristics and behaviours required for successful voyaging. The rise in England of the public stage as an important site of secular literary culture shows itself in the changing place of the sea in dramatic culture. Music also served as an important element of maritime culture, both in historical practice and literary reception. Finally, narratives of both historical and fictional shipwreck and maritime disaster provide a micro-generic laboratory in which the changing meanings of the sea and human culture appear writ large. These essays are united in their attention on the radical changes that early modern maritime expansionism generated, as they explore key long-term trends in human responses to, encounters with, and understandings of the sea.

In terms of environmental history, the re-integration of the ecosystems of the Americas and Afro-Eurasia after the voyages of Columbus and many others has a claim to being the most transformative – and arguably the most catastrophic – event

in modern human history. The arrival in the Americas of Afro-Eurasian diseases, bacteria, plants, and animals changed formerly isolated ecological systems. The classic work of environmental history explaining this period of rapid ecological change is Alfred Crosby's *The Columbian Exchange*, and one of the most ambitious recent extensions of this thesis appears in Simon Lewis and Mark Maslin's *The Human Planet*.[80] Both the pioneering environmental historian and the twenty-first-century earth systems scientists build their analyses of the modern global world system atop the rapid expansion of trade and travel in the sixteenth and seventeenth centuries. The maritime globalization that followed the early voyages of Columbus, da Gama, and circumnavigators from Ferdinand Magellan and Juan Sebastián Elcano, to Sir Francis Drake, remade the economies and ecologies of the early modern world.

Beyond the historical realities of life in port towns and at sea, the early modern imagination teemed with examples of oceanic thinking. The past decade in the early modern literary humanities has seen a surge in 'blue' or oceanic criticism that attempts to write a history of the human cultural and physical engagement with oceanic spaces. Two influential collections edited by Bernhard Klein, *Sea-Changes: Historicizing the Ocean* (2003) and *Fictions of the Sea: Critical Perspectives on the Ocean in British Literature and Culture* (2002), and two monographs focused on William Shakespeare, Steve Mentz's *At the Bottom of Shakespeare's Ocean* (2009) and Dan Brayton's *Shakespeare's Ocean* (2012), brought oceanic perspectives to early modern English literary studies.[81] The work of Josiah Blackmore in Portuguese studies, especially *Manifest Perdition: Shipwreck Narrative and the Disruption of Empire* (2002), has also been a major influence on this emerging body of scholarship.[82] More recent studies include Mentz's *Shipwreck Modernity* (2015), Christopher Pye's *The Storm at Sea* (2015), Lowell Duckert's *For All Waters* (2017), and a growing body of work in and beyond premodern literary studies.[83] The surge of interest in oceanic literature and culture promises more scholarship in the offing, including connections with maritime scholarship in Victorian, modernist, and especially post-colonial periods.

While much of the scholarly interest in maritime culture has followed the transoceanic expansion of European cultures during the early modern era, earlier historical periods have attracted interest as well. In many ways, the modern articulation of sea history emerged from Mediterranean studies, in particular the magisterial work of the French *annaliste* historian Fernand Braudel. The combination of micro- and environmental history in *The Mediterranean and the Mediterranean World in the Age of Phillip II* (1949) created a template for later historians and literary analysts. Braudel's model also influenced scholarship exploring medieval Europe's relationship with the sea, in particular Sebastian Sobecki's *The Sea and Medieval English Literature* (2007). Mathew Boyd Goldie, who has also collaborated with Sobecki on a special issue of the journal *Postmedieval* entitled 'Our Sea of Islands' (2016), contributes to this volume by exploring how literary writers understood the emotional impact of proximity to the sea.[84] Treating medieval versions of the 'oceanic feeling' in works by Geoffrey Chaucer, Isidore of Seville, and anonymous works including the *Alliterative Morte Arthure*, Goldie demonstrates that the sea represented dread, fear, and melancholy to many English writers. In the symbolic case of tempests and storms, the ocean also conjures images of disorder and chaos. These negative emotions, however,

also share space with visions of the sea as a site of bliss or the unification of contraries. Goldie's analysis of the multiple meanings of the premodern sea provides a suggestive base from which to consider how these significances did and did not change in later historical periods.

Turning more directly to the early modern period that is this book's primary focus, Dan Brayton's essay on drama and the sea extends his own work on Shakespeare into a larger consideration of 'Jack Tar', the 'blue water mariner' in early modern literature.[85] Contrasting English, Portuguese, and Dutch literary figurations of *homo pelagicus*, or oceanic man, Brayton identifies the ocean-going sailor as a key figure in European literature during this period. From Thomas More's 'vagrant philosopher Raphael Hythlodaeus to Camões' epic portrait of da Gama, literary figures during the sixteenth century arrived in oceanic context. Brayton focuses in particular on the collective image of labouring sailors in Dutch poet Joost Van den Vondel's 'Het Lof der Zeevardt' or 'The Praise of Seafaring'. This international and transnational figure enables Brayton to provide richer context for the (relatively few) sailors found in Shakespeare's works, and it allows him to suggest connections with the rise of sea-fiction in later periods.

The threatening and mobile nature of the marine environment and the technical aspects of maritime work developed into a literary fascination with oceanic exploits. While the full extent of the British Navy's imperial and cultural power was only wholly realized in the eighteenth century, the early modern period saw the elevation of maritime figures such as Drake into national heroes. Building on previous work, *The Culture of Piracy 1580–1630: English Literature and Seaborne Crime* (2010) and *Voyage Drama and Gender Politics 1589–1642: Real and Imagined Worlds* (2003), Jowitt here considers the relationship between figures like the English circumnavigators Drake and Thomas Cavendish and cultural and literary expressions of 'heroic' conduct, from Christopher Marlowe's Tamburlaine to Shakespeare's Macbeth. She also extends her reading of the interplay between historical and literary heroism at sea in a new reading of the sailing ship itself as a national hero, using examples from a variety of art forms including pageant, pictures, and jewellery in her essay in this collection. In parallel with Brayton's notion of Jack Tar as global citizen, Jowitt identifies European, especially English, strains of, and on, the maritime heroic tradition.

As Jowitt's essay suggests, *The Routledge Companion to Marine and Maritime Worlds, 1400–1800* explores creative practices and forms beyond the page and stage with which artists responded to sea exploits. As James Seth outlines in his contribution to this volume, music and maritime labour and practices were intimately intertwined. In addition to ballads and musical theatre with oceanic settings and maritime themes, shipboard music was a tool to focus and intensify human labour. Whistles and songs punctuated shipboard tasks, and the unity of a crew was to an extent made possibly by shared music. While the precise origins of 'shantying' culture is unknown, and much of the better evidence of it survives for the post-1800 period, Seth's account demonstrates that sea-music was an essential element of shipboard life much earlier. Combining explorations of catches, ballads, work songs, and the evidence of professional musicians and performers on early modern ships, Seth's essay traces the evolution and re-invention of music on board ships during this period.

Travelling by sea is a risky business, and the rapid increase in transoceanic travel during the sixteenth and seventeenth centuries generated catastrophic losses. Shipwreck has been a core element in literary narratives since Homer, and when early modern writers and sailors considered their risks and disasters, they often used classical models to understand their situations. Building on his 2015 book *Shipwreck Modernity: Ecologies of Globalization 1550–1719*, Mentz's contribution to the collection surveys recent trends in shipwreck studies through comparative readings of three historical wrecks – the *Sea-Venture* on Bermuda in 1609; the Portuguese great galleon *S. Joao* off southeast Africa in 1552, and Sir Humphrey Gilbert's *Squirrel* in the North Atlantic in 1583. These wrecks appear in dialogue with three literary treatments: the shipwreck that opens Virgil's *Aeneid*, Odysseus' wreck in *The Odyssey* Book VI, and the *Book of Jonah*. Taken together, these six versions of shipwreck display its multiple valences, as disaster, opportunity, revelation, and caution. Mentz's treatment of these multiple historical and literary shipwrecks provides models for critical engagement with a wider variety of materials about disaster at sea.

Oceanic conclusions and future currents of study

The variety and reach of materials and methods contained among these two dozen chapters defy easy summary. Ranging from cartography to poetry and decorative design to naval warfare, across vast temporal spaces and several hundred years of history, the essays provide overlapping frameworks into the current state of research in, and approaches to, maritime history and culture. Essays themselves frequently offer or suggest areas for further research. However, we summarize here some tentative conclusions about the emergent shape of the field. First, once-traditional and often Euro-chauvinistic depictions of the 'conquest' or 'mastery' of the ocean during the early modern period no longer remain critical orthodoxies, as maritime scholarship seeks to challenge these underlying assumptions. No one disputes the massive consequences and accomplishments of European navigators in the era of Columbus, da Gama, and Magellan, but greater awareness of the sophistication, wealth, and maritime expertise in Asia, the Arab world, and the Americas has lessened the once-familiar air of triumphalism. In fact, environmental histories of early modern oceanic expansion tend to replace triumph with tragedy, in that the so-called 'Columbian Exchange' that reintegrated Afro-Eurasia with the Americas led to massive depopulation and death on a global scale.[86] Some earth systems scientists even point to the early modern period as the dawn of the modern Anthropocene, in which humanity first begins to alter the global biosphere in ways with lasting repercussions.[87]

A second major challenge that an ocean-centric perspective provides to traditional historiographical and cultural studies emerges from the ways that sea travel cuts across national and imperial borders. As Atlantic History emerged in dialogue with the increasing importance of the North Atlantic alliance after the Second World War, so global maritime perspectives speak to today's emerging transnational, and perhaps in some ways post-national, perspectives of global capitalism and commerce. Environmental changes, too, suggest urgent needs for a global rather than narrowly nationalistic perspective. Turning to sea history and the cultures of the sea speaks to

these larger intellectual and social projects, and to emergent transnational and intersectional cultures of activism.

As maritime studies continue to grow in the twenty-first century, efforts to speak beyond national borders and against older views of 'mastery' and imperial domination will continue to shape academic discourses. More work is required, and seems very likely to emerge, in Native American, Asian, African, and Polynesian maritime cultures and practices, and in gender and queer studies. As it becomes clearer that the supposedly eternal ocean has changed over planetary and even historical time, histories of the sea are coming into view.[88] These histories tend to be less Eurocentric and often less anthropocentric as well. The long entanglement of human labours and ideas with the alien environment of saltwater has many new stories to impart, and many changes to make to our existing ways of thinking about our histories, our cultures, and our planet.

Notes

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Part I

Historiography and the premodern sea

2

Why the medieval sea mattered

Susan Rose

In a poem written around 1430, *The Libelle of Englyshe Polycye*, the poet exhorts the rulers of England to keep the sea (the usual medieval phrase for defence at sea) both for the wealth brought by trade and for the security of the realm and people. The writer had no doubts that the sea mattered and that a maritime policy was essential for the well-being of the realm:

> Here beginneth the Prologe of the processe of the Libelle of Englyshe polycye, exhortynge alle Englande to kepe the see enviroun and namelye the narowe see, shewynge whate profete commeth thereof and also whate worshype and salvacione to Englande and to alle Englyshe menne.[1]

Was this perception widely accepted by both the rulers and people of England? Were trade and defence the primary areas where in fact the sea mattered? Did other realms share these concerns?

The constraints of geography have an important influence on perceptions of the sea. As Norbert Ohler pointed out in *The Medieval Traveller*, Europe includes far more islands and peninsulas than any other continent; this means that the average distance from the sea of any European location is 212 miles. In Asia, it is 469 miles and in Africa 419 miles.[2] In England, no place is further from the sea than around 71–2 miles depending on how the measurement is calculated. It thus seems best to attempt to understand the importance of the sea to states and rulers in the medieval period in relation to Europe rather than worldwide. Comparing the attitudes of states and rulers bordering the Mediterranean with those of states bordering northern waters, the Channel, the North Sea, and the eastern Atlantic, will also highlight any differences between policies and attitudes in contrasting locations. The wealth of material available makes it fruitful to study the views of English kings and their people on this matter, and to contrast them with those of the Republic of Venice, a state in which the ruling classes would have (in all probability) thoroughly approved of the ideas expressed in the *Libelle*. The Venetian Republic was established in the last days of

the Roman Empire on low-lying islands in the lagoon at the head of the Adriatic as a refuge from the Lombards and other Germanic invaders. This state owed its very existence to the security provided by its surrounding waters. From these early beginnings, it became a prominent merchant city and centre of maritime expertise with interests reaching from the Sea of Azov to the Low Countries.[3]

England's rulers and the sea

Since at least the sixteenth century, the English have considered themselves a maritime people dwelling on an island: the classic expression of this island identity is perhaps that in John of Gaunt's speech in Shakespeare's *Richard II*:

> […] This sceptred isle
> This earth of majesty, this seat of Mars;
> This fortress built by nature for herself
> Against infection and the hand of war;
> This happy breed of men, this little world;
> This precious stone set in the silver sea,
> Which serves it in the office of a wall
> Or as a moat defensive to a house
> Against the envy of less happier lands.[4]

In the popular mind, the supreme English hero is Horatio Nelson, dying in the moment of victory as battle raged on his vessel HMS *Victory*. Sea battles dominate the narrative in most English wars from the late sixteenth until the twentieth century. At no point before the early seventeenth century, however, was England truly an island nation. The land frontier with Scotland ran through frequently disputed territory and was the scene of much violence. The Marches between England and Wales divided lands fully under the sway of the English Crown from areas where English rule was weak and often disputed. As we shall see, English rulers before the sixteenth century had a much more complex relationship with the sea and its role in the successful defence of the realm and the establishment of English prosperity than later monarchs in the heyday of the expansion of the power and the wealth of Great Britain.

At the beginning of the eleventh century, England was ruled as part of a northern empire centred on the North Sea and Baltic. Cnut seized the Crown of England in 1016, and added those of Denmark in 1018 and Norway, including the southernmost counties of Sweden, in 1028. This was the apogee of the power of the Danes or Vikings whose first raid into English territory was that on Portland in 789, followed by the sack of the monastery on Lindisfarne in 793. For more than 200 years afterwards, England and its various rulers had been confronted with a sea-borne enemy from the north. Coastal raids were followed by invasion, settlement, and the eventual emergence of a new Anglo-Danish society. Rulers like Alfred of Wessex raised their own fleets to defend English lands but with limited success. The sea was a source of fear and danger not a 'wall' or a 'moat'. The events of 1066, the successful invasion of Duke William of Normandy, and the destruction of the Anglo-Saxon monarchy, can

be seen as merely the last elements in this continuum. They make particularly clear the role of the sea in the way things unfolded. Harold Godwinson called out the ship service of his thegns against the threatened Norman attack, but was eventually forced to let the fleet disband after many weeks of patrolling, since the crews were not willing to spend any more time away from their lands. The invasion up the Yorkshire Ouse of his rebel brother Tostig and his ally Harold Hardrada of Norway, who had previously been cruising in the North Sea, was defeated on land at Stamford Bridge outside York. Similarly, the forces of William the Conqueror were unchallenged on their crossing from Saint-Valéry-sur-Somme and won a crushing victory at Hastings. The role of the sea as a 'moat' was limited at this early period by the enormous difficulties in finding, intercepting, and fighting an invasion fleet at sea. In effect, it was the highway by which enemies made their approach.[5]

A similar view that travel over the seas for trade was often a highly risky endeavour seems to emerge from the relatively scant evidence surviving from the same period. A manuscript written in the early eleventh century claims that a merchant, who was rich enough to have crossed the open sea three times at his own expense, was entitled to the status of thegn.[6] Clearly, this was not a common achievement. Overseas trade was largely focused on the luxuries listed in the Colloquies of Aelfric, 'silk, precious gems and gold, wine and oil […] sulphur glass and the like'. In the Colloquies, the dangers are also described: the merchant explains,

> I go on board a ship with my wares and go overseas […] And I buy valuable goods […] and bring them you with great danger on the sea and I suffer shipwreck when all my goods are jettisoned and I scarcely avoid death.[7]

The implication is of rare visits to the fairs across the Channel, rather than wider more sustained trade in necessities or staples.

In relation to defence, the period after the conquest shows only a gradual shift in the priorities of the Crown. Despite the fact that there is a popular modern belief that, after 1066, England was seldom threatened by invasions from overseas until the time of Napoleon, for contemporaries the fear of foreign invaders remained and grew after the loss of most of the Norman possessions of the kings of England in the early thirteenth century. At the end of the reign of King John, Louis the Dauphin led an initially very successful incursion into England. Highly destructive French raids on coastal towns from Bristol to Orwell occurred in the fourteenth century, especially in the last years of Edward III's reign. Fears of invasion were especially strong in 1385–6 when the French assembled a fleet of between 900 and 1,200 ships at Sluys manned by between 50,000 and 60,000 mariners and soldiers.[8] England undoubtedly at times felt itself to be vulnerable to attacks from sea-borne enemies against whom defence was difficult.

Warfare, whether against the Welsh princes, the Scots, or the French, was also an increasingly important aspect of English royal policy from the twelfth century onwards. It always had a maritime element. Edward I's castles in Wales were intentionally placed on estuaries or inlets on the coast, such as at Conway or Harlech, so that they could be easily supplied by water, usually from either Bristol or Irish ports. English armies marching into Scottish territory likewise needed to maintain contact with the south,

most easily done by sea, to obtain food, arms, and other necessities.[9] Vessels were arrested by the Crown for all Edward's Scottish campaigns, since bringing supplies overland was both dangerous and difficult due to the nature of the terrain. Berwick was frequently fought over because it was a safe harbour on the somewhat treacherous east coast. On the west coast, ships from as far away as the Cinque Ports were used to support royal expeditions. For example, in 1300 vessels from these towns conveyed siege engines to Caerlaverock castle on the Solway Firth, which was only accessible by water for weapons of this nature.[10] None of Edward's campaigns against the Welsh or the Scots could have gone forward without the significant logistical support of ships called up to the service of the Crown. English kings also needed this support to an even greater extent when contemplating or undertaking any military action in France whether in defence of English territory, particularly in Gascony and other royal lands in southwest France, or when invading the lands of the French king. Well over a hundred expeditions across the Channel, whether to northern France or on the longer route to Bordeaux and its environs, were mounted by the English Crown from the late thirteenth century to the mid-fifteenth century.[11] Men, arms, food, and other supplies were conveyed in this way, as well as grain for the population of the Duchy of Aquitaine. Major expeditions like that prior to the battle of Crécy in 1346 involved large numbers of both ships and men. For the Crécy expedition, 747 English ships from 89 ports in England and Wales, 15 from Bayonne, 14 from Flanders, and nine from elsewhere were arrested to serve the Crown. Very nearly 16,000 mariners operated these ships. These figures are based on the accounts of the Treasurer for War and thus are reasonably reliable. The great majority of the ships and mariners involved were trading vessels, and their crews arrested for temporary service to the Crown; only 25 were royal ships.[12]

Battles at sea were relatively uncommon throughout the period; the defeat of a French fleet bringing reinforcements to the Dauphin's English expedition in 1217 off Dover was exceptional, being fought on the high seas rather than in an estuary or off a port. The news of the victory of the English fleet at the battle of Sluys in 1340 was bruited throughout Europe by the device of placing an image of the victorious Edward III on board his *Cog Thomas* on the obverse of the English gold noble. Edward also circulated his own account of his victory in a letter including the grisly fact that the corpses of 30,000 Frenchmen had been found washed up on the coast of Flanders.[13] At this encounter, and the later one with a Spanish fleet off Winchelsea, the usual collection of merchant ships was stiffened by the presence of small numbers of royal ships.[14] English kings had owned vessels in the past, but Edward III was the first to build up a considerable fleet including a group of ships built at his order with its own administrative system in charge of repairs, victualling, and the payment of crews. Henry V followed Edward's example. From 1410 onwards, Henry created a squadron of royal ships, which included his four 'great ships', designed and built primarily as war ships, the earliest known English examples. The most notable of these was the *Grace Dieu*, probably the largest clinker-built vessel ever constructed, which was intended to challenge carracks (large sailing vessels hired by the French Crown from the Genoese) in battle but which was not in service until after the threat posed by these vessels had passed. The remaining royal vessels included carracks captured from the Genoese and a collection of cogs, barges, and balingers, which differed little, if at all, from those

used in trade.[15] It is not fanciful to regard this squadron as an embryonic royal navy. Its further development was halted by changes in the strategic situation in the Channel and the declining power of the monarchy at home – at Henry's death, France and England were notionally a dual monarchy; later in the century, civil war in England dominated affairs – not by any belief that keeping the sea was unnecessary. Sir John Fortescue made one of the strongest contemporary justifications for the expense of a standing royal navy in 1471:

> [I]t is necessary […] that the king always keeps some great and mighty vessels for the defeat of an army when any shall be made against him upon the sea. For then it shall be too late to have such vessels made.[16]

Fortescue's words might well have influenced Henry VIII's adoption of policies usually seen as the origin of the Royal Navy.[17] In his reign, following on from the initiative of Henry VII to recreate a small squadron of royal ships, the Crown built and operated a substantial number of ships and set up the administration necessary to manage them. This is the navy celebrated in the Antony Roll of which the *Mary Rose* was one of the largest ships.[18] The illustrations in the Roll show the large number of gunpowder weapons carried by these ships utilizing the crucial innovation of the gun port. This allowed for the firing of the broadside, the prime ship-killing weapon of the sailing navy. The developments in rig are also shown, with three to four masts the norm. The three sections of the Roll show 56 vessels in all from great ships like the *Mary Rose* of 700 tons capacity to small 'row barges' of 20 tons.

Medieval English monarchs could not ignore the role of the sea, whether as the route of invaders, or as a moat. The precise understanding of its importance, however, varied as the strategic situation changed. Where did threats originate? What ambitions for expansion did the English monarch have? How secure was the monarch? On another level, there were also practical considerations, which influenced the extent and success of 'sea keeping'. Intelligence about the whereabouts of an enemy fleet was always hard to come by. Even if the collection of an invasion fleet could not be hidden from other seafarers or local people, it was harder for any spy to communicate in time the fact that it had sailed. It is also the case that the round ships, most commonly cogs, which made up the bulk of shipping in English waters by the thirteenth century, lacked a ship-killing weapon. Ships propelled largely by oars were used in northern waters, whether they were the few so-called galleys of Mediterranean design, or the balingers built by English and Breton shipwrights. Ships of this type, however, despite their greater manoeuvrability, were not as seaworthy as cogs in the weather conditions often found in northern waters. They were also more expensive to operate, needing a larger crew and having less cargo space. The boarding actions, which constituted the most common tactic in war at sea at the time, could and did result in the capture of vessels and their cargoes, and the death of mariners. Ships, however, rarely sank in the course of a battle. The most effective method of 'sea keeping' was to send out patrols to deter any enemy from setting sail; if this failed, defence most often became a matter of bitter fighting on shore after the enemy had made landfall. The detailed account of a raid on Poole in 1405 by a combined force of French and Spanish

galleys, commanded by Don Pero Niño, leaves little doubt about the fierceness of the encounters during raids. Casualties were heavy on both sides. Poole itself was destroyed, and the ground was left carpeted with arrows.[19] Not until the second half of the sixteenth century did improvements in ship design and the development of effective gunpowder weapons pave the way for the actions between opposing fleets on the high seas of the seventeenth and later centuries.[20]

There were many petitions in parliament in the late fourteenth and fifteenth centuries demanding better 'sea keeping' from the Crown. The proceeds of the impost on imported goods known as tonnage and poundage regularly granted by parliament to the Crown in the fifteenth century were always said to be intended for the keeping of the seas.[21] As well as clearly hostile actions by naval forces under state control, the issue of sea keeping also related to the vexed issue of commerce raiding or 'piracy'. The degree to which attacks on commercial shipping was an aspect of the general lawlessness of the sea or a policy encouraged to a greater or lesser extent by rulers, a kind of 'privatised' warfare, is disputed.[22] The interests of traders and mariners could be in conflict with those of the Crown but violence at sea was not simply ignored. There were legal avenues through which compensation for losses could be sought, and schemes to deter marauders. In 1442, the Commons put forward a fully worked out and costed scheme detailing precisely the type and number of ships and men required to keep the seas; the cost came to £4568 6s 8d for a force of eight large ships, eight barges, eight balingers, and four pinnaces crewed by 2,260 men at sea for six months.[23] There was little chance of this scheme being implemented, given the state of royal finances at the time, but its existence and acceptance by the Crown gives an indication of how parliament and the Crown took seriously the need for some sort of maritime defence.

The issue of attacks on merchant ships also illustrates the links between seaborne trade and defence. England's oversea trade had expanded greatly throughout this period. Initially, exports were dominated by raw wool, although woollen cloth became the most important commodity by the late fourteenth century. Imports included a wide range of goods varying from luxuries such as wine, to necessities for the expanding cloth industry, largely dyestuffs including woad and the fixative, alum. Virtually all goods entering or leaving England came by sea. Some idea of the number of sea-going vessels available in English ports can be gained from the numbers arrested for royal expeditions. In 1322, 284 ships were arrested for the campaign in Scotland manned by 10,000 mariners; it is estimated that 4,065 individual ships took part in royal expeditions between 1322 and 1360.[24] At a difficult time for the Crown in 1442, 94 ships took the Duke of Somerset's expedition to Gascony.[25] These arrests disrupted trade, as merchants bitterly complained, but are a clear indication that England had a flourishing 'merchant marine'.[26] Most vessels, however, were confined to short voyages across the Channel and North Sea. The only longer voyage frequently undertaken by a good number of ships was that to Bordeaux for wine. Voyages to the north, particularly Iceland, and to the east to the Baltic concerned much smaller numbers of ships. Imported foreign goods found a ready market; the cargo lists of vessels docking in Bishop's Lynn (now King's Lynn) coming largely from ports in the Netherlands in 1322–3 reveal a wide range of goods including stockfish, steel,

timber including masts and spars, fur, wax, pitch, resin, mushrooms, onions, and salt.[27] Ships docking at Southampton in the fifteenth century, including Venetian galleys and Genoese carracks, carried wine but also iron from Spain, fruit, oil, and assorted luxuries. All these goods were widely distributed whether by smaller coasting or river vessels or by carters overland.[28] For the Crown, however, England's overseas trade had become a vital source of finance. Customs dues levied at the ports provided the Crown with a liquid and elastic source of income; no other easily collectable and available source of revenue had the same advantages. If the primary duty of a ruler was to protect and defend the realm and, as in the case of England, a major part of that defence depended on the use of maritime resources, then sea-borne trade had particular importance. The customs system provided much of the necessary finance. The ships and mariners engaged in trade were also the great majority of the ships and mariners needed for defence. The writer of the *Libelle* in many ways put his finger precisely on the principal ways in which the medieval sea mattered to England. Both the profit and the salvation of England were intimately linked to the need to keep the seas; he was even correct in focusing on the narrow sea (the Channel) since this was the route by which the great majority of English trade came, and the one most likely to be followed by any invader. The keeping of the sea was no easy task given the constraints placed on English rulers by technical, financial, and strategic considerations but it was something that could hardly be ignored.

The Republic of Venice: maritime defence and trade

The close bond between the city of Venice and the sea was dramatically symbolized every Ascension Day when the Doge was rowed across the lagoon in his ceremonial barge, the *Bucintoro*, to San Nicolò on the Lido to wed the Adriatic by casting a golden ring into the water.[29] The Republic was faced with the same imperatives as England – trade and defence – but perhaps to an even greater degree. Trade was the lifeblood of the Republic, and the safety of trade and the security of the people depended on keeping the sea. The policies followed by the rulers of the Serenissima were, however, rather different from those of the English Crown, influenced largely by the different nature of the state itself and its origins. For Venetians, the sea and the waters of the lagoon were their first line of defence. Their earliest role was as boatmen only rarely venturing beyond the lagoon and the rivers leading inland. From around 1000 CE, however, the Venetians began to engage in longer distance trade until, by the later fourteenth century, their galleys and round ships traded in ports along the sea-lanes from Tana on the Sea of Azov to Bruges in the Netherlands. The form of government that developed in the city-state that acted as the base for these traders has been described as 'aristocratic'. Its aristocrats, however, all had close connections to trade, which was also the source of the livelihood of the majority of the people.[30] This government was, from the beginning, greatly concerned with the waterways, channels, sandbanks, and tides in the lagoon. Especially important were the 'mouths' at San Nicolò, Chioggia, and Malamocco which separated the protected waters of the lagoon from the open sea. The *Magistrate del Provego* established in 1224 dealt with keeping clear channels and canals in the lagoon and within the city. The Guardians

of the Lidi looked after the 'mouths', replaced in *c.*1407 by the Admiral of the Port, who also dealt with the lighthouses on San Nicolò and at Malamocco, and the highly trained and expert guild of pilots who guided vessels across the lagoon. The whole area of the safe operation of vessels, the responsibilities and rights of the crew, and the equipment needed on different types of ship were also taken into account.[31] Two doges, Giacomo Tiepolo in 1199 and Ranieri Zeno in 1255, wrote codes of maritime law that made this explicit.[32]

As overseas trade became of great importance to the Venetians from the eleventh century, the government of the doges also made strenuous efforts to exert Venetian control over the eastern shores of the Adriatic and to establish trading bases on the all-important route to Constantinople. In 1081, the Venetians supported the Byzantine Empire in its war against the Normans from Sicily by defeating a Norman fleet off Durazzo. The following year, the Golden Bull guaranteed their position in Constantinople as the favoured trading partners of the empire. By the thirteenth century, along the route to the east there were Venetian bases at Zara, Ragusa (Dubrovnik), Modon, and Coron in the Peloponnese, Candia in Crete, and Negroponte on the island of Euboea.[33] Analysis of the importance of Corfu to the security of Venice and the profitability of its trade shows the importance of these bases. Venice lost control of the island for much of the thirteenth century. This left its galleys vulnerable to the depredations of Albanian pirates, made it hard to maintain her control of Ragusa, and also made defence against attacks from the Genoese much more difficult both in the 1340s and in the war of Chioggia in 1378–81.[34] After the fall of Constantinople to the Ottomans in 1453, it was plain that they were the main rival of Venice for the dominance of sea routes in the eastern Mediterranean. The loss of Negroponte to the Turks in 1470 was a clear indication of the dangers faced by the Serenissima. These were made plain in 1499, when one of the largest fleets ever assembled by Venice fought the 'deplorable' (so-called by Venetian commentators) battle of Zonchio against the Turks. Within a matter of months the Venetians had lost control of Modon and Coron the 'twin eyes of the republic', their bases on the Peloponnese, and in 1503 signed a treaty with the Ottomans that led to the loss of control of further cities in this area. The leading statesmen of the Republic were unfortunately at this point, in Lane's words, 'thinking more in terms of territory than of sea power', and the territory was in northern Italy not in the Balkans. Without these bases, Venetian vessels were always vulnerable and their trade open to attack. This apparent turning away from prioritizing the interests of sea-borne trade in favour of closer involvement in the politics of the Italian mainland can be seen as instrumental in the decline of the Serenissima.[35]

In earlier centuries, however, sea-borne trade had been at the heart of Venetian policy. Lane, describing the way Venetian government, the Signoria, worked, wrote, 'the planning body for overseas shipping became the council in charge of foreign affairs. It frankly avowed purpose was to help Venetian merchants make profits'.[36] This body, the Senate, organized and largely controlled the way in which trade was conducted. Cargo carried by the great galleys was treated somewhat differently from that carried in round ships, which were used for bulk cargoes and were not regulated by the state to the same extent as galleys. These were all built to a standard design in the state shipyard, the Arsenale, from the early years of the fourteenth century. The

Republic also took steps to ensure adequate supplies of suitable timber and hemp. Other state-run facilities included the Tana or ropewalk, and communal ovens to bake the *biscotti*, which were an important element in the diet of galleymen.[37] The voyages of the galleys were also tightly controlled. Before 1329, many of the galley convoys sailing to the east were treated as war fleets with both the *capitano* (in charge of the whole enterprise) and the *patroni* (commanders on individual galleys) employed by the Signoria, although there were also less tightly controlled 'private' voyages. The route, stopping places, and handling of the cargo were all decided on by the *capitano*, on orders from the Signoria for communal fleets. After 1329, the position of *patrono* on each galley was auctioned to the highest bidder but the voyage itself was still tightly controlled by the state. The registers of the Senate make clear the scores of detailed orders that were sent to the *capitano* of these fleets.[38] In 1349 in April, for example, the Senate set out how crossbows should be stored on galleys going to Romania (the Byzantine lands); each galley should have 30 good quality cross bows, 15 in the quarters of the merchants and the remainder in the general armoury. Shortly after this direction was issued, all galleys going to Ragusa were ordered to leave immediately (*hac nocte*), even if undermanned, and to seek further crewmembers if needed at Ragusa.[39]

These registers and other sources make clear that as far as Venice was concerned there was no real distinction between trade and defence when it came to maritime matters. Venice lived by sea-borne trade and thus the defence of the Republic was almost coterminous with the defence of trade. The system of armed galleys running on regular routes to a regular schedule was very successful, in terms of both the prosperity of individuals and the state. It was possible to insure cargoes carried on Venetian galleys as early as the fourteenth century, although some merchants thought this was unnecessary, so secure was transport in these ships. At the end of the sixteenth century, insurance premiums of between 3½ per cent and 4 per cent were usual on the route between Venice and Alexandria or Syria.[40]

The Venetian system of sending out convoys of galleys at known times following known routes could, however, have unfortunate consequences in time of war. In 1264, during the first Genoese-Venetian war, the Genoese admiral Grillo trapped Venetian trading vessels bound for the markets of Romania and Oltremare in the narrows of the Adriatic off Durazzo. The protecting fleet of war galleys had been lured away to the south on the assumption that the Genoese were making for Acre. Grillo was able to capture the entire Venetian fleet with the exception of one large round ship, the *Roccafortis*, thus depriving the Venetians of an entire year's trade with their most profitable market.[41] This war, and the conflicts which broke out on four further occasions between 1253 and 1381, all had their origins in the bitter rivalry for the control of sea-borne trade in the Mediterranean between these two maritime city states. These were wars where almost all the fighting took place at sea, consisting either of actions between large fleets of galleys or of the capture of individual trading vessels and their valuable cargoes by sea raiders. The political background to these conflicts might involve the support of land-based allies as was the case in the final conflict in 1378–81, the so-called war of Chioggia, but all were largely defined by events at sea. It can be argued that there was a long history of war at sea in the

Mediterranean; Greeks and Romans had both possessed and used fleets of war galleys. More plausibly, the geography of the region and the pattern of trade in this area in this period, particularly after the success of the First Crusade and the establishment of the states of Oltramare, strongly favoured the use of certain sea routes. Along these routes, there were straits and narrows that provided good opportunities for an ambush of an enemy fleet. Maritime states developed the means and the desire to profit from these routes and were prepared to fight for dominance. Galleys with their large crews and ability to manoeuvre under oars were well suited to the boarding actions usual in these waters as in the Channel. The larger higher sided round ships might be able to flee from an action largely involving galleys but were not so useful in an attack.

While commerce raiding was always prevalent in the Mediterranean, it is also noticeable that the set piece engagements, actions that can rightly be called fleet actions, were much more common in this area than further north. In these engagements, the galley was also the weapon system of choice. They were sufficiently seaworthy to cope with the usual range of weather conditions in this sea. If the weather became very bad, shelter could usually be found in a small nearby port. The large crew served as marines as well as oarsmen. Many would be equipped with crossbows for the initial phase of a boarding action; gunpowder weapons were not prominent before the later sixteenth century. Galleys were also less expensive to build than the large round ships. The Venetian and Genoese fleets fought each other in about 14 actions of this type in around 130 years. The Genoese were also involved in the crushing defeat of the Pisan fleet at Meloria in 1284. It might be argued that in some encounters there was very little actual fighting. In 1266, news reached the Genoese fleet anchored off Trapani in Sicily that the Venetians were only 18 miles away at Messina. The Genoese fleet adopted the classic defence of turning their galleys stern first to the shore and chaining them together. However, the crews were disaffected and had no faith in their commander. As the Venetians came in sight, most of the Genoese crew threw themselves into the sea to escape. The entire squadron of 27 galleys were captured by the Venetians more or less without any attempt at defence, perhaps acting as some slight recompense for the Venetians' own defeat at Durazzo in 1264. Other engagements, however, were bitterly contested. The encounter in the Bosphorus in February 1352 between the Genoese and a combined Venetian, Greek, and Catalan fleet led to heavy casualties on both sides and continued after dark in very poor weather.

It is clear that during the fourteenth century the design of the galleys used in war changed; a third oarsman was added to each bench thus increasing the speed possible under oars for short distances. The size of the fleets also increased, with between 70 to 100 vessels being deployed on each side. At the Bosphorus, the Genoese commander had 60 vessels at his command while Venice and her allies had 89 vessels in total.[42] At Zonchio in 1499, Antonio Grimani, the Venetian commander, had at his disposal a force of 44 light galleys, 12 great galleys, four very large round ships, a further ten smaller round ships, and a miscellaneous group of 26 other vessels, some 96 in all. Another squadron of light galleys commanded by Andrea Loredano, which arrived as battle commenced, reinforced Grimani's fleet. The opposing Ottoman forces were rumoured to number as many as 260 ships, including 60 light galleys, 30 small oared

vessels or *fuste*, three great galleys, two very large round ships, 18 smaller round ships and 127 miscellaneous craft. This engagement was unusual in that the main fighting took place between the very large round ships in each fleet and the outcome was decided by two opposing vessels of this type being engulfed in flames and burned to the waterline. Fury was aroused in Venice when reports arrived that their galleys had refused to obey orders and had not carried the attack to the Ottomans.[43]

It must, however, not be imagined that Venice and Genoa were the only Mediterranean states, before the arrival of the Ottomans, which maintained fleets and were prepared to pursue their objectives largely by war at sea. The Muslim Caliphate newly established in Egypt in the second half of the seventh century mounted two prolonged naval assaults on Constantinople in 673–9 and 717–18. Its forces benefitted from Muslim control of Sicily, Cyprus, and Crete in the ninth and tenth centuries, much as Venice itself benefitted from her similar control of bases in the Adriatic in later years. The activities of corsairs constituted a constant threat to sea-borne trade in the Mediterranean with raiders coming from ports large and small, Christian and Muslim, sometimes acting with at least some sort of sanction from a ruler, sometimes pursuing only personal gain. Genoa pursued an active policy of expanding her trading activities by sea with as much fervour and determination as Venice. She too established trading bases in the eastern Mediterranean, most notably her colony at Constantinople at Pera, across the Golden Horn from the city itself, and at Caffa in the Crimea.[44]

Maritime war in the western Mediterranean

Particularly in the western Mediterranean, rulers were prepared to use war at sea as a very important element in their attempts to extend their domains and conquer other states. This is the case with the rulers of Aragon-Catalonia in the thirteenth century. David Abulafia has questioned whether merchants or monarchs inspired the great success of the kingdom in extending both its territory and its trade in the western Mediterranean, but it was royal policy that seems to have been the defining factor.[45] During the reign of James I of Aragon, in 1229–31, Majorca was conquered from Muslim rulers ensuring the consequent rise of both Barcelona and the city of Majorca as important trading cities. The organization of a war fleet had made the conquest itself possible. This experience and the maritime expertise of the Catalans bore further results in the reign of Peter III, James' son. Peter became embroiled in the struggle for rule over Sicily with Charles of Anjou because Peter's wife, Constance, was the daughter of the last Hohenstaufen ruler of the island. The Aragonese Crown and Charles were already rivals for dominance of the western Mediterranean. In 1282, the Sicilians rose in rebellion against Charles in favour of Constance and Aragon. The ensuing war of the Sicilian Vespers bought to the fore the reliance of both the Angevins and the Aragonese on naval warfare for pursuing their claims to the right to rule Sicily. Both sides built large fleets of galleys. The accounts for the construction of vessels for Charles at Marseille are the earliest detailed accounts for the construction of these ships and provide much useful technical information.[46] The Aragonese fleet was commanded by Roger of Lauria, about whose expertise as a naval commander

remarkable claims have been made, suggesting that he is worthy to rank with both Edward of Woodstock, known as the Black Prince, and Nelson. It is certainly true that he commanded the galleys of the Aragonese Crown during a remarkable series of sea battles between 1283 and 1300. The details of these battles, which vary from chronicle to chronicle, might be uncertain, but some overall conclusions can be drawn. All were fought in sheltered waters near land; the battle of Malta in 1283 was fought inside the Grand Harbour itself, others took place in the Bay of Naples and one off Cape Orlando in Sicily. The battle of Las Hormigas took place off the rocky coast of the Costa Brava not far from Rosas. Lauria's forces were attacking the supply lines of Philip III of France, who had invaded Aragonese territory in support of his uncle, Charles of Anjou. It seems that Lauria was able to engage the French at first light and successfully capture the majority of the French fleet, the remainder either fleeing or being burned. This was quite a feat in the dim light of dawn or possibly even before sunrise off an inhospitable coast.[47] It is notable that these battles were an important element in a bitter struggle for control of the Kingdom of Sicily. In the fourteenth century, having established itself as a maritime power, Aragon either ruled directly or had great influence in not only Aragon-Catalonia itself, but also in Valencia, the Balearic Islands, Corsica, Sardinia, Sicily, and the Duchy of Athens. This collection of territories allowed its traders to dominate major trade routes; from the late thirteenth century, the sea power of Aragon-Catalonia was effectively used as a means of achieving a rapid extension of the realm and its importance in Southern Europe.

Conclusion

This comparison between England and Venice has brought to the fore the ways in which the sea mattered to both states. Other states, particularly on the Mediterranean littoral, had similar attitudes. In the north, after the period of Viking domination, which culminated in the northern empire of Cnut, maritime power and maritime trade were arguably of less concern to the great majority of rulers. We have looked at English attitudes and it is clear that, as might be expected, most trade involved transport by sea, following established short sea routes and showing very little in the way of innovation and experiment until the later fifteenth century. English monarchs were often careful to pay attention to the concerns of the rulers in the major market for English exports, the Netherlands, but paid only intermittent attention to the safety of the passage by sea to these markets. The outcome of Robert Sturmy's disastrous expedition into the Mediterranean in 1457–8 in which he lost his life when attacked by Genoese ships off Malta, perhaps, did not encourage voyages further afield in search of trade.[48] The mysterious Bristol voyages to 'Brasil' in the 1480s clearly had little impact on Crown policy or public opinion.[49] To many people, the chief importance to the Crown of overseas trade was as a ready source of finance in the form of customs duties. The defensive role of the sea was appreciated to some extent, but it was the logistical support to land armies provided by ships that was seen as of most value. The deliberate exploitation of sea power by the Crown was rare and intermittent until more purposeful development becomes evident in the early sixteenth century. The attitudes of other states in the same region were perhaps even less positive. The

fragmented nature of French royal power in much of this period meant that kings did not directly rule much of the Channel coast. This is particularly the case with Brittany, which was home to a strong maritime community but where the ruling duke often followed his own policies, not necessarily in accord with those of his nominal suzerain. Normandy was part of the lands of the English Crown from 1066–1205 and later from 1417–43, as was the Duchy of Aquitaine from 1152 to 1453. Philip IV of France founded a royal shipbuilding yard at Rouen in 1293–5, the *Clos des galées*, which might seem to betoken a sharp change of attitude, but little came of it. This initiative was probably inspired by Louis IX's building of Aigues Mortes, on the small portion of the Mediterranean coastline in control of the French Crown at this time, as a base for war galleys and for the supply of his crusade in 1248. The galleys built at Rouen seem to have followed the design of Mediterranean ships like those built by Philip's cousin Charles of Anjou and were not suited to conditions in northern waters. The French monarchy largely owed any success it had in maritime warfare to vessels hired from Castile or Genoa, something that also serves to emphasize the superiority of southern European states in this aspect of warfare. As far as state control over merchant shipping is concerned, to some extent the Hanseatic League in the Baltic controlled the conditions under which the ships belonging to member states sailed on trading voyages. It was active in frequently blocking the free access of alien trading ships to its ports and perhaps intervened in this aspect of maritime affairs more effectively than any other northern state. Even so, there was nothing closely comparable to the system set up in Venice.

There is, therefore, a considerable amount of evidence to support the contention in this chapter's title; clearly, the sea mattered in medieval times but not to the same degree to all people and states at all times. The maritime city states of the Mediterranean are the supreme example of peoples whose prosperity and existence as independent entities was bound up with their relationship to the sea. As the Council of Rogati in Venice recorded in July 1377, in regard of the galley traffic, when choosing a *capitano* for a convoy '*in hoc pendet salus et vita nostra*' (On this depends our safety and our life).[50] Other larger states in the region might have expressed themselves less forcefully on this subject but were still concerned to maintain and profit from both war and trading fleets. Further north, a sustained interest in maritime matters among rulers was unusual. After the decline of Viking adventuring and raiding, it is fair to say that far more attention was paid to land armies than to ships that could be used in warfare. One reason for this apparent imbalance could be that in the medieval galley, particularly the trireme galley developed in the fourteenth century in the Mediterranean, states and rulers had a weapon well suited to the boarding actions of the day, especially when also carrying the expert crossbowmen or *almugavars* who formed part of the crew of Aragonese vessels. The round ships of the north were less easy to handle in this kind of action, while the oared balingers popular with Bretons as well as English mariners never seem to have been as effective in a fight as the Mediterranean galleys. The attitudes of English monarchs and other rulers in this region to both the provision of a state-run navy and to the expansion of sea-borne trade outside 'home waters' changed in the course of the sixteenth century when the design and handling qualities of sailing ships and skills in navigation improved greatly. Moreover, at much

the same time, a true ship-killing weapon, carried by ships of this type, was developed in the broadside fired by cannon. These developments were the necessary precursors to the growth of interest in the sea as a theatre of war and as the high road to far-flung regions of the globe.

Notes

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3

Rediscovering the age of discovery

Lincoln Paine

Among the most complex issues of early modern history is the nature of the European breakout onto the world ocean and the so-called 'age of discovery'. Assessments of what happened and why, what is meant by words like 'discovery', and even what the era's chronological limits are, change from generation to generation and place to place, and depend in part on who is considering the matter and in what context. A modern dictionary defines 'discover' as 'to notice or learn, especially by making an effort'. Yet the seventeenth-century jurist Hugo Grotius maintained that discovery involved 'actual seizure […] Thus the philologists treat the expressions "to discover" and "to take possession of" as synonymous'.[1] A further difficulty arises from the entanglement of the motives behind the voyages of discovery, what was actually discovered, and what resulted from Europeans' encounters with the rest of the world. This chapter begins with a discussion of some of the issues that affect how people think about the age of discovery, moves on to a narrative overview of the period from 1400 to 1800, and ends with a consideration of the results.

The age of discovery in context

Most assessments of the age of discovery are coloured by the fact that, in superficial terms, Europeans tend to think of themselves as explorers and the people of the places to which they sailed as the discovered, a binary that gives Europeans agency while denying it to others. At the same time, non-Europeans popularly consider Europeans not just as explorers but exploiters, and conflate the global colonialism of the nineteenth century and later with all that took place before. Implicit in these assumptions is the idea that discovery only counts if one is actively looking for something – that is, that Spanish sailors discovered the Marquesas Islands by sailing to them in 1595, but the Marquesans did not discover the Spanish arriving on their shores. (By this logic, Alexander Fleming's accidental discovery of penicillin was not a discovery.) If we define 'discover' more generally as to become aware of something previously unknown to anyone (like penicillin), we find that, apart from uninhabited, and, for

the most part, uninhabitable islands (with a few notable exceptions) and Antarctica, Europeans went to few places that other people had not already put down deep roots. What they did indisputably discover and systematically exploit for the first time was less tangible but every bit as important, namely the winds and currents that make it possible to cross the oceans with confidence and a degree of regularity.

Binary views of the age of discovery result in part from an evidentiary problem that favours European worldviews. European voyagers and their admirers wrote extensively of their activities, often in triumphalist and deeply parochial terms. Some of the people they encountered had no written tradition of their own, and many of those who did were not inspired to write about the newcomers and their ventures. A number of societies of the Monsoon Seas regarded Europeans as pests ('they crawled like lice on the hide of Asia', in one memorable assessment) and viewed their cargoes in the earliest centuries as uninspired at best, and shoddy at worst.[2] For Asians and East Africans, Europeans were just another in a long string of outsiders who, they likely assumed, would eventually acclimatize to their ways of doing things, just as other interlopers had for hundreds, if not thousands, of years. And while Europeans did effect great change in Africa, the Americas, and Asia, it is clear that, however much they transformed these regions, they were dramatically transformed as well, and the modern world has not been shaped exclusively or even primarily by any one cultural complex like Europe or 'the West'.

Another reason for the many different ways of seeing the age of exploration is that the epochal voyages of the late fifteenth century took people into two distinct worlds. When Christopher Columbus crossed the Atlantic in 1492, in terms of sea trade the Americas were essentially a blank slate. There was no maritime commercial system to speak of, ports did not exist, and the arts of boatbuilding and navigation were nowhere near as sophisticated as those of coastal Eurasia. This gave the Spanish a significant logistical advantage that amplified their undeniable superiority in arms, as did their collective resistance to the Eurasian and African diseases to which previously unexposed Native Americans were catastrophically susceptible. In contrast to this, when Vasco da Gama rounded the Cape of Good Hope in 1497, the Portuguese found themselves in a dynamic, multilateral, and ancient Asian commercial network stretching from southern Africa to the Red Sea and the Persian Gulf in the north, the Spice Islands (Maluku) in the east, and China and Japan in the northeast.

The initial responses to European voyages on the part of the people of coastal Eurasia and Africa seem to have been based on the reasonable assumption that Europeans were motivated chiefly, if not exclusively, by the search for profitable trade. And if we consider why Europeans sailed into the Indian Ocean while Asians did not venture into the Atlantic, it is clear that the bounty of the Monsoon Seas was such that Asians and East Africans had little incentive to sail out of their vast, variegated oecumene into the Atlantic or Pacific Oceans. European merchant-adventurers were eager to promote the potential of newly encountered pockets of wealth and raw materials to satisfy existing demand and develop new markets. At the same time, they were animated by profoundly aggressive ideologies and assumptions, chiefly religious at first, but legal, economic, and political as well. These shaped their expectations of, and responses to, the people they encountered, both east and west.

Despite some ideological continuities (the desire to spread the gospel being one that endured well into the nineteenth century), Europeans' motivations for expansion varied according to when and where they lived. This was the natural result of people becoming acclimatized to the vastly enlarged world that had been revealed to them, and the new experiences and ways of doing things that resulted from this incipient globalization. The Spanish and Portuguese at the end of the sixteenth century, for instance, had a completely different understanding of the world than their forebears had had 100 years before. Within Europe, too, there were marked differences between Iberian Catholics and English and Dutch Protestants, to name only one point of divergence. While Iberian voyagers put to sea animated in large part by a crusader zeal, northern Europeans – chiefly the Dutch, English, and French – were more interested in commercial opportunity and financial returns.

Apart from this consideration of how the passage of time changes people's attitudes is the fact that from the outset there were distinct and competing views about how Europeans should treat the people they encountered. In the most high-profile of the early debates, which took place in 1550–1, Juan Ginés de Sepúlveda argued that because Native Americans were 'deficient in reason, whether because of the region of the heavens, which makes them weak, for the most part; or because of some evil custom, which makes men almost like beasts', they could be warred upon or enslaved.[3] Bartolomé de las Casas, 'apostle of the Indians' and biographer of Columbus, argued vigorously to the contrary. In so doing, he upheld the wishes of Columbus' patron, Isabella of Castile, who had urged her husband and heirs 'not to allow the Indians – neighbors and inhabitants of the said Indies and Terra Firma, won and to be won – to suffer any harm whatsoever to their persons or to their possessions'.[4]

These ideas about how to deal with the people encountered had a dual origin. One was explicitly religious. Portugal's Dom Henrique (Henry 'the Navigator') was motivated by an abiding belief in the medieval concept of just war and an obligation to preach the true faith to heathens and crusade against heretics and Muslims.[5] The crusader ethos had had far greater success in ridding Portugal and Spain of Muslims than in retaking the Holy Land, and Iberians exported an often militant Christianity around the world. In Asia, they fought Muslims and attempted to convert heathens, but apart from the Spanish in the Philippines, they met with little long-term success. Protestants tended to be less zealous about evangelizing non-Europeans. The Dutch famously razed their factory at Hirado when the Japanese took offence to their inscribing *Anno Domini 1639* on the gable stone of one of the buildings, which gave priority to the Christian calendar over the shogunal reign period.[6]

Another aspect of the Columbian voyages that complicates our assessments of the early years of discovery has to do with fifteenth-century Europeans' secular understanding of the *orbis terrarum* ('the whole earth'), which was rooted in a classical 'tripartite geopolitics' that divided the world into cold, temperate, and hot (tropical) zones whose inhabitants had distinct qualities by virtue of where they lived. People of the temperate Mediterranean zone were able to govern; those to their north and south were 'fierce but unwise' and 'wise but tame', respectively, but in either case, fit only to be ruled by temperate people.[7] Likewise, different regions had distinct physical attributes, and the tropics were regarded as especially rich. As Jaume Ferrer

de Blanes advised Columbus, 'all good things come from very hot regions whose inhabitants are black or dark brown; and therefore […] until Your Lordship meets such peoples, You shall fail to find an abundance of such things', including precious metals, spices, and fertile lands.[8] Adherence to this conception of the world, with its roots in Ptolemy and Aristotle, also had implications for the issue of Indian enslavement because, as Sepúlveda argued, people native to the tropics were morally inferior by virtue of where they lived.

In addition to accounting for the endlessly evolving worldviews of those who lived during the age of discovery, as well as those whose claims are excessively grandiose, or who gloss over or ignore faults or failures, or who embellish the truth for propagandistic reasons or out of ignorance, there are more persistent, systemic biases. These result from deep-seated cultural prejudices, some of which can be traced back to claims like Sepúlveda's, others of which stem from long-passed grievances and rivalries. Foremost among the latter is 'the black legend', which holds the Spanish to have been '*uniquely* cruel, bigoted, tyrannical, obscurantist, lazy, fanatical, greedy, and treacherous [and] that Spaniards and Spanish history must be viewed and understood in terms not ordinarily used in describing and interpreting other peoples'.[9] With roots in the religious conflicts between Dutch and English Protestants and Iberian Catholics of the sixteenth century, this chauvinism got a new lease on life in the nineteenth-century United States, thanks to the latter's paternalistic attitudes toward Latin America and its victory in the Spanish-American War, and due to Americans' and Western Europeans' contempt for decades of fascist rule in Spain and Portugal following the Second World War.[10]

Historical change is hardly unique to early modern Europeans, and it takes many forms. For the millennium before their breakout into the Atlantic and beyond, Europeans had been confined to 'a little cape of Asia', while the people of the southern Asian littoral were on the move.[11] Europeans' success in Asia cannot be explained without reference to the fact that maritime trading networks there had fully matured by the fifteenth century, at which time there was a sudden wave of self-containment and detachment from maritime enterprise. What some have interpreted as a long-term cultural stasis on the part of China, Japan, and certain Indian kingdoms was actually an inward swing of a pendulum that has now swung the other way. While these states were all Asian, that is about all they had in common. The timing and reasons for their withdrawal around the start of the age of discovery were different, as were the timing and causes of their re-emergence on the world stage in the nineteenth and twentieth centuries.

Many kingdoms and cultures of maritime Asia had already experienced their own 'ages of discovery', starting with Persian Gulf mariners in the ninth and tenth centuries, who began pioneering routes to Southeast and East Asia, Indian sailors who resumed long-distance voyaging across the Arabian Sea and Bay of Bengal no later than this, and the Chinese. The tradition of Chinese writing about the Nanhai, or South Sea, dates to the Han dynasty around 2,000 years ago, but during the 400 years of the Song and Yuan Dynasties – from 960 to 1368 – Chinese knowledge about maritime Asia grew faster than at any time before or since.[12] The growth in sea trade during the Song Dynasty had been a catalyst for the systematic acquisition and

description of geographic and economic knowledge, as exemplified in such works as Zhao Rugua's *Description of Barbarous Peoples* (or *Records of Foreign Nations*, 1225), which includes thumbnail sketches of various parts of Africa, Southwest Asia, and even the Mediterranean.[13]

While China's maritime trade had been growing for hundreds of years, the Southern Song's embrace of overseas commerce in the twelfth and thirteenth centuries was a deliberate effort to compensate for the lack of favourable overland trade. The presence of the Jurchen Jin on their landward flank had forced the Song to relocate their capital to Lin'an (modern Hangzhou), the only time a port city has ever served as the Chinese capital. The Yuan dynasty that followed was able to engage with sea trade because, as Mongols, they had free access to the trade of continental Asia and they were under no threat from their neighbours.[14]

The native Chinese Ming dynasty that succeeded the Yuan in the fourteenth century had no such option, and in 1371 imposed a strict ban on overseas trade (*haijin*) so that they could turn their undivided attention to their vulnerable continental borders. This was reversed at the start of the fifteenth century, when seven state-sponsored fleets under Zheng He sailed into the Indian Ocean between 1405 and 1433. Far from discovering new sea routes, however, these voyages simply capitalized on the knowledge gained over the course of several centuries of long-distance maritime exchange.[15] This outward-looking period ended abruptly when the emperor closed Chinese ports to foreign trade, a prohibition that lasted until 1567. If this withdrawal from sea trade isolated the Chinese from overseas influence, the closure of one of the largest markets in the Monsoon Seas must have had a profound if unquantifiable effect on merchants the length of the Asian littoral, and may help account for the success of the Portuguese who, if nothing else, opened a new western market for Asian goods.

A less dramatic withdrawal from the sea took shape on the Indian subcontinent as a conservative strain of Hinduism took hold, particularly among high-caste Indians, who began avoiding overseas travel on religious grounds.[16] Their concern was evidently not over religious proscriptions on seafaring per se, but had to do with the complexity and cost of purification rites one had to undergo after mixing with non-Hindus. But as the presence of Indian communities from Oceania to Africa to the Americas attests, such constraints did not apply to all Hindus or at all times. And an unwillingness to go abroad oneself was no bar to investing in, or profiting from, overseas trade, which many continued to do throughout the period of European discovery.

The last major market to contract in this period was Japan. Although Portuguese and Spanish missionaries made deep inroads in Japan during the sixteenth century, when there were an estimated 300,000 converts to Catholicism, openness to Christianity reversed between the 1580s and 1630s.[17] The shogun Tokugawa Ieyasu instituted a policy of *sakoku* ('closed country', or *kaikin*, 'maritime prohibitions') in 1635, and expelled the last Portuguese in 1639. The *sakoku* edict limited merchants' access to Japan to four ports that catered to traffic with Korea, the Kingdom of Ryukyu, the northern island of Hokkaido, and China, Taiwan, and Dutch Batavia, respectively, and prohibited Japanese from sailing overseas. The punishment for anyone who returned from abroad was death. These laws remained in effect for more than two centuries.[18]

Nor were these contractions limited to Asia. The chronology of Oceanian settlement shows that long-distance voyaging and migration ebbed and flowed in centuries-long cycles. When Europeans reached the Pacific in the sixteenth century, the forces of expansion had been spent for some time, though Polynesians had by no means abandoned the sea or lost the ability to navigate long distances. In the eighteenth century, a member of James Cook's first expedition noted that the Tahitian Tupia could locate scores of remote islands and that journeys of 20 days were not uncommon.[19] Cook took this as evidence that it would be possible to trace the origins of the settlement of Oceania all the way from the East Indies. Such a straightforward understanding by one of the great navigators of his day was later dismissed by theorists who decided that non-Europeans were incapable of such feats, and that people reached all the islands of the Pacific only by 'accidental drift' rather than intentional navigation.[20] Such notions were consistent with views of unsophisticated heathen islanders promulgated by nineteenth-century Western missionaries lumbering under the weight of the 'white man's burden', but Cook's intuition has since been validated by armies of specialists who have considered the matter in depth.

The age of discovery: an overview

The age of discovery began to take shape at the end of the thirteenth century. Genoese merchants began sending 'great galleys' to the Low Countries in 1277, thus inaugurating direct sea trade from Mediterranean ports to northern Europe. Italian merchants' interest in the west accelerated in 1291 with the Mamluk capture of Tyre, the last of the Crusader-held ports in the Levant. Although the growth of trading opportunities in the Black Sea compensated for some of the losses, Italian merchants sought out new opportunities in the west. Shortly after the fall of Tyre, the Genoese brothers Vadino and Ugolino Vivaldi attempted a circumnavigation of Africa starting from the Strait of Gibraltar and then turning south, but many more Genoese found themselves in Portuguese employ.[21] Sailing along the Atlantic coast of Africa, Luso-Genoese expeditions landed in the Canary Islands, about 100 miles off the coast, in the 1330s. In 1344, the pope effectively assigned the islands, which were inhabited by the Guanche people, to the Kingdom of Castile, a decision with far-reaching world-historical implications.[22] Iberian navigators followed the northeast trade winds, which prevail between 5°N and 30°N, to work their way down the coast of Africa. The return home involved them in a search for westerlies (30°N–60°N) that took them out to sea in increasingly broad arcs – the *volta da mar*, or (re)turn of the sea – through the uninhabited archipelagos of Madeira and the Azores, by 1370, and the Cape Verde Islands, by 1460.[23]

The Portuguese age of discovery received its first major boost from Dom Henrique in the fifteenth century, who promoted the exploration of the coast of West Africa partly for its material rewards – gold, slaves, malaguetta pepper, and a previously untapped coastal fishery – and partly as an expression of his dedication to the ideals of crusading and just war, which encompassed a desire to convert unbelievers and the need to combat Muslims and heathens. These ambitions dovetailed

nicely in the effort to establish direct access to these commodities by sea and to deny Muslim-controlled caravans the profits of transporting them north. By the time of Henrique's death, navigators under his auspices had reached Cape Verde, in Senegal, and he had promoted the settlement of Madeira, to which he introduced sugar and grape cultivation, and the Azores.

It would be another decade before the Portuguese rounded the bulge of West Africa to enter the Gulf of Guinea, at which point the idea of rounding Africa to reach India took hold.[24] The Portuguese crossed the equator in 1471, reached the Zaire (Congo) River in 1482, and landed at Cape Cross, just north of Walvis Bay, Namibia, in 1485. This new farthest south prompted King João II to send out four expeditions, two by sea and two overland, to determine if reaching the Indian Ocean by sea was feasible and to assess the opportunities for trade there. The most successful of his emissaries was Bartolomeu Dias, who commanded three vessels on a voyage that brought European ships into the Indian Ocean for the first time. On February 3, 1488, Dias landed at Mossel Bay, South Africa, 130 miles east of Cape Agulhas. On his return, he saw the Cape of Good Hope, which João so named in the expectation that the riches of Asia were now in reach.[25]

Domestic problems combined with resistance to the idea of breaking into the trade of the Indian Ocean led to a decade-long suspension of exploratory voyages. The opposition was not unreasonable: no one in Portugal knew the first thing about the Indian Ocean world; the outlay in men and materiel might weaken the kingdom at home; and any success they might enjoy could excite jealous rivals.[26] Whatever the cause, however, the initiative for Atlantic exploration slipped to Spain, where in 1492 Columbus secured backing for a voyage across the Atlantic from Ferdinand of Aragon and Isabella of Castile, fresh from their conquest of the Emirate of Granada, the last Muslim power on the Iberian Peninsula.

Columbus's conception of a westward voyage to Asia – his intended object – is inextricably bound up with the Portuguese and Spanish exploration of the eastern Atlantic and Africa, of which he had personal experience; he also claimed to have sailed north to the British Isles and Iceland. In this respect, he was a creature of his time. Genoese by birth, he had moved to Lisbon in 1476 and found ready employment in Portuguese ships. He also married the daughter of the late governor of Porto Santo in the Madeiras, whose widow gave her son-in-law a trove of her husband's 'instruments, documents, and navigation charts'.[27]

Columbus was not alone in his belief that Asia could be reached by sailing west, an idea first proposed in 1470 by the Florentine geographer and cartographer Paolo dal Pozzo Toscanelli. Both men grossly underestimated the distances involved; and while medieval lore posited the existence of islands called Antilia somewhere in the Atlantic, no one had any inkling that a continental landmass lay between the eastern and western extremes of Eurasia. Between the mid-1480s and 1492, Columbus travelled from court to court to solicit support for a westward voyage variously from João II and later from Isabella and Ferdinand. João declined, likely because the southward voyages showed such promise; so did Isabella and Ferdinand, then preoccupied with ridding Spain of Muslim rule. The latter changed their minds after the fall of Granada and having been convinced that though the cost of a failed expedition would be

relatively slight, regaining the initiative would be difficult if someone else found a westward route first.[28]

In command of three ships, Columbus sailed from southern Spain for the Canary Islands, which were so well-placed for the start of a westward crossing of the Atlantic in the age of sail that a later Spanish king deemed them 'the most important of my possessions, for they are the straight way and approach to the Indies'.[29] Sailing again on 6 September, Columbus shaped a course somewhat south of west. After 33 days at sea, during which they averaged about 90 miles per day, with a best day's run of 182 miles, the Spanish landed in the Bahamas, which they explored for two weeks before turning south to Cuba on the recommendation of the Taíno people who lived there.[30] Here we see the influence of pre-existing mental frameworks on the course of European exploration, for the Taínos had connections to Cuba and other Caribbean islands, but not with Florida, which is equidistant to the west. As a result, Spanish explorers including Columbus, who made three further voyages, focused on Central and South America, which they penetrated quickly thanks to the networks of communication and trade established by the Aztecs in Mexico, the Maya in Central America, and the Inca in Peru. Vasco Núñez de Balboa crossed the Isthmus of Panama in 1513, becoming the first European to see the Pacific, on whose American shores the Spanish laid out a coastal network of ports from Acapulco, Mexico, to Concepción, Chile.[31]

Spurred in part by Columbus's success, in 1497 João's successor, Manoel I, sent Gama to continue the work of Dias. His four ships stopped in the Cape Verde Islands. From there, they sailed south of the equator where they picked up the southeast trade winds (5°S–30°S) on the first leg of a geographically longer but faster route to the Indian Ocean. Off the bulge of South America (where Pedro Alvares Cabral landed in 1500), they found the Brazil Current which bore them down to the South Atlantic Current and the prevailing westerlies (30°S–60°S). They reached the coast of South Africa north of Cape Town after a passage of 5,200 nautical miles out of sight of land, the longest recorded to that time.[32] From there, the Portuguese worked their way along the coast with stops at Mossel Bay, the mouth of the Zambezi River, the island of Mozambique (where they encountered their first Muslim traders), Mombasa, and Malindi, Kenya. There they hired a Muslim pilot who guided them the 2,600 miles across the Indian Ocean to the southern Indian port of Calicut, which they reached after 21 days.[33]

The accelerating pace of the Portuguese push toward the Indian Ocean is notable. They rounded Cape Bojador, only 770 nautical miles from Tangier, in 1434, and it took seven more years to reach the Gulf of Arguin, about the same distance again. It would be another 30 years before they sailed into the Gulf of Guinea – an average gain of about 53 miles per year over 30 years, but along a more populous and indented coast. Thereafter, however, the pace quickened appreciably. Between 1471 and Dias's arrival in Mossel Bay, they covered another 3,000 miles – about 180 miles per year. When voyaging resumed in 1497, Gama shattered the previous gains completely, adding at least 3,300 miles between Mossel Bay, Malindi, and Calicut in one voyage.

What made this possible is that upon reaching Mozambique, the Portuguese were in the trading world of the Indian Ocean, which merchant sailors had been traversing

for millennia, and it was only a question of learning routes from those already familiar with them. Had the monsoon systems of the Indian Ocean been unknown, the Portuguese would have had to hug the coast of the Arabian Sea until they reached India. The importance of local knowledge is clear enough from what happened on their return. Gama so antagonized and disdained his Indian hosts that he sailed without a pilot and without waiting for a favourable monsoon. As a result, the return passage to Malindi took not three weeks but three months, during which 30 men died.[34]

The Portuguese quickly learned to rely on the monsoons (from the Arabic, *mawsim*, meaning 'season'), which dictated sailing schedules across the Indian Ocean and the waters of eastern Asia: the summer southwest monsoon, which blows toward India, the Bay of Bengal, and Japan, and the winter northeast monsoon, which blows from China and Japan toward the Strait of Malacca, and from South Asia toward Africa. The seasonal variation in wind direction and intensity was more significant than the distances involved, and with favourable winds, sailors readily sailed the 2,000 miles from Aden and southern India or Sri Lanka.[35] The Dutch found an alternative to the monsoons at the start of the seventeenth century, when Hendrik Brouwer discovered the westerlies, or the Roaring Forties. By sailing east from Cape Town for about 2,800 nautical miles before turning northeast for the Sunda Strait, Dutch East India Company ships saved up to six months of sailing time over the monsoon route.[36] The major problem was that because navigators had no practical means of determining longitude at sea until the 1760s, many failed to change course before running into the west coast of Australia, which became the site of several infamous shipwrecks.

In 1511, the Portuguese had reached the Spice Islands of eastern Indonesia and the coast of China, an achievement that prompted the first circumnavigation of the globe. This was initiated by Ferdinand Magellan, who sought and found a sea route to Asia around the tip of South America and crossed the Pacific from east to west in 1521. Once past Cape Horn, Magellan sailed in search of winds that would take him across the Pacific. Notwithstanding sailors' appreciation for the trade wind routes of the North and South Atlantic, they did not yet realize the global pattern of the world's wind systems, which on a worldwide level are fairly predictable. This explains why Magellan seems to have sailed north of the equator rather than searching for the southeast trade winds. His precise route is unknown, but it is believed that he picked up the northeast trades at around 10°N latitude. Antonio Pigafetta's account relates that they saw no land for 14 weeks, during which the crew suffered from near starvation and scurvy.[37] This was a disease that had thus far spared most sailors because it only afflicts people after a month without fresh food, which was longer than people were accustomed to sail before the European age of discovery. The search for a cure would last until the nineteenth century.[38]

Following Magellan's death in the Philippines, command of the expedition's two remaining ships fell to Juan Sebastian de Elcano and Gonzalo Gómez de Espinosa. Elcano returned to Spain via Timor and a westerly crossing of the Indian Ocean to the Cape of Good Hope using the southeast trade winds rather than the northeastern monsoon. Meanwhile, Gómez de Espinosa had attempted to return across the Pacific, but when unable to find favourable winds he was forced back to the Spice Islands, where the Portuguese arrested him and his crew. A rescue mission reached the Spice

Islands in 1525, but its surviving crew were imprisoned until 1536. It would take until 1565 before Andrés de Urdaneta, a survivor of the 1525 effort, discovered the westerlies (which blow at the same latitude in the Pacific as they do in the Atlantic) by sailing north of the Philippines to about 39°N before turning east.[39]

Dividing the sea

The avowed reason for Urdaneta's expedition to the Philippines was so that the Spanish could convert the inhabitants to Catholicism, an effort sanctioned by a series of papal bulls that assigned control of all lands inhabited by 'infidels or pagans' and unknown to Europeans to either Portugal or Castile as early as 1344.[40] The division of the Atlantic was confirmed by the bilateral Treaty of Alcáçovas of 1479.[41] Two years after Christopher Columbus first crossed the Atlantic, the Treaty of Tordesillas drew a line 370 leagues west of the Cape Verde Islands and stated that 'all lands […] found and discovered already, or to be found and discovered hereafter […] shall belong to, and remain in the possession of, and pertain forever to' the kings of Portugal (east of the line) and of 'Castile, Aragon, etc.' (west of the line).[42] The 1529 Treaty of Zaragoza attempted to clarify 'the demarcation of the ocean sea' in the western Pacific and assigned the Spice Islands and the Philippines to Portugal. Urdaneta's expedition in 1565 was clearly in violation of this, but Portugal was unable to prevent the Spanish incursion.[43]

Challenges to the church-sanctioned partition of the world into Portuguese and Spanish spheres of influence began in the fifteenth century. In 1497, England's Henry VII issued John Cabot and his son letters patent to sail west and guaranteeing that they 'may conquer, occupy and possess' any territories they found 'which before this time were unknown to all Christians'.[44] As Jacques Cartier prepared for his third voyage to Canada in the 1540s, Francis I rebutted Spanish claims that he was infringing on their territory by arguing that the pope lacked standing to divide the world among secular powers.[45] The argument for such a view was fleshed out more fully by the Dutch jurist Grotius, who in *Mare Liberum* ('The Free Seas'; 1609) maintained that the pope's 'donation' to Portugal had no legal basis, that the sea was a commons open to all people and subject to dominion by none, and that 'it is lawful for any nation to go to any other and to trade with it'.[46] Although he appealed to classical jurists to support his arguments, Grotius can be said to have discovered (or perhaps rediscovered) a legal theory that helped facilitate long-distance international trade and, incidental to that, further geographic discoveries. Indeed, *Mare Liberum* is regarded as a cornerstone of modern international law.

The North Atlantic and the search for the Northwest Passage

While Iberian and Italian sailors were busy breaking the code of the mid-Atlantic and South Atlantic wind systems, merchants and fishermen from Denmark, England, and elsewhere in northern Europe were operating at least as far west as Iceland. Norse Vikings settled there in the ninth century and, in 1000, Norsemen and Icelanders established small enclaves in Greenland, which were abandoned around 1410.[47] There

are suggestions that fishermen might have operated on the eastern fringe of North America in the late fifteenth century, but the first hard evidence for transatlantic voyages in the early modern period dates to Henry VII's commission to John Cabot. That year, Cabot sailed in the late spring, a period of variable winds that makes it possible to sail west at that latitude. Though he might have reached Labrador, his route is unknown and he apparently accomplished little. The next year, one ship turned back and four disappeared, along with Cabot and his crews.[48]

According to Milan's ambassador to England, however, Cabot had reported 'that the sea is covered with fish which are caught not merely with nets but with baskets, a stone being attached to make the basket sink in the water'.[49] Thereafter, fish led the way, and English and Spanish accounts of the 1520s tell of seeing as many as 50 fishing vessels on the Newfoundland coast.[50] Such crowding led to a steady search for new fishing grounds that drew European fishermen ever westward from the Grand Banks south of Newfoundland to Nova Scotia and the Gulf of Maine, which the English began to exploit in the early 1600s.

Apart from fish, the only incentive for sailing that far north was to seek a shortcut to Asia via a Northwest Passage. The French sponsored two expeditions to North America to find a western route to the Pacific. Giovanni Verrazzano sailed along the coast from North Carolina to Newfoundland in 1524, and in the course of three voyages in the following decade, Cartier probed the St Lawrence River as far as Montreal.[51] In the 1570s, the English Martin Frobisher searched for a Northwest Passage with similarly lacklustre results, while one goal of Francis Drake's circumnavigation of 1577–80 was to reconnoitre the Pacific coast of North America for the western outlet of a transcontinental strait. The closest anyone would come to finding a northerly shortcut to the Orient was on the voyage of Robert Bylot and William Baffin, who in 1616 reached the mouth of Lancaster Sound, which ultimately proved to be the eastern entrance to the Northwest Passage. But theirs was the last such voyage for two centuries, although whalers hailing from the Basque country to Denmark and Norway began unlocking the secrets of Arctic navigation around Spitsbergen and Greenland in the seventeenth and eighteenth centuries.[52] Farther south, however, the French, English, Dutch, and others turned their eyes to the exploration and settlement of what would become the United States and Canada.

Discovery in the age of enlightenment

The seventeenth century was a period of consolidation and the incremental extension of European commercial, military, religious, and political hegemony in various far-flung regions. The shape of the world, its continents, islands, and seas, was coming into sharper focus thanks to advances in cartography, astronomy, geography (especially refined methods for determining longitude), and the beginnings of oceanography. At the turn of the eighteenth century, Edmund Halley (of comet fame) commanded three scientific expeditions. The first two, which ranged as far south as 52°S, were intended to determine 'the Nature of the Variation of the Compasse over the whole Earth', and the best method of 'discovering the Longitude at Sea', while in 1701 he spent four months crisscrossing the English Channel to observe

tidal currents and produced the first chart of the channel showing the 'flowing of the Tydes, and setting of the Current'.[53]

Interest in expanding Europeans' geographical knowledge of the world continued through the eighteenth century, with increased attention being paid to the polar regions and the search for a long hypothesized southern continent, Terra Australis. Russia had pushed its eastern border to the Pacific in the early seventeenth century and, in 1648, Semyon Dezhnev led an expedition down the Kolyma River to the Arctic Ocean, around the Chukchi Peninsula and south through the Bering Strait to the mouth of the Anadyr River.[54] The expedition was forgotten, and in the early eighteenth century Peter the Great appointed Vitus Bering to lead an expedition to determine whether northeastern Russia and northwestern America were contiguous or separated by water. Bering transited his eponymous strait in 1728 and visited several of the Aleutian Islands, but died without reaching North America. On the Second Kamchatka Expedition (1741), his second in command, Aleksei Chirikov, reached Cape Prince of Wales (the east side of the strait), Baranof Island in southeast Alaska, and Adak Island in the Aleutians. Promising though these findings were, the Russians lost interest in further exploration of the region for the next 70 years.[55]

In the 1760s, the British began sending out expeditions to search for new lands that would give them a commercial or strategic advantage over their rivals. John Byron made two voyages to the Pacific, on the first of which he ignored his brief to look for a western outlet for the Northwest Passage to sail through the South Pacific, including the Juan Fernández Islands, the Tuamotus, the Tokelaus, and the Marianas. He did not find the Solomon Islands, which had become his primary objective, but if nothing else, Byron's voyage did force the Admiralty to direct its attention to the South Pacific.[56] A subsequent expedition under Samuel Wallis was tasked with finding 'Land or Islands of Great extent […] in the Southern Hemisphere between Cape Horn and New Zeeland […] in Latitudes convenient for Navigation and in Climates adapted to the produce of Commodities useful in Commerce'.[57] Such places did not exist, but Wallis and his men were the first Europeans to visit Tahiti, their idealized descriptions of which had a profound effect not only on the subsequent exploration of the Pacific but on the European imagination as well. Tahiti's location at the heart of Polynesia was important, yet its psychological impact was greater still, 'For Wallis had not merely found a convenient port of call. He had stumbled on a foundation stone of the Romantic movement'.[58]

The English were not alone in their rhapsodic depictions of a Tahitian paradise, which were amplified by the members of an expedition under Louis Antoine de Bougainville, who called there only 10 months after Wallis. Latecomers to Pacific exploration, the French were interested in increasing geographic knowledge, which served their commercial and diplomatic interests, but Bougainville also sailed with a naturalist and an astronomer. In a voyage lasting more than two years, the French added to or corrected countless charts of the Pacific from South America to the Spice Islands, and returned home with more than 3,000 plant and animal specimens.[59] Bougainville's expedition added a completely new dimension to the enterprise of discovery, but his accomplishments – and those of all but a very few others – are overshadowed by those of the Royal Navy's incomparable James Cook.

In the course of three voyages, Cook sailed from the ice fields of Antarctica to the Arctic Ocean. His first expedition (1768–71) included eight naturalists, one of whom wrote:

> No people ever went to sea better fitted out for the purpose of Natural History, nor more elegantly. They have got a fine library of Natural History; they have all sorts of machines for catching and preserving insects; all kinds of nets, trawls, drags and hooks for coral fishing.[60]

The avowed object of this first voyage was to visit Tahiti to observe the transit of Venus, which Halley had recommended at the start of the century as a means of measuring the distance to the Sun. The weather was uncooperative, but after this stop, he opened secret orders to look for Terra Australis. In so doing he circumnavigated New Zealand, which he confirmed was not part of a larger continent, and after being blown off course sailed along the coast of Australia, putting into Botany Bay, which takes its name from the abundance of new plant species gathered there. On his second voyage (1772–5), Cook sailed twice below the Antarctic Circle – his two ships are the first known to have done so – ultimately reaching 71°10′′S, 106°30′W (east of the Palmer Peninsula). While he believed strongly that a continent lay to his south, he did not see Antarctica itself because 'the sea is so pestered with ice that the land is thereby inaccessible'.[61] In the course of his first two voyages, Cook also came across a number of archipelagos previously unknown to Europeans, including the Friendly Islands (Tonga), and the uninhabited South Georgia and South Shetland Islands in the South Atlantic.

The primary object of Cook's third voyage (1776–80) was to take up the quest for the western outlet of the Northwest Passage, which took him to the Pacific Northwest and from there along the coast to the Alaska Peninsula, across the Bering Sea, and through the Bering Strait as far as Icy Cape, Alaska, and west to the Chukchi Peninsula. Sailing south, the British spent six peaceful months in Hawaii before sailing for the Arctic again. Forced to put back after only a few days, Cook was killed in a skirmish that erupted between a shore party and a group of Hawaiians.[62] His successor in command returned to north of Ice Cape, reaching a new farthest north of 71°56′N before abandoning the search for a Northwest Passage, which would go undiscovered until the 1850s and remained untraversed until 1903–6.

The upshot

The European age of discovery left a complex legacy. In some respects, the world was not ready to be integrated. As a result, Native Americans' lack of immunity to diseases introduced from Eurasia and Africa led to a ruinous loss of human life and culture.[63] Clashes between combative ideologies yielded otherwise gratuitous warfare and bloodshed, and, when joined with material greed, to regressive notions of racial supremacy and cultural subordination. Yet the global distribution of lethal pathogens and dogmas was offset by the more salubrious circulation of flora and fauna – the 'Columbian exchange' of plants and animals that brought horses to the Americas, tomatoes to Italy, and sheep to New Zealand.[64] These material goods were

accompanied by the dissemination of language and literature, science and technology, art and music, legal and business practice, and a host of other cultural trappings. If the age of discovery did not give people a common perspective on the globe, it did show that we have a globe in common.

Notes

1 *American Heritage Dictionary*, 5th edn, s.v. 'discovery', and H. Grotius, *Commentary on the Law of Prize and Booty*, ed. M. J. Van Ittersum, Indianapolis: Liberty Fund, p. 306. See also W. E. Washburn, 'The Meaning of "Discovery" in the Fifteenth and Sixteenth Centuries', *American Historical Review* 68/1, 1962, pp. 12–15.
2 L. Blussé and F. Fernández-Armesto, eds, *Shifting Communities and Identity Formation in Early Modern Asia*, Leiden: CNWS, 2003, p. 3.
3 N. Wey Gómez, *The Tropics of Empire: Why Columbus Sailed South to the Indies*, Cambridge: MIT Press, 2008, p. 105.
4 Wey Gómez, *The Tropics of Empire*, p. 101.
5 P. E. Russell, *Prince Henry 'the Navigator': A Life*, New Haven: Yale University Press, 2000, pp. 144, 158, 250.
6 L. Blussé, *Visible Cities: Canton, Nagasaki, and Batavia and the Coming of the Americans*, Cambridge, MA: Harvard University Press, 2008, p. 22.
7 Wey Gómez, *The Tropics of Empire*, p. 70.
8 Wey Gómez, *The Tropics of Empire*, p. 42.
9 P. W. Powell, *Tree of Hate: Propaganda and Prejudices Affecting United States Relations with the Hispanic World*, New York: Basic Books, 1971, p. 11.
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11 'L'Europe deviendra-t-elle ce qu'elle est en réalité, c'est-à-dire: un petit cap du continent asiatique?', in P. Valéry, 'La crise de l'esprit (1919), Deuxième lettre', Chicoutimi, Quebec: Pierre Palpant, 2005, p. 9.
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19 Paine, *The Sea and Civilization*, p. 21.
20 G. Irwin, *The Prehistoric Exploration and Colonisation of the Pacific*, Cambridge: Cambridge University Press, 1992, pp. 16–17.
21 F. Fernández-Armesto, *Before Columbus: Exploration and Colonisation from the Mediterranean to the Atlantic, 1229–1492*. Basingstoke: Macmillan, 1987, pp. 157–8.
22 D. Abulafia, *The Discovery of Mankind: Atlantic Encounters in the Age of Columbus*, New Haven: Yale University Press, 2008, pp. 72–3, and Fernández-Armesto, *Pathfinders*, p. 126.
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24 Russell, *Prince Henry 'the Navigator'*, pp. 121–7.

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31 Morison, *The European Discovery of America: The Southern Voyages*, pp. 200–5.
32 Fernández-Armesto, *Pathfinders*, pp. 177–8.
33 Subrahmanyam, *The Career and Legend of Vasco da Gama*, pp. 121–8.
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36 R. Parthesius, *Dutch Ships in Tropical Waters: The Development of the Dutch East India Company (VOC) Shipping Network in Asia 1595–1660*, Amsterdam: Amsterdam University Press, 2008, p. 114.
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4

The cartography of the sea

Mapping England's 'mastery of the oceans'

Alistair S. Maeer

The so-called early modern 'Age of European Expansion and Empire' heralded momentous changes across the globe that still influence us today. Disparate peoples, cultures, flora, and fauna collided and unleashed a dizzying array of transformative experiences as peoples began to venture beyond their local shorelines and consistently interact with distant lands. This transformation was the product of a new embrace of the sea, one that increasingly led to claims of 'mastery' in the period 1400–1800. This mastery of the seas, and the related rise of commerce and empires, were the products of new maritime communities' abilities to traverse the globe reliably. Maritime communities' innovations in navigation, financial structures, and shipping, were the essential components of early modern European commercial expansionism and imperialism. Specifically, by the seventeenth century, the art of navigation and the act of traversing waterways increasingly became scientific endeavours with the use of charts. As a visual instrument for navigation constructed to depict coastlines, ports of call, and hazards, nautical cartography inherently reflects the willed perceptions of its makers and audience. Accordingly, as visual representations of perceived reality, cartographic sources (maps and charts) offer unrivalled opportunities to assess the evolving conceptions and conventions of peoples of the past. In effect, early modern nautical cartography is as much an embodiment of European mercantile and ministerial interests as it is an artistic and scientific artefact conveying 'mastery' of the sea.

A comparative study of seventeenth-century European nautical cartography reveals that English overseas interests shifted from an emphasis on pragmatic mercantilism to a growing expression of territorial dominion and ambition, eventually emulating established European modalities of imperialism. Studying the evolution of English charting, by contrasting the relatively staid presentation of early seventeenth-century English charts to other contemporaneous European traditions, broadens Alison Games' theory, primarily based on textual sources, of cosmopolitanism as an

expression of pre-Restoration English attitudes.[1] In addition, the study of English charting after the Restoration reveals that such English pragmatism shifted to outright displays of empire on English charts depicting North America and the Indian subcontinent, analogous to other imperial European mapping traditions. Prior to the Restoration, English charts were remarkably unadorned, in effect cosmopolitan artefacts. Embracing commercial opportunism, they lacked any demonstrative symbols, icons, or perceivable representations of superiority, religiosity, or territorial ambition – unlike their European rivals. After the 1660s, however, English charting began to exhibit dominion and empire, thereby mirroring Portuguese, Spanish, and Dutch charts, and highlighting the dawn of English imperialism. An examination of the changes over time in English seventeenth-century charting, shows how nautical cartography makes complex and evolving historical relationships, such as ambitions for 'mastery of the oceans', evident from a distinct vantage point – the surviving instruments of the navigations themselves.

Navigational and spatial relationships gained increasing importance as early modern merchants, mariners, monarchs, and statesmen grappled with commercial and imperial expectations that had expanded across the globe. Contrasting European nautical cartography alongside the maturation of English nautical cartography during the seventeenth century demonstrates the rise of England's empire. As Lisbon, Seville, and Amsterdam were maritime capitals, so too was London the commercial and imperial centre, as well as the epicentre for England's emerging nautical cartographic tradition, the Thames School (1590–1740). The existence of the Thames School reaffirms the pivotal role of London as the nucleus of English overseas expansion, and yet one of the vital components of the city's rise to prominence – its ability to service the maritime community of England as purveyors of charts – has received scant attention by scholars. As London was the mercantile and imperial centre of England from the mid-sixteenth century, its mapmakers were as much the participants in and practitioners of empire as any colonist, sea captain, or socio-political commentator.[2]

To be sure, charts were navigational instruments used in Europe's maritime expansionism, and studying them elucidates the evolution of geographic knowledge. However, charts also illustrate the various attitudes and processes of Europeans' attempts to 'master the sea'. This chapter advances the work of Brian Harley, Dennis Cosgrove, and David Buisseret by applying their scholarship to the history of English charting.[3] In his work, Harley outlined how maps are part of the lexicon of source materials that can more fully conceptualize and enlighten our understanding of the peoples of the past. He notes that the 'cartographer has never been an independent artist, craftsmen, or technician' and their work can reflect any manner of power relations imposed by a 'patron, a state bureaucracy, or the market'.[4] In effect, 'the power of the map, an act of control over the image of the world, is like the power of print in general' since maps not only provide the physical shape of the shared ideas of communities, but they are also the willed reflections by societal elites of imagined communities. Responding to Harley's call to demonstrate how maps could be related 'to the social implications of their varied form and subject matter', Cosgrove in 1992 responded by placing cartography 'in the culture of the sixteenth century [Venetian] Republic' to reveal it as a reflection of Venetian interests.[5] Cosgrove's article chronicles how the '[e]nvironment,

economy, and historical experience' of sixteenth-century Venetian cartography was 'a form of representational discourse' for and about Venetians.[6] Buisseret, in turn, has argued that cartography was part of the political, cultural, and economic milieu of early modern Europe.[7] All three of these scholars provide a theoretical model for arguing the importance of placing nautical cartography within the history of commerce and empire in early modern England. As a manifestation of spatial and conceptual relationships of the community, maps are thus mirrors of the perceived reality of any given period; they can be deconstructed like any other text within their historical framework, in this case as signifiers of English commercial and imperial designs from 1590 to 1720.

Few historians of English navigation, expansionism, and empire have included nautical cartography in their studies. While the groundbreaking maritime studies of E. G. R. Taylor and David Waters focused on the art and growing science of navigation from a mathematical perspective, neither fully addressed the importance of the birth of nautical cartography to English expansionism and empire.[8] Nor were they acquainted with the emergence of the Thames School of English cartographers, the existence of which was not recognized by modern scholars until the 1970s.[9] Similarly, when A. H. W. Robinson wrote about the origins of marine cartography in Britain, he focused on the rise and spread of mapping geographical knowledge, rather than nautical cartography's role in articulating, informing, or reflecting English interests and sensibilities.[10] Furthermore, the work of Ralph Davis, Kenneth Andrews, David Loades, N. A. M. Rodgers, and Jeremy Black does not include the role of charting as a significant feature of England's rise to maritime prominence, mention the Thames School, or deconstruct charts to examine English attitudes.[11] In effect, within the historiography of English maritime, commercial, and imperial histories, the importance of nautical cartography has been neglected. The few scholars who have studied early modern English cartographic history have revealed the evolution of a distinct national nautical cartographic tradition and notable developments in publication efforts, surveying techniques, and institutionalization.[12] Nonetheless, like imperial or maritime studies, recent cartographic scholarship has not analysed developments in mapping as reflections of English commercial or imperial activities, interests, or attitudes.

Institutionalizing nautical cartography

Maritime histories of Portugal, Spain, and the Netherlands provide a useful model for applying cartographic evidence to the study of the development of England's maritime community. The first iterations of European nautical cartography occurred by the early thirteenth century, as written sailing directions of the Mediterranean fused with the concept of orientation as derived from the compass to create portolan charts. Beginning with the *Carte Pisane* (1290), European nautical cartography remained virtually unchanged until the latter sixteenth century when Lucas Waghenaer popularized printed charts, and Edward Wright introduced instructions to create Mercator projections that helped spur further navigational revolutions.[13] By the early seventeenth century, manuscript portolan charts, which had historically been plane charts, were slowly being replaced by printed sea-atlases that included charts that

attempted to account for the curvature of the earth. However, the medieval tradition of portolan charts remained the archetypal standard for nautical cartography in the early modern period, as charts depicted place names of ports at right angles to the coast, included various compass roses, often showed rhumb lines (lines radiating from the centre in the direction of compass points), and were highly decorative in appearance. Alongside and informing portolan charts, Maximus Planudes' rediscovery of Ptolemy's *Geographia* at the end of the thirteenth century helped infuse Renaissance cartographers and explorers with a methodology to plot their exploits reliably and imagine newly refined worlds. By applying meridians and parallels to define the known world, Ptolemy created the basis of co-ordinate mapping; he ensured the scalability of new geographical knowledge and therefore enabled relative positioning beyond the sight of land via the plotting of astronomical observations.[14] Paradoxically, as inventions in maritime technology, namely portolan charts, helped encourage the development of Iberian, Italian, Arab, and Turkish polities in the Mediterranean basin, the transfer of these technologies to the Atlantic states – Portugal, Spain, the Netherlands, and England – in time helped ensure the eclipse of the Mediterranean as the pre-eminent European trading zone.

While the Portuguese were the first to apply this newfound cartographic technology to their overseas exploits, each of the early maritime powers institutionalized their cartographic knowledge during the early modern period, except for the English.[15] The centralized warehousing of cartographic information, and thus the institutionalization of cartographic knowledge, was a result of direct imperial oversight in Portugal and Spain. While few copies of the charts of the Portuguese fifteenth-century discoveries exist today, we know that mariners were required to return their charts to a Crown-sponsored hydrographic repository (*Almazem*) to ensure that master copies of charts could be updated, and to regulate the new cartographic knowledge by centralizing its storage. In 1547, a new office entitled the *cosmografo-mor*, first held by Pedro Nunes, was established to oversee both cartographic knowledge and the teaching of navigation. Spain also institutionalized its cartographic knowledge. In 1503, the Spanish founded the *Casa de la Contratacion*, or 'House of Trade', in Seville to deal with questions concerning the 'Indies'. In 1508, a hydrographic office was established to supervise charts and to produce a continually updated *padrón real*, or general map. The *padrón real* served as the basis for all charts issued to ships and for other purposes, and was overseen and updated by the *pilot-major.* Unfortunately, no official version of the *padrón real* has survived; however, the works of Diego Ribeiro, who came from Portugal but worked in Spain, are considered small-scale versions of the *padrón real*. The Dutch also institutionalized their cartographic endeavours, though under the corporate aegis of the East and West India Companies. Dominated by a series of great cartographic families, Dutch cartography in the seventeenth century represented the pinnacle of style and accuracy in Europe. Other Europeans copied the Dutch mapping style, even as the Dutch remade the earlier Portuguese style as their own. From training to administration, Dutch cartographers instilled a degree of accuracy and beauty that remains inspiring today. Numerous notable cartographers worked during the golden age of Dutch cartography, including Hessel Gerristz (1581–1652) and the Blaeu and Vingboons families. The standardization of knowledge that Dutch

cartographers instituted with their administrative and educational oversight is significant, especially under Gerristz. In the seventeenth century, Dutch mapmakers asserted a near monopolistic influence on nautical cartography in Europe by dominating the publication and dissemination of atlases, maps, and charts. It was not until after the Restoration, with support of Charles II, that English mapmakers and ministers sought to challenge Dutch cartographic dominance by initiating publication efforts, new surveys, and supporting the establishment of the Royal Society and Royal Observatory.[16]

Though they lagged behind their continental contemporaries, the English quickly fashioned a vast network of merchants, mariners, and mapmakers who encompassed the globe during the seventeenth century. During their haltingly expansionistic seventeenth century, the English attempted to 'master the sea' by embracing the visual literacy associated with charts as well as establishing their own charting industry. It is traditionally thought that as an island people, the English were a people primed to venture to distant shores; this is not so.[17] While the Portuguese and Spanish explored and settled distant lands across the oceans, the typical English mariner was a coastal sailor. In fact, the establishment of Trinity House in 1514 by Henry VIII was a direct attempt to help train and improve in-shore navigation techniques for English pilots and sailors. Few English cartographers published charts in the sixteenth century. It was a Dutchman, Lucas Janszoon Waghenaer, who in 1584 published *De Spieghel der Zeevaerdt*, one of the most important artefacts in the history of navigation, and thus invigorated an English cartographic revolution. The *Spieghel der Zeevaerdt* is the first set of printed sailing directions with accompanying sea charts in history. Translated into English as the *Mariner's Mirrour* in 1588 by Anthony Ashley, it quickly helped spread visual literacy to English mariners. Its publication introduced England's coastal and foreign pilots to charts, wherein they were able to *see* the advantages of charts over rutters (written sailing directions).[18] Its success helped create a market for English charts. The Dutch had previously met demand, but eventually they encountered competition from English cartographers living in London along the River Thames.[19] Coupled with the existence of early English cartographers such as William Borough, the publication of the *Mariner's Mirrour* created the necessary ingredients for the English maritime community to develop its last component, a formalized charting tradition of its own.[20] Despite their secondary role in the history of cartography in light of Dutch supremacy, the English did eventually develop their own charting tradition, in part to free themselves from foreign dependence, but primarily to address their own maritime interests. In doing so, English charts began to articulate English perceptions of their ever-increasing role in an expanding world. English merchants and navigators, therefore, instigated the emergence of a modern maritime community to encompass the globe by the end of the sixteenth century.

The Thames School of English nautical cartography

It was not until the seventeenth century, however, that the English developed a nautical cartographic tradition; the Thames School. From 1590–1740, members of the Thames School comprised of a collection of copyists and cartographers who transferred and updated mainly manuscript charts through master–apprentice relationships

facilitated by the Drapers Company.[21] Born out of a close association with English commerce to the Baltic, led by the Muscovy Company, members of the Thames School continued to produce nautical charts reflecting England's commercial and imperial global interests until the early eighteenth century.[22] Embracing the portolan style of marine charting, the Thames School is defined by both the location of most of the chart-makers along the River Thames and the general stylistic similarities of the 41 men associated with it. As the Thames School matured, so did its style and focus. At first oceanic charts were drawn on the plane projection in coloured inks on vellum, with networks of interlocking rhumb lines and compass roses in the portolan style. By the last decades of the seventeenth century, the school gradually shifted into the production of hundreds of pilotage charts for smaller coastal areas, began to use paper as well as vellum, and started to abandon the traditional portolan style. It is no coincidence that the dates of the Thames School match the emergence of England's maritime empire. Consequentially, it is as artefacts of the centre that Thames School charts inherently embody an array of English interests, be it the commercial origins of England's expansion or its imperial turn. Specifically, the Thames School evolved from a functionalism that highlighted mercantilism and began to exude imperialism. Yet, unlike the institutionalization of Portuguese, Spanish, or Dutch charting, neither Thames School charts nor its cartographers were a product of corporate or Crown oversight. For the English, the institutionalization of nautical knowledge only arose at the end of the eighteenth century under the auspices of the Board of Admiralty, Hydrographic Office.[23]

English charts mirror the geographical interests of their clients. For example, England's American mapping interests started in earnest after the establishment of colonies and viable trading. There are six surviving Thames School oceanic charts of the Americas dated before 1670; afterward, there are 98 charts of North America and the Caribbean, many of which are pilotage charts. A similar increase in charts relating to the East also exists among the Thames School charts. Seven oceanic charts and Gabriel Tatton's atlas of 17 pilotage charts survive depicting the East prior to 1670, while well over 350 pilotage charts were created between 1670 and 1715.[24] Of course, many charts have been lost so one cannot rely on statistical analysis, but as charts were handed down it is valid to assume that the surviving charts are reflective of the corpus of Thames School activities. Overall, the temporal distribution of chart production (and subjects) demonstrates that the English mapping trade was propelled by the continuing dramatic growth of the English shipping industry, alongside the emergence of imperialism and colonialism during the seventeenth century.

Statesmen and officials responsible for the creation and oversight of English government policy for the colonies and overseas trade personally collected charts and maps. The prominence of the Thames School chart-makers is evident by the use of their charts and maps by two notable Englishmen, Samuel Pepys and William Blathwayt. Pepys held various Admiralty posts and was a prolific commentator on English leaders and policies. He sought out John Burston's works because he considered him 'the most exact man in what he do[es] in the world of that kind'.[25] Pepys also trusted the work of another known Thames School cartographer, Joel Gascoyne. When serving as the Secretary to the Admiralty, Pepys asked for Gascoyne's advice on

the accuracy of English charts, as well as the reliability and predominance of Dutch charts.[26] Blathwayt, general surveyor and auditor for the Committee of the Lords of Trade and Plantations from 1680 until his death in 1717, also used his position to procure and obtain maps concerning the lands under its jurisdiction. As a member of the Committee, Blathwayt and his colleagues were responsible as 'a fact-finding and advisory body, reporting to the King in Council' on issues regarding the colonial possessions of England.[27] Part of Blathwayt's duties included the direct responsibility for an institutionalized library for the Committee where he oversaw the purchase of maps and atlases. Though few maps remain from the library, Blathwayt kept some of the Committee's maps at home. Consequently, the *Blathwayt Atlas*, a collection of 42 loose-leaf maps in the Blathwayt records, has various cartographical works, ten of which are clearly by Thames School cartographers.[28] As an institution, the Committee of the Lords of Trade and Plantations was one of the attempts made by Charles II to administer his growing realm and it regularly relied on maps to inform policy. Its importance was paramount for colonial dealings for approximately 20 years; in 1696, William of Orange created the Board of Trade, a direct precursor to the Colonial Office, which superseded the authority and influence of the Committee of the Lords of Trade and Plantations.[29] Similarly, the establishment and early development of the Royal Society was concerned with developing navigation, trade, and empire. The behaviour of Blathwayt and Pepys suggests that maps and charts, as they informed English policy, connected maritime growth and colonial interests to the priorities of an expanding nation.[30]

Visual evidence presents the unique opportunity to perceive previous representations of reality. A map or chart, as a graphic expression of perceived reality, offers an important perspective into the conceptions and conventions of the peoples of the past. So too do maps succinctly depict the desires and modalities of peoples. An analysis of the works of the Thames School reveals three inherently interrelated themes: functionalism, mercantilism, and imperialism. By highlighting the unique shift from a merely pragmatic and expedient rendering, or a manifestly cosmopolitan delivery, to an imperialistic depiction of territorial ambitions and dominions, English nautical cartography, as compared alongside contemporaneous European charting, visualizes how a developing 'mastery of the sea' parallels England's evolving global interests.

Deconstructing trade: mapping English commercial pragmatism

Alongside other European mapping traditions, Thames School charts appear rather sober, practical, and business-like. While beautiful to the modern eye, Thames School charts are not as stylized as the highly embellished charts of other European mapping traditions. Unlike many typical European charts of the latter sixteenth and the seventeenth centuries, English charts rarely included illustrative cartouches. On similar Portuguese, Spanish, French, and Dutch charts, insets are often included that depicted heraldic markers, animals, trees, local inhabitants, and villages. These continental mapping traditions also portrayed missionaries, logging, and any number of other European activities and experiences across the globe. In sharp contrast, charts of the Thames School rarely included any ornamentation other than colourful scales

and intricate compass roses. In the early seventeenth century, the primary vehicle of English overseas expansionism was commercial growth, not territorial dominion; naturally then, early Thames School charts are principally expressions of England's expanding overseas trades and functional instruments of mercantilism.

Thames School charts are both anachronistic and evocative. Charts of the Mediterranean produced by Europeans continued the medieval portolan style of nautical cartography longer than charts produced for other parts of the world. As the birthplace of European nautical cartography, Mediterranean shores were the first visual translations of written sailing directions refined by mariners since antiquity; therefore, they were the best-known waters in the world, as the geographic information was well established. Moreover, the Mediterranean remained the heart of European commercial activity until the close of the seventeenth century. Charts of the Mediterranean Sea, therefore, are not only the prototypes of nautical cartography, they are also a settled representation; a control of sorts that can be used to compare the differing mapping traditions of early modern Europeans. The maintenance of this antiquated style suggests the past. As the Mediterranean does not encompass a wide latitudinal shift, a portolan chart – a plane chart – of the Mediterranean remained a highly accurate navigational aid. Thus, representations of the Mediterranean remained unchanged because they were still useful instruments. Effectively, early Thames School charts of the Mediterranean coastlines are identical to their later examples. Yet Thames School charts do not contain the level of ornamentation of other contemporaneous charts, thereby suggesting functionalism. They exhibit a utility of purpose bereft of the vestiges of medieval cosmological symbolism. In this regard, Thames School charts were a utilitarian, or functional, response to a growing English need for a maritime community free of dependence on foreigners.

A comparison between Thames School charts and their counterparts reveals that their differences relate to function over form. One notes, for example, the intricate and highly ornate compass rose on John Burston's 1640 chart of the Mediterranean (Figure 4.1). Covering present-day Tunisia, the compass rose (beside the scrollwork) includes a flowing fleur-de-lis, ample gold leaf, and a level of precision indicating a fine hand.[31] Of course, as on any portolan chart, the place names are at right angles, coastlines are outlined in alternating colours, and the geographic/topographic interior has been neglected. Yet, when compared to similar Mediterranean charts from other mapping traditions, such as Portuguese chart-maker Francesco Oliva's 1603 chart (Figure 4.2), Burston's chart looks restrained.[32] It lacks the numerous heraldic figurines of Oliva's chart, which are emblematic of Portuguese charts. Nor does Burston's chart, or any other Thames School chart of the Mediterranean, depict the palm trees, elephants, and camels of Africa as shown on Oliva's chart. Differences are also apparent on Joan Oliva's circa 1640 chart of the Mediterranean (Figure 4.3).[33] On Joan Oliva's chart, the Temple Mount is shown, as are prominent city views, and heraldic flags depicting the extent of the Ottoman Empire and various significant ports throughout the Mediterranean. Burston's chart, in contrast, appears bare, since it is uncluttered by political and cultural signifiers. Neither the Temple Mount nor other iconic cultural objects appear on Burston's or any other Thames School charts. In contrast to the embellishments on either Joan or Francesco Oliva's charts,

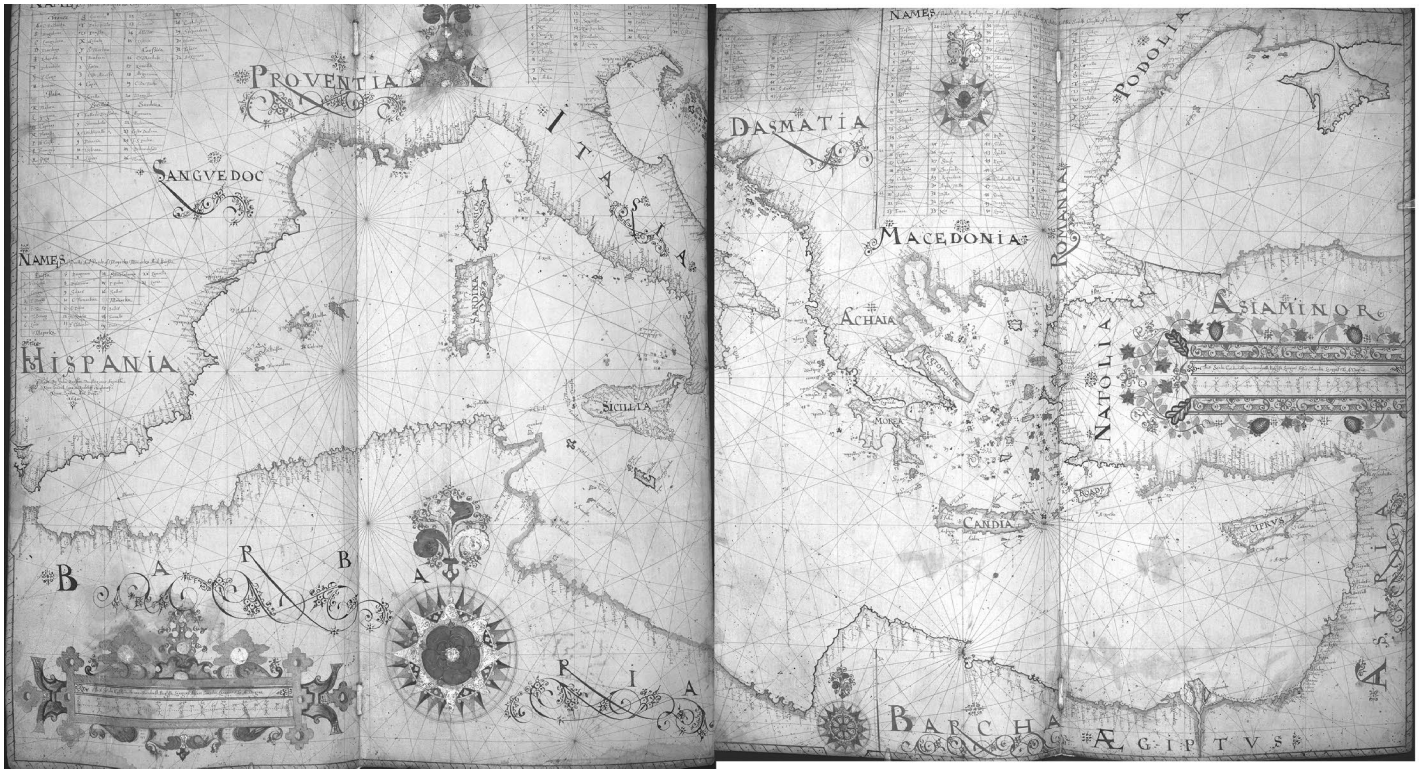

Figure 4.1 John Burston, Western Portion of 'Chart of the Mediterranean (1640)'.
Courtesy of the British Library, BL Add MS 19916

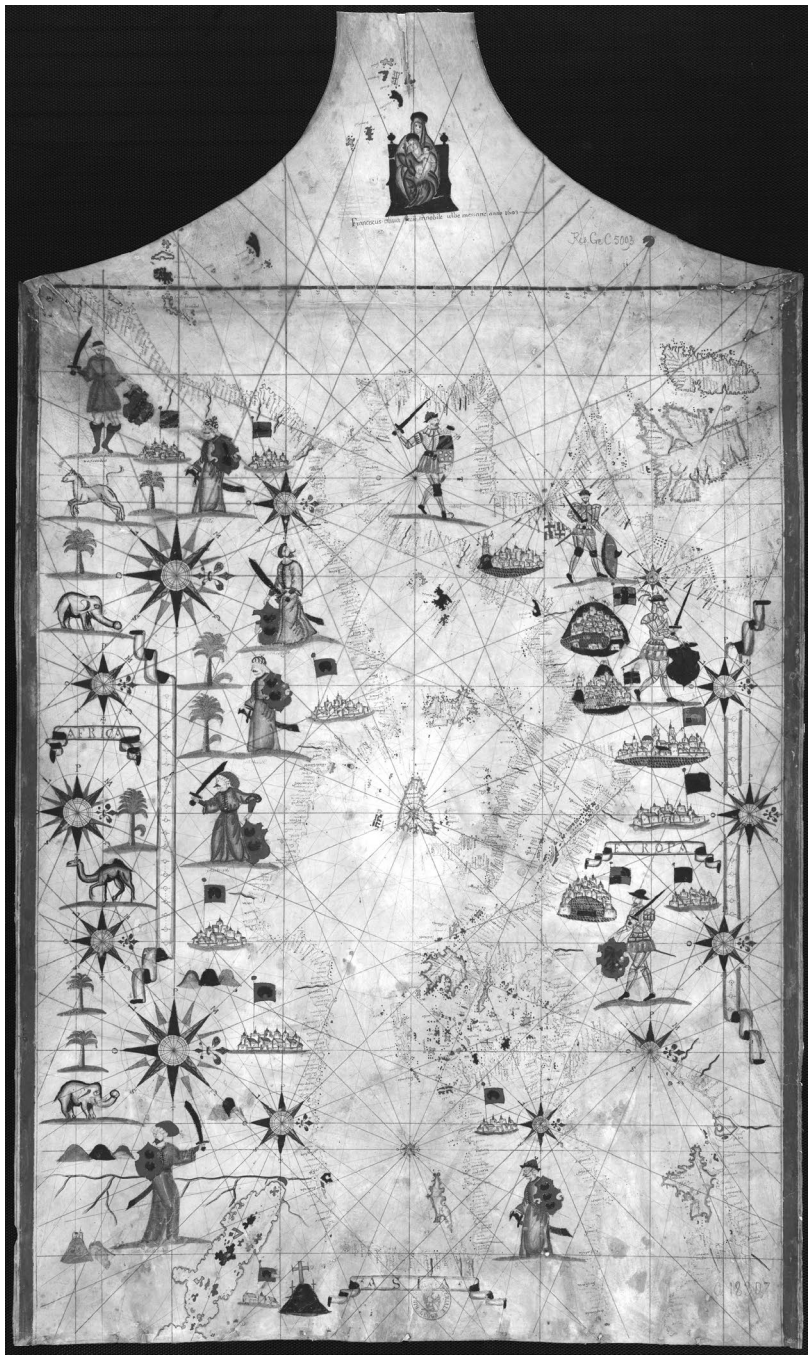

Figure 4.2 Francesco Oliva, 'Chart of the Mediterranean (1603)'.
Courtesy of the Biblioliotheque nationale de France, BnF Rés. Ge C 5093

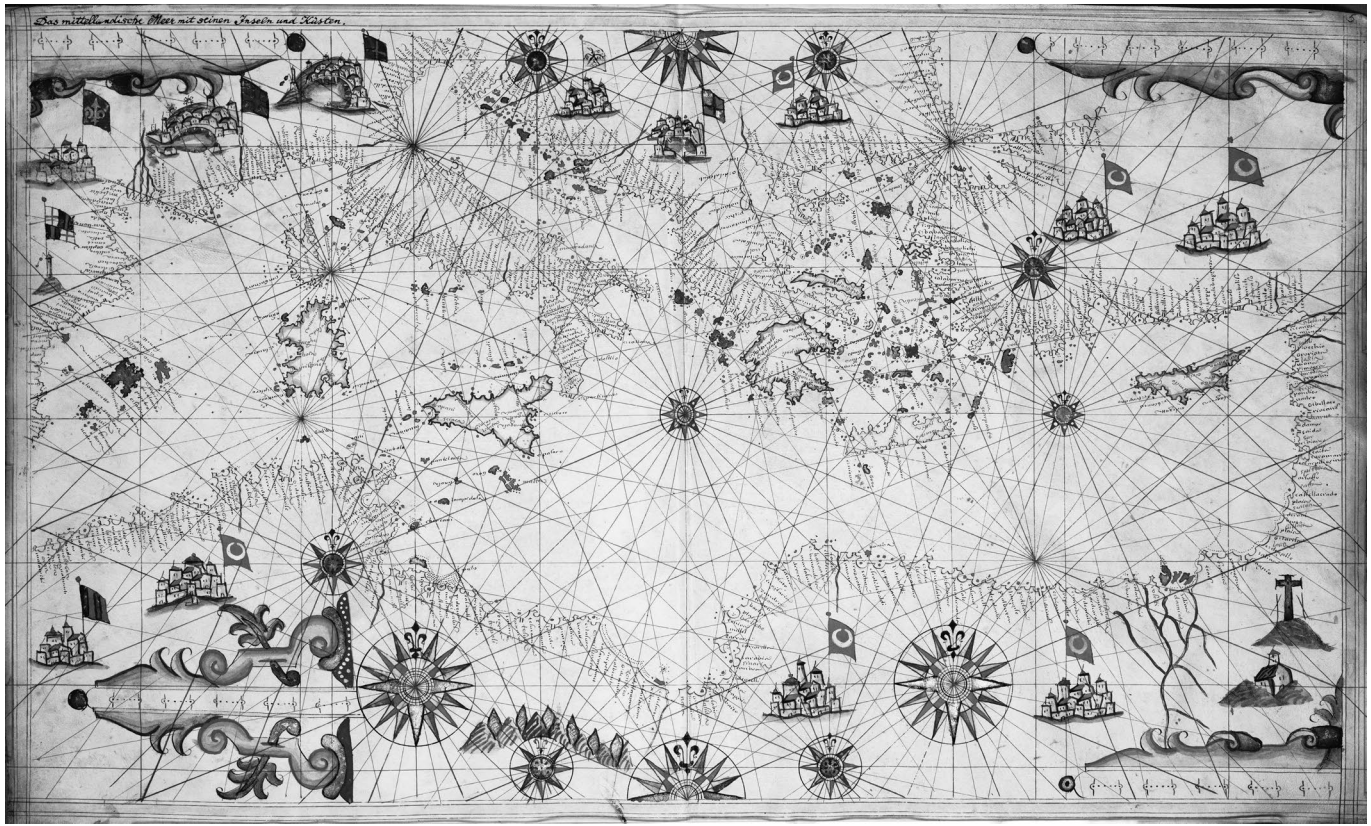

Figure 4.3 Joan Oliva, 'Chart of the Mediterranean (*c.*1640)'.
Courtesy of the National Maritime Museum, Greenwich, NMM P/8/6

Burston's appears crisp, the lines are finer, the script more legible, and the compass roses more elaborate; in effect, Burston's chart seems functional, even business-like, while the others do not. The vast majority of European charts in the portolan style – Portuguese, Spanish, Italian, or French – all share the quality of being highly ornate and easily convey religious and political agendas. What makes the Thames School charts interesting, in part, is that they are both the last manifestation of the European portolan tradition, a tradition full of the artistry of the Renaissance, and yet seem to look to the future by their utilitarian appearance when compared to other contemporaneous charts.

Another instructive comparison can be made between Nicholas Comberford's 1663 chart of the Mediterranean (Figure 4.4) and a 1662 chart by the French cartographer François Ollive (Figure 4.5), two remarkably well preserved manuscript charts. Having mentored six apprentices, including Burston, Comberford was a leading member of the Thames School. His work typifies its crisp, fine lines. The regional names are vividly labelled, an index of noteworthy ports is listed where space has become limited, and bright, elaborate compass roses and scales provide a high level of embellishment.[34] Despite two-and-a-half highly wrought compass roses and two decorative scales, Comberford's chart is comparatively unadorned. It is more an example of first-rate artisanship than an ornamental piece. This distinction becomes abundantly clear in comparison to the highly ornate 1662 chart of the Mediterranean by Ollive, who was based in Marseille.[35] His chart is full of richly detailed ships, sea creatures, and scrollwork. Moreover, Ollive includes four city views of significant Mediterranean ports and even recognizes the importance of Jerusalem by depicting Jesus. This chart is more decorative than functional. Whereas Comberford's chart ignored the interior and did not obstruct its seaways, Ollive's obfuscates the art of navigation by turning the chart into an artistic expression of French mastery.

Upon an initial examination, one could easily believe that surviving Thames School charts were presentation copies kept at home, or master charts that one would refer to rather than use for navigation. However, that inference would be misleading, since it appears that at least two intact charts of the Mediterranean were used at sea. Both John Daniell's 1642 chart and Comberford's 1657 chart possess the prick-marks associated with plotting a course for navigating the Mediterranean.[36] In addition, having found a fragment of vellum hidden as a binding in a journal of the East India Company, Sarah Tyacke has shown that, in fact, sailors used similar Thames School charts to plot their courses.[37] More often, charts such as these were taken to sea and used alongside track charts (plan sheets of paper or parchment with gridlines) that would then be used to affix position in reference to a master chart, thereby preventing unnecessary wear and tear on expensive manuscript charts. Of course, in the well-known waters of the Mediterranean and the Baltic, sailing directions and lore would have been familiar to most navigators; the charts were merely a means to affix relative position. Still, the very nature of the consistent Mediterranean sailing-routes, locales, and trades ensured that the traditional portolan chart remained a viable instrument.

Despite the use of antiquated techniques, early Thames School charts evoke practicality rather than decorative methodologies or demonstrative ideologies. All charts and maps are expressions of the interests of their makers, and perhaps more importantly,

Figure 4.4 Nicholas Comberford, 'Chart of the Mediterranean (1663)'.
Courtesy of the British Library, BL Add MS 26665

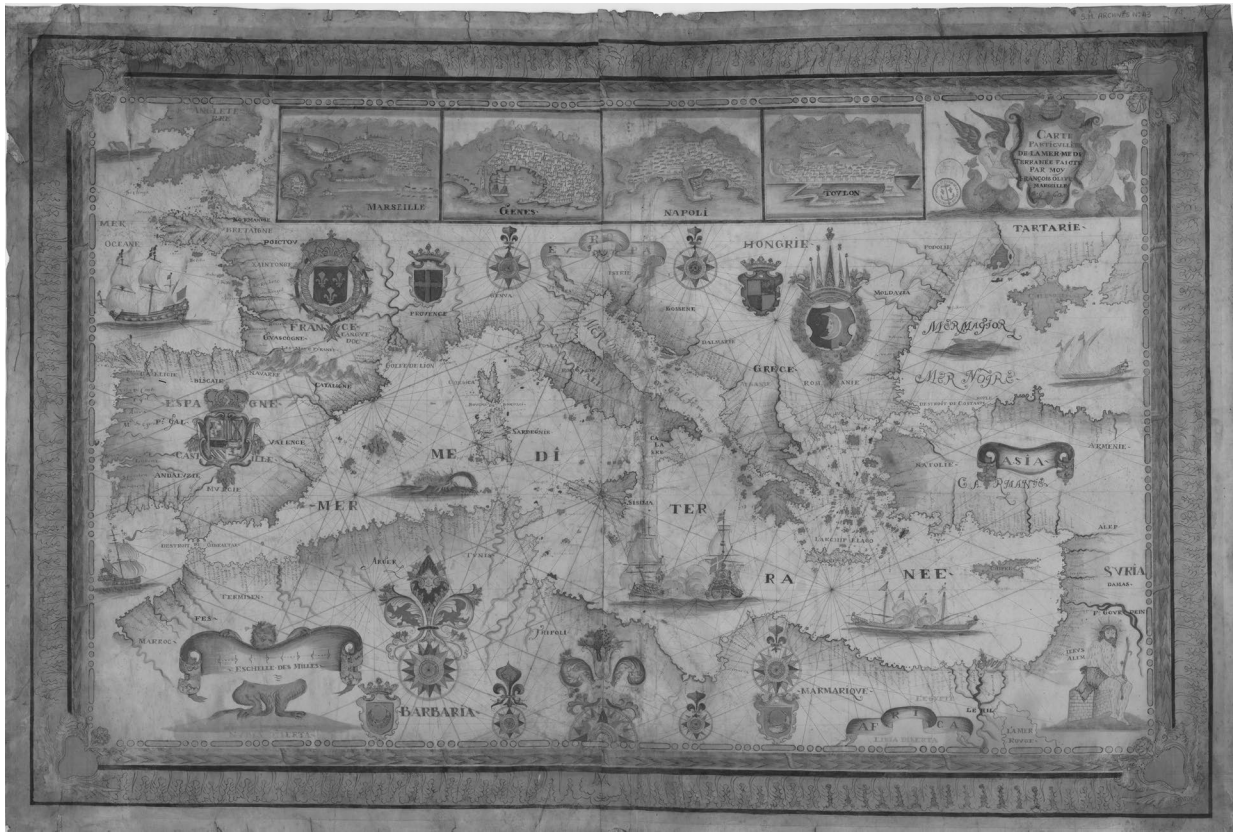

Figure 4.5 François Ollive, 'Chart of the Mediterranean (1662)'.
Courtesy of the Biblioliotheque nationale de France, BnF Ge SH Archives no 43

their clients. Thames School charts do not have overt symbolism – cartouches that portray the Temple Mount or exotic produce, peoples, or places – which easily proclaim the cultural attitudes surrounding the creation and use of the charts. Indeed, the absence of overt imagery and the limited use of cartouches on Thames School charts testifies to a different aesthetic, one that highlights the English maritime community's focus on emerging, vibrant, and expanding trading opportunities rather than other socio-political manifestations. That is, the limited cartouches that do appear on the Thames School charts never conceal the functionality of the documents as navigational instruments. Rather than proclaiming cultural signifiers, the charts of the Mediterranean are indicative of English mercantile pursuits. Comparably, then, in the first half of the seventeenth century, the English maritime community was interested in expanding its shipping concerns rather than asserting a sense of an Anglicization of their achievements. The absence of overt manifestations of English 'mastery' is important. In fact, only after imperial rivalries threatened Atlantic and Asian activities did Thames School charts begin to objectify their holdings as English domain. Prior to the late seventeenth century, English interests are only revealed by collating the typical ports of call to place names on Thames School charts, although the West African coast was delineated by naming the coast for commodities as well. Thames School charts were English, to be sure, Anglicizing place names and providing English instrumentation. Yet, as reflections of English expansion, prior to the latter seventeenth century, they reveal the hesitant nature of proclaiming English dominion in the face of other European rivals.

Deconstructing empire: mapping English dominion

As England's foremost cartographic tradition in the seventeenth century, Thames School cartographers were ultimately, by the close of the century, called upon to help illustrate mercantile and imperial interests. Pepys' and Blathwayt's use, among others, of cartographic sources to inform English imperial interests, proves the expanding audience and role of Thames School charts. For example, an anonymous Thames School cartographer compiled the first English map of New York, known as the Duke's Plan, and it was given to James, Duke of York, in 1665, after New York's acquisition following the Second Anglo-Dutch War. As a result, Thames School charts that had serviced the inherently maritime nature of England's commercial empire before 1660 began to exhibit characteristics of territorial dominion, thereby more fully depicting the evolving nature of national attitudes. Yet, despite the expansion of English interests abroad, Thames School charts still maintained an explicitly commercial and functional purpose. In effect, late seventeenth-century Thames School charts were used as cartographic instruments of empire, delineating English domain and advocating imperial intervention.

The depiction of the cod fisheries of the North Atlantic is emblematic of the shifting nature of Thames School charts. An anonymous late seventeenth-century Thames chart of the Province of Mayne (Figure 4.6) reveals strikingly informative and suggestive images. The deliberate and careful presentation of various pieces of iconography represents a firm break from earlier staid cartographic presentations of

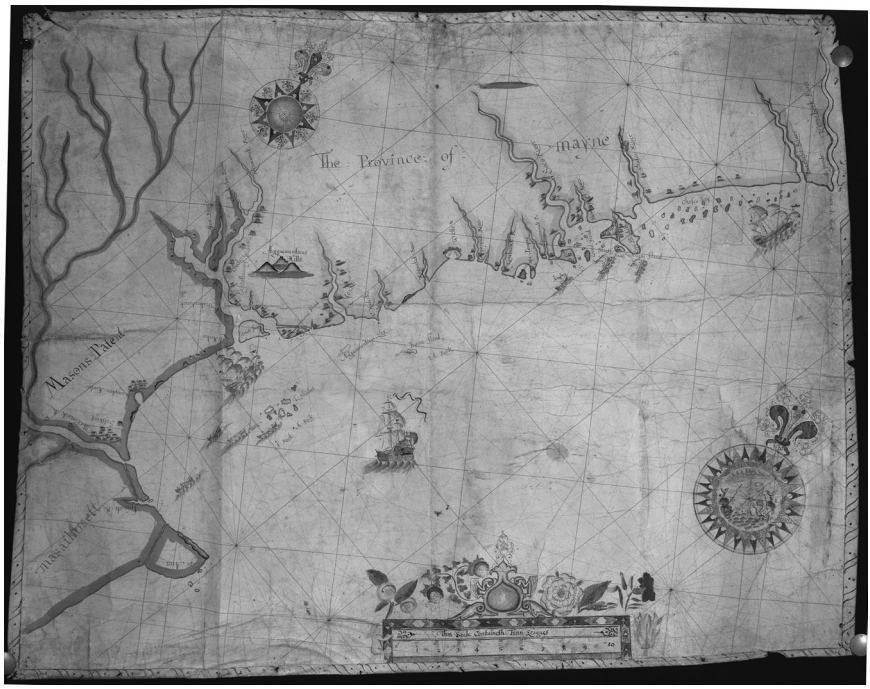

Figure 4.6 'Province of Mayne', Anon, *c.* late seventeenth century.
Courtesy of the British Library, BL Add MS 13970A

English activities abroad. The cartouche of the scale in the lower part of the chart reminds the viewer of the richness of New England by depicting plums or peaches, and wild berries. Inside the larger compass rose, a mermaid embracing a human infant holds forth a trident or harpoon as it prepares to spear a large fish or serpent. The mermaid seems to represent how the riches of the Province of Maine act as midwife for emerging settlements. Off the northern coasts of Massachusetts, four small boats and a ship are shown. The four boats are clearly fishing, and the ship ostensibly accompanying them probably represents a transatlantic or trans-American transport for New England cod. Interestingly, both the 'dry-fishery', lightly salted and dried cod, and the 'wet-fishery', directly transporting freshly caught fish heavily packed in salt, relied upon small parasite-boats often transported by ocean-going vessels.[38] Another set of three small vessels under sail and a ship appear along the far northeast of the chart; yet another ship, unencumbered by parasites, is sailing into the bay using the visual cue of the Ayquementicus Hills, as depicted on the chart as well. These fishing images draw attention to the economics of the English Atlantic and the rise of the English maritime empire, as the cod fisheries of North America were important for the English, both as a nursery for English mariners and for providing a highly marketable commodity. Each of the images suggestively highlights the opportunities of Maine and English dominion. Moreover, the delineation of the coast itself appears

to protect and shelter the province, creating a hospitable environment for settlement. Notwithstanding the fact that this is a functioning nautical chart replete with navigational information, the spartan nature of the portolan-style chart itself – e.g. its barren coastlines – seemingly accentuates the cod fishery. In effect, the chart's careful construction portrays the Province of Maine as a cradle for English settlement.[39] Functionalist and mercantilist attitudes toward English expansionism, and simultaneously emerging imperial aspirations as the Province of Maine offers alluring opportunities for wealth and settlement, compete on this map.

As English interests abroad began to be threatened by rivalry with the Dutch and French, Thames School charts began to exhibit imperial aspirations in addition to their mercantile functions. In effect, they become part of an international political narrative, or campaign for empire. The narrow application of overt manifestations of English ambitions for 'mastery' on Thames School charts is important. Charts of India and the Americas are wholly different to their brethren. Unlike charts of the Baltic, Mediterranean, and the West African coast, charts of India and the Americas began to objectify their holdings as English domain. English flags dot the Malabar Coast and Newfoundland fisheries, for instance, before the encroaching presence of foreign competitors. In effect, Thames School charts depict the changing realities of trade and empire by late century: Andrew Welch's 1677 charts note the Dutch interference in Asia, and Augustine Fitzhugh's 1693 chart of Newfoundland highlights the French threat in North America. Moreover, the colonial North American boundaries gradually move west to juxtapose English claims against New France on other Thames School cartography. Imperial aspirations in Asia, particularly after the acquisition of Bombay, are notable on Thames School charts; and the colonization of the Americas transformed England's mercantilism into an Atlantic empire and radically altered the nature of Thames School charts of the Americas. Imperial competition and conflict emerge on the charts to highlight the precarious and evolving nature of English commerce and empire.

Two pilotage charts by Andrew Welch and John Thornton offer useful insight into changing English attitudes toward the west-Indian coast (Figures 4.7 and 4.8). The charts extend south from Gujarat past Calicut to Cranganore in India. Moreover, the charts mirror the growing nationalist and imperialist sentiments of the English and the East India Company in the late seventeenth century. As a set, the two charts continually refer to navigational and commercial hazards in a manner that infers imperial desire. The first chart, recognizable by the prominence of the name Guzarat (Gujarat), includes coastal profiles and a long narrative of navigational information for the user along the western coast of India, known as the Malabar Coast.[40] The chart effectively fuses sailing directions with the graphic benefits of a maritime map. Beautifully rendered, the charted coasts are situated upon a grid pattern, unlike a traditional portolan layout of rhumb lines. Shoals and soundings envelop the approaches to Surat, and visual cues abound. However, despite the large amount of navigational and commercial information, the chart also notably includes an English East Indiaman. The inclusion of an English ship sailing toward the Surat River is important. Though common in other cartographic traditions, Thames School charts never depicted ships or other illustrative addendums (chorography) prior to the Restoration

Figure 4.7 Andrew Welch, 'Chart of Gujurat (1677)'.
Courtesy of the British Library, BL Add MS 39178A

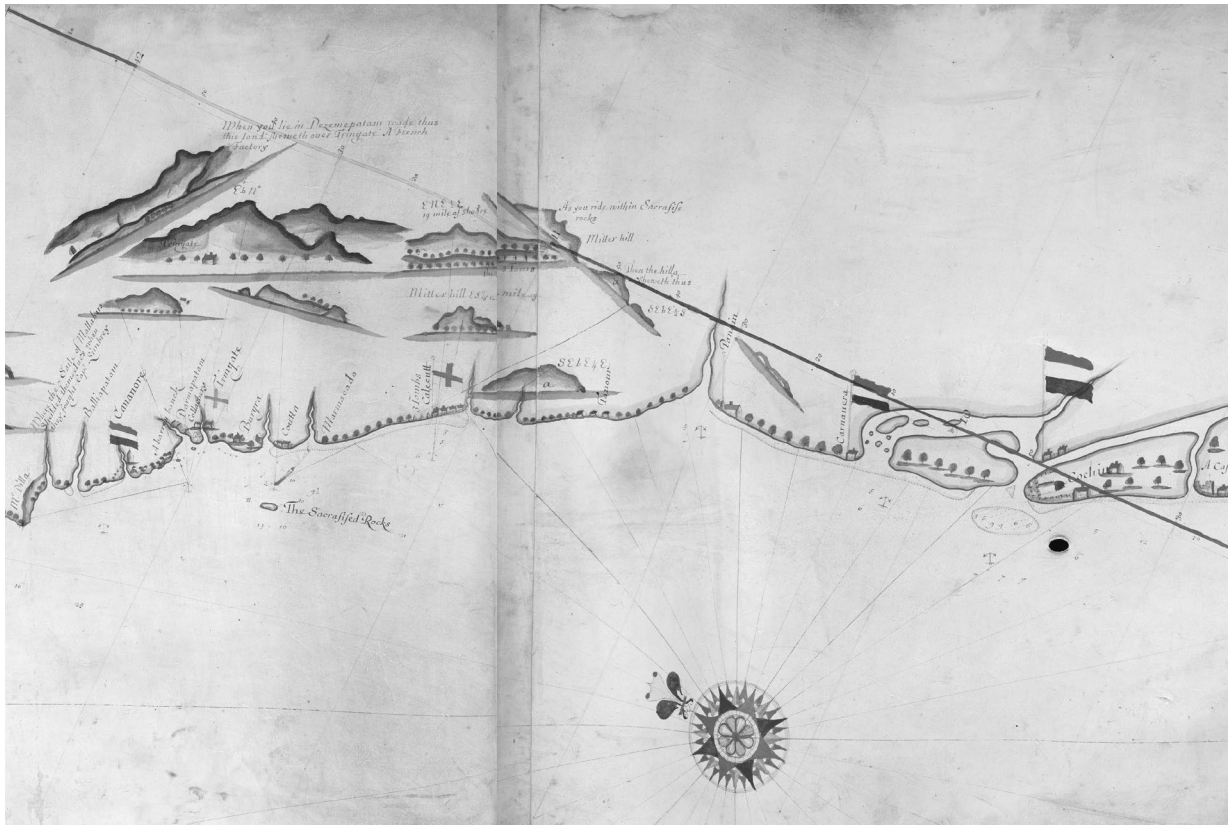

Figure 4.8 John Thornton, 'A Draught of the Coast of Malabar (1696)'.
Courtesy of the British Library, BL Egerton 741

of 1660. This ship's proud carriage symbolizes not only the importance of the trades along the Malabar Coast – pepper, indigo, and calicos – but also proclaims English control of trade in and around Gujarat. At no point on this chart are the Dutch noted, unlike the accompanying chart, which reveals a strong Dutch presence. The second chart, 'A Draught of the Coast of Malabar', by Thornton, completes the suggestive overtures of the Gujarat chart.[41] All along the Malabar Coast, tiny English flags dot the shoreline, juxtaposed against larger, imposing, Dutch flags. The inclusion of ships amid an endangered coastline is an authoritative gesture. The exquisite and extensive chart plots English concerns about the growing, if not commanding and threatening, presence of Dutch competition. Collectively, these charts display orderly commercial interests alongside a Dutch menace. Furthermore, their symbolism emphasizes English territorial ambitions for the preservation of safe trade, a new development from earlier Thames School charts. Consequently, this shift underscores how earlier English interests in the region had been guided by the search for amicable trading relations that were defined by English perceptions of order and stability, rather than a search for territorial holdings.

Revealing parallel concerns, Augustine Fitzhugh's 1693 Newfoundland chart (Figure 4.9) outwardly politicizes the fishery by differentiating the French and English fishing fleets, and revealing how the smaller English fishing fleet is surrounded.[42] In fact, it is almost as if the French are poaching upon English fishing grounds; observe, for instance, the imposing shaded French fleet's presence in the Maine Bank. The southernmost Union Jack is proudly waving in the wind despite being encircled by a menacing dark cloud of French fishing boats. In turn, each of the coastal insets boldly waves a crisp Union Jack before the encroaching French fleets off Newfoundland. It is as if Newfoundland is under siege, and the tiny English fishing boats and their beset homeports are valiantly defending English interests. The imagery on Fitzhugh's chart displays one of the economic underpinnings of the Atlantic region, the cod fisheries, but it also underscores the rise of imperial interests and policy by its public expression of English dominion. Interestingly, Blathwayt noted several times his failed attempts to convince the Crown and parliament to fortify various Newfoundland ports from a possible French attack throughout the 1690s.[43] Fitzhugh's chart dramatically fuses the commercial and rising imperial concerns of the English at the close of the seventeenth century, and perhaps, for the first time, begins to question the obvious navigational utility of a Thames School chart as well. Coming full circle, a Thames School chart now mirrors the demonstrative and ideological charts of every other European cartographic tradition as they declared their 'mastery of the seas' in this period.

The dominance of the Thames School in seventeenth-century English overseas charting provides the means to understand how English people envisioned and articulated their expectations of an expanding world. On the most basic level, Thames School charts document the changes in England's navigational knowledge of distant shores. Yet, they also express the ideas surrounding their use. Encompassing the globe, the charts of the Thames School are representational discourses of England's maritime endeavours. The copyists and cartographers of the Thames School initially rejected the embellishments of the traditional portolan style that obfuscated the art of navigation, suggesting the functionalism of modernity. In contrast to every other European

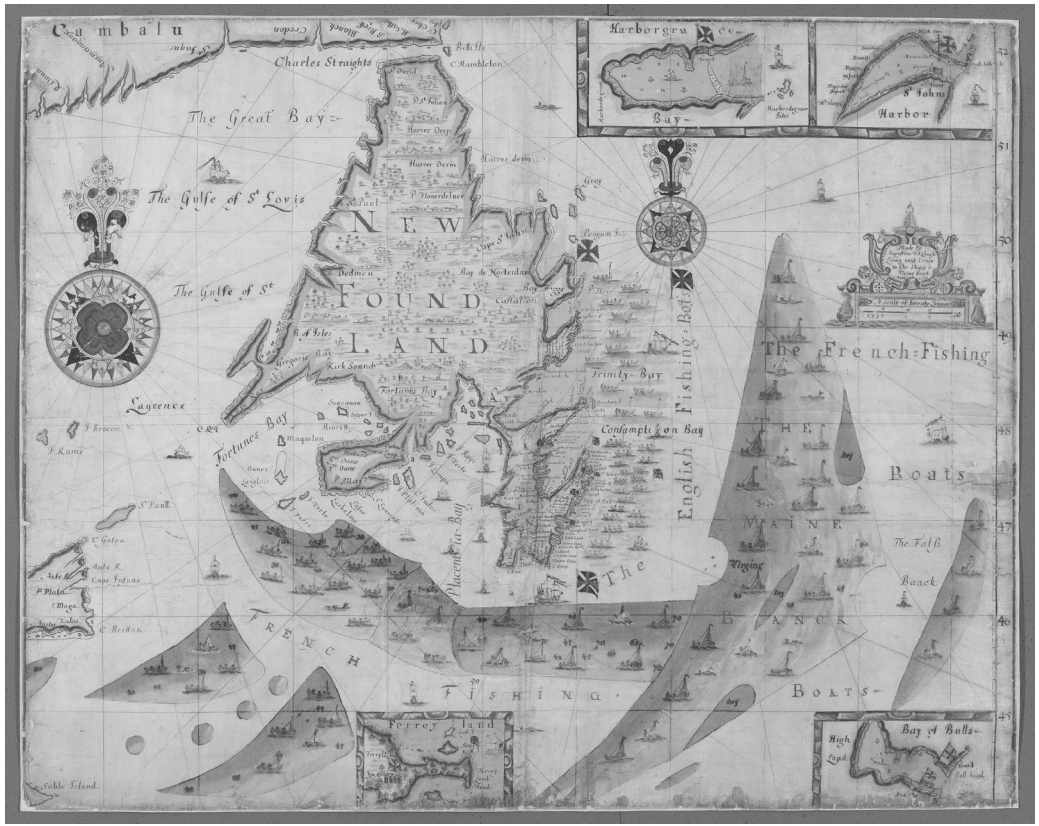

Figure 4.9 Augustine Fitzhugh, 'Chart of Newfoundland (1693)'.
Courtesy of the British Library, BL Add MS 5414/30

charting tradition, which routinely projected politically and/or religiously charged symbols, the absence of any depictions of ideology, other than commercial opportunities, on Thames School charts prior to the latter seventeenth century is extraordinary. Until the late seventeenth century, Thames School charts abstained from this common practice of asserting dominion and mastery. Yet, by the close of the seventeenth century, England had transformed its disparate overseas ventures into a global empire. An emerging English empire had fought battles across the world's oceans to wrest maritime prowess and mastery from each of its European rivals, and Thames School charts fully reflect these shifts.

Paralleling the growth of English overseas interests, the charts illustrate evolving English attitudes toward the various regions that they encountered. Seventeenth-century Thames School charts not only convey an early pragmatic and cosmopolitan attitude, but they also highlight the transition to articulating English imperial ambitions following the Restoration, as territorial dominion was increasingly expressed. The charts act as actual artefacts of the period, as instruments and reflections of the birth and growth of empire. The hesitant beginnings of empire parallel the tentative origins of charting. As imperial oversight emerged and began to inform policies, the dominant mercantile nature of Thames School charts began to include and then assert imperial aspirations, ambitions, and dominion: as empire matured, so did the functions of charts. In effect, the birth and maturation of English charting coincides with the birth of English expansion and empire; therefore, charts help us better understand contemporary attitudes toward expansion and empire.

The sea has always been a defining feature of English history. The embrace of visual literacy, the emergence of a domestic cartographic tradition, and its evolution mark key features of a maritime community's capacity to meet the needs of an increasingly interconnected world. The Thames School of nautical cartographers met this need and reflected this reality from the late sixteenth century until the mid-eighteenth century. In particular, early Thames School charts reflect the early English cosmopolitan engagement with the world by consistently displaying commercial functionality in an era of mercantilism. Meanwhile, the defensive and combative imagery on later seventeenth-century Thames School charts mirrors the imperial competition and conflicts indicative of the age. Consequently, English early modern nautical cartography plays an important role in more fully understanding the development of Europe's burgeoning mercantile and imperial ambitions. Incorporating the cartography of the sea into the history of overseas expansionism provides a necessary but heretofore under recognized perspective on the interrelationships of scientific innovation, artistic expression, and the narratives of cultural expansion in the study of oceans in global history and culture. Accordingly, by incorporating cartographic discourses into the historical narrative, historians can begin to 'see' the complex narratives involved in Europe's attempts to 'master the sea'.

Notes

1 A. Games, *The Web of Empire: English Cosmopolitanism in an Age of Expansion, 1560–1660*, Oxford: Oxford University Press, 2008, revitalizes notions of an accidental English Empire by highlighting the cosmopolitanism of intrepid English adventurers, including merchants, clergymen, and officials. Games argues that Englishmen prior to 1660 were relatively free from

overly national attachments because of the expediencies necessary to establish and develop their diverse contacts across the globe. Games' research, however, like most histories, relies primarily upon textual evidence and does not incorporate surviving cartographic source materials.

2 S. Tyacke, *Before Empire: The English World Picture in the Sixteenth and Seventeenth Centuries*, London: Hakluyt Society, 2001; C. Delano-Smith and R. J. P. Kain, *English Maps: A History*, Toronto: Toronto University Press, 1999; A. H. W. Robinson, *Marine Cartography in Britain*, Leicester: Leicester University Press, 1962; A. Maeer, 'Marine Charting by Great Britain, 1650–1800', in J. B. Harley, D. Woodward, and M. Edney (eds), *The History of Cartography, Vol. 4: Cartography in the European Enlightenment*, Chicago: The University of Chicago Press, forthcoming. Cartographic scholarship highlights the delayed and limited development of a British nautical cartographical tradition until the late seventeenth century. When a cartographic tradition did begin to emerge in Britain, it was related to the emergence of long-distance trading interests in London. Of course, more often than not, mariners across Britain continued to rely on largely Dutch charts until the slow dissemination of English charts quickened by the end of the seventeenth century.

3 J. B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, Baltimore: Johns Hopkins University Press, 2001; D. Cosgrove, 'Mapping New Worlds: Culture and Cartography in Sixteenth-Century Venice', *Imago Mundi* 44/1, 1992, pp. 65–89; D. Buisseret, *The Mapmakers' Quest: Depicting New Worlds in Renaissance Europe*, Oxford: Oxford University Press, 2003.

4 J. B. Harley, 'The Map and the Development of the History of Cartography', in J. B. Harley and D. Woodward (eds), *The History of Cartography, Vol. 1: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, Chicago: The University of Chicago Press, 1987, pp. 2–3. Some of Harley's most significant articles have been reprinted and introduced in Harley, *The New Nature of Maps*.

5 Harley, *The New Nature of Maps*, pp. 49, 63.

6 Cosgrove, 'Mapping New Worlds', pp. 65–89.

7 Buisseret, *The Mapmakers' Quest*, p. 177.

8 E. G. R. Taylor, *Tudor Geography, 1485–1583*, London: Methuen and Co. Ltd, 1930; E. G. R. Taylor, *Later Tudor and Stuart Geography 1583–1650*, London: Methuen and Co. Ltd, 1934; E. G. R. Taylor, *The Haven-Finding Art: A History of Navigation from Odysseus to Captain Cook*, London: Hollis & Carter, 1956; E. G. R. Taylor, *The Mathematical Practitioners of Tudor & Stuart England*, Cambridge: Cambridge University Press, 1954; E. G. R. Taylor, *The Mathematical Practitioners of Hanoverian England, 1714–1840*, Cambridge: Cambridge University Press, 1966; D. W. Waters, *The Art of Navigation in England in Elizabethan and Stuart Times*, New Haven: Yale University Press, 1958; D. W. Waters, *The Rutters of the Sea: The Sailing Directions of Pierre Garcie*, New Haven: Yale University Press, 1967. Other scholars who have written about the origins of England's maritime empire have relied upon the work of Waters and Taylor to explain the navigational aspects of Tudor and Stuart exploration, trade, and empire.

9 In 1959, Ernesto Camarero first identified a distinct seventeenth-century English cartographic tradition emanating from the Thames River, but its existence was debated and not clarified until Tony Campbell, Thomas R. Smith, and Sarah Tyacke formalized and categorized the discovery in the 1970s. See E. Camarero, 'La Escuel cartografica inglesa "At the Signe of the Platt"', *Boletín de la Real Sociedad Geografica* 95, 1959, pp. 65–8; T. Campbell, 'The Drapers' Company and its School of Seventeenth Century Chart-makers', in H. Wallis and S. Tyacke (eds), *My Head Is a Map: A Festschrift for R. V. Tooley*, London: Francis Edwards and Carta Press, 1973, pp. 81–106; N. J. W. Thrower (ed.), *The Compleat Plattmaker: Essays on Chart, Map, and Globe Making in England in the Seventeenth and Eighteenth Centuries*, Berkeley: University of California Press, 1978; Tyacke, *Before Empire*.

10 Robinson, *Marine Cartography*.

11 R. Davis, *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries*, Newton Abbot: Redwood Press, 1962; R. Davis, *The Rise of the Atlantic Economies*, New York: Cornell University Press, 1973; K. R. Andrews, *Trade, Plunder, and Settlement: Maritime Enterprise and the Genesis of the British Empire, 1480–1630*, Cambridge: Cambridge

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12 J. Black, 'The Blathwayt Atlas: Maps Used by British Colonial Administrators in the Time of Charles II', *Imago Mundi* 22/1, 1968, pp. 20–9; Camarero, ''La Escuel cartografica inglesa', pp. 65–8; Campbell, 'The Drapers' Company', pp. 81–106; A. S. Cook, 'More Manuscript Charts by John Thornton for the Oriental Navigation', in C. C. Marzioli (ed.), *Imago et Mensura Mundi: Atti del X Congresso Internazionale di Storia della Cartografia*, Florence: Istituto della Enciclopedia Italiana, 1985, pp. 61–9; Delano-Smith and Kain, *English Maps*; W. L. D. Ravenhill, 'Joel Gascoyne, a Cartographer with style', *The Geographical Magazine* 44/5, 1972, pp. 335–41; Thrower, *The Compleat Plattmaker*; S. Tyacke, 'Chart-Making in England and Its Context, 1500–1660', in D. Woodward (ed.), *The History of Cartography*, vol. 3, Part 2, Chicago: Chicago University Press, 2007, pp. 1722–53; S. Tyacke, 'Anglo-Dutch Cartographic Collaboration', in P. Barber (ed.), *The Map Book*, London: Weidenfeld & Nicolson, 2005, pp. 152–4; Tyacke, *Before Empire*.

13 N. J. W. Thrower, *Maps and Civilization: Cartography in Culture and Society*, 3rd edition, Chicago: Chicago University Press, pp. 77–80. By the early sixteenth century, the problems of the plane chart (i.e. the traditional portolan-like style on charts) had become significant for cartographers and navigators, since it did not address the curvature of the earth. Gerard Mercator addressed this problem for mariners with his 1569 *Nova et Aucta Orbis Terrae Descriptio ad Usum Navigantium Emendate Accommodata*; though it took centuries for mariners to embrace this new projection. The projection that Mercator proposed in this work has since borne his name and remains the basis for sea charts today. Mercator's projection increases the distance between parallels with increasing latitudes, allowing any two points on the map to be joined by a straight line, a loxodrome, which cuts all meridians at the same angle and enables navigation that is more exact. Effectively, the Mercator projection creates scale while maintaining shape and direction at the expense of increasing distortion toward either pole. Yet, it was not until an English mathematician, Edward Wright, in 1599, published *Certaine Errors in Navigation*, that the instructions for the construction and use of the Mercator projection became available. Mercator, along with Ptolemy, are perhaps the two most important people in the history of cartography; their importance lies in the ability to more accurately portray the globe and thus traverse it, trade being a primary factor. Regardless, it took over a century for English mariners to embrace charts with a Mercator projection.

14 The best introduction into the history of cartography, and one that highlights Ptolemy's pivotal role, is Thrower's *Maps and Civilization*, now in its third edition.

15 The ongoing political distractions of the seventeenth century, coupled with disparate and competing English colonial and commercial ventures, stymied efforts to centralize cartographic knowledge in England despite consistent calls to do so until the close of the eighteenth century. See A. Maeer, 'Marine Charting by Great Britain', in M. Edney and M. S. Pedley (eds), *History of Cartography, Vol. 4: Cartography in the European Enlightenment (Part 1)*, Chicago and London: University of Chicago Press, 2019, pp. 891–8.

16 Taylor, *The Mathematical Practitioners of Tudor & Stuart England*, pp. 114–20.

17 Andrews, *Trade, Plunder, and Settlement*; Black, *The British Seaborne Empire*; Loades, *England's Maritime Empire*; Rodger, *Safeguard of the Sea*.

18 Delano-Smith and Kain, *English Maps*, pp. 147–8, 159; Robinson, *Marine Cartography*, pp. 34–6, 224. Anthony Ashley was clerk to the Privy Council and translated the 1586 Latin edition; it took him nearly three years and was effectively an Anglicized form of the original.

19 The French first challenged Dutch cartographic prowess when in 1693 *La Neptune français* was published. As a direct result of French attempts to map and chart their lands, French mathematical and astronomical sciences converged to provide the scientific advances necessary to produce highly accurate maps, all of which was under the aegis of the *Ingenieurs du Roi* (Engineers of the King) starting in 1666. S Toulouse, 'Marine Cartography and

Navigation in Renaissance France', in D. Woodward (ed.), *The History of Cartography*, vol. 3, Part 2, Chicago: Chicago University Press, 2007, pp. 1550–68.

20 The Venetian Ambassador in 1588 essentially noted as much. In 1558 probably not one, as late as 1568 probably only one, English seaman was capable of navigating to the West Indies without the aid of Portuguese, French, or Spanish pilots. Yet, by the time of the Armada, a mere score of years later, Englishmen had gained a 'reputation of being above all Western nations, expert and active in all naval operations, and great sea dogs'. *Calendar of State Papers Relating to English Affairs in the Archives of Venice, Vol. 8, 1581–91*, London: HMSO, 1894, p. 349 (8 April 1588).

21 The first known identification of the Thames School was the work of Ernesto Camarero, 'La Escuel Cartografica Inglesa', pp. 65–8, who singled out five chart-makers who signed their charts with 'At the Signe of the Platt'. The four major scholars who have dealt with the Thames School of English nautical cartography are Jeannette Black, Tony Campbell, Thomas R. Smith, and Sarah Tyacke (see above, notes 7 and 12). Campbell and Smith both persuasively argued that there was a discrete English cartographic movement, and Campbell discovered the association of cartographers in the Drapers' records. Black contextualizes 10 Thames School charts to highlight ministerial cartographic use. Tyacke includes the Thames School and its precursors within the literature of exploration and discovery but does not connect their efforts to London's central role in an emerging maritime empire dependent upon trade nor to the developments of the latter seventeenth century. Ultimately, 37 chart-makers are recorded as Masters and Apprentices in the ledgers of the Drapers' Company and 556 charts are currently known to have survived.

22 A. Maeer, 'The Baltic and the Birth of a Modern English Maritime Community: The Muscovy Company and Nautical Cartography, 1553–1665', *The Romanian Journal for Baltic and Nordic Studies* 4/2, 2012, pp. 19–49.

23 Maeer, 'Marine Charting by Great Britain', pp. 891–8.

24 T. R. Smith, 'Manuscripts and Printed Sea Charts in Seventeenth-Century London', in N. J. W. Thrower (ed.), *The Compleat Plattmaker: Essays on Chart, Map, and Globe Making in England in the Seventeenth and Eighteenth Centuries*, Berkeley: University of California Press, pp. 45–100.

25 Black, 'The Blathwayt Atlas', pp. 20–1. Pepys also noted that he furnished his office with charts by Burston.

26 J. R. Tanner (ed.), *Samuel Pepys's Naval Minutes*, London: Naval Records Society, 1926, pp. 19, 42, 237.

27 Black, 'The Blathwayt Atlas', pp. 7–8.

28 Black, 'The Blathwayt Atlas', pp. 20–1.

29 Black, 'The Blathwayt Atlas', p. 14.

30 B. Schmidt, 'Mapping an Empire: Cartographic and Colonial Rivalry in Seventeenth-Century Dutch and English North America', *William and Mary Quarterly* 54/3, pp. 549–78. Schmidt argues that the Dutch and English governments employed maps as instruments of imperial policy, though he does not explicate the maps as reflections or instruments; he merely notes their existence as geographical markers.

31 British Library Additional 19916 (hereafter BL MS) – John Burston, 'Coloured Chart of the Mediterranean, the Sea of Marmora and Black Sea, and of the Bordering Coasts, Made By John Burston, Dwelling ouer Againste New Granell Lane in Radcliff Highway, neare London, Anno Domini 1640' (western portion).

32 *Bibliothèque Nationale France* (hereafter BNF) Rés. Ge C 5093 – Francesco Oliva, 'Chart of the Mediterranean' (1603).

33 NMM P/8/6 – Joan Oliva, 'Chart of the Mediterranean' (*c.*1640).

34 BL Add. MS 26665 – Nicholas Comberford, 'Map of the Mediterranean Sea, with its Coasts, Islands, and Ports, made by Nicholas Comberford, Dwelling at the Signe of the Platt Neare the West End of the Schoole House in Ratcliffe, Anno 1663'.

35 BNF Ge SH Archives no. 43 – François Ollive, 'Chart of the Mediterranean', (1662).

36 Trinity College Library, Dublin, IE TCD MS 1209/81: John Daniell, 'Sea Chart of the Mediterranean' (1642); Baker-Berry Library, Dartmouth, New Hampshire: Nicolas Comberford, 'Portolan Chart of the Mediterranean and the Black Sea', (1657): Rauner Special Collections, Manuscript Codex 657940.
37 Tyacke, 'Chart-Making in England', pp. 1731–2.
38 Black, *The British Seaborne Empire*, pp. 28–30.
39 BL Add. MS 13970 A – 'Province of Maine', anon, *c.* late seventeenth century.
40 BL Add. MS 39178 A – Andrew Welch, 'A Map of the Coast of India from Bombay to Gujerat, by Andrew Welch, 1677'.
41 BL Egerton MS 741 – John Thornton, 'A Coloured Chart of the Western Coast of Hindostan (1696)'.
42 BL Add. MS 5414/30 – Augustine Fitzhugh, 'Chart of Newfoundland, 1693'.
43 S. S. Webb, 'William Blathwayt, Imperial Fixer: Muddling through Empire, 1689–1717', *William and Mary Quarterly* 26/3, 1969, pp. 406–9.

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5

Domestic maritime trade in late Tudor England *c.*1565–85

A case study of King's Lynn and Plymouth

Gary Paul Baker

The sixteenth century was a crucial time in the development of England as a maritime nation.[1] The establishment of various merchant trading companies, and the activities of enterprising merchants and explorers, saw the gradual expansion of English overseas trade routes to regions as geographically diverse as Russia, Persia, Guinea, the Barbary Coast, the Mediterranean, the Americas, and the Levant. English ships began exploiting the fishing grounds around Iceland and Newfoundland with greater regularity. The Anglo-Spanish rivalry resulting from religious differences and commercial competition largely played itself out at sea. All these topics, and the exploits of famous courtiers and sailors such as Martin Frobisher, John Hawkins, Walter Ralegh, Humphrey Gilbert, Thomas Cavendish, and Francis Drake, have rightly received a good deal of attention.[2] Far more representative of 'typical' English seaborne enterprise, however, were the more mundane activities of thousands of ships, shipmasters, and merchants, going about their daily mercantile business, fishing, moving, and trading their goods in and around the English coast. Unfortunately, the lack of 'glamour' of these coastal activities has meant that research into England's native maritime trade in the early modern period has been neglected: only a handful of book-length studies have been written, and these in the main cover the seventeenth and eighteenth centuries.[3] Though important work has been undertaken into English coastal trade from the late Middle Ages to the sixteenth century, it has been through the medium of two distinctive approaches: micro studies focused upon specific ports/regions; or macro analysis within national, chronological surveys, of both overseas and coastal trade.[4] As valuable as they are, these two approaches are not without problems. A micro analysis of a port/region can miss national trends, extrapolate a facet of trade that only affected a single region or port into a national picture, or suggest that the trade of a

large port is representative of its region. The macro-level approach, while highlighting national trends, can hide nuanced regional variations.

To date, no study has looked at English coastal trade in the sixteenth century by undertaking a detailed prosopographical study of the major source materials kingdom wide; taking the model of the detailed port/regional approach and applying it to the whole kingdom. This is hardly surprising. From the introduction of the port books in 1565 (discussed below) to 1600, though not surviving for every year and port within the kingdom, there are around 2,200 books containing multiple folios, of which approximately 1,200 relate to coastal trade.[5] Recent research has gone a long way to remedying this deficiency by undertaking a quantitative study of English ships, voyages, shipboard communities, and trade networks for the period 1400–1580.[6] This chapter develops this work in relation to native/coastal voyages between English ports. It provides a focused study, highlighting the native maritime trading activities, and some of the men involved, in two English ports – King's Lynn and Plymouth – from *c.*1565–85, and places them within a contextual framework of nationwide data. The two ports have been selected because they demonstrate differing levels of focus on coastal trade by their respective maritime communities; focus shaped by the demands, economic activity, and resources of their respective localities, and the requirements of their wider hinterlands which they supplied and by which they were serviced. Furthermore, due to their geographical diversity, each port was connected to different trade routes, a factor that helps to mitigate against the aforementioned limitations of the regional study. The trade of both ports is also well documented in this period, allowing a meaningful comparative analysis to be undertaken.

This study will also look at coastal and overseas trade in tandem. Some coastal trade was undoubtedly generated by native craft and industry (like the extensive coal trade of northeastern England), but a substantial proportion was intertwined with imports.[7] Robert Brenner, for instance, has argued that commercial development in sixteenth- and seventeenth-century England was driven more by the increasing demand in the domestic market for exotic imported goods for consumption and manufacturing than it was by the decline from the 1550s of the traditional English export trade in broadcloths to northern Europe.[8] These imports were either re-exported abroad, or used to stimulate native English trade, carried inland for manufacture and retail or shipped along the coast to other native ports.[9] The import trade thus had an important 'ripple effect' on English native commerce.

The chronological range of this investigation is dictated by the sources. Though the Crown had claimed to supervise and monitor coastal trade as early as the thirteenth century, the earliest surviving coastal accounts date from the 1530s, but these are enrolments of merchant's bonds rather than details of ships and voyages.[10] The first surviving particulars of account of coastal trade (records containing details of individual voyages) date from the 1550s, but these only cover a handful of ports and are not chronologically systematic enough for a meaningful analysis.[11] Information about coastal trade was not systematically recorded at a national level before the introduction of a new documentary class – the port books – in 1565.[12] Prior to 1565, it is difficult to make anything other than generalizations about the nature of coastal trade. While scholars have made estimations about the volume of coastal traffic prior

to this date (such as the suggestion that coastal voyages accounted for two-thirds to three-quarters of all maritime traffic in the fourteenth and fifteenth centuries), these assumptions must be treated with caution.[13] The lack of voyage details on many of these accounts has forced scholars to use ships' home ports as a substitute. While we can surmise that many ships entering or leaving a port were sailing directly to or from their home port, especially if it was nearby, we cannot be certain. For instance, a coastal account from Plymouth in 1551/2 reveals that of nine recorded coastal voyages to and from Plymouth by non-Plymouth ships, only two were travelling directly to or from their home port.[14]

From 1565, as well as coastal voyage details, the port books also systematically provide information on ship tonnage.[15] Prior to 1565, tonnage data, other than in a few medieval surveys of shipping, largely comes from navy payrolls listing merchant ships requisitioned for naval service, as the Crown recompensed ship owners at a rate of 3s 4d per ton for every three-months' service.[16] Tonnage figures should be treated with caution. They are notoriously unreliable, representing different units of measurement in different countries. Moreover, there is often variance between the figures given for the same ship in different accounts, and sometimes even within the same document. In one example from the port books, the *Ellen* of Liverpool, commanded by Thomas Mason, is recorded on multiple occasions at 24, 26, and 30 tons.[17] Using tonnage data is problematic but, if caution is exercised, the post 1565 information can at least provide an indication of the size and carrying capacity of the merchant fleet.[18] It is to the port books, and their utility for reconstructing English mercantile activity, that we now turn.

The port books *c.*1565–80

The introduction of the port books, replacing the old particulars of account, was the culmination of a period of reform of the customs system by William Paulet, Marquess of Winchester.[19] Paulet's aim was both to impose greater central control on the collection of customs, particularly outside of London, and increase government revenues, an issue made particularly pressing after a sharp fall in custom receipts from 1561 to 1564.[20] Among a series of measures dating back to at least Mary I's reign, he issued a new Book of Orders in January 1565, which laid down new procedures for customing goods in English ports.[21] Among these measures, the one that proved the most long-standing was the introduction, at Easter 1565, of the first port books. These blank parchment books contained a specified number of pages (to prevent fraud) and were issued bi-annually to the head ports from the Exchequer in London in sealed tin boxes.

Head ports were first implemented in *c.*1275, when the kingdom was divided up into coastal regions for collecting customs revenues on overseas trade.[22] They were the 'head ports' of their respective regions, constituting some of the country's wealthiest and most important port towns and cities. Each head port had an extensive hinterland incorporating other sizeable settlements (such as the head ports Boston and Great Yarmouth serving as the out ports for goods produced in Lincoln and Norwich, respectively). The number of head ports varied over time, but by 1565 there were 20: London, Berwick-upon-Tweed, Newcastle upon Tyne, Kingston upon Hull, Boston, King's Lynn, Great Yarmouth, Ipswich, Sandwich and Deal, Chichester, Southampton,

Poole, Exeter and Dartmouth, Plymouth and Fowey, Bridgwater, Bristol, Cardiff, Milford Haven, Chester, and Carlisle, with Gloucester added in 1580. Other prominent ports, creeks, and havens within a head port's jurisdiction (their members) were issued with books of their own if they were deemed sufficiently large or historically important enough (such as Grimsby and Scarborough, which fell under Hull's jurisdiction). Ports not deemed to merit their own accounts had their trade recorded within the accounts of their respective head port, such as Bridlington which appeared within the coastal books for Hull from Michaelmas 1577, and Wells-next-the-Sea and Burnham which appeared within those for King's Lynn from Christmas 1611.[23]

At each head port (other than London, which was a special case due to its size and complexity),[24] there were three major customs officials, all of whom kept their own set of accounts.[25] To prevent fraud, they were also independently audited at the Exchequer. The Customer was responsible for all monies received in the port and the Controller, equal in rank, was expected to ensure that the Customer was not taking bribes. Both men possessed half of the cocket seal and worked in a port's custom house sealing cockets for foreign trade and issuing coastal certificates. The third official, the Searcher, worked on the dockside checking merchants' cargoes against the cocket or certificate they had been issued by the custom-house officials, searching for un-customed goods to prevent smuggling. His accounts often contain the most information about maritime traffic within a port. If a ship were carrying goods not subject to paying customs duties the Customer and Controller sometimes did not enter it into their accounts, because no monies were to be received, and they would issue either a certificate or cocket to this effect. The Searcher, however, would record the vessel in his account to ensure that no ships were evading customs by smuggling goods, checking the cargo against the cocket or certificate. Each official was to produce his own record of the trade independently and check, and countersign, the accounts of his fellow customs officials. In theory this made the prospect of merchants, their proxies, or shipmasters bribing customs officials more remote.

As well as placing the recording of coastal trade on an equal footing with overseas activity, port books introduced a new level of accounting detail. Prior to 1565, different documentary cultures of how trade was recorded had developed in each port, with customs officials varying wildly in the level of detail they provided in their accounts. A nationwide system of standardized and detailed accounting clearly had administrative benefits. Port officials from Easter 1565 were instructed to record: the name of the ship, its home port, the name of the master, the tonnage of the vessel, the date it entered or left port, the voyage details (the port from whence it had sailed, or to which it was sailing), the names of the merchants using the vessel, the goods being carried, and the custom duties paid.[26] In short, the port books allow us to reconstruct English maritime trade and traffic (at least as far as the records allow), in a high degree of detail, not only for ships, shipboard personnel, and commodities, but also the trade routes upon which the maritime community operated. For coastal trade the introduction of the port books was a watershed moment, since for the first time, coastal trade was systematically recorded, enabling it to be analysed in detail.

Like any historical source, the port books are not without their faults. First, even if the customs officials wanted to enforce the law honestly, there were far too few of

them to cover all but the most important ports, with the large stretches of coastline they were supposed to monitor far exceeding their limited resources. The Searchers, for instance, especially in large ports, could hardly have managed to inspect every vessel thoroughly, even if they appointed deputies. Moreover, as with all government officials prior to the nineteenth century, customs officials (or at least the Customer and Controller) were paid only a small salary. Pay does not appear to have been at fixed rates, and though occasionally supplemented with an annual reward, the lack of funds necessitated some officials, especially in smaller ports, to have other forms of employment. This was not ideal for men meant to be watching the custom house and quays, leaving them open to potential conflicts of interest.

Smuggling, 'frauds' in the contemporary terminology, was also endemic.[27] Many scholars argue that the customs accounts are of little value for reconstructing a true picture of England's trade; even contemporaries recognized it was a problem.[28] On the face of it, smuggling and customs evasion would not immediately appear to affect the recording of coastal trade, which was, after all, exempt from customs duties. The influence of customs evasion on coastwise traffic was not, however, negligible. Coastal trade was often linked to import trade. If merchants were involved in both overseas and coastal trade, and were associated in smuggling in the former case, they would most probably attempt to move the smuggled goods up the coast, either covertly or by utilizing fraudulent coasting certificates. This was part of a much broader problem of overseas voyages being disguised as coastal ventures, either with or without the collusion of customs officials. In a similar vein to the cockets issued to merchants shipping goods overseas (acting as proof that they had paid the requisite duties on their cargoes), coasting certificates were issued to merchants moving coastal shipments, and acted as proof they had entered into a bond to guarantee that they would only unload cargoes at another native port.[29]

> When a ship arrived at its port of discharge, the master presented the certificate, issued in the port of lading, to the customs officer there: they endorsed it to the effect that the cargo had been landed and the certificate was then returned to the issuing customs house […] The returned certificate cancelled the bonds.[30]

However, if a vessel was driven to a foreign port by inclement weather and unloaded its bonded goods there, it had to pay the requisite export duties on its return to England. There was thus always a possibility that a merchant, perhaps with the connivance of customs officials, would underestimate the value and/or quantity of their bonded cargo and then ship the excess overseas illegally for a tidy profit. In addition, if the price goods could be sold overseas outweighed the cost to merchants of losing their bonds, it made sense to move the goods overseas illegally and sell them, forfeiting the bonds. As N. J. Williams has pointed out: 'It was worth forfeiting £100 in bonds if you could sell your grain for £500 in Antwerp'.[31]

The reliability of the English customs accounts, specifically the port books, is thus open to question, and though they do have their defenders,[32] customs evasion and thus the under-recording of trade, was relatively widespread.[33] There are two reasons for persevering with the customs records as viable historical sources. First, they

are the best records anywhere in Europe, if not the world, of maritime trade in the late medieval and early modern period. As G. A. Metters pointed out, even if they 'yield "figures" rather than proper statistics, they still remain invaluable sources for the commercial history of the periods for which they survive'.[34] Second, and more important, we must question the argument that if customs evasion was as widespread as is claimed, then the customs records are entirely unreliable sources. It is true that the customs system was inefficient, and that the Crown collected less revenue than it was entitled by law due to the underhand practices of both merchants and corrupt customs officials. Yet, while commodities are certainly under-represented in the records, is the same true of voyages? While there will inevitably have been some vessels involved in illegal trade which never appeared in the customs accounts, in most cases of detected fraud, merchants and shipmasters were under representing the size and quantity of their cargoes, concealing additional un-customed goods within their holds, rather than evading the customs officials entirely.[35] In short, while the customs accounts might be unreliable for the volume of commodities traded, or the monetary value to the Crown of overseas trade, they are likely to present a reasonably accurate picture of the maritime traffic of a port and the general direction of trade. At the very least, they reveal the *minimum* number of voyages undertaken into and out of a port.

The utilization of port books for reconstructing coastal trade

To chart the trade and maritime traffic of any port, a chronologically sequential set of records is required. Unfortunately, despite the triplication of customs records by officials in each port, many records are lost. As a result, a sampling approach, selecting ports and records for years that have good documentary coverage of both overseas and coastal trade, is the methodology used in this chapter. For 1565–85, King's Lynn and Plymouth are among the best in the kingdom in terms of coverage, but there is one further issue relating to the reconstruction of coastal trade, hitherto unremarked in the historiography, which one must be aware of when reconstructing coastal trading activity.

Previous studies into the coastal trade of English ports after 1565 have derived statistics on voyages, port usage, and the volume of commodities being transported from the records produced in that port. This is an entirely logical approach, but its limitations only become apparent when a nationwide study is undertaken using records of all ports concurrently. The findings from 'The Evolution of English Shipping Capacity' project suggest that the records produced in any port often under-represented the volume of coastal traffic and, by association, the volume of commodities being transported.[36] Whenever an English ship was recorded leaving one native port bound for another in which an account was compiled, the voyage should have been recorded in the customs accounts of each port, but this did not always occur. Some discrepancies between the accounts of different ports are minor, but others are more significant. For instance, in Southampton, the account of the Searcher for Michaelmas to Michaelmas 1571/2 (TNA E190/814/8) lists 174 coastal voyages.[37] Utilizing the accounts of the whole kingdom reveals an additional 31 voyages not accounted for in the Southampton book.[38] Therefore, using the Southampton account alone to calculate the port's

coastal trade and traffic in 1571/2 under-represents the level of coastal traffic by 17.8 per cent. Such discrepancies were sometimes the result of fraud, especially in King's Lynn (for reasons discussed below), but some cases might well have resulted from human error or the fact that overworked and underpaid customs officials were unable to adequately monitor the level of maritime traffic. This again serves to highlight the fact that any figures provided on the number of voyages undertaken in/out of a port is only ever the *minimum* figure. Similarly, when calculating the maritime traffic of a port, it is important not to 'double count' the same voyage recorded in two or more accounts when using documents produced in different ports, or when using books from the same port where there is chronological overlap.

King's Lynn

King's Lynn (known as Bishop's Lynn until 1537) located on the banks of the River Great Ouse near the north Norfolk coast was, in the sixteenth century, a major port. Its jurisdiction stretched from Wisbech in the west to (but not including) Blakeney in the east, incorporating Wells-next-the-Sea and Burnham alongside more minor harbours such as Dersingham-with-Snettisham, Heacham, and Hunstanton, though only at King's Lynn were customs officials permanently in place.[39] Since King's Lynn's accounts do not distinguish whether the ships docked there or at one of the port's subsidiary havens, it has been assumed here that all docked at King's Lynn.

On the surface, the port has some of the best documentary coverage of both overseas and coastal trade in England in this period, with full coverage for 15 of the 19.5 years from Easter 1565 to Michaelmas 1584.[40] It is therefore unfortunate that King's Lynn in this period was subject to the most egregious customs evasion of the late Tudor period. Francis Shaxton, merchant and later mayor of King's Lynn, made a fortune smuggling grain and cloth from the port to the continent from *c.*1566–73, with the connivance of the Searcher, Robert Daniell, in a fraud involving so many people that 'not a Lynn merchant escaped with an untarnished reputation'.[41] The reason these activities are problematic for the purposes of quantifying coastal traffic and trade is that Shaxton used a forged King's Lynn cocket seal to create false coasting certificates, both for himself and for sale to fellow merchants. This resulted in under-recording the level of commodities being transported and entering coastal destinations for goods that were actually transported overseas, with both measures intended to reduce customs payments or avoid them entirely. As these were the documents used by the clerks in the customs house to make up the official accounts (i.e. port books) this activity has the potential to seriously skew the picture of King's Lynn's trade in these years.

Table 5.1 clearly shows that, despite Shaxton's fraudulent activities, a minimum of two-thirds, but usually never less than three-quarters of the voyages to/from King's Lynn were coastal. This coastal trade was all undertaken in English vessels, as successive Navigation Acts specified that all trade 'from port to port' (the contemporary terminology for coastal/native trade) was to be undertaken in English ships.[43] From 1575/6 (post Shaxton), King's Lynn's own vessels accounted for 35 per cent of these coastal voyages, 55 per cent of the port's overseas voyages (at least those undertaken

Table 5.1 Number of recorded voyages in/out of King's Lynn by English ships, 1566–84[42]

Year	*Overseas (export)*	*Overseas (import)*	*Total overseas*	*Coastal*	*Total*	*% of coastal voyages of total trade (to 1dp)*
1567/8	15 (9)	14 (11)	29 (20)	366 (93)	395 (113)	92.7
1575/6	64 (29)	39 (23)	103 (52)	485 (155)	588 (207)	82.5
1576/7	46 (36)	34 (27)	80 (63)	446 (173)	526 (237)	84.8
1580/1	125 (64)	35 (22)	160 (86)	457 (171)	617 (257)	74.1
1583/4	172 (80)	47 (32)	219 (112)	415 (136)	634 (248)	65.5

by English ships), and thus 40 per cent of the voyages by English ships overall. The number of voyages being undertaken by English ships increased by 60.5 per cent between 1567/8 and 1583/4. This increase took place primarily in overseas voyages, and although this can be partially explained by Shaxton's fraudulent activities in 1567/8 (with the disguising of overseas voyages as coastal voyages), overseas voyages still more than doubled from 1575/6 to 1583/4, an overall rise of 7.8 per cent. This was despite a decrease (14 per cent) in the number of coastal voyages in the same period (1575/6 to 1583/4), and although coastal voyages remained predominant, they fell as a percentage of the overall number of voyages undertaken by English ships from over 80 per cent down to just under two-thirds. Without further investigation into the number of voyages to and from King's Lynn for the rest of the century it is not possible to say whether this small decline in coastal voyages from 1575/6 to 1583/4 continued, but it might well have only been temporary.[44] The Searcher's account from Lynn for 1594/5, for example, reveals that of 714 recorded voyages by English vessels, 692 were coastal; 96.9 per cent.[45] What is apparent from this account is not only that the number of coastal voyages had increased by two-thirds from 1583/4, but also that overseas voyages and trade (in this year at least) had declined dramatically, with only 22 voyages by English ships sailing to or from foreign ports; a decline of nearly 90 per cent from a decade earlier. Nor was it the case that King's Lynn's overseas trade was taken over by foreign ships. The explanation for such a dramatic decline in overseas traffic could be related to the volatile situation in the Low Countries during the Dutch Revolt (1568–1648), with disruption to Anglo-Dutch trade caused by Maurice of Nassau's military campaigns against the Spanish-controlled territory in the Low Countries during the 1590s. If this was the case, it highlights how important exogenous factors such as foreign war could affect both England's overseas and coastal trade, in the latter case causing King's Lynn merchants to focus almost entirely on coastal movements due to the disruption of foreign markets. We can highlight a similar phenomenon from the mid-1570s if we look at the destinations frequented by English ships into and out of King's Lynn (Table 5.2).

Table 5.2 Major destinations and minimum number of voyages from/to King's Lynn by English ships, 1567–84

English/Welsh ports	*1567/8*		*1575/6*		*1576/7*		*1580/1*		*1583/4*		*Total*
	Out	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	
Aldeburgh	2			11	2						15
Berwick	2	1	7	1	5		30	2	6		54
Blakeney	4	2		1		1	1		1		10
Boston	16	5	36	12	41	14	24	7	24	15	194
Colchester	2	1	1		2		2		6	1	15
Dartmouth	3		2		4	2			1	1	13
Dover	10	1	2		1						14
Dunwich	6						2		2		10
Great Yarmouth	9	1	4	1	4	1	3		14	2	39
Hartlepool			9		1						10
Hull	3	1	6	1	1		5		4	2	23
Ipswich	3	5		1	12	2			3		26
London	27	24	51	28	63	32	16	25	20	33	319
Meeching (Newhaven)	1	2		7	1	8		8		1	28
Newcastle	22	145	68	192	22	169	66	235	37	220	1,176
Rochester	12	2	1	1	2			3		2	23
Rye	6		5	2	4		2	2	3		24
Sandwich	10		10		11		4		2		37
Selby					2						2
Shoreham	4	2			3			4			13
Walberswick	1		4		4				1		10
Other[46]	29		16	5	25	3	10	5	12	2	107

(*Continued*)

Table 5.2 (*Continued*)

English/Welsh ports	*1567/8*		*1575/6*		*1576/7*		*1580/1*		*1583/4*		*Total*
	Out	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	
Unknown	2			1	2	2	1				8
Total Native	174	192	222	264	212	234	166	291	136	279	2,170
Overseas ports: Low Countries											
Antwerp	1					1	60		66	1	129
Bruges					12		20		16		48
Dordrecht			1		3	4	2			1	11
Enkhuizen			10	14	3	6	12	7	6	3	61
Middelburg	5	4	1						1		11
Ostend			16								16
Overseas ports: France, Spain, and elsewhere											
Bordeaux	3	4	4	4	6	4	7	8	9	11	60
La Rochelle	2	2	4	1	2	3	1	7	9	7	38
Cadiz			5	2	1	2			4	3	17
Lisbon									17	9	26
St. Luca Bar'm									16		16
San Sebastian			1		1	1			7		10
Emden			1				1		10	3	15
Gdansk	1		4	6	6	2		1			20
Other[47]	3	4	16	11	10	8	21	8	5	5	91
Unknown				1	2	3	1	4	6	4	21
Total overseas	15	14	63	39	46	34	125	35	172	47	590
Cumulative	395		588		527		617		633		2,760

The biggest increase by far in terms of overseas destinations was the sudden mass of voyages by English vessels from King's Lynn to the Low Countries after 1576/7, principally to Antwerp. The reason for the upsurge in the King's Lynn–Antwerp trade was almost certainly linked to the opening salvos of the Dutch Revolt. After Spanish troops sacked Antwerp in November 1576, reputedly destroying 1,000 houses and killing 8,000 people, it might well be the case that enterprising English merchants and shipmasters saw an opportunity to both aid their fellow Protestants against Catholic occupation, and make substantial profits, by shipping much needed grain to a war-devastated town.[48]

Turning to King's Lynn's coastal trade, it is clear that it was dominated by voyages to and from England's east-coast ports, with 95 per cent ranging between Berwick-upon-Tweed and Dover. By far the most frequented ports were London and Newcastle: 69.8 per cent of recorded coastal voyages, and 54.1 per cent of all voyages by English ships travelled either to or from one of these ports. This dominance was entirely due to the two major trades with which King's Lynn was involved: coal and corn/grain. The most important in terms of the sheer quantity was coal, the catalyst for what has been described as an early industrial revolution, with hundreds of tons required in the growing towns of sixteenth-century England for industry and heating.[49] Most came from Newcastle. In 1561/2, there were 208 shipments of coal made to King's Lynn for a total of 4,995 chaldrons, or 8,671 tons. By the year beginning Easter 1586, coal inwards peaked at 9,582 chaldrons, or 18,685 tons. By way of comparison, London's coal imports in the year beginning Michaelmas 1585 was 23,867 tons, and in the year beginning Easter 1586 only around 5,000 tons were brought into Great Yarmouth and less than 2,000 at Blakeney.[50] Clearly, King's Lynn was rivalling London in importance in the coal trade. Moreover, this trade in coal appears to have been near exclusively one way; hardly any coal was re-shipped from Lynn either overseas or to other English ports. Why this was the case is not immediately clear. The most important and growing town in Norfolk, Norwich, was served principally by Great Yarmouth, and though Yarmouth was no stranger to coal shipments from the northeast (such as the 55 voyages from Newcastle to Yarmouth from Michaelmas to Michaelmas 1573/4) this was dwarfed by that of King's Lynn.[51] It seems likely that King's Lynn's dominance over its neighbour in this trade was a result of its geography: it sits on the River Great Ouse at the confluence of riverine networks that stretch into the English midland counties, and it seems likely that this coal was moved inland as well as being used in King's Lynn itself.

Unsurprisingly, the growth of the coal trade stimulated an increase in the size of King's Lynn's merchant fleet. Using the ship name methodology (linking standardized unique ship names to home ports), and the three-identifier methodology (linking unique master's names with a ship name, and ship's home port) and tallying the totals over a calendar year, it is possible to chart the growing size of King's Lynn's merchant fleet (see Table 5.3).[52]

Whichever methodology is adopted, the merchant fleet of King's Lynn increased dramatically in size from 1567 to 1576 (a 143.8 per cent increase with the ship name methodology; 235.5 per cent with the three-identifier methodology). Interestingly, there was a slight dip over this decade in the average tonnage of vessels. In 1567, the

Table 5.3 Number of ships in King's Lynn, 1566–76

Calendar Year	*1567*	*1572*	*1575*	*1576*
Ship name methodology	16	25	28	39
Three-identifier methodology	31	38	60	104

average ship tonnage was 43 tons; in 1576, it was 35 tons, but it should be remembered that there were far more vessels than before. Detailed figures on tonnage have yet to be compiled from the port books for the 1580s, but an increase in the tonnage of King's Lynn ships might well have started in this decade. A survey conducted in December 1582 recorded two ships of 100 tons or over (the *Bark Lyon* at 140 tons and the *Katheryne* of 100 tons) and 32 'Shippes and other vessells under 80 Tonnes'.[53] In all, according to N. J. Williams, King's Lynn merchants constructed at least 26 new vessels at an average of 48 tons between 1580 and 1587.[54]

If coal was King's Lynn's major 'coastal import' trade, then corn was its principal 'coastal export'. Though all the Norfolk ports were involved in shipping grain – rye, malt, barley, wheat, oats, corn, beans, and peas – both overseas and coastwise, King's Lynn was the predominant port. 'It was not unusual for her to ship more corn in a month than most ports shipped in a year'.[55] The biggest coastal destinations for ships sailing out of King's Lynn (as can be seen from Table 5.2) were Newcastle, London, Boston, Hull, Berwick-upon-Tweed (particularly the English garrison stationed there), and Sandwich, but King's Lynn grain ships travelled as far along the coast as Barnstaple, Beaumaris, and Liverpool. Newcastle was by far the biggest market for King's Lynn's grain, seemingly part of a reciprocal arrangement where the port supplied the growing mining communities of the northeast with corn in return for massive quantities of coal. Depending on the current relationship between England and Scotland, the garrison at Berwick was also a major recipient of Norfolk grain. Between April and September 1567, for instance, the victualler and treasurer of Berwick, Valentine Brown, received 14 shipments containing 3,439 quarters of malt for the garrison.[56] Only in years of shortage, when the government strictly regulated coastwise shipments to favour and feed the capital (such as in 1586–7 and 1600) did grain shipped from King's Lynn to London outstrip that sent to the north.[57]

Trade in other commodities into and out of King's Lynn was relatively minor.[58] Dairy produce that supplied the capital largely came from the Suffolk ports further down the coast. Fish were then, as now, regional specialisms, though King's Lynn did enjoy a fair trade in cod and ling with London and Boston: 84,000 fish, for example, were sent to London from King's Lynn in 1575/6, and a good deal of fish brought into King's Lynn went inland to Cambridge and Northamptonshire. There was also a small trade in iron, timber, and naval stores, from London, Kent, and Sussex, though most seems to have come in from Scandinavia. King's Lynn merchants were also involved in the making, or re-exporting, of foreign goods from the Baltic and shipping them to London: rope for ships' rigging (*c.*40 tons annually), pitch and tar (from the 1570s), canvas for sails, as well as a multitude of non-maritime goods.

King's Lynn merchants and shipmasters were heavily involved in this diverse coastal trade. Though we do not possess full records for every year, there are approximately 190 shipmasters who appear in the records for the port in the years 1565–77.[59] One hundred and two of these men appear in command of only one voyage. This perhaps represents mariners at the beginning or end of their careers, individuals whose careers were cut short by unforeseen circumstances, or masters whose careers are not well known due to poor documentary survival. It is also possible, and potentially more likely, that masters who appear only fleetingly in the records were predominantly fishermen who were supplementing their income by undertaking a trading voyage. The remaining 88 masters are recorded undertaking multiple voyages, with 55 undertaking five or more journeys. The most prevalent shipmaster was Robert Ryches, who is recorded sailing into/out of Lynn on 71 voyages – all of them coastal – followed by Robert Ladyman who undertook 61 voyages.

Ryches commanded seven different vessels over this 13-year period, but his most frequent charges were the *Swallow* (29 voyages), the *Mary Katherine* (14 voyages), and the *Jesus* (13 voyages). His career, though he was clearly a frequent sailor, was typical of the trading patterns of the port. He travelled from King's Lynn to Berwick (nine voyages); Newcastle (nine); and Selby, London, Hartlepool, Great Yarmouth, and Rochester (three, two, one, one, and one, respectively). Of the 45 voyages on which he is recorded sailing into King's Lynn, two were recorded as from London, and the rest were from Newcastle.

Ladyman's focus in terms of coastal trade was entirely northern. In predominantly two ships – the *Fox* and the *Falcon* – he undertook, cumulatively, 38 voyages to Newcastle and ten to Berwick-upon-Tweed. Unlike Ryches, however, he participated in overseas trade, with six trips to Scottish ports, five to Bordeaux, and two to the Low Countries. Ryches and Ladyman were certainly frequent travellers round the east coast of England, but they were not unusual in terms of the trading activities of King's Lynn shipmasters. Even if they represent the extreme end of the spectrum, we should rightly question N. J. Williams' assertion that 'coastal shipments were essentially the business of the small man'.[60]

Plymouth

The maritime trade of sixteenth-century Plymouth, a town on the western end of the English south coast between the mouths of the rivers Tamar and Plym near the Devon/Cornwall border, has received comparatively little scholarly attention compared to other English ports. While the port has been mentioned in studies of the maritime history of Devon and the southwest, it has mainly served as the backdrop to biographical studies of the exploits of famous local seafarers (Drake, Ralegh, the Hawkins family, Humphrey Gilbert, and Richard Grenville), and to the voyages of exploration, settlement, and discovery launched from Plymouth including, famously, Drake's circumnavigation in 1577 and Gilbert's ill-fated final expedition of 1583.[61] The details of the trade of the port, especially its coastal trade, are yet to receive systematic analysis.[62]

According to the port survey undertaken in 1565, Plymouth was 'com[m]enly frequented and haunted with trafique of m[ar]chaunts and m[er]chandises boithe

inward and outwarde' with jurisdiction over seven creeks; four in Devon and three in Cornwall.[63] The four Devonshire ports are named as 'Yalme three myles distaunt frome the porte, Orson a myle distannt, Stone Howse half a myle distant, and Morewelham x [ten] miles distant'.[64] Unfortunately, of the three Cornish creeks, only Saltash is recorded by name. Given the number of small creeks, riverine settlements, and havens along the coast and western bank of the Tamar it is difficult to speculate as to the location of the other two, although Millbrook is a likely candidate. None of Plymouth's creeks, according to the commissioners, were used to lade or unlade goods except Saltash with 'all the rest […] used but with lighters and such small vessels as doe convey suche wares as are laden and unladden at the same port [Plymouth] and at Salt Ayshe', and none, other than Plymouth itself, possessed a customs house. Also, the commissioners alleged, perhaps disingenuously, that they 'knowe no placies within the lymytts of the saide porte or creeke where wares or m[er]chandizes be used to be taken or discharged other then at thaccustomed placies'. Table 5.4 illustrates the number of recorded voyages into and out of Plymouth in seven case-study years.

It demonstrates that the overall volume of Plymouth's maritime traffic increased over the period by 50–60 per cent, and that trade was predominantly overseas, constituting two-thirds to three-quarters of all voyages by English ships. If foreign ships are included, the port's overseas traffic increases further. In 1579/80, for example, an additional 31 voyages were made into or out of the port by foreign vessels, increasing the percentage of overseas voyages of the overall traffic to 77.6 per cent.[66] The only anomalous year is 1568/9, when just under two-thirds of recorded voyages were coastal. The explanation for this upsurge is probably related to John Hawkins' slaving voyage of 1567–9. The details of this famous expedition are well known, with

Table 5.4 Minimum number of voyages in/out of Plymouth by English ships in select years, 1566–84[65]

Year	*Overseas (export)*	*Overseas (import)*	*Total overseas*	*Coastal*	*Total*	*% of coastal voyages of total trade (to 1dp)*
1566/7	49 (27)	37 (16)	86 (43)	48 (7)	134 (50)	35.8
1567/8	63 (18)	51 (16)	114 (34)	49 (10)	163 (44)	30.0
1568/9	42 (14)	29 (9)	71 (23)	123 (27)	194 (50)	63.6
1570/1	81 (22)	68 (20)	149 (42)	66 (20)	218 (63)	30.3
1579/80	88 (30)	53 (25)	141 (55)	52 (22)	193 (77)	25.9
1580/1	66 (15)	53 (17)	119 (32)	53 (18)	172 (50)	30.8
1583/4	61 (15)	81 (23)	142 (38)	64 (7)	206 (45)	31.1

Hawkins returning from the Americas, reaching Mount's Bay on 25 January 1569, only three days after Drake, in the *Judith*, had arrived into Plymouth.[67] Over the next few months, the Plymouth Searcher's account for 1568/9 records a flurry of coastal activity, with English ships from all over the south coast of England and beyond entering and leaving port. Unfortunately, the account does not contain details of the ships' cargoes, but it does reveal the names of the merchants moving the goods. This included William Hawkins (the richest man in the town, judging by his assessment at £21 13s 4d in the subsidy granted to Elizabeth I in May 1571), and brother of John.[68] He moved cargoes on seven different ships out of Plymouth bound for Bristol, Topsham, Swansea, and London, most notably of all in the 300 ton *Minion* commanded by John Garret, a royal vessel which John Hawkins had used on his 1567–9 voyage.[69] The increase in coastal voyages and trade in this year might also be explained by two further factors. First, enterprising shipmasters and merchants bringing into Plymouth goods for the 60-strong fleet (likely commanded by John Hawkins) which, between April and July 1569, landed supplies and English volunteers at the French Huguenot-held La Rochelle to aid their campaign against the French Crown. Second, these coasters might well have been transporting portions of £85,000 in captured Spanish gold to London, after Spanish vessels had been driven into Plymouth by Huguenot privateers in November 1568.[70]

What of Plymouth's other trading links? The concentration of Plymouth merchants and shipmasters on La Rochelle is shown in Table 5.5. Trade with La Rochelle constituted 40 per cent of all Plymouth's overseas voyages and 27 per cent of voyages overall, making this connection and route far more important than those with any other overseas port.[71] Youings and Cornford, utilizing the few surviving coastal accounts from the mid-1550s, argued that 'the greater part of Plymouth's coastal trade was with other ports of the South West'.[72] What was true in the 1550s was also apparent after 1565, but not with the intensity that might be expected.

By taking 'the southwest' as comprising the coastline from Bristol to the Dorset/Hampshire border, Table 5.5 reveals that the region constituted 38 per cent of Plymouth's coastal voyages. London, however, was not far behind at 34 per cent, and was the most frequently sailed route alongside Lyme Regis. Unfortunately, few details survive about the goods being moved coastwise, as the vast majority of the Plymouth Searcher's books (which supplies most of the information in Table 5.5) do not record this information. The only commodity details come from five coastal accounts cumulatively covering only two-and-a-half years of the period.[76] From this brief snapshot, it is clear that a whole range of goods were transported, including malt, hops, vinegar, gunpowder, paper, butter, candles, tableware, and materials for shipbuilding such as rope, tar, cast iron, wood, and canvas for making sails.[77] The most commonly traded commodities were wine, salt, fish, dried fruits, and Cornish tin. Though some merchants specialized, carrying only one product (such as the merchants John Wise and Luke Serret of Totnes who loaded the *Trinitie* of Plymouth bound for Dartmouth in July 1575 with slabs of Cornish tin), most merchants transported a diverse range of goods. In one typical example, William Hawkins transported 19 barrels of Bay salt, 3,000 'newland fyshe, two barrels of train [i.e. whale] oil […] drye hakes [and] tribus centum [300] oliphants teeth [i.e. tusks]', in the 30-ton *Anne* of Plymouth.[78]

Table 5.5 Major destinations and minimum number of voyages from/to Plymouth by English ships, 1566–84[73]

Ports	*1566/7*		*1567/8*		*1568/9*		*1570/1*		*1579/80*		*1580/1*		*1583/4*		*Total*
	Out	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	
Bristol			1		11	5	3	2	1	2	1	2			28
Chichester	1	1			2	3		1		1				1	10
Dartmouth	2			2	1	1	3	1		1		1	3	5	20
Exeter	1	2	3	3	1	1	1	1		3	1				17
Guernsey					7	5									12
K. Lynn				1	1			1	1	4	3				11
London	2	6	3	10	13	20	7	11	7	21	3	22	8	22	155
Lyme Regis	7	6	3	6	6	10	1	5		1	1	9		9	64
Meeching					1			2		1	1	2		3	10
Shoreham				1	1	1	1	6				2		1	13
Southampton		2		3	2	3		4		2		1	1	2	20
Other[74]		6	10	3	16	12	3	10	4	3	3	1	2	7	80
Unknown	5	5									1				11
Total Native	18	28	20	29	62	61	19	44	13	39	14	40	14	50	451
Overseas Ports															
Bay of Biscay	3	3	6	4	4	2			16	5	10	5	10	4	72
Bilbao	1	1					1				2		3	4	12
Bordeaux	1	1	1	2	3		7	2	12	3	9	5	5	5	56
Cadiz	1	1	1	2		3			1	1	2	4	4	4	24

Ports	*1566/7*		*1567/8*		*1568/9*		*1570/1*		*1579/80*		*1580/1*		*1583/4*		*Total*
	Out	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	
Canaries	1		2	2							1		4	2	12
La Rochelle	14	14	32	18	20	16	60	53	13	18	17	17	3	39	334
Lannion									4	2	4	5	1	4	20
Lisbon		1	1	2	2				3	1			2	4	16
Morlaix	1	1	6	10			4	4	3	5	5	4	4	6	53
Royan	1	1			1	1	5	6	2		4	1	1	2	25
Tréguier		1	2	1			2	2	8	9	2		1		28
Other[75]	2	3	10	9	12	6	4	3	11	8	3	3	15	3	92
Unknown	24	12	2	1		1	1	1	15	1	7	8	8	4	85
Total overseas	49	39	63	51	42	29	84	71	88	53	66	52	61	81	829
Cumulative	134		163		194		218		193		172		206		1,280

The evidence in Table 5.5 enables the reconstruction of Plymouth's trade routes. The port, roughly equidistant between London and the French and Spanish ports of the Bay of Biscay, acted as a stopping point for ships travelling between the two, and a distribution centre for both coastal and overseas trade. Wine and salt (along with a range of other commodities), were brought in from foreign ports, principally La Rochelle and Bordeaux, and then re-exported to other foreign destinations or moved along the English coast, mainly to London. This supports what is known of Plymouth's trade from previous, limited research about the port's mercantile activities in the first half of the sixteenth century and from 1585 to 1610. Trade in wine, tin, salt, and fish (especially hake), remained important constants. Plymouth does not, however, seem to have been significantly involved in Devon's other major trade – cloth – which instead appears to have been dominated by the nearby port of Exeter.[79]

In terms of the size of its merchant fleet, Plymouth had a similar number of vessels to King's Lynn at the start of the period: 16 and 19, respectively, by the ship name methodology in 1566/7, and 30 and 31, respectively, by the three-identifier methodology. Yet by 1576, King's Lynn's fleet vastly outnumbered that of Plymouth, as shown by comparing the figures in Table 5.3 and Table 5.6. While King's Lynn's fleet expanded by 143.8 per cent (ship name methodology), and 235.5 per cent (three-identifier methodology), the growth of Plymouth's fleet was much more modest. Comparing 1568, the year with the lowest figures, with the figures from 1580, Plymouth's fleet grew by 38.5 per cent (ship name methodology), and 58.3 per cent (three-identifier methodology). If Youings and Cornford were right in their assertion that Plymouth's fortunes soared after 1585,[80] then there was little sign of this (at least in terms of ship building) by 1580, although there was a minor increase in the average tonnage of Plymouth vessels, from 24.5 tons in 1567 to 33 tons in 1580. This, at least, was comparable to King's Lynn's average of 35 tons in 1576; King's Lynn had more vessels than Plymouth, but they were largely the same size. Yet while Plymouth did not see as much traffic or have as large a merchant fleet as a port like King's Lynn, it does compare favourably to other ports in the southwest.

Table 5.7 shows that Plymouth was certainly a major trading centre when compared to other ports in the region. In addition, four of the five ports were overwhelmingly coastal traders, with only Looe matching Plymouth in the predominance of overseas trade. Indeed, like Plymouth, Looe was also heavily involved in trade with La Rochelle, London, and Lyme Regis. Undoubtedly, however, while Plymouth was certainly an important port within the southwest, it struggled for parity with its main Devonshire neighbours and commercial competitors, Exeter and Dartmouth. From Michaelmas to Michaelmas 1566/7, for instance, the records reveal that while the

Table 5.6 Number of Plymouth ships in select years, 1567–80

Calendar year	*1567*	*1568*	*1571*	*1580*
Ship name methodology	19	13	16	18
Three-identifier methodology	30	24	26	38

Table 5.7 Minimum number of voyages undertaken by English ships, and size of the merchant fleet, of select southwestern ports, 1566–9[81]

Port	*Total*	*Export*	*Import*	*Coastal*	*% of coastal voyages of total trade (to 1dp)*	*Fleet (3ID)*	*Fleet (ship name)*	*Average tonnage*
Looe	38 (23)	14 (12)	8 (6)	16 (5)	42.1	18	9	28.9
Penryn	61 (0)	5 (0)	6 (0)	50 (0)	82.0	2	2	10
Mount's Bay	27 (5)	5 (0)	1 (0)	21 (5)	77.8	6	4	15
Padstow	73 (20)	1 (0)	3 (2)	67 (18)	91.8	15	8	20.3
St. Ives	53 (27)	4 (2)	6 (4)	43 (21)	81.1	19	8	

average tonnage of vessels from the three ports was near identical, Plymouth's main rivals possessed more ships and more overall tonnage. Using the ship name methodology, Dartmouth possessed the biggest merchant fleet of the three, with 37 ships totalling 963 tons (average 26 tons), followed by Exeter and its associated ports on the River Exe[82] with 28 ships totalling 753 tons (average 26.9 tons), and Plymouth's 19 vessels totalling 466 tons at an average of 24.5 tons.[83] Dartmouth's merchant fleet was effectively twice the size, in number of ships and tonnage, of that of Plymouth. Plymouth also had less traffic than the other two ports, as can be seen in Table 5.8.

The percentage of coastal voyages of the overall number of voyages undertaken for Devon's three leading ports was remarkably similar. However, both Exeter and Dartmouth had higher amounts of English maritime traffic overall than Plymouth (nearly 50 per cent more in Dartmouth and 60 per cent in Exeter), with the biggest differences between Plymouth and the other two ports occurring in the numbers of import and coastal voyages. This further highlights the link between these two branches of trade. The biggest difference between the three ports, however, concerned the respective level of maritime traffic undertaken by foreign vessels at each port. Cumulatively, the total number of import and export voyages by foreign ships into/out of Plymouth was 32. This compares to 61 for Exeter, and 95 in Dartmouth, bringing the total

Table 5.8 Minimum number of voyages undertaken by English ships in/out of Plymouth, Exeter, and Dartmouth, from Michaelmas to Michaelmas, 1566/7

Port	*Export*	*Import*	*Coastal*	*Total*	*% of coastal voyages of total English trade (to 1dp)*
Plymouth	49	37	48	134	35.8
Exeter	52	78	86	216	39.8
Dartmouth	55	64	80	199	40.2

maritime traffic of Plymouth, Exeter, and Dartmouth to 166, 277, and 294 voyages, respectively. The quaysides at Exeter and Dartmouth were thus between two-thirds and three-quarters busier than that at Plymouth. It is, of course, important to remember that the number of voyages within a port does not necessarily correlate with the value of the trade. A single voyage to a distant foreign port bringing back exotic, rare, and expensive goods could be worth as much to the Crown's customs revenues as several voyages undertaken across the English Channel and back. Nevertheless, the number of voyages undertaken does give an indication of the financial strength of a port's trade. In this instance, it appears that the volume of voyages in Devon's three premier ports was reflected in the customs revenues the voyages generated, at least if the situation in 1566/7 was replicated later in the century. From 1578 to 1583, for example, customs revenues at Plymouth averaged approximately £168 annually, half that of Exeter and Dartmouth.[84] Plymouth was thus a premier port within the southwest, but in this period at least, it was less commercially successful than its two major regional competitors. This might explain why it did not focus on the cloth trade like Exeter, and instead concentrated on wine; many ports, such as Newcastle with coal, and King's Lynn with grain, developed such specialisms.

Finally, it is important to consider the shipmasters and wider shipboard community who operated Plymouth's merchant fleet. A survey of 12 July 1570 stated that there were 1,264 mariners in Devon (including 86 in Plymouth and Stonehouse), plus a further 311 Devon mariners 'at the seas at Skarborough and ells where daylie'.[85] A more extensive survey undertaken in December 1582 listing ships and shipmasters shows that the number of seamen in Devon had increased. It records 1,914 ordinary Devonshire mariners and seamen, 150 shipmasters, and 101 fishermen, but unfortunately the survey omits Plymouth (and Dartmouth). However, even with this omittance, Devon as a whole still possessed the largest pool of maritime manpower in England. Of a reported 11,515 ordinary mariners and seamen in the country, Devon's 1,914 constitutes 16.5 per cent of the total, nearly double the number (991) recorded in London. Only Norfolk (with 232), possessed more shipmasters than Devon, and had fewer ordinary seamen (1,438).[86] These figures should be treated with caution; they do, however, highlight the importance of maritime trade to the economy of Plymouth and the southwest. From 1565–80, the port books reveal that there were approximately 168 Plymouth shipmasters.[87] The longest recorded career is that of Richard Lowry (Lowrie/Lawrie). He first appears in 1565 commanding the *John* bound from Plymouth to Lisbon, and from that point onwards until 1577 he is recorded undertaking 24 different voyages to a range of destinations including the Canary Islands, Cadiz, La Rochelle, Andalusia, Bordeaux, Waterford, Newfoundland, London, and Exeter. Throughout his career, he appears to have been in command of three ships: the *Christian* (30 tons), *John* (54 tons), and *Trinity* (40 tons). The only Plymouth shipmaster who undertook more voyages than Lowry was Owen Raynald (Raymonde/Reynold), who sailed on at least 27 voyages between 1565 and 1576, utilizing seven different vessels. Unlike Lowry, however, Raynald seems to have operated primarily within a trade triangle between Plymouth, Bristol, and La Rochelle.[88]

It is difficult to say whether the careers of shipmasters who undertook multiple voyages were typical of other shipmasters from the port, barring the frequency of

Table 5.9 Percentage of voyages undertaken in/out of Plymouth by Plymouth ships, 1566–84

	1566/7	*1567/8*	*1568/9*	*1570/1*	*1579/80*	*1580/1*	*1583/4*	*Average*
Overall trade (English ships)	37%	27%	25.6%	28.9%	38.3%	29.1%	21.8%	29.7%
Coastal trade	14.6%	20.4%	21.8%	30.3%	42.3%	34%	10.9%	24.9%

their travels. As was the case in King's Lynn, a sizeable proportion of the Plymouth masters (61 per cent) are only recorded commanding one voyage. Three-quarters of the men (128) are recorded in command of one ship, and only 18 commanded more than two vessels. Nevertheless, it would seem that, from this limited pool, most men undertook both coastal and overseas voyages, like Thomas Barret, who is recorded on five occasions travelling between Plymouth, London, and Bordeaux. This is not to say that there were not some men undertaking only one type of trade. Robert Cely, for instance, appears on six occasions from 1566/76, and is never recorded sailing further than Exeter, Dartmouth, and Topsham. We are on firmer ground when examining the number of Plymouth ships and shipmasters involved in the port's trade.

Throughout the entire period, Plymouth ships accounted for less than 30 per cent of the maritime traffic of the port (see Table 5.9). Even in coastal trade, where a much higher proportion of Plymouth ships would be expected, the port's own ships undertook less than a quarter of voyages. By comparison in King's Lynn between 1575/6 and 1583/4, native King's Lynn ships undertook 35.3 per cent of the coastal trade of the port and 40.3 per cent of the port's trade overall.[89] These figures highlight how robust the English merchant fleet was, and how interconnected English coastal settlements were, with a low percentage of a port's own ships undertaking its coastal trade, meaning that the trade was being undertaken by ships from a large number of other English ports. In 1567/8, Plymouth was visited by ships from 23 different English ports (not including Plymouth), and King's Lynn by 39.[90] The English merchant fleet, therefore, and English coastal trade, was vibrant, with large numbers of ships from ports of varying size engaging in trade and commerce, particularly at the head ports, the hubs of all this trade.

Conclusion

English coastal trade, far from being the poor relation of overseas ventures and mercantile activity, warrants scholarly attention in its own right. At the very least, it deserves greater prominence in studies of English maritime trade from 1565 onwards, when the records reveal its extent for the first time. It should not be viewed as separate from overseas trade; both were often inextricably intertwined. Imports, in particular, stimulated or retarded the volume of coastal voyages, with exogenous factors such as foreign war affecting both domestic and foreign markets.

Geography played a crucial role in determining the trade networks to which English ports were connected, dictating the level of traffic a port received and its level of coastal trade. Ports' trading activities were defined by their hinterlands and the resources and demands placed upon them by those hinterlands. In the two case studies examined here, King's Lynn moved vast quantities of grain grown locally, supplied by its access to an extensive inland network of waterways, mainly along the English east coast; Plymouth moved Cornish tin both to London and abroad. Yet levels of coastal trade were far from uniform. While historians have estimated that coastal trade constituted around three-quarters of all English voyages, it is possible from 1565 onwards to see that this was not the case for all ports and regions. Southwestern ports such as Plymouth were far better able to exploit the trade in French and Spanish wine than ports on the east coast, hence why most of Plymouth's trade was directed overseas. King's Lynn on the other hand supplied grain to the growing industrial mining towns of the northeast, the crucial garrison at Berwick, and London. It was primarily a coastal port in this period (at least in terms of maritime traffic), although its growing prominence in overseas voyages is evident by the 1580s, especially in shipping goods to the Low Countries.

Nor does it appear that England possessed two distinctive merchant fleets in this period – one coastal and one overseas – with the former consisting of smaller vessels (in terms of tonnage), as has sometimes been implied.[91] Some ships involved in overseas trade were large (50 tons and over), but there were plenty that were not. John White of Saltash, for example, made a career out of running to and from Plymouth and the French ports in the Bay of Biscay, mainly in the 5-ton *Peter*.[92] Similarly, the 120-ton *Greyhound* of Plymouth is recorded making coastal voyages between Plymouth, Swansea, and Tenby.[93] In other words, size was no determinant of a ship's participation in either overseas or coastal trade. Indeed, many ships and shipmasters were involved in both kinds of activity. Undoubtedly there were specialists such as Robert Ryches of King's Lynn, who appears exclusively to have traded coastally, but there were also many others who operated in both activities; to ignore coastal trade is to ignore an important part of the career of many shipmasters. While voyages overseas to new and exotic parts of the world by famous, infamous, and less well-known figures were certainly important to sixteenth-century Englishmen and women, coastal trade was just as vital to the lives of everyday mariners and essential for the strength of the English economy.

Notes

1 Unless otherwise stated, the figures in this chapter have been calculated from the database underpinning the AHRC-funded project: AH/L004062/1. See C. Lambert, 'The Evolution of English Shipping Capacity and Shipboard Communities from the Early Fifteenth Century to Drake's Circumnavigation (1577)', 2014–17: http://gtr.rcuk.ac.uk/projects?ref=AH/L004062/1; C. Lambert and G. P. Baker, 'The Merchant Fleet of Late Medieval and Tudor England', 2017: www.medievalandtudorships.org.

2 For an overview, see K. R. Andrews, *Trade, Plunder and Settlement: Maritime Enterprise and the Genesis of the British Empire, 1480–1630*, Cambridge: Cambridge University Press, 1984, especially pp. 1–41.

3 For instance, T. S. Willan, *English Coasting Trade 1600–1750*, Manchester: Manchester University Press, 1967; D. Hussey, *Coastal and River Trade in Pre-Industrial England: Bristol and its Region, 1680–1730*, Liverpool: Liverpool University Press, 2000; D. Hussey, *The Gloucester Coastal Port Books, 1575–1765: A Summary*, Wolverhampton: University of Southampton School of Humanities and Social Sciences, 1995.

4 See, for example, N. J. Williams, *The Maritime Trade of the East Anglian Ports, 1550–1590*, Oxford: Clarendon Press, 1988, pp. 138–82; D. M. Woodward, *The Trade of Elizabethan Chester*, Hull: The University of Hull, 1970, pp. 66–72; J. Kermode, 'The Trade of Late Medieval Chester, 1500–1550', in R. Britnell and J. Hatcher (eds), *Progress and Problems in Medieval England: Essays in Honour of Edward Miller*, Cambridge: Cambridge University Press, 1996, pp. 286–307; G. V. Scammell, 'English Merchant Shipping at the End of the Middle Ages: Some East Coast Evidence', *Economic History Review* 13/3, p. 329; T. S. Willan, *The Inland Trade: Studies in English Internal Trade in the Sixteenth and Seventeenth Centuries*, Manchester: Manchester University Press, 1976, pp. 26–49; N. S. B. Gras, *The Early English Customs System: A Documentary Study of the Institutional and Economic History of the Customs from the Thirteenth to the Sixteenth Century*, Cambridge, MA: Harvard University Press, 1918, pp. 143–6.

5 Figures calculated from *Descriptive List of Exchequer, Queen's Remembrancer, Port Books. Part. 1. 1565 to 1700*, List and Index Society 58, London: The Public Record Office, 1970.

6 Lambert, 'The Evolution of English Shipping'; Lambert and Baker, 'The Merchant Fleet of Late Medieval and Tudor England'.

7 See B. Dietz, 'The North-East Coal Trade, 1550–1750: Measures, Markets and the Metropolis', *Northern History* 22, 1986, pp. 280–94.

8 R. Brenner, *Merchants and Revolution: Commercial Change, Political Conflict, and London's Overseas Traders, 1550–1653*, London: Verso, 2003, pp. 4–5, 11, 27–8, 39–45.

9 S. Flavin and E. T. Jones (eds), *Bristol's Trade with Ireland and the Continent 1503–1601: The Evidence of the Exchequer Customs Accounts*, Dublin: Four Courts Press, 2009, pp. 683–4. On re-exports, see F. J. Fisher, 'London's Export Trade in the Early Seventeenth Century', *The Economic History Review*, New Series 3/2, 1950, pp. 160–1; J. Chartres, *Internal Trade in England, 1500–1700*, London: Macmillan, 1977, pp. 36–8.

10 Williams, *Maritime Trade*, pp. 18–19. These are accounts generated at a national level, rather than local port customs accounts.

11 For example, see The National Archives of the United Kingdom (hereafter TNA) E122/117/5 (Plymouth & Fowey, 1551–2); E122/12/21 (Boston, 1551).

12 Local port custom accounts (i.e. those generated locally and not related to the national accounts) survive for Great Yarmouth, Southampton, Exeter and Dartmouth, Bridgwater, and Newcastle, but these vary in quantity and chronological coverage, and rarely provide voyage details. See, for example, those for Newcastle: C. M. Fraser (ed.), *The Accounts of the Chamberlains of Newcastle upon Tyne, 1508–11*, Newcastle: Athenaeum Press Ltd, 1987.

13 For example: M. Kowaleski, *Local Markets and Regional Trade in Medieval Exeter*, Cambridge: Cambridge University Press, 1995, pp. 33, 224–32; M. Kowaleski, 'The Shipmaster as Entrepreneur in Medieval England', in B. Dodds and C. D. Liddy (eds), *Commercial Activity, Markets and Entrepreneurs in the Middle Ages*, Woodbridge: The Boydell Press, 2011, p. 168; R. H. Britnell, *Growth and Decline in Colchester 1300–1525*, Cambridge: Cambridge University Press, 1986, p. 70.

14 TNA E122/117/6.

15 A full-scale statistical investigation into English ship tonnage using the evidence from the port books in this period has yet to be undertaken, but for a general overview see R. W. Unger, 'The Tonnage of Europe's Merchant Fleets, 1300–1800', *The American Neptune* 52, 1992, pp. 247–61.

16 On this compensation, known as ton-tight, see C. Lambert, *Shipping the Medieval Military: English Maritime Logistics in the Fourteenth Century*, Woodbridge: The Boydell Press, 2011, p. 202, n.196. See also medieval ship surveys such as TNA C47/2/32; C47/2/46; *Calendar of the Patent Rolls Preserved in the Public Record Office, Edward III, Vol. 9: 1350–54*, London:

HMSO, 1907, pp. 419–20; N. A. M. Rodger, *The Safeguard of the Sea: A Naval History of Britain, Vol. 1: 660–1649*, London: Penguin, 2004, p. 120.

17 TNA E190/1324/4 ff. 2r, 3r, 15r, 16v, 23v; E190/1324/6 f. 2v; E190/1324/9 ff. 3r, 16v.

18 On the problems and types of tonnage see I. Friel, 'Documentary Sources and the Medieval Ship: Some Aspects of the Evidence', *The International Journal of Nautical Archaeology and Underwater Exploration* 12, 1983, pp. 54–6; D. Burwash, *English Merchant Shipping, 1460–1540*, Toronto: Toronto University Press, 1947, pp. 88–100; F. C. Lane, 'Tonnages, Medieval and Modern', *Economic History Review* 17/2, 1964, pp. 213–33.

19 On the history and development of the English customs system see Gras, *Early English Customs*. Two pioneering studies utilizing the national customs accounts prior to 1565 are Burwash, *English Merchant Shipping*; and E. Power and M. M. Postan (eds), *Studies in English Trade in the Fifteenth Century*, London: Routledge, 1933. For reform of the customs system see F. C. Dietz, *English Public Finance, 1558–1641*, vol. 2, 2nd edition, London: Cass, 1964, pp. 305–79; F. C. Dietz, 'Elizabethan Customs Administration', *English Historical Review* 45/177, 1930, pp. 35–57; R. W. K. Hinton (ed.), *The Port Books of Boston 1601–1640*, Lincoln: Lincoln Records Society, 1956, pp. xiii–xliii; G. A. Metters (ed.), *The King's Lynn Port Books*, Norfolk: Norfolk Record Society, 2009, pp. 1–8; Williams, *Maritime Trade*, pp. 10–49; E. T. Jones, *Inside the Illicit Economy: Reconstructing the Smugglers' Trade of Sixteenth Century Bristol*, London: Routledge, 2012, pp. 5–16, 37–62. TNA series E122 (the national customs accounts and pre-cursors of the port books) do not cease in 1565, but after the introduction of the port books the series contains only subsidiary documents such as tonnage rolls, views of accounts, files of cockets, and notes of seizures.

20 Jones, *Illicit Economy*, p. 52.

21 A transcription of this Book of Orders appears in B.Y. *The Modern Practice of the Court of the Exchequer, in Prosecutions Relating to His Majesty's Revenue of the Customs … By a Gentleman of the Exchequer Office*, London, 1731, pp. 406–46. On the confusion of this document with a similar set of working orders from 1564, see Jones, *Illicit Economy*, p. 50 n.42.

22 Gras, *Early English Customs*, pp. 104–6.

23 *Descriptive List of Exchequer*, pp. 73, 115.

24 B. Dietz (ed.), *The Port and Trade of Early Elizabethan London Documents*, Chatham: London Record Society, 1972, pp. ix–xi; N. J. Williams, 'The London Port Books', *Transactions of the London and Middlesex Archaeological Society* 18/1, 1955, pp. 13–26.

25 For further discussion of the roles and responsibilities of each customs official see: Williams, *Maritime Trade*, pp. 11–25. An additional official, the Collector, was appointed when the customs were farmed out to private individuals; see A. P. Newton, 'The Establishment of the Great Farm of the English Customs', *Transactions of the Royal Historical Society* 4/1, 1918, pp. 129–55.

26 This is a simplified description. The Customer (the official responsible for collecting the customs duties) was generally the only official who recorded all this information. The Searcher provided little if any detail about the commodities being carried.

27 The term 'smuggling' does not appear in English until the seventeenth century: 'smuggle', *OED Online*.

28 On smuggling and the reliability of the customs accounts see Jones, *Illicit Economy*, pp. 5–14. For further assessment of the value of the customs accounts, see N. J. Williams, 'Francis Shaxton and the Elizabethan Port Books', *English Historical Review* 66/250, 1951, p. 387; Williams, *Maritime Trade*, pp. 41–9; Hinton, *Port Books of Boston*, p. xxxii; G. D. Ramsay, 'The Smuggler's Trade: A Neglected Aspect of English Commercial Development', *Transactions of the Royal Historical Society*, 5th series 2, 1952, pp. 131–57; J. U. Nef, 'Richard Carmarden's "A Caveat for the Quene" (1570)', *Journal of Political Economy* 41/1, 1933, pp. 33–41. For a contemporary criticism of the corrupt practices of custom offices see TNA SP15/151 f. 34.

29 There were also warrants of *Transire* required when foreign goods, upon which import duties had been paid, were transported to another English port, to protect the merchant from paying import duties a second time. Gras, *Early English Customs*, p. 145.

30 Williams, *Maritime Trade*, p. 19.

31 Williams, *Maritime Trade*, p. 20.

32 For an assessment of the importance of customs accounts for reconstructing maritime trade, at least prior to 1558, see E. Carus-Wilson and O. Coleman, *England's Export Trade, 1275–1547*, Oxford: Clarendon Press, 1963, pp. 28–32.
33 For a case where the level of evasion can be seen, see Jones, *Illicit Economy*, pp. 87–111.
34 Metters, *King's Lynn Port Books*, p. 47.
35 See, for example, the cases of John Smyth and the Tyndall brothers in Bristol in Jones, *Illicit Economy*, pp. 113–36.
36 See: www.medievalandtudorships.org/.
37 It should be noted here and throughout this chapter that a year with a slash within it (e.g. 1571/2) refers to the accounting year which ran from Michaelmas (29 September) to Michaelmas the following year.
38 Extra voyages in non-Southampton records: TNA E190/1012/2 f. 1r; E190/1012/5 ff. 1r, 2r; E190/472/4 f. 5v; E190/472/5 f. 1r; E190/739/8 ff. 1r, 1v, 2r, 2v; E190/865/1 f. 19v; E190/865/3 f. 1v; E190/865/4 ff. 3r, 3v, 4v, 8r; E190/928/4 ff. 2v, 3r.
39 Metters, *King's Lynn*, p. 9; Williams, *Maritime Trade*, p. 5.
40 See *Descriptive List of Exchequer*, pp. 111–12.
41 Williams, 'Francis Shaxton', p. 390.
42 The number in brackets denotes the number of voyages undertaken by King's Lynn ships (included in the given total). Sources utilized: TNA E190/304/12; E190/305/4; E190/307/3; E190/307/9; E190/388/12; E190/388/13; E190/426/1; E190/427/7; E190/427/8; E190/428/1; E190/428/2; E190/428/3; E190/428/4; E190/428/12; E190/429/5; E190/473/14; E190/591/12; E190/591/18; E190/638/6; E190/738/2; E190/587/11; E190/738/2; E190/864/9; E190/930/18; E190/930/22; E190/931/3.
43 Williams, *Maritime Trade*, p. 139.
44 Other studies on King's Lynn's trade which provide statistical information are of little help, as they have focused on the value and bulk of commodities of overseas trade rather than the number of voyages. See Williams, *Maritime Trade*, pp. 297–8 (though at p. 138 he does give the figure of the overall trade for 1586/7 as 802 voyages); Metters, *King's Lynn*, pp. 32, 34.
45 TNA E190/431/7.
46 Fewer than ten voyages per port. 9: Plymouth, Topsham. 8: Southwold. 7: Ingoldmells, Winchelsea. 6: Harwich. 5: Cley next the Sea, Dartford, Liverpool, Tonbridge. 4: Faversham, Maldon, Pevensey, Wainfleet All Saints, Whitby. 3: Dogdyke, Lincoln, Lowestoft, York. 2: Alnmouth, Arundel, Fosdyke, Hastings, Scarborough. 1: Barnstaple, Bawdsey, Beaumaris, Burnham, Cambridge, Exeter, Falmouth, Keadby, Maidstone, Manningtree, Margate, Mill-Hall, Milton (Cambs.), Orford, Portsmouth, Saltash, Southampton, Stockton-on-Tees, Weymouth, Woodbridge, Woolverstone.
47 Fewer than ten voyages per port: 9: Kirkcaldy. 8: Bayonne, Sluis, El Puerta de Santa Maria (St Marys Port). 7: Dublin, Elblag. 6: Delft, Nieuwpoort. 5: Prestonpans. 4: Dunkirk, Île de Ré (St Martins). 3: Amsterdam, Flanders, Leith, Vlissingen. 2: Livorno (Italy), 'Norway', Roosendaal. 1: Armagh, Arnemuiden, Burntisland, Canary Islands, Dieppe, Le Havre, Malaga, Pomerland (area of northern Poland), Rotterdam, Rouen, St Andrews, Szczecin, Tønsberg, (Norway).
48 G. Parker, *The Army of Flanders and the Spanish Road, 1567–1659: The Logistics of Spanish Victory and Defeat in the Low Countries' Wars*, 2nd edition, Cambridge: Cambridge University Press, 2004, pp. 199–200.
49 See: J. U. Nef, *The Rise of the British Coal Industry*, vol. 1, London: Routledge, 1932, pp. 156–64; R. C. Allen, 'Was There a Timber Crisis in Early-Modern Europe?', in S. Cavacioocchi (ed.), *Economia e energia secc. XIII–XVIII*, Florence: Storia Economica Datini, 2003, p. 472.
50 Williams, *Maritime Trade*, pp. 142–4.
51 TNA E190/473/7.
52 Lambert, *Shipping the Medieval Military*, pp. 215–22. For further discussion of methodologies for calculating the size of a merchant fleet see C. Lambert and G. P. Baker 'The Merchant Fleet and Ship-Board Community of Kent, c.1565–c.1580', *Archaeologia Cantiana* 140, 2019, pp. 94–100.

53 TNA SP12/156 ff. 77r, 83v–84r.
54 Williams, *Maritime Trade*, p. 146.
55 Williams, *Maritime Trade*, p. 150.
56 TNA E190/425/6 ff. 11v–12v.
57 Williams, *Maritime Trade*, pp. 153–5.
58 On other wares, see Williams, *Maritime Trade*, pp. 161–80.
59 See Lambert and Baker: www.medievalandtudorships.org.
60 Williams, *Maritime Trade*, p. 188.
61 See, for example, M. M. Oppenheim, *The Maritime History of Devon*, Torquay: The Devonshire Press, 1968, pp. 58–9, where Plymouth's trade is mentioned in passing. Also see W. R. Childs, 'Devon's Overseas Trade in the Late Middle Ages', in M. Duffy (ed.), *The New Maritime History of Devon: From Early Times to the Late Eighteenth Century*, London: Conway Maritime Press, 1992, pp. 79–89.
62 J. Youings and P. W. Cornford, 'Seafaring and Maritime Trade in Sixteenth-Century Devon', in M. Duffy et al. (eds), *The New Maritime History of Devon*, vol. 1, Exeter: Conway Maritime Press, 1992, pp. 98–107, is the most comprehensive work to date.
63 Quotations in this paragraph are from TNA E159/350 ff. 350r–350v (Plymouth); the survey of Fowey is at ff. 351r–351v. Proper names have been capitalized and punctuation added.
64 'Yalme' likely refers to a settlement on the River Yealm or its estuary. 'Orson' is Oreston, a former village on the bank of the Cattewater, now a suburb of Plymouth. 'Stone Howse' is Stonehouse, formerly East Stonehouse on the Devon side of the Tamar estuary. 'Morewelham' is Morewellham, a former riverine port on the Tamar.
65 Numbers in brackets are those undertaken by Plymouth ships included in the total. TNA E190/304/2; E190/304/5; E190/305/4; E190/426/1; E190/588/3; E190/737/7; E190/814/5; E190/814/7; E190/864/12; E190/928/2; E190/1010/13; E190/1010/18; E190/1011/5; E190/1011/7; E190/1011/12; E190/1011/18; E190/1011/19; E190/1011/23; E190/1014/25; E190/1015/7; E190/1015/23; E190/1128/12; E190/1128/13.
66 TNA E190/1014/25.
67 On this expedition see Andrews, *Trade, Plunder and Settlement*, pp. 125–7; H. Kelsey, *Sir Francis Drake, the Queen's Pirate*, New Haven, CT: Yale University Press, 2000, p. 40.
68 TNA E179/100/368 f. 7r.
69 TNA E190/1011/12 ff. 6r–8v (the *Minion* at 7r). Garret had been the ship's mate on the 1567–9 expedition. See H. Kelsey, *Sir John Hawkins, Queen Elizabeth's Slave Trader*, New Haven, CT: Yale University Press, 2003, p. 55.
70 See B. Morgan, 'Hawkins, Sir John (1532–1595), merchant and naval commander', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press, 2004: (www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-12672, accessed 15 Apr. 2018); P. Gosse, *Sir John Hawkins*, London: John Lane, 1930, p. 112; Rodger, *Safeguard of the Sea*, pp. 202–3.
71 From the thirteenth century La Rochelle was 'the principal [trading] outlet for the whole of central-western France'; see M. Tranchant, 'The Maritime Trade and Society of La Rochelle in the Late Middle Ages', in W. Blockmans, M. Krom, and J. Wubs-Mrozewicz (eds), *The Routledge Handbook of Maritime Trade Around Europe 1300–1600*, London: Routledge, 2017, p. 354.
72 Youings and Cornford, 'Seafaring and Maritime Trade', p. 101, citing TNA E122/118/38, E122/118/39, and E122/117/12.
73 Fewer than ten voyages per port. 9: Topsham. 8: Poole, Weymouth. 5: Blakeney, Sandwich. 4: Arundel, Great Yarmouth, Hull, Swansea. 3: Mount's Bay. 2: Dartford, Helston, Ipswich, Padstow, Portsmouth, Rye. 1: Barnstaple, Bridgwater, Brighton, Colchester, Dover, Goole, Jersey, Milford Haven, Newport, Penryn, Salcombe, Tenby, Truro, Winchelsea.
74 Fewer than ten voyages per port. 8: San Sebastián. 7: Ayamonte, Le Havre, St. Malo. 6: Alicante. 5: Andalucia, Bayonne. 4: Cork, Galicia, Oléron. 3: Bruges, Waterford. 2: Gdansk,

Guérande, Malaga, Middelburg, Nantes, Norway, Valencia. 1: Antwerp, Barnénez, Brest, Crielle, Dieppe, Hiers-Brouage, La Croix, Landerneau, Newfoundland, St Andrews, Saint-Jean-de-Luz, Sanlúcar de Barrameda, Saint-Pol-de-Léon, Wexford, Youghal.

75 The figures for 1579/80, 1580/1, and 1583/4 are drawn almost exclusively from the Plymouth books and are thus likely to be underestimates.

76 TNA E190/1012/19 (Easter–Michaelmas 1575); E190/1010/16 (Mich.1576–Eas.1577); E190/1013/20 (Eas.1578–Mich.1578); E190/1014/11 (Eas.1579–Mich.1579); and E190/1014/18 (Mich.1579–Eas.1580).

77 TNA E190/1012/19 f. 2r; E190/1014/18 f. 1v.

78 TNA E190/1014/18 f. 4r.

79 Youings and Cornford, 'Seafaring and Maritime Trade', pp. 102–5.

80 Youings and Cornford, 'Seafaring and Maritime Trade', p. 102.

81 Number in brackets denotes voyages undertaken by ships of said port. E190/814/3; E190/814/5; E190/814/7; E190/864/7; E190/864/8; E190/864/12; E190/1010/13; E190/1010/14; E190/1010/15; E190/1010/19; E190/1010/21; E190/1010/22; E190/1010/24; E190/1011/1; E190/1011/3; E190/1011/4; E190/1011/5; E190/1011/6; E190/1011/7; E190/1011/9; E190/1011/10; E190/1011/11; E190/1011/12; E190/1011/18; E190/1011/19; E190/1011/20; E190/1011/21; E190/1128/8; E190/1128/12.

82 Exeter was located far from the sea (around six miles up the River Exe), with the riverine traffic restricted first by the construction of weirs downriver by the earls of Devon in the thirteenth and fourteenth centuries, and later by silting. The Exeter canal, completed in 1566 or 1567, did little to improve matters. Consequently, Exeter utilized Topsham as its outport, and Exeter merchants controlled the wider Exe region, with goods freighted from these ports up the river in small lighters to Exeter itself. Therefore, when calculating the number of 'Exeter' ships, the total includes those with the home port listed as Topsham, Kenton, and Exmouth. See Kowaleski, *Local Markets and Regional Trade*, pp. 222–4; W. B. Stephens, 'The Exeter Lighter Canal, 1566–1698', *Journal of Transport History* 3/1, 1957, pp. 1–11.

83 TNA E190/925/11 (Dartmouth); E190/925/14 (Exeter).

84 Youings and Cornford, 'Seafaring and Maritime Trade', p. 104. For a more extensive discussion, see W. B. Stephens, 'The Foreign Trade of Plymouth and the Cornish Ports in the Early Seventeenth Century', *The Devonshire Association Transactions* 101, 1969, pp. 125–38. On the relative importance of the three major Devonshire ports in the fourteenth century, see Kowaleski, *Local Markets and Regional Trade*, p. 33.

85 TNA SP12/71 f. 201. The numbers presented in this survey are interesting considering that Dartmouth, which as we have seen possessed more ships than Plymouth, is listed with only 28 mariners.

86 TNA SP12/156 ff. 94r, 97r, 100r, 105r; Youings and Cornford, 'Seafaring and Maritime Trade', p. 103.

87 It should be noted that the records for Plymouth from Michaelmas 1571 until Easter 1578 are patchy, with only coastal accounts for Easter to Michaelmas 1575 (TNA E190/1012/19), and Michaelmas 1576 to Easter 1577 (TNA E190/1010/16), so the figure presented is a minimum.

88 For further details of these men's careers see Lambert and Baker, www.medieval andtudorships.org.

89 King's Lynn's percentages are calculated from the contents of Table 5.1.

90 TNA E190/1011/7 (Plymouth); E190/426/1 (King's Lynn).

91 M. Oppenheim, 'Maritime History', in W. Page (ed.), *The Victoria History of the County of Kent*, vol. 2, London: Archibald Constable, 1926, pp. 298–300.

92 See for example, TNA E190/1011/7 f. 3v.

93 TNA E190/1011/12 ff. 7r, 15v.

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6

Global networks in maritime worlds 1400–1800

Rila Mukherjee

Marine versus maritime worlds

This chapter examines oceanic networks spanning five centuries. It recognizes that oceanic worlds are modern cultural constructs, and understands them to be fractured and fragmented worlds that are intrinsically unstable.[1] However, most of all, it acknowledges that our ideas of such worlds are coloured by outsider conceptions of the sea rather than emic or insider perceptions – articulated by littoral peoples or islanders – that is, of those living *in* and *around* the sea. Therefore, the chapter also makes a distinction between maritime and marine worlds.

Although both present vibrant waterscapes, the maritime distinguishes between large (ocean) and small (seas, bays, straits, gulfs, etc.) waterbodies, while the marine world dispenses with size, signifying an environmental continuum within which littoral peoples live and work. The marine world is mostly amphibian – peoples' livelihoods demand an effortless movement between land and sea. The maritime world signals by contrast an expansive world forging links across waters, since its ambit – signifying seaborne connections generating maritime empires and cultures – is larger and links to world and global history, bringing marginal histories to the centre of historical research.[2]

Maritime history's relation to the history of explorations, to European expansion, and to imperial projects makes it more of an 'official' history with a seafaring perspective: sea voyages, trade, slavery, migration, port cities, piracy, privateering, navigation and ship technology, scientific exploration with maps and instruments, overseas shipping, trading and finance companies, fishing, maritime communities, and seamen. Its narrative is coloured by power projection at sea through the application of technology, this sees the deepening and widening of maritime contacts and market exchanges, cultural contacts, military conflict, migrations and social transformations rooted in improved transport and commercial knowhow.[3] It provides a methodology for linking the local, the regional, the national, the transnational, and the global, with

the possibility of comparing the small, the big, everyday life, material culture, and transactions in the most remote places around the world.[4]

It is evident the distinction between the two rises partly from the way we regard them: as space from the outside as opposed to place as in insider perception, or what Peregrine Horden and Nicholas Purcell termed a 'history in' the sea of outsiders rather than a 'history of' the sea as experienced by people living in and around it.[5] The divergence in popular perception between the two can be traced to fifteenth-century Renaissance geography, which distinguished between small and large bodies of water, marking seas and oceans as separate categories.[6] Classical and medieval Europeans viewed the world as archipelagic – if not aqua pelagic – and this marine world, rather than the maritime, also predominated as commons for indigenous Americans, Asians, Australasians, and Africans.[7] Egyptian, Persian, Greek, and Arab notions of the river-sea, the Indic Ganga-sagar and the Brazilian rio-mar display harmonies between land, river, and sea. Pacific islanders imagine their ocean as a sea of transits; in South Asia a putative sea – the Lauhitya Sagar (lit. sea) designating the lower Brahmaputra river – rules local consciousness; further east the emotive Sea of Melayu and the Jiaozhi Ocean mandate popular perception.[8] Matt Matsuda comments: 'An Oceanic history of the Pacific is very much a zone where tidal and maritime metaphors are appropriate as great confluences and individual vessels meet'.[9] An Australian aboriginal painting of the early 1990s saw the region's rivers as a 'flood dependent' ecosystem needing flooding to regenerate – 'The water shows us the country'.[10] Such histories are truly water histories – a global history of water.[11] Thus, Alison Bashford suggests regarding oceanic histories as terraqueous histories where:

> the early modern meaning of 'terraqueous' was expansive in terms of the description and comprehension of matter and processes. In its original usage in Anglophone texts, terraqueous matter could and did include 'atmosphere, mass of air, vapours, and clouds'. The exchange of waters was in grand balance, dependent on the area of both land and sea.[12]

This endorses our view of the marine world as amphibian, as opposed to the maritime world, which presents a history of outsiders *in* the sea.

Maritime extent

The maritime world's reach is larger because it necessarily extends into the interior. Upstream–downstream connections bring upland polities into the ambit of the sea; this is particularly noticeable in South and Southeast Asia with their long waterways. Cognitively speaking, the maritime also reaches the interior without fluvial passages since its frontiers expand and contract through networks. According to Fernand Braudel, a thousand frontiers defined space-time at various times in history, with Renaissance networks extending as far as landlocked Cracow.[13] Inland Yunnan, with no navigable routes to the sea, used *kauri* shells (*cypria moneta*) as medium of exchange for over a millennium, and the interior Shan polity in upland Myanmar undertook seaborne missions to China around 120 or 132 CE.[14] Oceania, perhaps the

most pelagic of spaces, spread across Southeast Asia, South America, and Australasia, but did not generate global networks until Vasco Nunez de Balboa 'discovered' the Pacific in 1513.

Global networks vary in scope, with the seventeenth century showing some of the sharpest variations. Doctrines such as *mare clausum* and *mare liberum* – and a territorialization of sea spaces – gained momentum as nations fought for maritime hegemony once the Treaty of Westphalia of 1648 established the European system of nation-states. Voyages through the Arctic Ocean for Northwest and Northeast passages as alternate routes to America and China were reflective of this trend but were abandoned by the 1630s as the seas became icy, resuming again only from 1741 after the Little Ice Age was over. The Ming-Qing transition reflected the global seventeenth-century crisis, yet the Qing also expanded into Eurasia at this time. Warfare increased as borderlands, with attendant climatic pressures, were brought into the ambit of emergent states. Tsarist Russia exploded into Siberia, creating a small Northeast-Asian Pacific-centred economy. Tokugawa Japan and Choson Korea escaped the worst effects of the crisis because they had fewer global networks; Japan's economy and population expanded, but the eighteenth century saw a slowdown. Vietnam, with its extensive maritime networks, split into Trinh and Nguyen domains between 1600 and 1800. The Ottoman economy slowed down after 1600. Safavid Iran experienced bullion shortage and declining silk exports from the second half of the seventeenth century; Mughal India, central in global networks at that time, showed signs of a climate crisis.[15] There was a 'seventeenth-century crisis' in Southeast Asia as formerly expansive polities, nodal points on the Maritime Silk Road, declined.[16]

Clearly, the extent of the maritime is difficult to assess. Moreover, although water covers two-thirds of the world, seas and oceans enter our consciousness only partially. European industrialization from the second half of the eighteenth century and the subsequent rise of nation-states marginalized pelagic spaces, reorienting production and wealth to the continental sphere in the Americas, Asia, Australasia, and Africa by the nineteenth century.[17] The situation from 1400 to 1700 was different, however. Mercantilism saw seas as equal to land in generating career opportunities; there was a race to control waterbodies. As size equalled power, seas became central to the political imaginary of mercantilism.[18] Yet for indigenous peoples, seas remained part of the marine world, although commercial networks brought them increasingly into the ambit of global trade.

Defining 'global'

Equally problematic is the definition of the term 'global'. The difficulty lies in the problem of scale – sub-global, semi global, and pan global – and the attendant complexities arising from their application to specific spaces. The recently edited *Oceanic Histories*, a comprehensive account of world history focuses not on land but on the 70 per cent of the earth's surface that is covered by water: the Indian, Pacific, and Atlantic Oceans, and the world's seas from the Arctic and the Baltic to the South China Sea and the Sea of Japan or Korea's East Sea.[19] While this pan global reach is easy to identify, others are not. Sub-global can reference the 'Atlantic system' or the 'Arab world',

while semi global references the spread of Austronesian culture into the Pacific and Indian Oceans, the Arctic world system with specialized biotechnologies spreading across the northern seas and displacing Paleo-eskimos, Amerindians, and Vikings, and finally, the old Afro-Eurasian system linking Europe, Africa, and Asia.[20]

The many types of history encompassed within the term 'global' again compound the problem. It becomes a challenge to rethink the relevance of space, spatial dynamics, and the interplay of scales, for instance. In transnational history, in contrast to history that is spatially defined as national history or otherwise geographically defined, there is no clear cut, predefined space in which such a history takes place. It can be exercised on a sub-world scale – a regional one – and the challenge is to practise and spatially frame transnational history, establishing the relation between perspectives of radically different scope: global, international, intercultural, national, regional, or local.[21]

Embedded within transnational history, networked history:

> can actually be seen as an umbrella perspective that encompasses a number of well-established tools and perspectives such as historical comparison, (cultural) transfers, connections, circulations, entangled or shared history […] all of these tools or perspectives stress the importance of the interaction and circulation of ideas, peoples, institutions or technologies across state or national boundaries and thus the entanglement and mutual influence of states, societies or cultures. According to such a definition transnational history is a perspective of study; it does not claim to be a specific method.[22]

Transnational history bridges the national, the sub-national (regional), and the global by exploring actors, movements, and forces that cross boundaries, penetrating the fabric of nations.[23] Both kinds of history writing displace the nation to a certain extent. Since the nation is no longer the central frame-working device for history, alternative narratives and scales of analysis are essential. The identification of global poles helps in framing alternate views.

Global poles

Braudel's *économie monde*, translated by Immanuel Wallerstein as 'world economy', is an autonomous economic space, but not necessarily 'global' in the modern sense. It features dominant cities at different times in history – sixteenth-century Antwerp, seventeenth-century Amsterdam, eighteenth- and nineteenth-century London, twentieth-century New York, twenty-first-century Shanghai – and a networked political-economic space such as the fifteenth-century Ming world, the sixteenth-century Mediterranean world, the seventeenth-century Spanish Atlantic world, or the eighteenth- and nineteenth-century British Empire. World economies have existed simultaneously: the Persian Gulf and Red Sea economies in antiquity, the multipolar medieval Indian Ocean economy, and the fifteenth-century Venetian and Ming commercial worlds are examples. World economies do not necessarily generate 'hard' centres as the Afro-Eurasian world system detailing Asian, African, and European world economies from 3500 BCE demonstrates.[24] This system displays several cores

during its history: Egypt, Sumer, and West Asia; thereafter China, North India, North Africa, and the Mediterranean; subsequently Cordoba, Byzantium, the Red Sea/Persian Gulf region; thenceforth Fatimid Cairo, Chola south India, Song China; and finally, a West Asian core ceding way to two smaller cores centred on Istanbul and Cairo in the fifteenth century presaging the decline of Africa, a fragmented India with regional cores, and a unitary China. The Afro-Eurasian world system occupies the largest space and the longest period within this schematic, its networks remain consistently prominent.

Early biological dispersal between Africa and Asia occurred through and across small, coastal societies rather than through large inland centres on overland trade routes, 'soft' centres predominating in this exchange.[25] The play of maritime networks is evident from the fact that African crops influenced the South Asian mainland *earlier* than they did in Arabia, suggesting that the Indian Ocean arena, rather than overland zones, was one of the earliest regions facilitating long-distance biological exchanges. An undisclosed cultural break between Africa and Europe via Arabia is inferred, since ancient African sesame reached Egypt about 1300 BCE, probably via India and Mesopotamia and not through land routes. Carl Sauer notes:

> Tropical Africa did not get its planting culture out of India by way of the Fertile Crescent. The bananas, for instance, could not take the northern route. The passage westward can hardly have been in any other manner than by skirting the Indian Ocean. Along it there was no winter cold and the arid stretches were broken at intervals by alluvial strips watered from highlands. The southern rim of Arabia, from the Straits of Hormuz to those of Bab el Mandeb, along the coasts of Oman, Hadhramaut, and Yemen, may be a great lost corridor of mankind.[26]

Abyssinian durum wheats – seen as uniquely Italian – seem not to have reached the Mediterranean until after the fall of the Roman Empire. The obstacle between Ethiopia and the Mediterranean was in part climatic, between summer and winter growth seasons, and was only gradually overcome by irrigation and the breeding of winter races of wheat. Asiatic planting and fishing culture expanded across waters, as shown by their spread across the islands of the Pacific and their penetration of tropical Africa, the Mediterranean, and of Western Europe.[27]

A world economy consists of multiple poles linked by cultural spaces (*aires culturelles*) showing the mobility of plants, humans, animals, ideas, and objects.[28] Trading networks facilitated the creation of global zones but faith and sojourning communities also created a global world prior to the rise of industrialization: Islam had a global reach, but the reaches of Buddhism, Hinduism, and Latin Christendom were more restricted in space-time and confined to Asia, Africa, and Europe. Sub-global networks played prominent roles in establishing Hinduism and Buddhism in Southeast Asia; Buddhism, Manichaeism, and Nestorian Christianity in Central and South Asia; Islam in Southeast Asia and sub-Saharan Africa. Geographies of travel reveal the paradoxes of this global world. I-tsing found a Bay of Bengal Buddhist world of clergy, laymen, and translators while travelling on Persian ships between India and China; Ibn Battuta, using Muslim shipping, discovered an Islamic world stretching from North

Africa to China; the Orthodox Christian Athanase Nikitin's travels across the Indian Ocean, however, saw him relegated to an outsider, neither Christian nor Muslim.

From antiquity, the Persian Gulf-Red Sea region linked to the Latin world through Syria and the eastern Mediterranean and to the Indic-Sinic worlds through the Indian Ocean. Here Southeast Asia was a crucial connector.[29] An 'age of commerce' marked the ninth-century Indian Ocean, intensifying into another age of commerce in Southeast Asian waters in the sixteenth century.[30] Further east, Ryukyu islanders connected Japan with the wider Asian world until the sixteenth century. Other nodes more limited in size, time, and scope existed: in the central Indian Ocean, Sri Lanka connected China to Rome and acquired a sea of its own, the Sea of Si-lan.[31]

Hubs in Central Asia connected Asia to Europe through the overland Silk Route until the seventeenth century. Abu-Lughod's thirteenth-century Central Asian world (zone VII) linked eight world economies covering Europe, North Africa, the Persian Gulf-Red Sea region, and Asia.[32] Within Central Asia were globalized zones such as landlocked Yunnan networking with the Indian Ocean world. According to Andre Gunder Frank, Central Asian networks were important, but India and China remained global poles, losing their comparative advantage only from the seventeenth century, as opposed to Wallerstein's thesis of a modern world system privileging only sixteenth-century Europe.[33] For both Atlantic and Pacific regions, thoroughgoing social and economic integration occurred later, European mariners forging direct connections among the sub-regions of both basins only in the sixteenth century. Cross-cultural interactions provided a foundation for a genuinely global periodization of world history. Research on silver flows, for example, highlights the significance of interoceanic exchange in this period. Seen this way, the early modern world was not so much a collection of distinct, bounded sea and ocean basins as the site of intricate emerging networks of global communication and exchange of objects, artefacts, and commodities.[34]

Pitfalls of periodization

While the Indian Ocean and the Mediterranean Sea saw the earliest 'global' networks – the first peopled by Persians, Romans, Arabs, Indians, and Chinese, and the second by Phoenicians, Greeks, Romans, Egyptians, Persians, and Carthaginians – the Atlantic and Pacific basins showed little significant social and economic integration before the sixteenth century. This makes periodization tricky. When historians address the past from global points of view to examine processes crossing the boundary lines of societies and cultural regions, such problems become acute since:

> There is a plurality of competing spatial frameworks at any given time. Patterns of cultural exchange and transnational spaces cannot be contained in one fixed category of space, and the traditional notion of space as a container in which historical change unfolds constricts the view of the intertwined processes of global integration and fragmentation. It does not capture the dialectic of flows (for example, migration, capital, goods, ideas) and the attempts to control them by various forms of territorialization (such as nation-states, regions, cities as

> portals of globalization, supranational structures, identity politics, transnational networks, and so forth). Secondly, since notions of space, as well as the relevant spatial frameworks, have changed over time, no single spatial entity can be postulated as the dominant one for all periods in the past. […] In a nutshell, the 'spatial turn' recognizes the constructed nature of space, acknowledges the simultaneity of various spatial frameworks and the centrality of both the historical actors and historians in defining spatial orders.[35]

Despite arguments that west-African mariners travelled frequently to pre-Columbian America, it seems likely that the only recurrent transatlantic voyaging before 1492 was that of Scandinavian mariners, pre-Columbian Bristol explorers that are only now entering academic discourse, and perhaps European fishermen. Whatever contacts they produced did not generate sustained interactions; the Atlantic Ocean basin began to move toward social and economic integration only in the post-Columbian period.[36]

The Pacific Ocean basin was the site of frequent interaction well before modern times; more so than the Atlantic. Scholars saw the Pacific divided into Near and Remote Oceania: 'This is one ocean people have really lived in, not simply sailed across' from early times.[37] Austronesian mariners populated almost all of the habitable islands of the Pacific Ocean, introducing a distinctive complex of food crops and domesticated animals: taro, yams, bananas, breadfruit, dogs, pigs, and chickens. Their descendants, commonly referred to as Polynesians, Micronesians, and Melanesians, interacted both among themselves and with peoples in East Asia, Southeast Asia, and South America. Some Micronesian and Melanesian peoples traded frequently and perhaps even regularly with merchants from Malaysia, Indonesia, the Philippines, Taiwan, Okinawa, the Ryukyu Islands, and possibly Japan as well. Between about 400 and 700 CE (long before most scholars would recognize an integrated Pacific Ocean basin), sweet potatoes reached the Pacific islands from South America and became important to the Maori population of New Zealand, where the staple crops of tropical Polynesia did not flourish.[38]

Despite these trans-oceanic interactions, there was no integrated Pacific Ocean basin before the sixteenth century. Polynesians were unable to play the role Phoenicians and the later Greeks did in the Mediterranean, linking civilizations together and stimulating derivative urban systems.[39] O. H. K. Spate, writing 'to seek to explicate the process by which the greatest blank on the map became a nexus of global commercial and strategic relations', noted 'there was not, and could not be, any concept "Pacific" until the limits and lineaments of the Ocean were set: and this was undeniably the work of Europeans'.[40] Jerry H. Bentley disagreed, arguing that, from the sixteenth century onward, global interactions increasingly undermined the coherence of distinct maritime regions from this time, making the problem of spatial boundaries acute. He cited J. H. Parry as resolving this problem by enlarging Europe's writ: 'All the seas of the world are one', as European mariners merged them all into a global European lake.[41]

Did this global economy see convergence, divergence, or fragmentation? In Kenneth Pomeranz's view, the 'great divergence' occurred only from *c.*1800 when pre-Industrial Revolution China, a dominant economic power, experienced resource

exhaustion, leading to ecological bottlenecks for all advanced regions throughout the world's largest landmass, i.e. across Eurasia. Certain regions of Northwest Europe (initially England) managed to escape ecological 'cul-de-sacs', because they accessed the vast resources of the New World, leading to the 'Great Divergence'. Lynda Shaffer privileged southern Asia rather than China or South Asia; using the term 'southernization', she referenced a multifaceted process lasting from the fourth to the eighteenth centuries, beginning in southern Asia and spreading to East Asia, the Middle East, Africa, the Mediterranean, and Northwestern Europe. James Belich *et al.* noted four great divergences throughout history: domestication of the horse in Eurasia 4,000 years ago, textile exports by India and China *c.*1000 BCE, Islam's expansion in the early seventh century, and the 'rise of the west' from *c.*1400.[42]

Fifteenth-century developments

This century unarguably heralded the First Global Age of 1400 to 1800. Far from being a period of economic stagnation presaging transition within Europe, it laid the fundamentals of the modern states system there and of the global economy throughout the world.[43] Its distinction from earlier global ages lay in the linking – through Iberian networks – of four worlds: the European, the Caribbean/Central American, the African, and the Asian through the Mediterranean Sea and the Atlantic and Indian Oceans by 1498, when Vasco da Gama landed in India.

This century also generated short-lived networks with long-term consequences: three decades of Ming voyages across the Indian Ocean terminated only in 1433, linking the Sinic world with the Gulf and East African shores through trade, diplomacy, and tribute across the China seas and the Indian Ocean. Yet another was the Ottoman conquest of Constantinople in 1453, bringing Islam, the Turks, and Central Asia closer to Europe by way of the Adriatic. A third was Bartolomeu Dias' rounding of the Cape of Good Hope in 1488, a navigational feat presaging 500 years of imperial links between Europe and Asia. The last was the foundational Columbian discovery of the Americas in 1492.

Columbus' achievements, and those of Vasco da Gama, had not only, as Alexander von Humboldt was later to observe, 'extended the circle of what is known', they had also 'opened further the prospect of what still remains to be overcome'.[44] Because of America's self-evident 'newness', its discovery became a model and a metaphor for other projects, and a crucial, rhetorical, component in the battle between the ancients and the moderns. The Columbine vision was represented as a shift in man's (*sic*) understanding of his relationship both with his fellow men and with the natural world, thus Jules Michelet's famous remark that '[t]wo things belong to this age more than to all its predecessors: the discovery of the world, the discovery of man'.[45] However, the 'impact' of the discoveries was not limited to the understanding of the natural world. One of the features of the Enlightenment project which came to be called 'the human sciences' was the attempt to provide a clearer vision of a supposedly constant, if also highly complex, 'human nature' simultaneously on a number of different fronts: in social theory, botany, biology, anthropology, medicine, psychology, and economics. The European 'discovery' of America played a central role in this

enterprise. At one level it, as Humboldt said, had simply 'multiplied the objects of knowledge and of man's contemplation'. If philosophy was, as René Descartes suggested, a form of travel, then the 'discovery' could be seen not merely as a turning point in the history of the natural sciences, but also an event in the history of moral philosophy. 'Never', wrote Humboldt, 'has a purely material discovery, by extending [man's] horizon, produced so extraordinary and lasting a moral change'.[46]

Sixteenth-century changes

Maritime history after the sixteenth century resolves into global history. As triangular trades linked European, African, Caribbean, and American societies and economies, the Atlantic became a tightly integrated zone of communication and exchange.[47] In addition, the reconnection of the old Afro-Eurasian world through maritime activity added further to the process of globalization.[48] The Pacific Ocean entered into – and integrated further – this global maritime economy. Spanish Manila, founded in 1571, functioned as a hub for bringing Atlantic silver into the Indian Ocean world through the Pacific, obscuring older Chinese networks that had integrated Manila within Asia; networks about which we know very little. Portuguese Macau, dated to 1557, was a smaller hub with three navigational branches. These were, first, the Macau-Melaka-Goa-Lisbon run, with Portuguese ships bringing in Chinese porcelains and designs. Second, the Macau-Manila-Mexico-New World silver run, with Mexican and Japanese silver entering the Indian Ocean economy through Portuguese networks. Finally, the Guangzhou-Macau-Nagasaki run, with the Portuguese becoming monopolistic middlemen, shipping Chinese silks to Japan in exchange for silver (since piracy by Chinese and Japanese nationals had led to a Ming ban on direct trade with Japan).

These silver flows also impacted on Europe and Ottoman domains, causing the contentious 'price revolution'.[49] Dennis Flynn and Arturo Giraldez comment:

> a fact that cannot be overemphasized is that Ottoman trade was intimately connected with an intercontinental trade matrix linked with the Chinese marketplace, a matrix that literally enveloped the globe […] Slot […] concludes that 'much of the commerce in the Persian Gulf was directly related to the Levant trade' and that 'low grade Ottoman or Persian [silver] money was being sent subsequently to India to be melted down and converted into better coinage'.[50]

The year 1571 heralded truly global networks; the amount of Spanish-American silver transported by galleon from Acapulco to Manila roughly equalled that shipped across the Atlantic and through the Indian Ocean, while even larger quantities travelled overland from Europe to points east. A large percentage of world silver mined between 1500 and 1800 ultimately flowed to China in exchange for silk, satins, porcelain, and lacquerware that made its way to Europe and the Americas as well as to the Indian Ocean world, where Indian chintzes and Persian miniatures formed objects of export.[51] Beginning in the sixteenth century, economic, environmental/ecological, epidemiological, demographic, and cultural evidence demonstrate the geographical

connection of all three 'one-thirds' of the surface area of the globe (split between the 'thirds' of the Pacific Ocean, the Americas and Atlantic Ocean, and finally Afro Eurasia and the Indian Ocean).[52] We tend to forget, however, that the date 1571 also signalled the foundation of another port city – Nagasaki – by Omura Shimatada. By connecting the extreme east of the Indian Ocean to global networks, Nagasaki became the official point of contact between Japan and the outer world for over two centuries.

Seventeenth-century globalization

By the mid-seventeenth century, triangular trades linked the fortunes of Europe, Africa, and the Americas, the Manila galleons forging a significant connection between the economies of Spanish America and East Asia through the Pacific.[53] In the Atlantic, a triangular slave trade appeared, linking Europe, Africa, the Caribbean, and the New World. From the Caribbean, sugar from plantations worked with African slave labour entered global trade as commodity. There were smaller, shorter-lived networks such as Ottoman networks – contested by strong Persian networks – in the Indian Ocean. In 1601–3 in Achin, Martin de Vitre of Saint-Malo saw merchants dressed in the 'Turkish style' from 'Negapatnam and Gujarat, Cape Comorin, Calicut, the island of Ceylon, Siam, Bengal […] liv(ing) six months here to sell their merchandise'.[54] Nor were Turkish networks restricted to the eastern Indian Ocean. De Vitre's vessel passed the Comoros Islands, where the crew saw people from diverse 'nations': Arabs, Persians, and others, most wearing the Ottoman turban, many speaking Portuguese. In Achin, 'Ces Turcs en apparence exterieure portent le turban et tout le reste de l'habillement turquesque'.[55] Augustin de Beaulieu's visit there during 1619–22, 20 years later, does not mention Ottomans; they had suddenly disappeared.[56] At the same time, territorialization of oceanic space saw strengthening of other 'national' networks. The Portuguese Empire in Asia retreated in face of growing English and Dutch power, presaging the beginnings of factory towns and settlements, and a resurgence of the slave trade.[57]

We do not know how far indigenous networks held out in the Indian Ocean. Some argue that by the late seventeenth century, once local traders were forced out from the Indian Ocean trade, structural holes left by their absence were filled in by private English traders, mainly ship captains, piggybacking on indigenous networks as well as on official East India Company networks. Their interests (the outcome of protests against the restrictive mercantilist model that was disintegrating) paralleled official company trade. Their activities transformed the nature of East–West trade in a short period from a simple dyadic structure to vastly more complex multilateral networks of exchange, ultimately leading to the emergence of densely connected global markets.[58]

Eighteenth-century departures

The exploration of the South Pacific was a significant departure in this century. Tales from Oceania of 'cargo cults', stories of Samoans and Trobriand Islanders, cannibals, natives, blue lagoons, and ideas of the 'noble savage' entered the cultural imaginary. The exploratory voyages of James Cook and Louis Antoine de Bougainville generated

trade and exchange. As Matsuda writes: 'the "Pacific" has been historically reimagined many times: from an ancient Polynesian and early modern Magellanic space of transit, to an Enlightenment theater of sensual paradise'.[59] Plantation economies would appear from the end of the nineteenth century in Melanesia as Australians began to settle there.

In the Indian Ocean, European imageries of the ocean as cultural continuum and zone of opulence receded. As the colonial economy gathered pace, Asian factory towns morphed into colonial port cities, becoming gateways, and military, political, and economic bases for penetrating and controlling hinterlands, and linking these in turn to distant markets. A century of 'Free Trade' started. Many trading areas experienced a resurgence of intra-regional trade; trade in staples such as rice overtook the luxury goods' trade across the Indian Ocean. New networks appeared, among them Armenian networks linking New Julfa to the China seas, indicating a 'long eighteenth' or even a 'Chinese' century.[60]

Co-operation was a defining marker of this century as the decline in Portuguese power in the Indian Ocean led to increased collaboration between Europeans. Partnerships between Anglo-Spanish-Danish-French-Portuguese non-state actors intensified on the Coromandel coast. The Danish attempt to enter the Manila trade from Tranquebar in 1745 through a nexus between Spanish, French, and Danish traders was initiated by Joseph François Dupleix when he became commander at Pondicherry. This was a splendid example of collaboration: the Danes provided the ship, the former French vessel the *Restancier*, earlier registered in the name of a Marakkayar (Muslim) merchant, and now renamed the *Dansborg*. A Hindu Chettiar provided the cargo, and the ship's officers included a Danish captain, a Scots supercargo, and two Portuguese *mesticos*.[61] French-Portuguese private traders collaborated from Chandernagore in Bengal to East Africa, often under company aegis.[62] The partnership between French Superintendent Dupleix and Tempest Milner, the latter employed by Portuguese private traders from Lisbon, reveals the way France piggybacked on Portuguese commercial networks to Mozambique between 1731 and 1741. This established a direct Chandernagore-Mozambique run in 1738 – bypassing Pondicherry and Île de France (Mauritius), the two official French hubs between India and Africa – linking the Bay of Bengal with the East African coast.

This was also an age of conflict. Most of Asia, with the exception of East Asia, faced political unrest and conflict during the latter half of the eighteenth century, among which the Anglo-French wars in south India are especially well known. War over silver started as quasi-national monopolies broke down over sourcing areas. Supplies of silver had been closely monitored when Spain monopolized access to New World silver. Spanish America produced more than 150,000 tons of silver during the sixteenth to eighteenth centuries, much of which went to China. Demand in China, already 'silverized' by the sixteenth century, raised the price of silver there by 1700 to 50 per cent above that paid in the rest of the world. The immense 'Mexican Silver Cycle' boom of 1700–50, which stimulated trade routes worldwide in an 'echo effect', is attributable in large part to the pressure of demand in China.[63] The French tapped into Spanish networks for silver in Europe; outgoing French vessels stopped at Cadiz in the 1720s to load New World silver on board, using Portuguese networks

to free ride on Spanish silver networks. Lines between official monopoly and open trade started disappearing.[64] French and English ships brought in New World silver from Acapulco via Manila into the Coromandel coast in India, the excess silver causing a glut.

Networked financial interests led to a linking of the seas, so much so that minor Mediterranean ports transformed into dynamic networked ports. A relatively peripheral region such as South Castile came to be connected to Asian, Mediterranean, and Atlantic markets through the mercantile firm of the Marseille-based Roux Brothers, who used the Spanish port of Cartagena as the gateway to landlocked Castile.[65] Unknown coins were melted into local currencies, resulting in the growing familiarity of moneychangers and dealers with the many currencies of global trade.

A southwest Indian Ocean trading bloc, largely based on slaves and Indian cotton, emerged by the end of this century with Cape Town functioning as an Indian Ocean port city. This bloc deserves attention since southern African studies fall outside the remit of works on the Indian Ocean world, the region being located outside the monsoon zone, which constitutes the canonical core of Indian Ocean studies. Moreover, the southwest Indian Ocean segued into other oceanic worlds. Global networks outstripped the limits of the Indian Ocean world: migrants from both east and west landed at Cape Town, and a southeast African slave trade funnelled captives to the Caribbean and Brazil. As scholarship on global systems expands, so too does the recognition that such processes exceed hemispheric, oceanic, continental, or indeed any other intellectual boundaries, undoing the myths of continents, oceans, and empires.[66]

Mozambique became a French stronghold for the slave trade to Cape Town in this century. Mariners sailing east of Madagascar reached the Mascarene Islands, selling wheat and wine and buying sugar, coffee, and large quantities of Indian cloth with which to trade on the East African coast for slaves, ivory, gold, and rice. The Mascarenes became a bulking centre for trade in the western Indian Ocean, and, together with ports on the African coast, a major site for slave vessels sailing around the Cape and across the Atlantic. After putting the surviving slaves ashore at Saint-Domingue, the captain of a slave ship removed its extra decks and grated hatches, dismantled the stoves, closed the ports for air just above the waterline, and cleaned out the hold, before packing it with sugar, coffee, cotton, and indigo destined for France. This trade climaxed in 1789–90, when about 46 ships, carrying well over 16,000 slaves, circumnavigated the Cape, almost all bound for the sugar and coffee plantations of northern Saint-Domingue.

British occupation of the Cape in June 1795 ended the French slave trade from East Africa. Once the French withdrew, a newly resurgent Portuguese elite simply took over the trade, forging links with the Atlantic world through Rio de Janeiro and New York. After Spain sided with France in the revolutionary wars in August 1796, merchants from Montevideo and Buenos Aires began to exchange cattle hides, salted or dried meat, tallow, and, particularly, silver dollars for slaves brought to Île de France from Mozambique and Madagascar. The silver was used to buy handwoven cotton cloth from India, a common means of exchange in Mozambique. While cloth was exchanged in the interior for slaves and ivory, the silver was sent to India to

manufacture jewellery and silver rupees. Silver dollars served as legal tender, allowing merchants at Mozambique to trade with the Cape and other ports. However, this global trade also stimulated a demand among consumers in Mozambique for rare and exotic items that, like Potosí silver, came from the faraway Andes: llama wool, swan feathers, and the skins of animals such as the puma, chinchilla, and otter.[67]

The Atlantic world saw a resurgence in the commodities trade to Europe, augmented by piracy and smuggling in response to the winds of 'Free Trade'. French, English, and Dutch privateers ventured into the areas previously held by the Spanish Crown. Mid-eighteenth-century Dutch-Spanish networks of private firms broke down the obsolete mercantilist model of the Caribbean trade and imposed what Ana Crespo Solana terms the export-oriented 'Baltic' model of an intensive plantation-style production system using slave labour in former Spanish-held domains. Imports of Puerto Rican tobacco into the port of Amsterdam between 1780 and 1785 registered a jump to 1,300,000 pounds, as opposed to only 100,000 in 1740.[68]

The eighteenth century, regarded as an incipient nationalist age in Europe, saw national crossovers becoming more common at sea and within colonies in Asia. European companies were never tightly bounded entities; nationality stopped east of the Cape with various 'nations' operating as factors, sailors, shippers, and captains. Nor were their settlements tightly enclosed 'national' spaces. Gondolpara within French Chandernagor belonged to the Danish Company from 1698–1714; from there the Danes collaborated with the French in shipping and freight. Pierre-Philippe Rocquefeuil's commercial correspondence during 1755–7 shows him to be a Frenchman working for a Portuguese joint-stock company.[69] 'L'affaire Abdullah' reported a 'Malay' pirate ship with English, French, and Portuguese crew attacking a French Company ship in the Bay of Bengal on 2 February 1793. The Malay raider – part corsair, part brigand, and part trader – was none other than a Frenchman named Lourant de St Severin who had part Malay parentage and who, instead of returning to France, had settled in the Bay. On 8 May 1793, when the English East India Company pressurized the Pondicherry Council of the French to institute proceedings, a condemnatory *proces verbaux* was initiated. A legal regime consolidated itself across oceans, overthrowing older spaces and their customary laws.[70]

Into the nineteenth century

New spatial arrangements at sea were a feature of the nineteenth century. Indian Ocean port cities such as Aden, Ayutthaya, Melaka, and Hoi An declined as new geographies appeared. Jeremy Prestholdt notes that as coal revolutionized mobility, sailing ships were gradually phased out and steamships emerged, the latter freeing the societies of the Indian Ocean rim from monsoonal rhythms. Since steamship service integrated distant reaches such as Natal into older networks, coal expanded the Indian Ocean region. Railways linked port cities with small communities and burgeoning cities across the interior. An imperial amalgam of oceanic space appeared, enabling the movement of troops and goods between the colonial port and its distant metropolis,

creating in the process a trans-oceanic network of naval stations and maritime bases located not only at key choke points, but also along critical sea-lanes.[71]

By the early nineteenth century, Indian cottons linked Europe, Asia, Africa, and the Americas.[72] In easternmost Southeast Asia, the Iranun of Mindanao, their traditional maritime livelihoods threatened by Dutch and English shipping, transformed into pirates in the Sulu Sea.[73] In the remote northern Far East, now conceptualized as Northeast Asia, Russia's maritime moment captured the seal and otter hunting grounds of the Ainu and Aleut peoples, displacing large chunks of the Siberian population. 'The history of Russian interaction with the Pacific Ocean testifies both to the power of the saltwater medium to connect and transform human societies as well as the stubborn foothold of entrenched practices when confronted with new environments'.[74]

The nineteenth century is the time when progressively newer environments entered the imperial geographical imagination. Islands, already 'discovered' as pit stops, now became not only relay points in global trade, but also incarceration points. Despite their early engagement with Southeast Asia, the Andaman Islands became fatally fastened to British imperial projects in the Indian Ocean: first as constabulary patrolling the ocean against Chinese, Malay, European, and Nicobarese piracy; then 'to padlock the access to the Indian Ocean' from the Melaka Straits; and finally as penal colony.[75] Changuu Island off Zanzibar, known as both Prison and Quarantine Island, functioned similarly.

Islands have been, paradoxically, both prison and paradise. The island metaphor was most pervasive as tropical Eden. The 'happy' or 'fortunate' isles in the Atlantic and Indian Oceans and in the Caribbean captured popular imagination.[76] Mauritius and Madagscar with their exotic flora became botanical laboratories for replication in European parks. It is noteworthy that between the sixteenth and nineteenth centuries, plays and novels featuring islands, such as William Shakespeare's *The Tempest*, Daniel Defoe's *Robinson Crusoe*, and Robert Louis Stevenson's *Treasure Island* proliferated. Captain Nemo, the great anti-hero of Jules Verne's nineteenth-century science-fiction novel *Twenty Thousand Leagues Under the Sea*, is an Indian prince whose participation in the anti-British revolt of 1857 forced him to go underground (or undersea). Yet, the island motif was also overturned in the nineteenth-century Pacific. After the abolition of slave trading and the establishment of independent societies throughout the Americas, whaling, plantation agriculture, and trade in sandalwood, sea slugs, and labour enmeshed almost all of the Pacific islands and Australia into a larger oceanic economy.[77] The coming of the French, British, and German empires, joined by the Japanese and Americans, saw Asian maritime voyages and the extensive migration and trading networks around the entire region of today's Micronesia, Melanesia, and Polynesia being gradually closed out and cut off through the imposition of colonial territories, exclusive zones, and strategic transits. Matsuda noted that these narrative elements of empire were emplotted in 'lost world' literary and artistic romances. He describes how they issued from Bougainville in the thrall of Jean-Jacques Rousseau, but were given substance by tales of paradise and possibilities by histories such as that of the *Bounty*, reinvented as vanishing cultures by Herman Melville, Stevenson, and Pierre Loti, and immortalized as sensual melancholy by Paul Gauguin in Tahiti and the Marquesas.[78]

Conclusion

This overview of global networks has revealed various regimes of de- and re-territorialization, with corresponding new spatialities that proliferated between 1400 and 1800. Questions remain, however. Why did the global economy need a centre for the maintenance of order, since capitalism itself could create order and organize the market? Did a single centre always mark it, or could it also display multiple centres? Although I have highlighted Asian centres, maritime historians adhere to the view of a single 'culture of capitalism' rising out of commercial centres in Europe and the Americas. Maritime activities were vaguely associated with a pro-business attitude in port cities that led to policy changes removing continental obstacles to trade. This narrative is deeply embedded in a larger liberal perspective of the rise of the West on the back of mercantile, and thus maritime, development, and is one of the core assumptions of maritime history. It is largely derived from Braudel, who privileged urban centres, seeing towns as motors of history or 'archipelagos of towns' (i.e. urban relay points or a string of conglomerations linked by long-distance trade).[79] In reality, a single centre is hard to discern. Spain's Atlantic empire experimented in mercantilism with four concurrent centres: Seville as official point of the Spanish Atlantic trade, Cadiz as silver and derivatives market, Potosí as silver source, and Manila as silver re-exporting point. It generated the creation of the Spanish dollar, founded on plunder but amounting to the most persistent and universal currency ever, and thus a foundation of economic modernity.[80] The British Empire, stretching from Aden to Adelaide, was held together by London and Calcutta.

Several Atlantics composed the Atlantic world – notably Dutch, Spanish, and British, with smaller French and Portuguese zones – with corresponding cores and substantial heterogeneity and divergence, leading David Armitage to conceptualize this world as composed of three circuits. These are *cis*-Atlantic (exploring nation, state, region, or a specific institution within an oceanic context), *trans*-Atlantic (comparative dimensions of an individual ocean), and *circum*-Atlantic (oceans as a geographic and historical whole and their history as an arena or zone of exchange, interchange, circulation, and transmission). This three-fold classification provides a national or regional history within an Atlantic context, a transnational history of the Atlantic world and, third, the international history of the Atlantic world.[81]

The Iberian Atlantic is seen as an incubator of modernity, site of experimental knowledge production and large-scale urbanization, economies of scale, massive transatlantic voluntary and involuntary migrations, and well-developed commercial and banking networks. It shows also the development of modern concepts of religious toleration. Its colonial urban centres are regarded as global economic engines with the importance of cities such as Potosí, Mexico City, and Cartagena in an emerging world economy.[82]

What sustained trade networks during 1400 to 1800? Connectivities leading to enhanced connections certainly did, information networks deepening these webs.[83] These constantly configured the maritime world; toward the end of this period, Pacific transits and Indian Ocean sojourning communities were displaced by cross-cutting diasporic networks spanning oceans. The latter remade oceanic spaces while,

at the same time, they generated various discourses on universalism.[84] Yet overriding these networks there was also a very specific Black Atlantic, created not through trading networks but through the movements, ideas, and aspirations of marginal peoples.[85]

In the course of the nineteenth century, this global order broke down. A phase transition to a new system became visible, increasingly accompanied by chaos and conflict, although co-operation had initially characterized this period. The phase transition substantially changed the nature of networks from the mid-nineteenth century onward. At the same time the idea of an oceanic community also appeared. The notion of the Atlantic world as a European marchland ceded way to the idea of an Atlantic community connecting Europe, North America, the Caribbean, Latin America, and West Africa, one bound together by the ties of western civilization. Pierre Chaunu claimed the Atlantic was the first ocean (as opposed to Braudel's Mediterranean) to have been regularly crossed, and the first to find itself at the heart of an economy, indeed of a civilization.[86] Alison Games noted that although this ocean became, in fact, an organizing principle through which scholars investigate the histories of the landmasses it links, the Atlantic does not have the coherence that has been identified for the Mediterranean. Nor, indeed, is it possible to speak with confidence of an Atlantic system or a uniform region.

> Attempts to write a Braudelian Atlantic history – one that includes and connects the entire region – remain elusive, driven in part by methodological impediments, by the real disjunctions that characterized the Atlantic's historical and geographic components, by the disciplinary divisions that discourage historians from speaking to and writing for each other, and by the challenge of finding a vantage that is not rooted in any single place. But if a broad vision of the Atlantic such as the one Braudel sought for the Mediterranean is elusive, it nonetheless remains desirable. Scholars working in the field of Atlantic history have demonstrated the explanatory power of this geographic region as a unit of analysis: Atlantic perspectives deepen our understanding of transformations over a period of several centuries, cast old problems in an entirely new light, and illuminate connections hitherto obscured.[87]

Such an organizing principle, although it had earlier existed for the Indian Ocean, was irrevocably lost in the nineteenth century as colonial economies appeared and the ocean lost its character in light of profound changes, while the Pacific Ocean transformed into a theatre of super power rivalry.

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7

Regionalism, localism, and individualism in the Ottoman Mediterranean

Seventeenth-century Ottoman seafarers' tales

Rhoads Murphey

Among the obstacles that impede assessment of the interaction between individuals and social groups with the maritime environment during the early modern era, two stand out in particular. The first of these has its origin in the distorting lens of research paradigms that prioritize the dominant state and anachronistically attribute to it an ability to intrude itself on every aspect of community life. Particularly in the case of the maritime borders of a state like the Ottoman Empire, which extended in the north to the Black Sea, the northern Aegean, and the Adriatic, and in the south to the Mediterranean coastal waters of North Africa and the Red Sea, the sea distances and the relatively modest size of the fleets at the state's disposal precluded any regular presence, inspection, or control. The second obstacle is the disproportionate privileging and over-utilization of sources that reflect the state's priorities, perspectives, and in-built biases. As a corrective to the underrepresentation of the individual and of regions (including maritime regions) in favour of state-centric approaches, this chapter addresses the evidence that enables us to restore voice, agency, and activism to the seafarers that populated the Ottomans' Mediterranean domain in the seventeenth century. My focus in what follows will be on sources rooted in folk traditions, oral testimony, and diary accounts. As a point of departure, I summarize the state of current research, and indicate some alternative approaches for future work regarding conditions in the eastern Mediterranean.

PART ONE: THE MYTH AND ILLUSION OF THE DOMINANT STATE IN SEVENTEENTH-CENTURY OTTOMAN LANDS

When the Ottoman lands of the seventeenth century are studied from the standpoint of official ordinances and state regulatory regimes, what emerges is the misleading appearance of orderliness and compliance with directives issued by the state and its administrative organs. However, it is apparent that such regulatory statutes inscribed 'on paper' remained largely aspirational, and neither the state nor its chief enforcement agent, in the Ottoman case the 'Admiral of the Sea' (*kapudan-i derya*), were capable of delivering consistently on the intentions and promises outlined in chancellery documents. To demonstrate the pervasiveness of non-compliance with state directives, three circles of inter-relationship are explored here. The first two involve Ottoman diplomatic relations with Venice and France – both purportedly regulated by inter-state agreements called capitulations – and the third is associated with internal attempts by the Knights of St John in Malta to introduce regulatory order to the sometimes fractious, even insubordinate, ranks of their own corsair operatives.

The history of the Ottomans' trade with Venice has been studied extensively and we have at our disposal the full texts of the various capitulations, together with their draft versions, due to the comprehensive research of Hans Theunissen.[1] Despite the self-declared intentions of both signatories to the treaty text (finalized in 1574 and ratified by the Ottomans in 1575) to ensure the free movement of goods across the sea between the Adriatic and the eastern shores of the Mediterranean, the terms of this agreement were repeatedly breached until war broke out again in 1645 over Crete. The scale of the breaches was usually minor, and they were not even always recorded, but even the documented instances suggest the regulations were largely ignored.[2] The articles of the chancellery document clearly pronounce injunctions against Venice's offering of safe haven, repair, and provisioning facilities in the ports under its jurisdiction to pirate ships (*harami barça/harami gemi*). However, the terms of clauses negotiated at the level of inter-state diplomatic negotiation were not easy to deliver uniformly or comprehensively throughout the entire stretch of Venice's colonial network in the eastern Mediterranean, including island enclaves such as Tinos and the more accessible Zakynthos/Zante. In these areas local governors enjoyed considerable leeway in the interpretation of statutes emanating from the centre.[3] Local authorities were not always thorough in their investigation of the provenance of goods, or even the identity or state affiliation of the ships entering their ports to dispose of cargoes that might be regarded, on closer inspection and in official eyes, as stolen goods or contraband.[4] Even without the connivance of local authorities, the sales of goods acquired from acts of piracy were transacted quickly at the nearest convenient port and news of an 'irregular' incident taking place in nearby waters might arrive too late to allow local officials time to react. Only the most egregious cases involving large sums or the loss of ships were brought to the attention of central government authorities, usually in relation to a claim for compensation lodged through diplomatic channels.

The scale of unresolved compensation claims is apparent from the survival of the traces of a submission by François Savary de Brèves, France's ambassador to the Porte

in the 1590s, incorporated in a June 1594 summary of the state of piracy in the western Maghrib addressed to the *kapudan-i derya* by the imperial authorities in Istanbul. The summary indicates that the *kapudan paşa* was instructed to investigate a reported loss of goods valued at 800,000 gold pieces from French ships through seizures by the Algiers fleet. It also reminds him that while reports had been received confirming the redemption of 'a few' of the captives held in Algiers, the majority still remained in captivity. It suggests that at least three named captains active in the regional waters of the North African 'regencies' regularly joined in manoeuvres with the Ottoman imperial fleet in galleys that were each powered by 80–100 French galley slaves.[5] One of the 'Algiers' ship captains is named as 'Ilyas of Binzert', indicating that he was from a home port that technically belonged to the jurisdictional remit of the governor of Tunis. This suggests that the nominal jurisdictional boundaries and administrative arrangements, and even the overarching authority structures themselves, were more fluid and negotiable than would appear at first glance.

The institutional frameworks within which the capitulations were interpreted and implemented were both more complex and multi-layered, and at the same time less orderly, than the clear-cut versions of the diplomatic documents. Especially in remoter provinces, in addition to the shadow cast by institutions and legal codes sanctioned by higher authority, local personalities and politics often dominated.[6] In North Africa, in addition to urban notables, Ottoman governors had to contend with a complex web of tribal networks and alliances.[7] Only by examining sub-imperial levels of power relations, and the sub-state actors who occupied centre stage in provincial localities (including the ship captains of the regency fleets whose movements and mobilizations often sprang from their own initiative and calculation of cost/benefit ratios), will it be possible to understand the real dynamics that governed patterns of maritime traffic and navigation in the Mediterranean.

The vassal state of Malta provides another example of how the regulatory reach of small states exceeded their grasp, which, despite its technical position as a feudal dependency of the Kingdom of Sicily, was, in practical terms, largely self-governing. Despite the minuscule scale of its territory and resources compared to its imperial masters and their rivals in the Mediterranean and the relatively modest size of its fleet, it was able to punch well above its weight. Still, there were limits to its control, even with those agents (the Knights of St John) over whom it purported to exercise direct authority. The volume of corsairing had reached such a level of intensity that the Order felt compelled in 1605 to establish a tribunal for the resolution of disputes, the *Tribunale degli Armamenti*. Disputes arose not just between the knights over the distribution of prizes, but also with corsairs affiliated with other Christian powers who sought to make use of Malta's port facilities.[8]

Infractions of the regulations that took place in port under the gaze of the dockyard authorities were comparatively easy to detect, but it was more difficult to enforce the law in cases involving capture of vessels on the high seas when the rapid and decisive distribution of prize money was a priority. In these cases, on-the-spot decisions about prize sharing were more likely to be governed by instinct, force of habit, and custom rather than by strict adherence to the rule of law. The attempt to introduce more regularity, predictability, and transparency to customary practices and prevent

indiscriminate pillaging resulted in a tangled web of complex procedural rules, in some places ambiguous or open to interpretation. The rules occupied 43 lines of text in article 30 of the ordinances of 1631, and there were 100 articles in total.[9] This prolixity indicates anxiety rather than self-confidence on the part of the would-be regulators. The repeated references of the intent to 'chastise' non-compliers is another indication that some (perhaps many) paid little heed to the regulations.

The success levels achieved by the regulatory attempts of chartered companies engaged in the Levant trade paralleled those of states and state-lets. In the case of the Levant Company which received its permanent charter in 1592, the gap (both in social rank and income levels) between company directors, merchants and traders (in London), and their operatives, agents, and factors in the field gave rise to jealousy and insubordination, with agents trading locally for their own personal profit. Naturally, these gains were not disclosed to their principals. In particular, evasion of 'consulage', a duty payable on goods bought and sold by the factories in the Levant, was hard to prevent or detect.[10] In a recent study, Barbara Sebek suggests that embezzlement of company revenues by factors was a well-known fact and 'there was nothing that could be done about it short of calling them back to England'.[11] The figure of the sharp-witted servant (factor) who was able and eager to deceive and defraud his gullible, dim-witted master became a stock character of late Elizabethan and early Stuart literature. In an era of irregular and slow communication with home nations, it is not hard to imagine how ineffectual the attempts of such distant 'managers' to control their 'underlings' remained in the age of sail.

The case of the French in the Levant, nominally regulated by its own Levant Company and the Chamber of Commerce of Marseilles for ship registration and customs collection, was similar to that of England. The work of Paul Masson showed that roughly 70 per cent of the traffic that entered the port of Marseilles for inspection consisted of smaller vessels which carried cargoes (such as wheat and other comestibles) that were exempt from consulage fees (called *cottimo*) and thus are omitted from official trade statistics. Apart from the few vessels with larger cargo capacity carrying high-value goods such as textiles, the bulk of the seaborne trade of Marseilles carried in French vessels consisted of lightly regulated or unregulated trade.[12] Historians ignore at their peril the smaller traders and the smaller craft, including blockade-runners, interlopers, and other dealers in contraband goods. In addition to offering a quantitative assessment of trade and commercial traffic (including piracy as a form of petty trade),[13] historians need to provide a qualitative assessment of the different categories of trade and traders, and not focus exclusively on the 'big players' and the state-sponsored commercial fleets.[14]

New trends in research on maritime history and the maritime environment

Research on the early modern Mediterranean has concentrated mostly on assessing the competition between trading nations and political constructions such as sovereign states, which are perceived as monolithic and unitary entities. There has also been a tendency to overlook regional differences expressed in localized climatic and

environmental conditions in favour of broader geographic or maritime regions such as 'the Mediterranean World', which is often regarded as a uniform whole rather than as a combination of varied landscapes and seascapes each with its own distinct features. Recently, instead of seeking to define the shared features of broader regions, environmental geographers and historians have begun to study the localized manifestations and effects of climate in the historical past within more confined spatial parameters. One aspect retrieves evidence from diaries, journals, and other narrative sources containing precise reference to weather, experienced in specific time and space, as perceived by individuals who left their impressions in writing.[15] By focusing on human experience and the socio-cultural aspects of climate, including extremes of climate such as storms at sea, scholars are able to apply the analytical concept of proxemics in meaningful ways. This work involves the microscopic investigation of humans' relationships with their immediate surroundings, for example a ship's company or community life in a small coastal settlement made up mostly of seafarers and their families. The study of what Steven Rappaport terms 'worlds within worlds' is particularly appropriate for seafaring communities.[16] The textual excerpts included in the second part of this chapter reveal, for instance, that seafaring people regarded themselves as separate; a tribe or race apart from other land-based groups such as villagers, townspeople, or nomads.

In assessing the position of seamen in society it is essential that historians highlight the pejorative attitude of metropolitan societies, which tended to regard sailors as outcasts existing at the margins of polite and civilized urban society.[17] While some aspects of seamen's self-description might appear exaggerated, or to stretch the limits of credulity, they nevertheless provide important information. How seamen were regarded by the judicial system when they were deemed to have transgressed the law often reveals relatively little about the inner identity of the sailor, or the bonds of fidelity and solidarity that bound seamen to their community of fellow seafarers. To investigate the interrelations and social bonding between shipmates, this chapter focuses on accounts of seamen's experiences in their own element, i.e. at sea.

Defining the distinctive characteristics of regional and sub-regional maritime districts in the southern Mediterranean

In order to understand the social conditions that prevailed in different parts of the Ottoman Mediterranean, it is essential to sub-divide the region into its appropriate geographical segments or quadrants. Three main divisions are considered:

(1) the main shipping lanes that linked the capital Istanbul with Alexandria, passing through the part of the Aegean that lay closest to the Anatolian littoral, then proceeding through the Straits of Rhodes;
(2) the remoter parts of the Aegean including the Cyclades Archipelago;
(3) the extended shores of North Africa lying to the west of Egypt, i.e. the 'regencies' of Tripoli, Tunis, and Algiers.

Only the first of these broad maritime regions was rigorously controlled, patrolled, or directly incorporated within the domain of the *kapudan-i derya*. In relation to

North Africa, the three Ottoman provinces of Algiers (1519), Tripoli (1551), and Tunis (1574) entered the Ottoman orbit at different times and under different conditions, parts of the coast remained outside any effective external jurisdiction, and the extreme west (i.e. Morocco) was under the independent rule of the Saadian and, after 1659, the Alawite dynasties. These sub-regions also comprised distinct climatic zones, and the far west displayed features that were more characteristic of the Atlantic zone than of the rest of the Mediterranean. The distance between the northern and southern shore of the Mediterranean also broadened significantly eastwards from Algiers, causing a spatial separation between the various parts of the Ottoman Mediterranean and the sea's northern extension into the Adriatic. Concerning the East–West axis, Morocco was distinct from the rest of the Islamic world due to its distinctive cultural, administrative, and sectarian religious makeup, and, especially in terms of its cultural imprint: it was only in Egypt and Syria that the Ottomans left a very deep and durable trace.[18]

In terms of economic makeup and reliance on piracy as a source of income, Algiers was different from its corsairing partners and counterparts in the Christian world, especially Malta, as revealed by the relative size of their fleets. Figures published by Robert Davis suggest that between two-thirds and three-quarters of all the Christian slaves/captives held in North Africa were imprisoned in Algiers.[19] In his assessment of the prevalence of, and risks posed by, Mediterranean piracy, Daniel Panzac has estimated that roughly 90 per cent of the Christian captives held by the corsairs of Tunis came from the portions of the sea west of Sicily, whereas the captives held in Algiers came predominantly from shore raids on the nearby coasts of Spain.[20] Consequently, while piracy was an important phenomenon in the seventeenth-century Mediterranean, it was distributed unevenly across the various zones and sectors of the sea, with some sectors virtually devoid of risk.

Regarding the fleet size and naval capacity of the various crusading/corsairing fleets, Peter Earle suggests that the Algiers fleet consisted of 60 large sailing ships in 1624–5, each carrying 24–30 guns, while Tunis had 14 ships and Tripoli had three.[21] By comparison, in the first three-quarters of the seventeenth century, the Maltese fleet consisted of 20–30 ships, with only the largest of these carrying 35 guns, and the majority with no more than 10–20.[22] By the end of the seventeenth century, both fleets (Algiers and Malta) were smaller, with Algiers slipping to 20–40 ships and Malta to 10–20. However, the Algiers fleet still outgunned its adversaries by a considerable margin.[23] The majority of French commercial vessels sailing from Marseilles in the mid-seventeenth century carried at most 10–15 guns, similar to the level of armament of the Maltese corsairs, and thus made an easy prey for even the most lightly armed Algiers vessels.[24] Though Algiers outstripped the competition by a large measure throughout the seventeenth century, it confined its zone of activity for its asymmetrical naval warfare to the most vulnerable and richest hunting grounds in the maritime spaces of the western Mediterranean, especially the approaches to the Straits of Gibraltar. Malta was undoubtedly capable of inflicting serious harm in isolated incidents such as the attack in 1644 by six Maltese ships on the Istanbul-Alexandria convoy provoking a diplomatic row with Venice when they stopped for provisions in Crete on the return leg to Valletta. In Crete, they were given assistance by the Venetians despite the terms of the capitulations.[25] Assessed in broad comparative terms,

compared to the asymmetrical naval warfare of the western Mediterranean, corsair activity in the eastern Mediterranean was sporadic and on a reduced scale. Nonetheless, it is an important aspect of Ottoman history, as revealed in the surviving accounts of capture and captivity at the hands of Maltese pirates left by Ottoman eyewitnesses.[26]

Ottoman insularity

A further important sub-region of the Ottomans' maritime space is represented by islands and other communities separated from the mainland by a lesser or greater distance.[27] According to a widely used periodization applied to the Mediterranean in the late sixteenth century, it is commonly assumed that the 1570s marked an age of transition from an era of galley warfare and frontal confrontation, with deployment of large fleets between the Mediterranean's two naval superpowers, i.e. Spain and the Ottoman Empire, to a new era of scaled-down conflict. This transition marks the beginnings of the age of sail in the seventeenth century. The coincidence of apparently 'decisive' transformative geo-political events such as the siege of Famagustsa and the Fall of Cyprus (September 1570–August 1571), the sea battle in the Gulf of Patras near Lepanto (Nafpaktos) (October 1571), the Fall of Goletta and the establishment of Ottoman rule in Tunis (August 1574), have given credence to this view. However, the conclusion that the result was the introduction of a new order of uniformity or administrative regularity under Ottoman rule is over-simplified. In most places, it was a gradual process and, in a few, full integration with the rest of the empire was never achieved. For Cyprus, because of its size and relative proximity to the Ottoman heartland in Anatolia, the regime change that accompanied the end of Venetian rule and the beginning of Ottoman control was more visible and immediate. However, the waters around Cyprus, including the shores of southern Anatolia opposite – in particular the stretch between Silifke and Alanya – were not immediately or effectively pacified.[28]

In Tunis, the fall of the Hafsid/Spanish condominium rule ushered in a period of stability, but maintaining the delicate balance of power between local elements and the authority of the Ottoman governor was never easy, and the history of the province under Ottoman rule was punctuated by relatively frequent outbursts, sometimes for prolonged periods, of civil strife and instability. Despite the appearance of a simple handover of authority to Ottoman imperial control, politics at the local level remained important, with governors making sustained efforts to contain potentially explosive rivalries between competing families, factions, and local militias, not always successfully.

In order to demonstrate the nature of the balance of power and distribution of power-shares, in parts of the empire remote from the imperial centre in Istanbul, the islands provide an excellent case study. The kinds of administrative regimes that emerged in the islands, especially the remoter islands, took a form that was dictated by necessity and negotiated with local power brokers rather than imposed unilaterally from the outside. The Ottoman maritime and administrative presence was significant in areas assigned to the direct administration (and revenue collection authority) of the *kapudan-i derya* which were chiefly centred in the northern Aegean (protecting the approaches to the Dardanelles) and islands with an important Ottoman military and

naval profile, and strategic significance, such as Rhodes. The *kapudan-i derya*'s remit was wider than this, but his capacity for close patrol and simultaneous presence in the wider maritime space of the Mediterranean was limited. The key areas of Ottoman strategic concern were the Black Sea and the coastal waters of the Ottoman home provinces in Anatolia. However, given the size of the Ottoman imperial fleet, it was not possible to deploy significant squadrons to both these theatres of war simultaneously, even in times of threat such as in the 1690s during the multi-front war with Russia in the Sea of Azov, and Venice in the Morea, in the War of the Sacra Ligua. In peacetime too, regular tours of inspection by the *kapudan* were confined to the larger islands with significant populations and revenue potential.

Some Aegean islands such as Tinos remained under Venetian rule until 1715 after it was bequeathed to the Republic by the last of the Ghisi family in 1390,[29] while others were controlled (in both economic and administrative senses) by private family interests, represented in the case of Sifnos and Kithnos by the aristocratic Bolognese clan of the Gozzadini.[30] Putting aside the finer points of *de jure* juridical rights, the interests of a few wealthy families predominated in many islands, whether their overlord and overseer was Venice, the Ottoman government or, as was the case in tiny communities such as Tabarka (situated just off the Tunisian mainland), Spain. Though for centuries Tabarka remained under nominal Spanish rule, between 1542 and 1742 it was both governed and controlled by the Genoese family of the Lomellini according to their commercial interests.[31] Ownership and hereditary possession in a single family was, in a number of places and cases, sufficiently well-entrenched to allow family members and their associates to accommodate changes in the wider political arena of the seventeenth-century Mediterranean with most of their power and social position intact.

Naxos provides another example of the preservation of privilege over the *longue durée*. Originally a possession of the Latin Duchy of the Archipelago, on its submission to Ottoman rule in 1566 by the last of the Crispi barons, its first 'governor' Joseph Nasi was given full authority by Selim II to govern the island as his personal fief. After Nasi's death in 1579, although nominally its administration was transferred to the maritime domain of the *kapudan-i derya*, it was designated as a *saliyane* district, i.e. a self-governing district that collected its own revenues and remitted them as a lump-sum to the Ottoman treasury. It is a sign of its almost complete autonomy that until 1669, at the conclusion of the Veneto-Ottoman conflict over Crete, no attempts were made to survey the island's revenue potential or establish a permanent Ottoman garrison. The first cadastral survey of Naxos took place in 1670.[32] Despite being the largest of the islands of the Cyclades, Naxos was not equipped with a suitable anchorage, and as a consequence most of the shipping traffic called at nearby Paros to deliver and load their cargoes.[33] In *de facto* terms, the formal transfer of sovereignty and suzerainty had to accommodate a large measure of flexibility as well as continuity with past practice. Apart from changes in personnel, little changed regarding the entrenched family and political networks of island communities.

In addition to island enclaves, attempts to provide accounts of the fragmented nature of the economic landscape of the Mediterranean must address how the flow of maritime traffic was affected by the competition for profits from shipping on the part of a number of free ports or, in the case of the eastern Mediterranean, ports that

offered market access on favourable terms. The multi-centric nature of Mediterranean trading networks was further transformed by the near-simultaneous emergence, in the 1650s and 1660s, of competing free-port enclaves established at Livorno (under Tuscan oversight), at Genoa (under Ligurian oversight), and in Marseilles under the watchful gaze of the French Crown, the latter succeeding in exercising a greater degree of regulatory control than its rivals. As a result, in the short term, Marseilles lost its competitiveness in international trade to rival ports.[34]

In sum, for most of the seventeenth and the early eighteenth centuries, in the commercial sphere there was little substantive move to highly regulate markets, or create uniform production aimed at export markets in any of the four quarters of the Mediterranean world: north, south, east, or west. Such standardization and centralization of industrial production and mercantile practice was largely a product of the period after 1740 and, particularly for the eastern Mediterranean, a sector-wide and place-specific approach to the study of local market dynamics is essential. Each region and sub-region (Syria, Egypt, the Maghrib, and the Aegean Archipelago) possessed its own unique features and characteristics. As a result, moving beyond the Istanbul-centric and state-centric historical narratives and archival source traditions is a priority if historians are to escape being drawn into the illusion of the dominant state and the myth of the rise of the dominant West. Despite the yeoman-like efforts of the emerging mercantile trading nations of the North Atlantic, such as the English and the Dutch, for most of the seventeenth century, their participation in the Levant market was, in terms of trade volumes and values, capable neither of distorting nor of transforming local markets. Fully integrated global trading networks emerged only in the later part of the eighteenth century.

In the second part of this chapter, I focus exclusively on the perspective of indigenous Ottoman actors and participants, especially those closely associated with life at sea. A few of these left highly revealing self-descriptive or autobiographic accounts that offer a glimpse into Ottoman maritime realities as experienced by the individuals themselves. How they regarded the risks and rewards of the seafaring life often clashed openly with the perspectives offered in carefully scripted Ottoman chronicle accounts. These autobiographical and self-descriptive accounts provide an unmediated eyewitness version of the circumstances encountered by early modern seafarers of the eastern and southern portions of the Mediterranean. In this age of unmanaged, loosely regulated, and lawless maritime spaces of the eastern Mediterranean, it was neither diplomatic intervention nor protection offered by state authorities, but the determined instinct for self-preservation of rugged individuals that enhanced their life prospects and chances for survival.

PART TWO: OTTOMAN NARRATIVE SOURCES ON THE LIFE OF THE SEA

Introduction to the sources

This section examines two of the surviving full-length Ottoman narratives, which can be classified as belonging to the genre of personal memoir or autobiographical writing.[35] In Ottoman terms, accounts relating personal experiences or adventures

(*ma-cera*, literally that which has passed by, or befallen a person), or alternatively *sergüzeşt*, the Persian version of the same, were a recognized form of literary composition. The latter term is directly incorporated into the title of one of the works under discussion – the 1599 account called 'The Adventures of a Prisoner of Malta' by an Ottoman captive named Kadi Mustafa.[36] The second account, dated circa 1695, relates the experiences of a sea captain called the 'Jailer-Captain' and is entitled the '*makale*', a complex term but with a basic meaning, derived from its triliteral Arabic verbal root '*kwl*', connected with speech or oral declaration. In what follows, these two principal sources are referred to as the *Sergüzeşt of 1599* and *Makale of 1695*.[37]

A comparative assessment of their literary forms is instructive. While some scholars argue that the 1695 account should be regarded as a work of fiction, others note the value of such accounts, which incorporate a plethora of accurate and highly realistic details about life aboard a sailing vessel.[38] The two Ottoman tales are dissimilar in tone, linguistic register, and intended readership. They relate the experiences of individuals who belonged to different social status groups, with contrasting outlooks and expectations from life. Taken in chronological order, the *Sergüzeşt of 1599*, written by a member of the Ottoman state bureaucracy with high expectations of social and professional advancement, is introspective and centres on the *kadi*'s state of mind and yearning for release as a prisoner on land in Malta. The second, the *Makale of 1695*, provides a vivid account focused on fast-moving external events. These include a storm at sea, shipwreck, and capture by Christian corsairs, recovery of freedom after participation in a mutiny on-board, difficulties in extrication from the covetous intentions of shore-based Ottoman officials and, finally, commencement of a career as Muslim corsairs under the flag of Tunis.

Another difference is that the 1599 text is narrated by its author, a literate man and a member of the Ottoman learned profession, who proudly asserts authorship, interspersing his account of events with sophisticated verses of his own composition. It is clear that Kadi Mustafa Efendi's intended audience are his peers in rank and prestige in Istanbul society, whose generosity he depends on to secure the ransom needed for his release. The style and register of his narrative is moderated to suit their refined tastes, as he echoes their values and social orientation.

In contrast to the ambience of the Istanbul literary salon evoked by Kadi Mustafa, the 1695 narrative provides a description of life on-board a ship (both on deck and below deck). The specialized vocabulary of masts and mizzens, hawsers, and anchor chains, permeates the narrative and the unfolding drama is conveyed in a linguistic register and tone suggestive of everyday speech that would have appealed to a non-elite audience of common seamen. Several references in the text refer to the implied audience's disdain for, even total incomprehension of, the literary conceits and mannerisms of Ottoman elite society. For example, when the Jailer-Captain, after he has led a mutiny, is handed a written order by a lieutenant of the Ottoman governor of Cyprus demanding that he surrender his vessel to the governor's inspection, the captain gives the following response in the form of simulated speech typical of folk narrative: 'We (speaking for the whole ship's crew) have no experience of the form of such government directives, nor is there any among us who can read or comprehend their content.'[39] In short, the Jailer-Captain, while acknowledging the invitation

to attend the governor's council to receive the latter's congratulations for capturing an enemy ship, grows suspicious of the governor's intentions and refuses to attend in openly mocking terms:

> We (the ship's crew) are no more than a bunch of ruffians clothed from head to toe in dirty rags and wholly unfit to be dressed in the robes of honour bestowed in Council on the likes of such a grand personage as yourself, your Excellency. Never up to the present day have we ever attended a Vizier's council, nor have we ever seen the likes of such an esteemed person's summative edict.[40]

Such passages convey the clear sense that, far from being ashamed of their own boorishness or illiteracy, the seamen are proud of their own traditions and freedom-loving ways, whose essence landlubbers will never be able to experience or appreciate.

The mocking tone and subversive undertones of the language used in the *Makale* can be compared with the highly respectful tone and deferent forms of address used in Kadi Mustafa's *Sergüzeşt*. In sending his appeals for help to Istanbul using his former cellmate Haci Hasan as his courier, Kadi Mustafa refers to the capital as the 'Court in which Justice Makes Its Home and Whose Throne Is as Exalted as the Heavens' and the sultan is addressed as 'His Excellency and Most Fortunate Majesty in Whom The World Takes Refuge (Shadow of God on Earth)'.[41]

A key aspect of the *Makale*'s composition/recitation that merits further comment is its colloquial character which mimics the pattern of everyday speech and oral delivery.[42] In contrast to Kadi Mustafa's *Sergüzeşt*, the question of 'authorship' is left vague in the *Makale*. This evasiveness lends an aura of verisimilitude and authenticity to the narrative by allowing the tale to be (re)told/recalled by means of the collective voice of the shipmates who experienced it in the form of shared episodic memory. The 'we-ness' of the narration stands in stark contrast to the 'me-ness' that characterizes Kadi Mustafa's memoir. While the Jailer-Captain is the clear hero and the chief protagonist of the tale, what is celebrated is not so much his triumphs or even the astuteness of his decisions as captain, but his worthiness as a paragon of the values held dear in the group consciousness of the sailors, i.e. independence, self-reliance, ingenuity, bravery, candour, and plain-spokenness.

Outwardly, the *Makale* purports to be a written account first drafted by one of the participants in the events of 1673 named Köle Yusuf.[43] Yusuf is identified as the manumitted slave of a Cairo merchant named Abdurrahman. After surviving the dramatic events of the voyage, several years later (circa 1678) Yusuf returned to Cairo and gave an account of his adventures to his master. Some two decades after that (circa 1695) Abdurrahman's son Ibrahim had in his possession a manuscript copy of the tale which he authenticated as the tale composed by Yusuf 'in his own hand' from which he (Ibrahim) had fashioned a summary account of his own modelled on the original. It was this second-hand version that the ultimate copyist/scribe named Süleyman used to create a fair copy. It is this copy, twice-removed from the original account of Köle Yusuf, that Süleyman offers his readers, describing himself not as 'author' but merely as transcriber (*müstensih*). Which of the three potential claimants Yusuf, Ibrahim, and Süleyman should rightfully be considered its author is left a puzzle, perhaps

deliberately, by the ultimate copyist Süleyman who refers to himself at the outset only as *hakir* (the lowly one) and later, at the end of the manuscript in the colophon, as *fakir* (the humble one).[44]

Putting aside the merits of the various claims for 'authorship' or further consideration of the text's transmission, the most important authenticating detail is provided in the copyist Süleyman's use of the *nisba* '*al-Giridi*', which indicates that the copying of the manuscript was carried out by a Cretan, in all likelihood in Crete.[45] The surviving text's provenance in a location known for its intimate connection with the sea and seafaring folk inspires confidence that the copyist had access to the storytellers of yarns and sea ditties frequenting the waterfront. Both the details contained in the text and the way he narrates his tale suggest he made use of oral informants who were intimately connected with seafaring, the seafarers' way of life, and the shared ethos of that community.

Another significant difference between the two tales is the way they refer to time, calibrate time, and convey a sense of the passage of time. The account authored by the letter-writing and rhyme-composing *kadi* notes the precise calendrical dates on which key events occurred. It is thus possible to reconstruct a sequentially accurate account of what actually happened to him, as well as where and when. That a large part of the account of his captivity was written during the 19 months of captivity (between his arrival in Malta in mid-June 1597 and his release in January 1598), in the form of a sort of live reporting or *aide mémoire*, is indicated by the fact that, as stated in the colophon of his text, he 'completed' the manuscript in the *hijri* year 1007 (August 1598–July 1599), only a few months after his return to Istanbul. Kadi Mustafa also records that precisely 26 days elapsed between the capture of the small *Karamürsel* craft in which he was travelling in the waters off Cape Arnaoutis near Cyprus and his arrival in Malta in the custody of his corsair captors.[46]

In the *Makale*, time and the passage of time are described differently. Here reference to time is equally accurate and precise, but the manner of referring to it is not the conventional one of days, weeks, months, and years, but rather seasons of the year and times of the day. This latter time-scale is one applied by everyday folk in everyday rhythmical and cyclically repeating daily encounters, in contradistinction to that associated with the calendrical mind-set of the bureaucratic man of letters.

In both texts, news, correspondence, reports, and gossip circulate within the maritime space of the Mediterranean via a number of different mediums: captains of Christian merchant vessels, the Christian merchants themselves, deputized agents (often non-Muslim merchants from Istanbul) bearing letters with news about the status of requests for ransom payments, and the arrival of gossip and verbal reports from new Muslim captives arriving in Malta as prisoners. All these different modes of communication contributed to a trans-Mediterranean network that linked Muslim captives 'imprisoned' in Malta with the world outside. The isolation of captives from knowledge about what was happening in the wider Mediterranean world and beyond was never that absolute or complete.[47]

The general perception of time, and the means of calibrating and measuring it encountered in the *Makale* provides readers/listeners with a nuanced appreciation of the fleeting nature of time, and of time experienced in the moment. In the *Makale*, the day is typically divided into the periodic divisions of morning, noon, and night,

conforming to what occupied the thoughts of sailors and navigators as they performed their daily duties. Visibility, the presence of cloud cover, the periodic sighting of other (potentially hostile) vessels, are conditions noted in the text with their precise time-specific referents. The hourly scale used to track increases and decreases of wind velocity during a storm is given in accordance with the five daily prayer times for Muslims, which occurred at fixed times dictated by the rising and setting of the sun. The following passages excerpted from the text will serve as a guide to how the onset, the rising velocity, and the denouement of a winter storm were perceived, and then recalled, by sailors and passengers aboard a slenderly proportioned *shehtiye* (*satia/setee*) sailing the coastal waters off Alexandria in the late seventeenth century.[48]

First day at sea (*Makale*: 114, line 19 and 115, lines 1–9)

Towards sunset (*akşama karib*) on the first day out of port the wind died down and gathering clouds darkened the evening sky, a clear sign of an impending storm. It was the time, round about 10 days before the winter solstice (*gün dönmesine on gün kalmış idi*) and a short time before the onset of the winter storm season which is marked by the appearance of the black sea genie (*karakoncolos günlerine bir kaç gün var idi*).[49] At midnight (*gece dördüncü saat'te*) the wind kicked up from the east bringing with it foul weather and high waves.[50]

Second day (*Makale*: 115, lines 10–25 and 116, lines 1–13)

The following day in the late forenoon (*kuşluk vaktı*), the wind shifted around to the west and gained such strength that by the time of the midday prayer (*öğle namazı vakti*) it had become even more ferocious than the previous day's easterly gale.[51] It continued gathering strength until mid-afternoon (*ikindi vakti*) by which time the waves towered above us, breaking over all sides of the ship. By sunset (*akşam namazı vaktinde*), the driving rain and high winds, accompanied by intermittent lightning flashes and occasional hail showers, reached such intensity that crew members were no longer able to grip the halyards and sheets. At that juncture a huge wave broke over the stern carrying the chief navigation officer overboard and with him the compass box. Thus deprived of its eye, the ship and its company lurched forward with a feeling like that of a horse rider who had mounted a blind horse. During the pitch dark of night (*gece*) we lost all sense of our true position, only catching a brief sight in the glimmer of the occasional lightning strike. As we proceeded onwards in this fashion, trusting in God's mercy (and protection), around midnight (*tahminen gecenin dördüncü saat'te*) aided by a lightning strike we spied an indistinct black shape on the horizon. The captain declared it to be land but others thought it was only clouds. Shortly afterwards, after a second lightning strike, it became clear that the indistinct shape was in fact the contour of a coastline.

The third day [daybreak] (*Makale* 116: lines 14–20)

At daybreak (*sabah oldukta*) when full visibility was restored, we did our utmost to steer ourselves towards the shore, but the action of the waves and the adverse flow of the current held us back.

> The third day [subsequent developments] (*Makale*: 116, lines 21–5 and 117, lines 1–12)
>
> By the light of day, we were able to discern that what lay before us was not the mainland but an uninhabited island. It was now fully 24 hours (*yiğirmi dört saat*) since the beginning of the storm (*i.e.*, the westerly gale) but its force had still not abated; if anything, it was stronger than before. Our ship was continuously breached, both from the bows and the stern, by the incessant action of the waves and there was no chance for us to lower the rowboats or attach a tow line. After our repeated attempts to approach shore safely failed, evening fell (*akşam oldu*) and the time of the bedtime prayers (at nightfall) drew nigh (*yatsu vakti yaklaştı*). The wind continued to rage and reached levels that exceeded its heights of the previous 24 hours. In the wee hours of the night, at the fifth hour after nightfall (*gecenin beşinci saat'te*), a massive wave struck the vessel in the bows with such force that it carried away the anchor chain and the ship was driven ashore and, with a rolling and thumping, struck land and was dashed to pieces.

In the sample passages selected from the storm sequence in the *Makale*, the reader is immersed in the minute-by-minute and hour-by-hour action, sharing the experiences of the ship's crew. As modern historians it is important for us to gain a sense in real-time, in the light of such first-hand accounts, of how this battle with the elements was waged and with what results. Works such as Kadi Mustafa's *Sergüzeşt* allow us to orient ourselves in historical time and pinpoint the day, month, and year in which letters were sent, state correspondence received, or literary works composed and are, of course, valuable in their own right. Nevertheless, in order to appreciate how the maritime environment was actually experienced, works such as the *Makale* that provide a *cinéma verité* glimpse into contemporary reality, presented in three-dimensional time and place, are of equal value. The separate worlds of the terrestrial and the maritime, the seafarers and the landlubbers, the literate and the unlettered judged (and reported) 'reality' in accordance with their own standards, and following their own instincts and sentiments. There are relatively few sources that restore a voice to the sailors from the lost world of the Ottoman mariner, but the *Makale* is a rich source of information. The concluding section of this chapter provides a selection of passages from the *Makale* which showcase the values, ethos, way of life, and traditions of those who sought their fortune on the open sea.

Four excerpts (vignettes) from the *Makale*

Excerpt (a): The speech of the Jailer-Captain turned mutineer to the officer cadre and others among his former shipmates and Christian shipmates (altogether 17 in number) inviting them to join the ranks of the 53 Muslim mutineers already under his command (*Makale*: 127, lines 6–26).

Excerpt (b): The Jailer-Captain's statement concerning the governing principles to guide the new ship's crew united under his command (now totalling 70; 53 plus 17) (*Makale*: 129, lines 8–24 and 130, line 1).

Excerpt (c): Explanation of the logic governing the Jailer-Captain's decisions regarding to whom he should assign the captaincies of two captured ships designated to serve as his vice-admiral (*patrona*) and Rear-Admiral (*riyale*) in future cruises.

Excerpt (d): Summation on the state of the Jailer-Captain's mind at the end of three years of corsairing under the newly adopted name of Mahmud while flying the flag of Tunis.

Excerpt (a)

'In the presence of the chief officers of the galleon whom he had released from the hold where they had been kept in confinement during the mutiny, the Jailer-Captain addressed them as follows:[52]

> My brothers. Please excuse me for having mistreated you. I deemed it desirable to keep you an arm's length away from the fray lest you come to some harm. Since you were not made privy to our plans, we feared that you might offer resistance and suffer some accidental injury during the scuffle. The last thing we wanted was that being compelled to meet force with force, we should inflict casualties on you, our dear friends and companions from these many years of cruising and corsairing together. Now, God be praised, we have achieved our purpose (in the mutiny) and the ship is safely in our hands. At present we would like to divvy up in equal shares in the spirit of brotherhood all the goods, coins and other valuables that have come into our possession.[53] Thereafter, it is our intention to take up a new career of corsairing under the flag of whichever of the three "hearths" (*ocak*s) of the Maghrib (namely Algiers, Tunis, or Tripoli) we all agree to. Whatever we then acquire in the way of prizes we will distribute amongst ourselves according to the law and custom of the sea rovers. I offer you this, o my brothers, with whom I stand together heart and soul, for you to consider and, if you are willing, you may join our brotherly band according to this covenant. If you are unwilling to accept these terms you are free to go onshore with your belongings intact. Whichever course you choose, you go with our blessing.

When Jailer-Captain had finished addressing his former shipmates in these terms, they replied to him in one voice saying:

> For these many years we have served together and shared the bonds of friendship and mutual support incumbent on those who have broken bread and shared sustenance together. Given the closeness of our association in the past, it is inconceivable that we should now part ways and seek our fortune elsewhere. We pledge ourselves to your service and wholeheartedly accept you as our new captain. We will follow you in accordance with the precept "your friends are our friends and your enemies are our enemies" and accept your orders unconditionally. We will fight body and soul for the protection of our shipmates (whether they be Muslim or Christian) whenever they are exposed to peril and we also commit ourselves to carrying out our duties to the fullest extent of our abilities, serving even more devotedly than we did before under our former (Christian)

> captain. As you well know, the beast of the fields is bound to his duty by the yoke he wears around his neck whereas the brave-hearted hero (*yiğit*) is bound only by his oath and steadfastness in his every word and deed. You, as our new captain, should now summon a similar resolve to fulfil your responsibility as a fellow member of our band of braves.

When the new recruits (among the galleon's former officer corps) offered the foregoing response to the Jailer-Captain's plea for cooperation, he was greatly pleased'.

Excerpt (b)

'After the Jailer-Captain had successfully dismissed the unreasonable demands of the governor of Cyrus and his emissary,[54] he summoned the experienced hands and veteran crew members for a ship's council. When they had gathered, he spoke to them in the following words:

> O my brothers, after that narrow escape with governor, it now behoves us to join the service of one of the Maghrib Hearths. It is not sensible for us to try to go it alone. The question is, should we elect to join the sultan's service in Istanbul and risk being seized in the claw of the almighty Ottomans? If we chose that course, there is no doubt that, in addition to being stripped of our galleon and all our possessions, we will all be cast into prison and remain powerless to escape their grasp for the rest of our lives. Another option would be to serve in the Algiers fleet. It is well known that they are a determined lot, but, at the same time, because the Algiers Hearth is notorious for its stinginess, it is likely that they too would seize our ship for their own use. They would be unable to resist the temptation to add our ship to their own flotilla since there is no swifter nor more well-shapen craft than ours in their whole fleet. In its fully decked out condition our vessel is capable of carrying up to fifty guns, enough to make it the pride of their fleet. If, alternatively, we were to decide to serve under the banner of Tripoli, they, in view of their general state of penury, would be certain to envy us our gains from corsairing. It is a well-known fact that This Hearth has the worst reputation among the Three Hearths of the Maghrib for its niggardliness in the distribution of prize money. The best choice for us is service under the flag of Tunis which is widely reputed as a prosperous Hearth. Besides, we already have in hand a pennant with their colours which we retrieved from a locker belonging to our galleon's former captain. It was once the flag of the vice-admiral of the Tunis fleet. Let us hope, if God the Merciful wills it, this flag will serve as the auspicious emblem of our future good fortune. So, what say yee? What do you think is our most favourable choice?

When the captain had finished addressing them in this manner the whole company replied speaking with a single voice:

> You are our captain. Your judgements and your deliberations are more incisive than ours. Whatever you approve, we accept with full confidence and satisfaction.

When the group's joint decision was thus determined, they formally adopted their new identity as corsairs of Tunis by unfurling its banners and they fired a gun salute with muskets and cannon to signal their affirmation of the captain's choice'.

Excerpt (c)

'The assembled company representing the companies of the three ships, all serving under the Jailer-Captain Mahmud's command,[55] now gathered for a discussion about assigning the captaincies of the two captured Maltese ships; one a man-of-war of 24 guns and the other a larger ship carrying 36 guns. The captaincy of the first was awarded to Ali Bey, the rebellious son of the Governor of Cyprus who had run away from home to seek his career as a Muslim corsair by joining forces with the other Muslim mutineers when they first seized control of the galleon in Cyprus. They admired him for his martial spirit, but took the precaution of assigning a seasoned veteran named Captain Mehmed to assist Ali as his chief navigational officer. During the council discussion, the old hands offered Ali Bey their advice in the following words:

> Ali Bey, you are by birth and upbringing the son of a vizier and are in every respect a brave and courageous man-at-arms. However, at present, you are still largely untutored in the ways of the sea. Until you gain proven knowledge and experience, you must faithfully follow Captain Mehmed's judgments and decisions and never go against his orders. Although you are a brave warrior, when it comes to matters of the sea, you must defer to Captain Mehmed's greater wisdom and experience.

So saying, the seasoned crew members sought to educate and give guidance and admonition to their worthy, but still inexperienced, comrade. For the captaincy of the second capture, the 36-gun ship, Captain Mahmud chose a renegade captain whose adopted Muslim name was Ahmed to serve as his Rear-Admiral. This was because, having served for long years as a Christian corsair and (like Captain Mahmud himself in his previous life as the Jailer-Captain) acquired an intimate knowledge of life at sea, he was perfectly qualified to captain his own vessel. On these grounds, the captaincy was awarded to the recent convert Ahmed at Captain Mahmud's request and with his personal offer to stand surety for Captain Ahmed's good behaviour'.[56]

Excerpt (d)

'After Captain Mahmud had issued his orders regarding the captaincies of the two captures, he resumed his cruising and corsairing for a period of three years, hunting as a pack of three with his newly acquired Vice-Admiral and Rear-Admiral. Together they brought back many prizes and acquired rich booty for distribution in Tunis. During this period, their reputation for corsairing and feats of derring-do spread throughout the length and breadth of the Maghrib making them the envy of one and all in the Three Hearths. At this point, the governorship of Tunis changed hands when

(by the command of God the Exalted) the current incumbent died. The post was then filled by a new state dignitary who, after a short spell in office, became jealous of Captain Mahmud's reputation and accomplishments, saying:

> This man has accumulated fabulous wealth and, what's more, he has earned the love and admiration of his comrades. It is only a matter of time before he, relying on the backing and support of his faithful friends, will be emboldened and set his eye on my position of status and respect intent on unseating me as governor.

When the governor's fear and envy were thus aroused, he hatched a plan to eliminate Captain Mahmud as his rival by murdering him. However, a group of Captain Mahmud's friends and well-wishers warned him of the governor's malign intentions. Thereafter, a chill entered into Mahmud's relations with the governorate of Tunis. Although Mahmud cherished no ambition for high political office, it was true enough that, had he so wished, he could easily have joined the ranks of the state dignitaries. But, he had no taste for life ashore and if, after the conclusion of successful expedition, he had to stay ashore for more than 40 days, he became unwell and craved an early return to sea. Even though it was thanks to Captain Mahmud's fame and reputation that the new governor held onto his present position of dignity, he could not stomach the idea of Mahmud's success and he remained jealous of Mahmud's wealth and reputation. The ignoble governor was unable to rid his poisoned mind of the thought of murdering this courageous and admirable man. For him, his own pride and unworthy fixation on his own career prospects blinded him to all other concerns. Despite being consumed inwardly with such thoughts, the governor hid his real intentions so that, whenever the two should meet to transact joint business, he gave the outward appearance of friendship and always treated Captain Mahmud with all manner of honours and courtesy. In private however, the hypocritical governor did his utmost to engineer Mahmud's murder. At this juncture, when Mahmud had already lost enthusiasm for further service with Tunis, he began to receive overtures from Algiers, accompanied by generous gifts, enjoining him to attach himself to their service. Their persistence eventually paid off and Captain Mahmud became inclined to accept their offer and started making his preparations in secret to shift his allegiance, together with his Vice-Admiral and Rear-Admiral, from Tunis to the Algiers Hearth'.

Notes

1 H. Theunissen, *Ottoman-Venetian Diplomatics: The Ahd-names*, PhD dissertation, Utrecht University, 1991 (the later published version in *Electronic Journal of Oriental Studies* was 1998).

2 See M. Pedani, *The Ottoman-Venetian Border: 15th–18th Centuries*, Venice: Edizioni Ca'Foscari, 2017, p. 44: 'piracy continued all through the century as the uninterrupted building of coastal watch-towers bears witness'.

3 For the exhortations incorporated in the formal agreements, see the Ottoman text of the 1575 capitulations in Theunissen, *Ottoman-Venetian Diplomatics*, p. 507, line 27: '*gayri vilayetin harami barçalarına ve kadırga ve gayri gemilerine Venedik kendü adalarına ve limanlarına ve hisarlara sığındırmayıp durgurmayalar*'. The Italian translation in article ('*capitulum*') VII (p. 535) contains similar language: '*non sia lasciato haver ricapito nelli porti & terre mie alle navi & gallee de corsari alieni*'.

4 In Zante, for example, it seems that in 1628 one of Sir Kenelm Digby's privateering partners, Captain Woodcock, was able to dispose of goods acquired without his superior's knowledge or approval without the local customs officials being any the wiser. See R. Murphey, 'Merchants, Nations and Free Agency', in A. Hamilton, A. de Groot, and M. van den Boogert (eds), *Friendship and Rivalry in the East: Studies in Anglo-Dutch Relations in the Levant from the Seventeenth to the Early Nineteenth Century*, Leiden: Brill, 2000, pp. 40–1.

5 Transcription of a document dated 16 June 1594 provided in I. Bostan, 'Garb Ocaklarının Avrupa ülkeleri ile siyasi ve ekonomik ilişkileri, 1580–1624', *Istanbul Üniversitesi Tarih Enstitüsü Dergisi* 14, 1988–1994, pp. 73–4.

6 For a sense of how different one governor's regime might be from that of his predecessor in terms of relations and interactions with local power brokers and other high-profile personalities, see Excerpt (d), from the memoir/autobiography of the Jailor-Captain called the *Makale*.

7 Recent scholarship on North Africa under Ottoman rule has revealed just how fragile and impermanent power-sharing arrangements could be. On Tunis, see A. Kallander, *Women, Gender, and the Palace Households in Ottoman Tunisia*, Austin, TX: University of Texas Press, 2013, in particular the genealogical charts provided as an appendix (pp. 279–85) that establish the close family links between various successors to the governorate. See also the work of two of her forerunners, D. Langueche, 'The *Mahalla*: Origins of Beylical Sovereignty in the Ottoman Regency of Tunis', in J. Clancy-Smith (ed.), *North Africa, Islam and the Mediterranean World: From the Almoravids to the Algerian War*, London: Routledge, 2001, pp. 105–16; A. Moalla, *The Regency of Tunis and the Ottoman Porte, 1777–1814: Army and Government of a North-African Eyâlet at the End of the Eighteenth Century*, London: Routledge, 2004.

8 For the founding of the tribunal in 1605, see P. Earle, *Corsairs of Malta and Barbary*, London: Sidgwick and Jackson, 1970, p. 108. For the emphatic repetition of particular prohibitions, such as connivance with the captains of non-Maltese origin who sought to circumvent the regulations, an offence that carried a penalty of ten years of penal servitude on the galleys, see Earle's reference to the ordinances of 1608 and 1682 on p. 117.

9 R. Abbé de Vertot, *Knights of Malta*, 2 vols, London: G. Strahan, 1728, vol. 2, pp. 188–9.

10 According to the classic study by Alfred Wood, *History of the Levant Company*, Oxford: Oxford University Press, 1935, p. 56, consulage was 'largely evaded by short or false entries made by the ship's captains and factors working in collusion'.

11 Quoted in B. Sebek, '"After my humble dutie remembered": Factors and/versus Merchants', in B. Charry and G. Shahani (eds), *Emissaries in Early Modern Literature and Culture: Mediation, Transmission, Traffic 1550–1700*, London: Routledge, 2009, p. 122. The general term of apprenticeship served by factors in the Levant before becoming full members of the company was four years.

12 Paul Masson provides his assessment of the French trade with the Levant judged from two sets of figures, the first from 1633 and the second covering the period 1700–15. In 1633, 70/103 of the vessels belonging to the commercial fleet consisted of smaller vessels (largely barques) with a carrying capacity of 15–40 tons. See P. Masson, *Histoire du commerce français dans le Levant au XVIIe Siècle*, Paris: Libraire Hachette, 1896, p. 188. By the first decade of the eighteenth century, the fleet had grown, but the proportions remained roughly the same. From a total of 3,450 sailings, 782 (22.7 per cent) were loaded on 'Great Vessels' with larger cargo capacity and 2,668 (77.3 per cent) were accounted for by small and medium sized vessels (No. XVIII of the Appendices). Despite the smaller carrying capacity of each individual vessel, the far greater number of sailings undertaken by them meant that they accounted for a volume of cargo between two and a half and five times greater than that of the 'Great Vessels'.

13 According to Alain Blondy, 'corsairing was "a lesser form of economic activity" and is to be regarded an integral part of the overall commercial picture. The smaller scale piracy practiced by the islanders of the Cyclades can also be viewed as the last recourse of populations who were living at the margins between bare subsistence and outright deprivation'. See

A. Blondy, 'The Barbary Regencies and Corsair Activity in the Mediterranean from the Sixteenth to the Nineteenth Century: From the Community of Origin to Evolutionary Divergence', *Journal of Mediterranean Studies* 12, 2002, p. 241. See also B. J. Slot, *Archipelagus Turbatus: Les Cyclades entre colonisation latine et occupation ottomane, c. 1500–1718*, 2 vols, Leiden: Nederlands Instituut voor het Nabije Oosten, 1982, Vol. 1, p. 201, who suggests '*la piraterie était, en quelque sorte, un phéonème sociale*'.

14 See the textual excepts provided in section entitled 'Ottoman narrative sources on the life of the sea' (pp. 159–168) for an attempt to recover the trace of some of the smaller, non-state actors and the character of their self-directed, otherwise unrecorded, activities.

15 Significant advances in this developing field of research have been noted by G. Endfield and C. Morris, 'Cultural Spaces of Climate', *Climatic Change* 113, 2012, pp. 1–4; D. N. Livingstone, 'Reflections on the Cultural Spaces of Climate', *Climatic Change* 113, 2012, pp. 91–3; L. Veale, G. Endfield, and S. Naylor, 'Knowing Weather in Place: The Helm Wind of Cross Fell', *Journal of Historical Geography* 45, 2014, pp. 25–37.

16 S. Rappaport, *Worlds within Worlds: Structures of Life in Sixteenth-century London*, Cambridge: Cambridge University Press, 1989.

17 For the placement of sailors at the margins of respectable society, based on an examination of criminal court proceedings, and thus implying acceptance of the notion that they should be regarded as members of a peripheral community with subaltern status, see E. Dursteler, *Venetians in Constantinople: Nation, Identity and Coexistence in the Early Modern Mediterranean*, Baltimore, MD: Johns Hopkins University Press, 2006, pp. 98–102. The sub-heading of this section of the book is 'sailors, travelers and other transitory people'.

18 On the distinctiveness of North Africa's far west region, see E. Burke, 'Morocco and the Near East: Reflections on Some Basic Differences', *Archives of European Sociology* 10, 1969, pp. 70–94.

19 R. C. Davis, *Christian Slaves, Muslim Masters: White Slavery in the Mediterranean, The Barbary Coast, and Italy, 1500–1800*, Basingstoke: Palgrave Macmillan, 2003, Table 2 (slaves held in Algiers), Tables: xviii–xix, and Table 3 (slaves held in Tunis and Tripoli), Tables xxi–xxiii.

20 D. Panzac, *La marine ottomane: de l'apogée à la chute de l'empire*, Paris: CNRS, 2009, pp. 130–2, 137.

21 Earle, *Corsairs of Malta*, pp. 45–6

22 Earle, *Corsairs of Malta*, pp. 121–2, 138. Compare the account of the size of Malta's war fleet in the seventeenth century in J. McManamon, 'Maltese Seafaring in Mediaeval and Postmediaeval Times', *Mediterranean Historical Review* 18, 2003, p. 51. Relying principally on the earlier work of S. Bono, 'Naval Exploits and Privateering', in V. Mallia-Milanes (ed.), *Hospitaller Malta 1530–1798*, Malta: Mireva Publications, 1993, pp. 351–97, McManamon concludes that the core element of Malta's fleet was considerably smaller.

23 Earle, *Corsairs of Malta*, pp. 45–6. Algiers equipped the vessels in its fleet with 30–50 guns in the late seventeenth century compared to the level of 24–30 supplied in the earlier part of the century.

24 Masson, *Histoire de commerce français*, p. 26.

25 See note 3.

26 In terms of the regional distribution of those affected, figures covering the period 1659–63 show that among 515 individuals released from captivity in Malta, residents of Anatolia accounted for 14.6 per cent, Istanbul 12.4 per cent, Syria 11.1 per cent, and less than 10 per cent for each of the other tabulated regions. It is perhaps noteworthy though that, collectively, Tunisia (8.5 per cent), Tripoli (7.2 per cent), and Egypt (7.2 per cent), accounted for a significant proportion of the total (118/515 or 22.9 per cent). See Panzac, *La Marine ottoman*, p. 124.

27 For the Cyclades which, along with the group of 'twelve islands' (the Dodecanese) situated closer to the Anatolian mainland, form a separate unit of analysis, see region 2 in schematic list of maritime regions, p. 155.

28 This is confirmed by the acts of piracy and seizure of civilian Ottoman transport ships related in the *Makale*, associated with the period at the close of the seventeenth century. See

section entitled 'Ottoman narrative sources on the life of the sea' (pp. 159–168). According to an earlier account, the *Sergüzeşt* of Kadi Mustafa dated 1599, the western passage near Cape Arnaoutis was also vulnerable to opportunistic corsair attack.

29 J. Freely, *The Cyclades*, London: I.B. Tauris, 2010, pp. 94–5.

30 W. Miller, *Latins in the Levant: A History of Frankish Greece, 1204–1566*, London: J. Murray, 1908, pp. 68–9, 617–33.

31 S. Boubaker, 'Les Tabarkins: une communauté de frontières', in M. Bertrand and N. Planas (eds), *Les Sociétés de frontière: de la Mediterranée à l'Atlantique XVIe–XVIIe siècle*, Madrid: Casa de Velasquez, 2011, pp. 231–42.

32 F. Emecen, 'Ege adalarında Osmanlı idare teşkilatı', in I. Bostan (ed.), *Ege Adalarının Idari, Mali ve Sosyal Yapısı*, Ankara: SAEMK, 2003, p. 29.

33 See Masson, *Histoire de commerce français*, p. 428.

34 J. Horn, 'Lessons of the Levant: Early Modern French Economic Development in the Mediterranean', *French History* 29, 2015, pp. 76–92. See also E. Eldem, *French Trade in Istanbul in the Eighteenth Century*, Leiden: Brill, 1999, p. 24 n.42 for an account of some of the problems that accompanied Marseilles' emergence on the scene as a rival contender for a share in the international market.

35 While the short account of two pages attributed to Ibrahim al-Dimyati, a native of Damietta in Egypt, can be considered a valuable addition to the corpus of Muslim captivity accounts, it is focused mostly on the conditions of his captivity in Malta and reflects little on conditions of life at sea. See N. Matar, *Europe Through Arab Eyes, 1578–1727*, New York: Columbia University Press, 2009, pp. 241–2. The short duration of his captivity, described at the end of his tale as 'one month', suggests his case was in some respects atypical.

36 Summary information on this text is provided by E. N. Dinç in 'Macuncuzade Mustafa', in D. Thomas and J. C. Chesworth (eds), *Chistian-Muslim Relations: A Biographical History*, *Vol. 10: Ottoman and Safavid Empires 1600–1700*, Leiden: Brill, 2017, pp. 90–3.

37 See F. İz, (ed.) 'Macuncuzade Mustafa'nın Malta anıları: Sergüzeşt-i esiri–i Malta', *Türk Dili Araştırmaları Yıllığı* 18, 1971, pp. 69–122 (text in Arabic script at 72–119); F. İz, (ed.) 'Makale-i Zindancı Mahmud Kapudan bera-yı feth ü zafer-i Keşti-yi Maltiz-i Lain-i Duzah-Mekin', Turkiyat Mecmuası 14, 1964, pp. 111–50 (text in Arabic script at 114–48); K. Digby, *Journal of a Voyage into the Mediterranean by Sir Kenelm Digby, A. D. 1628*, ed. by J. Bruce, London: Camden Society, 1869.

38 See R. C. Jennings, *Christians and Muslims in Ottoman Cyprus and the Mediterranean World, 1571–1640*, New York: New York University Press, 1992, p. 359 and compare R. Morriss, 'Experience or Yarn? The Journal of William Davidson and the Propaganda War against the Barbary States of North Africa', *Archives of the BRA* [The British Records Association] XXIII/98, April 1998, pp. 30–40.

39 *Makale*, p. 128.

40 *Makale*, p. 128. The adoption of self-deprecatory references to themselves as '*üstü başı mülevves kişiler*' does little to disguise their contempt for the frippery and foppishness of the official classes.

41 *Sergüzeşt*, p. 79.

42 For a discussion of the adoption of alternative narrative styles as deliberate choices, see W. J. Ong, *Orality and Literacy: The Technologizing of the Word*, 2nd ed., London: Routledge, 2002.

43 Although the year 1084 *hijri* (April 1673–April 1674) is noted in the text as the year the ship's crew first set sail from Alexandria, the course of their adventures unfolds over the following three to four years, covering the period up to about 1678.

44 It can be verified that the surviving manuscript was copied in 1158 A. H. (February 1745–January 1746), and was inscribed at the behest of a socially elite person, Köprülüzade Hafiz Ahmed Paşa. At the time of copying, he was present in Crete as garrison commander of the fortress of Kandiye in the months between September 1744 and September 1746. See S. Bey, *Sicill-i Osmani*, Vol. 1, p. 262.

45 Bey, *Sicill-i Osmani*, p. 262.

46 The dates for his capture (28 Ramazan 1005, *yevm al araba*/Thursday 15 May 1597) and his arrival in Malta (*evahir-i Şevval* or 21–9 *Şevval* 1005/7–15 June 1597), together with his mention of the elapsing of 26 days spent in transit, fix the precise date of Kadi Mustafa's arrival in Malta as 24 *Şevval* 1005/10 June 597. See *Sergüzeşt*, p. 73.

47 The relatively short time between live reports being received from new captives arriving in Malta, and the events that were transpiring in the capital Istanbul, is indicated by the reference in Kadi Mustafa's text (*Sergüzeşt*, p. 106) to his learning, by word of mouth, of the promotion to the grand vizierate (on 9 April 1598) of Cerrah Mehmed Paşa, and death (on 1 April 1598) of the Chief of the Ottoman Learned Hierarchy, the *Şeyhülıslam Bostanzade Mehmed Efendi*, at the end of his second term in office.

48 In the following summary account, references to time of year (season) and time of day (prayer intervals) are given in italics. In reference to the crewing requirements and the monetary value of a typical *satia* we have data from several contemporary sources. On the crew complement of a typical *satia*, data supplied in Digby's sea journal suggests that the crewing of these two-masted, brigantine-rigged sailing vessels required a minimum of 22 men. See Digby, *Journal of a Voyage*, p. 31. The Jailer-Captain's text (*Makale*, p. 133) suggests the indemnity price for a *satia* was 20 purses (10,000 piastres). This figure is confirmed in the eighteenth century where it is recorded that two business partners paid 9,600 piastres for a *şehtiye*. See E. Eldem, 'Strangers in Their Own Seas? The Ottomans in the Eastern Mediterranean Basin in the Second Half of the Eighteenth Century', *Studi Settecenteschi* 29–30, 2009–10, p. 35.

49 For the identification of the days of the black sea genie in folk consciousness with the period at the beginning of the 40 coldest days of winter (*arbain*) lasting from the winter solstice (21 December) to the end of January, see H. Kahane, R. Kahane, and A. Tietze, *The Lingua Franca in the Levant: Turkish Nautical Terms of Italian and Greek Origin*, Urbana: University of Illinois Press, 1958, pp. 521–3. According to the folk calendar that guided mariners, the high winds (*fırtına*) associated with each part of the 40-day period of winter had their own separate names. According to this calendar, the 'winds of Karakoncolos' corresponded to 13–14 January O.S. (23–4 January in the Gregorian Calendar) which would place them at the close of the 40 coldest days of winter. See B. Karaöz, 'Zemheri Fırtınası'nın Başlangıcı', 8 January 2018,https://tarihnedio.com. For an idea of place-specific variation in folk practice and belief in different regions (e.g. Black Sea, Aegean, southern Mediterranean, etc.) see also P. N. Boratov, '*Les Maitres de l'espace sauvage*', in H. Balfet, P. N. Boratov, and C. Bromberger (eds), *Pratiques et représentations de l'espace dans les communautés méditerranéennes*, Paris: Éditions du Centre National de la Recherche Scientifique, 1976, pp. 89–100.

50 Using the 24-hour clock, and assuming that the sun set in those latitudes around 17:00 and nightfall occurred around 20:00 at that season, the fourth hour after nightfall would correspond to 24:00.

51 The time when the sun reaches its zenith is the time for the midday prayer. The whole of the period preceding that, between sunrise (*sabah*) and noon *(öğle)*, are loosely referred to as '*kuşluk*', but it generally refers to the later part of the forenoon when the sun is high on the horizon.

52 It was essential to his success as a corsair captain that the Jailer-Captain should gain the full cooperation of experienced hands, especially skilled officers, as his future comrades. On this, see also Excerpt (c) below.

53 The cash value of the spoils to be distributed among the 70 mutineers including crewmen and officers is identified (*Makale*, p. 128) as 59,500 piastres, meaning that the share per head was 850 piastres.

54 See above, the passages quoted on pp. 160–1.

55 The Jailer-Captain's conversion to Islam and his adoption of the name 'Mahmud' are noted in the text (*Malale*, p. 140) with little comment, and by a passing reference to feasting held to commemorate his circumcision ceremony (*Makale*, p. 144). On the whole, the text avoids long digressions on religious themes or religious identity as a source of group solidarity and loyalty among shipmates. Emphasis on the need for unity and the adoption of an attitude of

'all for one and one for all' to ensure their joint success in corsairing is more prominent than expressions of religious fervour which might serve to emphasize division. The text adopts a non-judgemental attitude toward religious identity. While in most cases the adversary crews can be identified as Latins and Catholic, non-Muslims (usually Orthodox Greeks) made up at least part of the crew of most Ottoman vessels in the Mediterranean. Strident religious tones or crusading rhetoric are rarely evoked in the *Makale*. The first reference to Mahmud's conversion comes fairly near the end (on page 28 of the 36-page text), for instance.

56 It is noteworthy that in the case of both appointments, what the Captain valued most was not status, private conscience, or religious affiliation, but experience and competence in navigation.

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Part II
Material seas

8

Port towns and the 'paramaritime'

Isaac Land

Jamie Linton has remarked that

> something of an exceptional nature is afoot with respect to the idea of water. Such scholarly attention reflects a growing interest not just in water and water issues per se but in the sense in which water articulates in different ways with people from one social and historical context to another.[1]

Describing those different articulations in a precise way would be easier if we had a more extensive and appropriate vocabulary for them. For example, people, things, and activities that are *not-quite-oceanic* abound, forming a vast penumbra receding inward from the coastline. Gérard Le Bouëdec has introduced (without comment) a word, 'paramaritime', which does not yet appear in French or English dictionaries.[2] This helpful term deserves wider usage. A working definition of the paramaritime, drawing on conventional uses of the para- prefix, might look like this: 'Occurring beside, around, or between maritime areas; containing elements not usually regarded as maritime; analogous or parallel to maritime entities (spaces, cultures, occupations, activities), but separate from or going beyond them'.[3] The paramaritime, then, is pertinent for shallow waters (bays, coves, estuaries, firths, fjords, inlets), but it also speaks to interstitial watery spaces (straits and portages; reticulated systems of lakes, rivers, or inland seas; archipelagos or island clusters).[4] It is also a way to put the spotlight on foragers and opportunists whose recourse to the water was seasonal or otherwise intermittent. Studying pluriactives – whose occupation is best described using a hyphenated form (sailor-blacksmith), or whose households regularly made ends meet by supplemental work in support of fisheries or seafarers – was the aspect of the paramaritime that caught Le Bouëdec's attention in the Breton parish records.[5] The paramaritime encompasses the watery trades that were not truly oceanic, but also recognizes the broader spectrum of people who worked on the coast, yet who rarely (or never) got their feet wet.[6] This offers a better chance to appreciate women's experiences, in particular.

Defining paramaritime *culturally* is not as easy as formulating the spatial or occupational definitions, but the potential rewards are very great, helping us put 'contextual flesh and muscle on the bones of economically driven cross-cultural interactions', as Raquel Reyes recently expressed it.[7] The port town is the place where maritime history finds its high water mark and then recedes, but from a paramaritime perspective, it is the starting point for all kinds of new inquiries.

In 1783, the lexicographer Samuel Johnson, speaking of 'the wonderful extent and variety of London', where 'men of curious inquiry might see […] modes of life as very few could even imagine', urged his protégé James Boswell to 'explore Wapping' in particular.[8] If men like Johnson exulted in the foreign flavours and exotic salt-tinged vocabulary of London's docklands, we also know that a significant number of sailors made the pilgrimage in the opposite direction, submitting petitions to the Admiralty offices at Somerset House on the Strand and frequenting Charles Dibdin's theatre across the street, where they cheered and jeered at representations of themselves – and occasionally rushed the stage to join in the action.[9] Most ports, of course, were provincial and considerably more humble. No flâneur was ever likely to wander into the 'smelly hell' of Russia's Arctic port, Archangel, that 'wen of seal-blubber distillers, beef- and seal-tallow scour-works, shipwrights, salt-works, and vodka soaks' where much of the revenue collected was derived from a tax on the town's many taverns.[10] Writing in 1792, a local merchant, Vasilii Vasil'evich Krestinin, nonetheless found something to praise in Archangel's proud, orderly civic life; the election of judges was celebrated with a formal dinner of 'barbecued deer, finches, tundra mushrooms, and breads', followed by a public distribution of gifts to the general populace assembled outside.[11] On the other side of the world, the enslaved African healer Domingos Álvares navigated a starkly different urban geography in the Rio de Janeiro of the 1730s. He lived next to the Cemitério dos Pretos Novos, where a 'steady stream of corpses [were] brought from the slave market on the city's waterfront', still slung in the hammocks where they had died during the Atlantic crossing. Other defining landmarks of Álvares' port town included the Terreiro da Polé, where slaves were tied to a tall post and whipped in the central plaza, and Nossa Senhora do Rosário church, favoured by the town's black residents, but sited next to a fetid garbage pit.[12] The contradictions between just these three perspectives – the incongruous cityscapes traversed by Johnson, Krestinin, and Álvares – should serve as a reminder that a truly global history of port towns will be a difficult reckoning indeed.

Classic discussions of ports and harbours have tended to focus on their role as facilitators of the efficient movement of money, ships, people, and goods.[13] Amsterdam could stand as an example of this pragmatic ideal, its canal-based urban design concept – 'the modular, compact incremental Dutch style' – enabling it to expand where, and as, needed.[14] Amsterdam was also, of course, famous for its equally pragmatic approach to religious difference.[15] Yet as an urban space, the waterfront and its surrounding area were not always open to free flow and exchange, or designed to facilitate these things.

New scholarship has expanded our notion of the work of ports, as well as our ideas about why ports mattered. They could be a place of quarantine; of carefully regulated extraterritorial trading enclaves; of walled and policed warehouse districts.

The waterfront could serve as the backdrop for elaborately choreographed courtly ceremonies, or equally choreographed diplomatic snubs. Anthropologists, sociologists, architects, and even philosophers have approached port towns with new interest in recent years, inspired not by an interest in their commercial life as such, but by the unique social formations and tacit understandings (often loosely referred to as 'tolerant' or 'cosmopolitan') that flourished there.[16]

Michael Pearson's work on intensely local 'littoral societies' puts the spotlight on people who *both* relied on the water for their livelihood *and also* stayed put geographically, a helpful corrective to narratives that emphasize the highly mobile empire builders of the period. This littoral population included fisherfolk, but also 'people who tend the lighters that go out to meet the big ships'.[17] Future scholarship could undoubtedly do more with the people who, in the Swedish expression, kept 'one boot in the boat and the other in the field'.[18] However, focusing solely on occupations or work identity leaves an incomplete impression of what could be at stake when we speak of the paramaritime. If (to invoke Le Bouëdec's words again) there is an opportunity to shift the focus from a maritime community *pure et dure* to reciprocal relationships and blurred boundaries, the *espace d'interface*, then we can and should approach the pluriactive in more than just an occupational register.[19] Feminist and Atlantic World scholars, who have emphasized the agency of translators, sex workers, culture brokers, and familial go-betweens in producing a shared contact zone, suggest the potential for writing about emotional pluriactives and fractional or hyphenated identities, expanding and complicating the potential scope of a term such as 'littoral society' and suggesting new lines of investigation for the future.

Splendour and authority

Italian Renaissance planners drew idealized diagrams of perfect octagonal port towns enclosing a symmetrical array of streets and squares, with the harbour as an afterthought at the bottom (see Figure 8.1).

Such schemes did not make it past the blueprint stage, but the dream of building a perfect port town by decree points to ambitions for the exercise of comprehensive control over these spaces. European planners came to appreciate water 'as an urban space that, like a piazza, offered a visual prospect of other parts of the city beyond itself'.[20] If planners worried about whether major port features such as canals, fortifications, and dockyards would present a splendid vista from the waterline, this anxiety arose out of some legitimate, practical considerations.[21] The waters of the harbour and the streets of the port could form the backdrop for great occasions of state, where ambassadors might first present their credentials. It was where official delegations, including those involved in royal weddings, might disembark with appropriate fanfare.[22] For those on official business, 'the moment of transfer from ship to shore provided the first stage on which to mark out their authority and required, for this reason, special care'.[23] Newcomers sometimes had to undertake preliminary negotiations on how to preserve the dignity of their office upon landing.

For rulers, the outward appearance of a port town could send diplomatic signals, establish prestige, or even offer an insight into the regime's overall stance toward the

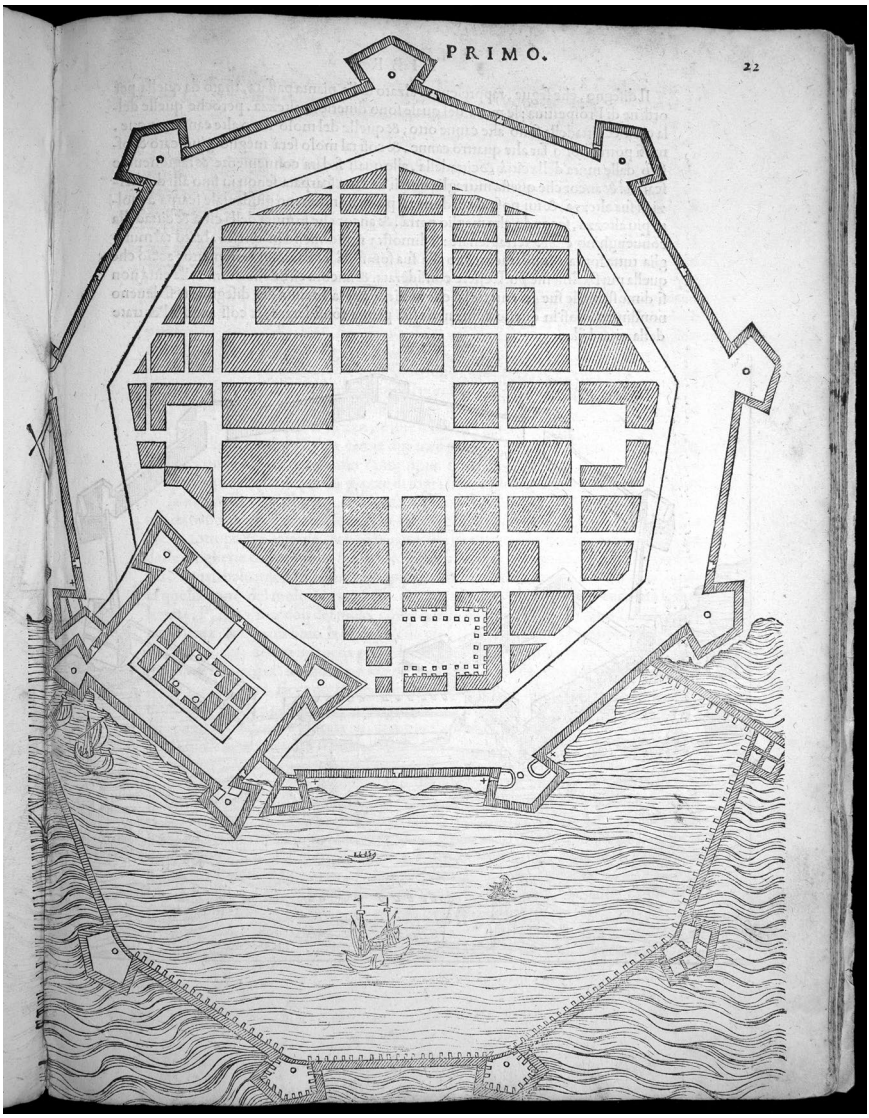

Figure 8.1 Pietro Cataneo, *I qvattro primi libri di architettvra*, Venice: Aldine Press, 1554.

Courtesy of Newberry Library.

outside world. Historians of Asia have noted the striking contrast in tone and outlook between polities with inland capitals (Beijing, Delhi) and those, like Malacca and many others in Southeast Asia, where 'the administrative and economic heart [was] fused into *one* city'.[24] These Asian examples suggest a fresh perspective on Peter the Great's momentous decision to relocate his seat of government to a new port town on the Baltic:

> As seaport, imperial capital, and metropolis combined, St. Petersburg was much less the predecessor of Washington, D.C., than it was the successor to Constantinople and, more distantly, Alexandria. The first new city of that type since Constantinople, it was also the first since then to be named for its founder.[25]

Peter's ambitions, at first glance, might seem worlds away from the challenges faced by the Dutch East India Company (VOC), but their emissaries struggled to win acceptance at some Asian courts because they did not represent a royal dynasty. In response, the VOC reshaped Batavia into something that looked like 'the Port of a Prince'.[26] This included grand ceremonies for visiting ambassadors, who were assigned 'specially decorated vessels' for the official landing ceremony, where they were greeted with festive cannon shots, and escorted to purpose-built diplomatic quarters. The governor-general did not appear in public without his official carriage and his retinue of horsemen and halberdiers. The birthdays and funerals of governors-general were marked by expensive public commemorations. Soon rulers were addressing letters to the 'King of Batavia'.[27]

Ambassadors and merchants – even those hailing from quite dissimilar cultures – had to learn to conform to the protocols and etiquette of the host country. Beginning in 1634, the VOC representatives paid an annual homage to the shogun following a set procession route, beginning in Nagasaki harbour and ending in Edo.[28] Contemporary sketches show a long, snaking line of dignitaries, palanquin bearers, attendants, carts, and beasts of burden (see Figure 8.2). This *hofreis* procession recurred each year with little change in the route, and only a little variation in the stipulated date, for more than two centuries.

Not all pageantry was pre-planned and choreographed. In 1636, for instance, in the hopes of winning the release of a captive company official, the VOC shipped an 800 pound brass chandelier to the Japanese shogun. This ungainly, 30-armed object was 'a display item that was designed to be seen – and indeed seen by as many people as possible – rather than used'.[29] The unloading of the chandelier amounted to an event in its own right. It had been broken down into separate crates for shipment, each piece meticulously marked in Japanese characters for reassembly. The chandelier excited so much curiosity that it was unpacked and assembled in public *twice*. The onlookers grew so numerous that the Japanese authorities had to improvise special supplies of food and drink to meet their needs.[30]

Many of the great Asian land-based empires sought to balance an openness to trade with a serious effort to limit and control destabilizing seaborne influences. The Japanese decision to confine the Dutch to Deshima, a three-acre artificial island in Nagasaki harbour, is a somewhat extreme example, but islands regularly played a role in strategies of containment. For instance, Venice's famous lazaretto was built on a nearby island.[31] Such entities are best considered not as outside the urban space, but as a specially contained feature of it, a safety valve that could open or close as needed. Though the waterfront might appear, inherently, as a space of reception, it could also be pressed into service as a security perimeter. After a spate of privateering activity in the Caribbean, Spain reconfigured the built environment around their ports there with a system of defences 'garrisoned by permanent militias and given the logistical

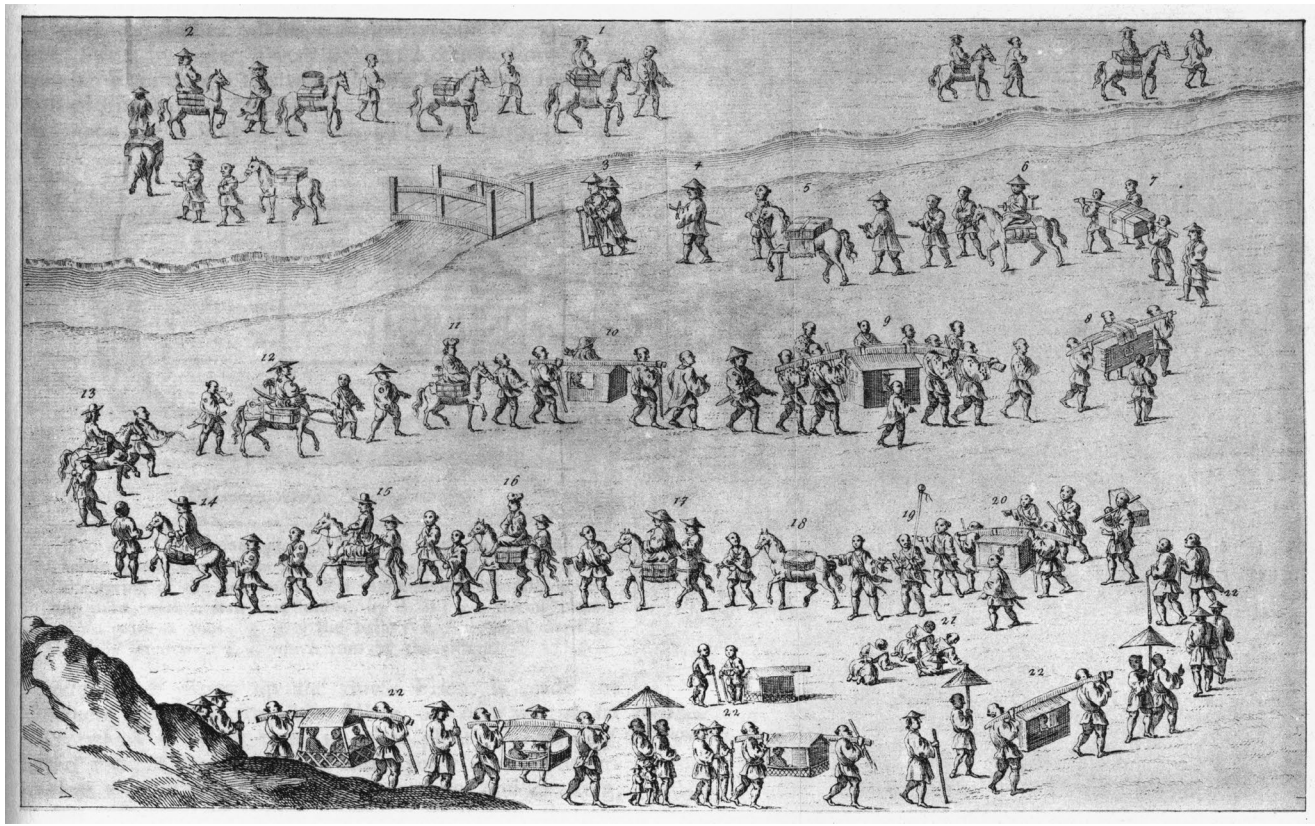

Figure 8.2 Engelbert Kaempfer, *History of Japan*, 1727.
Courtesy of Indiana State University Library.

support of sentinel systems on various coasts, patrol boats in some areas, and additional militia units stationed at strategic points near the coast'.[32] Both the construction and staffing of this fortified seawall would rely heavily on black labour, both free and enslaved.

Even at home, European rulers worried over the balance between prosperity and security, power and disorder. It was increasingly taken as axiomatic that founding new or additional ports would inevitably increase trade, naval power, or both.[33] In the 1660s, Louis XIV plotted with his ministers to establish four new naval bases, Brest, Rochefort, Lorient, and Sète, each to be situated on sections of the French coastline 'where no useful commercial or military port yet existed'.[34] The new sites proved viable, although the French planners were also confounded by squatters, pilferers, and the congested, disorderly clusters of wooden shacks housing the construction workers. The king fretted over the prevalence of prostitution, imposed curfews, and even banned troupes of comedians from visiting his naval base at Brest.[35] He also fretted about the presence of foreigners near his naval bases. In 1695, almost all foreigners were expelled on short notice. This included thousands of recent Irish Catholic exiles who considered France a refuge.[36] Both the planned character of the new French ports, and the unusually vigilant hand of the state there, offer an interesting corrective to an image of coastal communities as places where governance attenuated or disappeared. In some quarters, a fascination with planned port towns established by decree persisted through the end of this period; Odessa's leafy squares and inspiring prospects were laid out in Catherine the Great's reign, and as late as the 1790s, Ullapool and Tobermory were built on 'empty' coastline in the Scottish Highlands, with help from the famed engineer Thomas Telford.[37]

Telford also helped design some of London's new docks. While a project like the St Katharine's Docks or the West India Docks was not the same as establishing an entire new port community by fiat, the use of 'walled basins and fortified warehouses' coupled with 24-hour monitoring and even dress codes to discourage theft by employees did represent a social and political experiment on a grand scale.[38] The aim was to 'bring to reasonable order some thousands of men, who had long considered plunder a privilege'.[39] The creation of modern facilities also threatened to starve other, more traditional locations for docking ships on the Thames. Londoners, in turn, fretted that Bristol or Liverpool might enter the construction race and divert ships away from the Thames altogether, in favour of a more modern facility. St Katharine's Docks are remembered for Telford's ingenious engineering, but to make room for them it was necessary to demolish a hospital, a church, and a graveyard, in addition to 1,250 houses. This meant the eviction of approximately 11,300 residents. Such a drastic upheaval predictably drew some critics, but the rejoinders (nothing was lost as St Katharine's was a 'den of infamy' filled with 'rogues and vagabonds') prefigure later debates about urban reform and urban renewal.[40]

Disease formed one of the clearest pretexts for state intervention into the life of port towns. Outbreaks often proved difficult to contain, despite measures such as mandatory quarantine, the construction of lazarettos or 'pest houses', and other precautions such as handling letters with iron tongs prior to fumigating them.[41] Bribery and cheating around the edges of the quarantine regime undoubtedly took place, although the extent of it would be hard to quantify. While ports on the Mediterranean and the

Black Sea worried about plague, ports involved in the Atlantic trades had to contend with yellow fever. The July 1793 yellow fever outbreak in Philadelphia, the result of a single ship arriving from West Africa, tested the resolve and even the sanity of the city's residents. The citizens' desperate countermeasures included rinsing walls with vinegar, fumigating one's lungs by smoking tobacco nonstop, firing cannon down the empty streets to disperse the miasma, or simply fleeing to the countryside, abandoning family members who had already fallen ill.[42] Dr Benjamin Rush, the prestigious Edinburgh-trained physician, prescribed a stringent regime of bleeding, purging, and salivation, the latter with the aid of mercury.[43] To maintain what remained of the public's shaken morale, churches received orders to stop tolling their bells for each new death, and the dead had to be conveyed to graveyards in closed carriages.[44]

Notwithstanding famous images like Thomas Rowlandson's 'Portsmouth Point', the foreshore was not merely a ludic or chaotic space, and 'foreshoring behaviour' could take many forms other than welcoming, facilitating, and marketing.[45] The drawing-in impulse of foreshoring behaviour might alternate with, or give way to, the pushback thrust of offshoring behaviour.[46] It would be difficult to do justice to the urban character of port towns without acknowledging the uneasy dialectic between the two. Although aspects of port town life have, justifiably, been characterized as peripheral, liminal, or transnational – and indeed Michel Foucault, in his discussion of heterotopia, lamented that 'civilizations without boats' had nothing left but the police state – an unrelenting focus on these aspects may cause us to overlook the situations where state power was both vigilant and highly visible.[47] Port towns were in the vanguard of experiments in planning and central control.

The urban estuary

The rich mélange of coexistence, collaboration, and outright mixture is an inescapable theme in the historiography on port towns in this period. This has long been true of writing on the Levant, for example, but it has emerged as a central issue for a wide variety of ports, including those once characterized as mere trading posts or beachheads for one 'seaborne empire' or another. The tidy schema of fort-bazaar-native town seems increasingly inadequate to capture both the social character and economic operations of the 'colonial' ports.[48] All of these spaces were composite ones, running on a substantial infusion of local expertise and entrepreneurship, and often with some degree of devolved or shared urban governance. Many ports remained 'Middle Grounds' in multiple senses.[49] Governors of captured strongholds had to make their calculations about profit and loss, war and peace, in the context of still flourishing, still innovative non-European polities nearby, often led by the same dynasties or merchants only recently displaced by the interlopers. Portuguese Malacca had to endure long rivalries with the sultanates of Johor and Aceh; Dutch Batavia had a similar experience with Makassar. Meanwhile, a merely political map of Southeast Asia would have missed the profound role played by expatriate Chinese merchant communities in virtually every port.[50]

Even at the confluence of globalizing flows, a considerable amount of agency about just *how* an individual port town would look, feel, and function remained in

the hands of the inhabitants.[51] Successful port towns often made a deliberate effort to foster good communication and appear welcoming to outsiders. The office of *shahbandar* or port master is an interesting way that this kind of practice could be institutionalized. 'Usually a foreigner', the *shahbandar*'s 'sole purpose was to attract, manage, and promulgate trade', Eric Tagliacozzo has argued, suggesting that the work of this figure, typically 'the second-most important official in most Southeast Asian polities after the ruler', set the tone for the port town as a whole and reinforced existing habits of accommodation and openness.[52] Another tangible sign of officially sanctioned coexistence were clusters of mosques, shrines, temples, or churches that could stand almost side by side. In Penang, this acquired the nickname 'the street of harmony'.[53] These sorts of sights made a great impression on visitors, particularly those from societies that were less diverse or less tolerant of open displays of religious heterodoxy. Similarly, Philadelphia's social experiment in religious toleration fascinated commentators, and the synagogues in Amsterdam attracted tourists who came to marvel at the spectacle of open Jewish religious observance in a grand style.[54]

Whether such communities are best described as truly cosmopolitan in spirit, or merely 'plural' and pragmatic, remains a topic of debate. Adam Sutcliffe has stated bluntly that 'it would be wrong to imagine early modern port cities as utopias of tolerance, understanding, and cultural empathy'.[55] Not every port had people in leadership positions who thought that a welcoming and respectful environment around issues of ethnic and religious difference was a practical necessity. Jamaica, for instance, was known both for its sizeable Jewish community, but also for the special taxes and humiliating rituals of obeisance expected from Jews. Colonial officials demanded 'Jew Pyes', pastry shells crammed with gold doubloons and following the earthquake of 1692, it was proposed that the special tax on Jews should rise still further to help rebuilding efforts.[56]

Nor did the lived experience of trade at a cultural crossroads invariably produce warmth and empathy. The West African ports were well known for their polyglot *savoir faire* – one visitor was even addressed in German – yet the relationships between European buyers and African magnates followed a landlord-stranger template, supplemented by tactical alliances and temporary 'country marriages'.[57] The powerful *signares* of Gorée, in Senegal, were women whose commercial prosperity relied primarily upon selling slaves.[58] In Gorée, pragmatic considerations dictated the suppression of empathy, not an embrace of it. Another West African port, Atorkor, had a name derived from the Akan expression meaning 'let me buy and go'.[59] Such brisk, indifferent attitudes were, surely, neither unique to West Africa, nor to the slave trade.

Even if the circumstances of trade sometimes hardened hearts, trusted partners were – if not an absolute prerequisite to long-distance commerce – then certainly one of its most highly desirable preconditions. As trade routes lengthened, diasporas 'of consanguinity, religion, and culture' offered one way to deliver reliable credit and also reduce the need for multiple layers of translators and culture brokers.[60] Some diasporas may have achieved a dominant role because they were uniquely well-positioned to bridge otherwise self-contained cultural zones. For example, Sephardic Jews fleeing to the Balkans after the 1490s carried with them the knowledge of the Spanish language and a familiarity with languages written in the Latin alphabet. Other diasporic

trading groups existed, but at the time, few others were equally comfortable with the scripts and business practices used across the whole range of the Eastern and Western Mediterranean.[61]

Other diasporic groups actually developed new, composite dialects in the course of their trade and travels. The Armenian trade diaspora headquartered in New Julfa, near Isfahan, left rich archives behind, but they were unintelligible even to most Armenian-reading historians because the Julfa dialect had accumulated so much vocabulary – and so many legal and commercial concepts – from 'Arabic, Persian, Turkish, and Hindustani, among other languages'.[62] Not every trading diaspora inherited such a linguistically privileged position, but many attempted to foster an equivalent degree of cultural literacy by a system of farming-out young children to live with grandparents or uncles in distant ports. This could begin as early as the age of five, and involve frequent relocations thereafter.[63] These extended families, once ensconced across a line of carefully chosen ports, could become formidable networks. Some Julfan Armenian 'households' could have 'as many as five hundred extended members, a fact that sometimes allowed them to survive as a corporate entity for several centuries'.[64] Simple expressions like 'one of our own' or 'our people' or 'our nation of Julfa' could mobilize the 'bounded or exclusionary nature' of the group's identity.[65] In such a community, cheating a trading partner or just letting someone down could quickly result in 'blotting out', a kind of social death sentence.[66] Even across the vast distances spanned by the great trade diasporas, frequent exchanges of letters made a startling degree of intelligence-gathering possible. One Julfan Armenian trader was rejected as a business partner because it was known that his *brother* had once gotten drunk and lost a sum of money placed in his charge.[67]

Yet, as Francesca Trivellato has noted, this image of a ferociously self-invigilating and utterly reliable kinship network deserves a second look. Just as there is no such thing as an infallible succession of competent family members in a hereditary monarchy, a strict adherence to father–son succession would eventually place an inept, short-sighted, or malevolent individual in charge. Even deepening the pool of leadership candidates (for example, the cultivation of nephews) did not preclude rivalry and other forms of friction. Simply put, sharing a lineage, language, and religion was not enough to guarantee that trust would never be betrayed. In practice, many of these allegedly kin-based trading networks made extensive use of partnerships with co-religionists outside their own extended family, and even the bonds of kinship did not obviate the need for written, enforceable contracts.[68] If we find ethno-religious minorities cultivating a reputation for astonishing levels of probity, Trivellato argues, this might have more to do with a rather different pragmatic concern: a fear that *outsiders* would reject them as potential business partners, choking off their commercial opportunities.[69] Perhaps reliability figures, here, as a discourse as much as a reality.

Observers around the world agreed that trade diasporas exercised a powerful shaping influence on the overall urban structure of many port towns. The important Vietnamese port of Hoi An, in the early 1600s, had two riverside neighbourhoods identified with the Chinese and Japanese communities, respectively. A French visitor, Christophore Borri, remarked that these enclaves were legally and culturally demarcated in emphatic ways: 'They live separately, each having their own governor. The

Chinese living according to the laws of China, the Japanese to those of Japan. This [*sic*] seems to be two different cities'.[70] This characterization seems evocative of the Ottoman policy of *millet*, in which religious enclaves were granted substantial self-governance in ports such as Smyrna; indeed, there is probably some risk that globe-trotting travellers, when making fresh observations about a new location, compressed distinct legal regimes into a single simplified template.

A different way to consider the evidence might be to look at how legal and diplomatic considerations acted to define and police the borders of group membership and acceptable conduct. Undoubtedly, allowing ethno-religious groups to police themselves, a practice already widespread 'from Canton and the Philippines to Aden and Alexandria' well before the period covered in this volume, acted as a powerful force strengthening ethno-religious self-awareness ('identity', if we wish).[71] However, old identities could take on new meanings, or altogether new identities could become institutionalized by practice, as when the sultan of Malacca arbitrarily divided all foreign merchants among four *shahbandars*, assigning Chinese, Japanese, and Okinawans to the same one.[72] The Portuguese, and later the Dutch, continued this approach in the Asian ports at the time that they assumed control, designating ethnic 'captains'.[73] A group without a recognized captain would have little clout, leading some to undertake tactical alliances creating larger, stronger groups, rather than adhering to the strict, pristine character of the original kinship-based trade diaspora. Under Dutch rule in Malacca, the Moors (Muslims from what is today Indonesia) and the Kelings (Muslims from South Asia) chose to pool together.[74] Meanwhile, other forms of governmentality could militate against blurred or hyphenated identities, as when a British ordinance in Penang required the number plate outside each home to state the 'ethnic origin' of the house's inhabitants.[75]

Did the fragmentation of urban life into trade diaspora enclaves mean that many port towns were, in effect, plural societies featuring mere adjacency without deep and meaningful interaction? It is important to acknowledge the power of the enclaves without losing sight of other possibilities. Under the Dutch, Malacca's auction house was a popular crossroads for all of the different communities. Nordin Hussin has drawn attention to non-segregated streets, or streets segregated by wealth alone, not ethno-religious differences.[76] He concludes that eighteenth-century Malacca 'had developed a character that was neither pluralistic nor integrated. It had elements of both'.[77] Another powerful argument against a plural society that ran on parallel tracks is the emergence of totally new hybrid groups that became, in many places, a major, permanent fixture of the urban scene. Where men from the Chinese trade diaspora intermarried with Malay women, the result was a distinctive Sino-Malay 'Peranakan' identity that persisted for centuries as a community in its own right. Centuries of European presence in South and Southeast Asia resulted in an equivalent grouping of 'Eurasian' people, who – not surprisingly – seem to have felt at home in port towns. It was also quite possible to be bi- or multi-cultural without being of mixed parentage oneself. The first South African Christian of native origin, Krotoa ('Eva', born *c.*1642) was herself the daughter of an interpreter employed by the VOC. She wore imported Indian clothes, preferred Dutch food, and upon puberty, sequestered herself for the traditional Khoikhoi rituals.[78] Finally, if differences in faith were often taken to align

neatly with differences in ethnic identity and kinship affiliation, then religious syncretism stands out as one of the most striking possible examples of the mixing and melding that was possible – or even routine – in cosmopolitan settings.

In Salonica, the self-appointed Jewish messiah Sabbatai Zevi shocked some and entranced others with his sumptuous outfits, daring transgressions, and predictions of the world's end.

> He used to carry a sort of Sceptre in his hand and to go about Town always escorted by a great number of Jews, some of whom, to honour him, would spread carpets on the streets for him to step on.[79]

The fervour of his followers, not to mention his insubordination to all authorities religious and secular, drew the attention of the Ottoman emperor. Once arrested, it was not long before Zevi turned apostate, converting to Islam and adopting the name Aziz Mehmed Efendi. A significant number of his followers chose to follow his example; although the Turks sceptically called them *dönmehs* (turncoats), they formed a special, somewhat heterodox Islamic community in Salonica for centuries thereafter. They developed novel doctrines about awaiting the return of the Messiah who had withdrawn from the world, which might have been influenced by Shia concepts of the 'hidden Imam'.[80] Long coexistence in Salonica led to many other instances of religious concepts that blended or migrated from one faith community to another. 'Christian women used both the Jewish cemetery and Muslim mausoleums when collecting earth from freshly dug graves to use against evil spirits', while Jews used an Arabic word to describe their custom of going to pray at the graves of rabbis.[81] Was Mousa Baba a Sufi holy man, or Saint George? Some devotees explained that he was both: he had 'metamorphosed into a Turk with supernatural powers' in order to 'make the unbelievers believe'.[82]

The case of Salonica, as well as the better-known examples of syncretism from the Atlantic World, make it difficult to characterize similar practices elsewhere as *sui generis.* When we read that the *badr-mokan* shrines built by Muslim seafarers were considered 'equally holy' by non-Muslims, or that the Muslim saint Badr al-Din Awilya' was worshipped 'in coastal Burma as a nat by Burmese Buddhists, a Deva by Hindus, [and] as a spirit by Chinese', it seems representative of a more general pattern.[83]

While a common trope in writing about the peculiarities of port towns has been that *this* behaviour (this innovative music; this mixture of cultures; this coexistence) surely could only be unique and place-bound (only in Odessa; only in Rangoon), Michael Pearson has suggested otherwise. He notes that entire regions (in his example, the Indian Ocean) have been hotbeds of syncretism, and argues that there may be a general tendency for coastal regions to be more heterodox than their inland counterparts. This pattern was discerned not only by historians in retrospect, but by observers at the time; several generations of Islamic 'rectifiers' set sail from Yemen to set the Comoros Islands and other Indian Ocean locales back on the straight and narrow path.[84] Indeed as Stuart Schwartz has remarked about the Dutch Caribbean, 'societies of continual cross-religious contact [became] places of conversions,

intermarriages, and interchanges'.[85] Syncretism was only one possible outcome here, however. Cosmopolitan settings also seem to have emerged as havens for cultural relativism, if not outright scepticism about religious claims to truth. Felipe Tendeur, a Catholic soldier originally from Brabant, found himself stationed in the garrison at Cartagena de Indias. Confronted about a heretical book in his possession (a Dutch tract, *Prayers and Devotional Songs for Seamen*), he retorted that it was permissible because he 'read the good parts and left out the bad ones'.[86] Likewise, Juan Pablo de Echigoíen, denounced to the Inquisition in Mexico in 1761, praised the Freemasons on the grounds that they 'only sought good men' and did not exclude anyone, even Jews, on the basis of religion.[87]

As Schwartz has shown, the records of the Spanish and Portuguese Inquisitions preserve a rich array of questionable sentiments, often from individuals in port towns and with significant experience at sea. Of course, glimpses of everyday pragmatism, irreverence, or anticlericalism could be mistaken for closely reasoned and sincerely maintained unbelief. Reflections on daily lived experience ('Love […] your neighbour like yourself, aren't the Moors and heretics our neighbours?') or dry wit ('if they are all going to hell, a bigger hell will be needed') are hard to pinpoint along that spectrum of possibilities.[88] Statements such as 'Shut up, all can be saved by different roads'[89] and 'Let's leave this alone and find a way to eat and survive',[90] betray a tone of impatience as much as a desire to declaim any philosophical position.

Cheek-by-jowl neighbourliness could prompt religious questioning, but perhaps with greater regularity it suggested practical challenges. A cosmopolitan town had to organize itself in the face of fires, plagues, and assaults, or simply to address the needs of maintaining the streets and offering a modicum of support for the poor. Not all of these problems were well-suited to a fragmented approach in which each sub-community looked after its own. It was hard, of course, to enlist or engage across ethnic or religious lines without implying – *de facto* if not *de jure* – a somewhat more inclusive vision of civic identity. In fact, formal co-governance did exist in some places. Siobhan Talbott's work on Scottish merchants has shown that in the second half of the seventeenth century, European ports were not averse to reserving seats for foreigners on their town councils. She notes a number of examples in Sweden in that period, but even in Louis XIV's France, where barriers of religious suspicion might have thrown up insuperable obstacles and legal restrictions on Protestants were on the rise, we find Scots 'embedded in civic institutions'.[91] Such communities of stakeholders were brought about, in the first instance, only by the pragmatic necessities of trade and economic interdependence. Yet it is hard to see how the experience of co-operation and mutual recognition would not have left a lasting memory. A more ambitious example of inclusive governance occurred on the other side of the world, in Dutch Malacca. The Orphan Chamber (*Weeskamer*) performed predictable philanthropic functions, but it also managed the estates donated to charity, and issued loans, mortgages, and bonds. Indeed the *Weeskamer* served as Malacca's only public bank, making it a key civic institution. Its managing committee included permanent seats for the 'ethnic captains' representing three of the town's non-European populations, and 'the regulations of the Chamber were written in Dutch, Portuguese, Malay, Chulia, and Chinese'.[92]

Not surprisingly, military exigency also inspired inclusive practices that went well beyond token gestures. In Mexico, Spanish governors encouraged free blacks to join coastal defence militias in and around ports like Veracruz. This provided much-needed defence against pirate attacks. Once under arms, however, black militia members lobbied for enhanced rights: '[t]hrough contact with sailors, merchants, coloured travellers, free-coloured's living in Mexico's coastal regions became aware from a fairly early period that their peers abroad were obtaining specific privileges in exchange for their military duties'.[93] They demanded, and won, exemption from the tribute tax, a status that only whites (*españoles*) and *mestizos* had previously enjoyed. However, black militias would not be accorded the honour of bearing edged weapons such as swords and daggers, or the privilege of using guns. Instead, they would carry only machetes and long spears. In the event of an uprising, this left the decisive weaponry in the hands of more trusted troops.[94] In an interesting parallel, the Dutch initially considered Malacca's Eurasian minority with some concern – as they were Catholic, and also Portuguese-descended – but later put them to work 'as members of the town's security patrol'.[95] Weapons would be placed in the hands of minorities, yet conveniently minorities whose ancestry or appearance handily marked them out as unlike the local majority population.

These balancing acts between hybridization and purity, empowerment and containment might seem paradoxical. Yet it is fair to conclude that such practices were typical of the muddy, ambiguous waters of the urban estuary. In the historiography, the expectation persists that port towns will be both urbane and cosmopolitan. This is underscored by the iconic imagery, reproduced – usually without comment – on book jackets and as glossy textbook illustrations: the dense forest of masts in a harbour, the polyglot spice market, the merchant's counting-house with maps on the walls. However, it is particularly difficult to reconstruct the daily lived experience of coexistence, the atmosphere on the street, or the attitudes that accompanied life in the planet's most diverse locations. The ancient Southeast Asian port of Srivijaya was said to have been so diverse that 'the parrots there spoke Arabic, Persian, Greek and "Hindu" [*sic*]'.[96] These sorts of exuberant assessments, often penned by those who only visited briefly, do not include a reckoning of how linguistic diversity was perceived, experienced, or managed. After the fall of Portuguese rule in Malacca (not far from the abandoned site of Srivijaya), the new Dutch administration issued an edict that slaves who could not speak basic Dutch would henceforth not enjoy the privilege of wearing hats.[97] It was possible to view the most brilliant kaleidoscope through a jaundiced lens, and even the tolerant port town was, to some extent, another arena for experiments in planning by the authorities. At minimum, the contours or limits of tolerance were shaped by regulation and tempered by assertions of hierarchy.

Littoral societies

Most of the world's coasts were settled in this period, but only a few were heavily urbanized. Some populations in Africa, the Indian Ocean region, and the Pacific responded to the opportunities of long-distance trade by migrating to the coast and pitching tents when the ships came in; after the sails passed over the horizon, these

seasonal trade fairs would simply disband.[98] Similarly, some sites, such as fishing stations, smugglers' coves, and offshore islands rich in the eggs of sea fowl or turtle meat, could be important centres of activity without corresponding to traditional expectations of a year-round port. Those who exploited the sea or shore on an improvisational, opportunistic basis also might not have recognized themselves in occupational terms like 'sailor', 'merchant', 'smuggler', 'wrecker', or 'pirate'.[99]

Many coastal activities were not, or could not be, full-time pursuits. Terrestrial and maritime harvests followed a precise calendar, and in many places a calculated economy of makeshifts evolved to follow it, redirecting labour to the most productive location for that season.[100] For example, the herring migration made fishing an easy, low-skill activity in many locations in northern Europe, but only for a few weeks of the year. Anyone with access to a small boat could seize the opportunity: in Cornwall, this included tin miners; on the Isle of Man, shopkeepers took to the water.[101] Farmers drew on maritime resources, as when Bretons collected seaweed to fertilize their fields.[102] This resource was sufficiently important that it became the subject of litigation. The French courts ruled that if the seaweed was visibly attached to the rocks, it counted as a production of the land and was not mere flotsam. Seaweed unattached to rocks was fair game for anyone, even from a different parish or village.[103]

The Native American peoples settled around what is today known as Long Island Sound were at home in the water. Although they hunted deer and cultivated corn, beans, and squash, they derived much of their food supply from the sea and the tidal marshes. Even when they made territorial concessions to European settlers, they sought to reserve harvest rights to good oyster beds. The presence of shell piles remain the best indicator of a former village site. The currents in this area are turbulent and complex – the Dutch called the place where the Hudson River meets the Atlantic Ocean 'hellmouth' – but their large canoes and navigational skills were equal to the task. Although these seagoing canoes lacked outriggers to stabilize them, rowers ventured out of sight of land at times, confident in their ability to swim back to shore if necessary.

All of this is in keeping with very ancient coastal harvesting practices common in many parts of the world. However, as Andrew Lipman has explained in his book *The Saltwater Frontier*, these same Native American groups had also developed a waterborne trading network on such a scale that it required a *lingua franca* to interact with strangers. European colonists grew suspicious when they realized that the phrases they were, laboriously, learning from the locals were not the ones that the natives used in private conversation with each other.[104] Making some allowances for scale, Long Island Sound was a fairly cosmopolitan setting, even before European contact. Colonists quickly learned that these societies were capable of mounting significant naval or trade expeditions in their large, heavily manned canoes. Building on this foundation as contact continued, seafarers from these Native American populations became an integral part of the early whaling industry in New England.

Amphibious livelihoods and opportunistic, improvisational pluriactivity are fairly straightforward concepts. However, in keeping with the spirit of a paramaritime inquiry, it is worth expanding the meaning of terms like 'amphibious' and 'pluriactive' to include a richer set of possibilities. Taverns in the Atlantic World can serve as a

concise example. They were often owned and operated by women, and even passed down routinely from mother to daughter. Taverns were not simply havens for the purchase of drink and sex; they could serve variously as slave markets, courtrooms, auction houses, public assembly halls, lending libraries, post offices, venues for cock fighting and even, occasionally, as exhibition spaces for exotic animals.[105] Indeed, women were permitted to dominate the port town's nerve centre. In her study of non-elite or downwardly mobile white women in the Leeward Islands, Natalie Zacek summarizes how the authorities rationalized this practice:

> [T]he granting of a tavern license would allow the councillors of an island to portray themselves simultaneously as generous, by giving assistance to impoverished and deserving women, and as hard-headed, by offering these women an opportunity for self-help rather than outright charity.[106]

Even in a number of cases where the licence was, nominally, held by a husband or father, it was a woman who managed the tavern. Perhaps port towns offered women special leeway and unusual opportunities and the pattern was likely to have been especially prevalent in newly colonized or newly conquered settings where custom and law appeared less obvious or precedent less settled.[107] Migrant women might find a way to practise a trade or run a small business even though corporate tradition (for example, guild restrictions) in their country of origin would have prohibited this. Once again, while we might imagine port towns as necessarily liberated or liberating spaces, there was nothing timeless or inevitable about this phenomenon, and women found it more difficult to sustain their prominent role as social norms calcified. Sheryllynne Haggerty notes that the number of women listed as proprietors of coffee houses, taverns, or inns in the Philadelphia Trade Directories fell by half between 1785 and 1805.[108] Men were increasingly expected to hold management positions, while the assumption became that only a 'working girl' would be seen in a tavern.[109]

Women occupied a strategic location along the land–sea divide, and at the intersection of empires and cultures. Douglas Catterall and Jodi Campbell offer a vivid metaphor for this gatekeeper or mediator position. They describe the 'majestic expanse of [Amsterdam's] roadstead or its main gateway, the three-sided expanse of anchorages' versus the:

> bridge's hinge or a chain's links [that] actually governed access to a port's harbour and interior waterways […] Like the hinge of a canal bridge, women could determine the motion of these forces in ways that supported their own agendas.[110]

Of course, proximity to power rarely came without ambiguity and constraints. Pamela Scully has written eloquently about the complex multiple roles played by Malintzin, Pocahontas, and Krotoa, who have been read, among other things, as gifts conveyed to Europeans by male authorities for the purposes of 'cementing alliances', as 'foundational mothers to settler cultures', or as individuals who 'performed very complicated negotiations within constrained possibilities'.[111] Scully quotes Anna Lanyon on the heartbreaking conflicts inherent in the role, which are elided in a term like

'foundational mother': 'They were obliged to consort with the enemy, to bring forth children in a devastated world and learn to love them, whatever the bitter circumstances of their conception'.[112] They were, out of necessity, emotional and cultural pluriactives. These indigenous mother figures appear in an absolutely pivotal role, both in narratives of ethnogenesis and in nationalist critiques. The woman who was known (variously) as Malintzin, Dona Marina, or La Malinche bore a child to Cortes, and, as Scully notes, also lives on in the pejorative term '*malinchista*', or traitor.[113]

In a prescient thought-piece published a generation ago, Pearson observed that 'maritime influences, or perhaps the area we can call the littoral, are of very varying depth inland'.[114] He advocated for a littoral history that would engage with 'both land and sea', including the 'part of the land influenced by the sea', but admitted that there were potential pitfalls to his approach.[115] The littoral might be too large to be analytically useful, since 'almost everywhere' was in some sense influenced by the sea; 'the whole Malay world' would fall within the littoral as he defined it.[116] Even if his expansive littoral were shown to have some limits, he acknowledged that this might set up a different problem: a fuzzy border provoking cycles of 'tortuous speculation', rather than productive discussion.[117]

Pearson suggested several ways forward. To establish the analytical value of the littoral, he argued that a careful comparison of many different littoral regions would turn up some coherent and predictable patterns, beginning with the fairly prosaic (a heavier consumption of seafood, a heightened chance of involvement in long-distance trade) but extending into the realm of attitudes and cultural formations such as religious pluralism.[118] He also suggested that we could refine the concept of maritime influence (or, indeed, terrestrial influence) as a statement not just about physical proximity, but about proximity of causation. The example he offered was 'Mughal-Safavid conflict over the great fort of Gandahar', an inland event with identifiable coastal repercussions.[119] Another way to escape some of the potential hair-splitting about the proper geographical boundaries of the littoral was to focus not so much on the physical topography, but on tracking the 'people whose lives were connected with the sea' wherever they might go.[120]

All this sounded a bit abstract in 1985. We can appreciate the value of Pearson's approach better today, partly because of the territory opened up by a generation of scholars from non-maritime subfields who found themselves engaging with littoral people or littoral issues. With that rich vein of examples in mind, it is easier to visualize 'maritime influences' snaking their way through the foothills, much like the annual Dutch procession up from Nagasaki and back down to Edo. We also have a somewhat enlarged vocabulary to describe potential littoral realms or dimensions, diversifying away from the usual occupational, mercantile, and naval suspects. Although the relevant scholarship does not yet cite its counterparts very often, there is now the potential to benefit from a much more complete comparative framework; thus, we can match up the religious pluralism that Pearson identified in the Indian Ocean littoral with Zevi's apostasy, as well as Felipe Tendeur's insouciant free-thinking.

Looking ahead, it is possible to discern a much more expansive concept of 'littoral society' as the *longue durée* version of what we are accustomed to call contact zones. Scully's discussion of ethnogenesis, emotional pluriactives, and national myth-building

might begin on (or near) the beach of encounter, but it proliferates and elaborates outward in time and space from there. Many of the laws and institutions discussed in this chapter reflect a process where initial cross-cultural encounters were regularized and formalized: the beach of encounter with a street grid imposed, officials appointed, and regulations drawn up. Although Pearson expressed some trepidation about including (for example) 'the whole Malay world' as littoral, we may ultimately conclude that it is both accurate, and analytically useful, to include entire cultures, societies, or polities inside the vast penumbra of the paramaritime.

Notes

1 J. Linton, *What Is Water? The History of a Modern Abstraction*,Vancouver: University of British Columbia Press, 2010, p. 63.
2 G. Le Bouëdec, 'La pluriactivité dans les sociétés littorales XVIIe–XIXe siècle', *Annales de Bretagne et des Pays de l'Ouest* 109/1, 2002, p. 73.
3 To assemble this definition, I drew on OED s.v. 'para-', as well as 'paramilitary', 'paranormal', 'paracellular', 'paracystitis', *OED Online*.
4 For examples of this general approach, see M. Talbot, 'Separating the Waters from the Sea: The Place of Islands in Ottoman Maritime Territoriality during the Eighteenth Century', *Princeton Papers: Interdisciplinary Journal of Middle Eastern Studies* 18, 2017, pp. 61–86; D. Worthington, 'Ferries in the Firthlands: Communications, Society, and Culture along a Northern Scottish Rural Coast, c.1600 to c.1809', *Rural History* 27/2, 2016, pp. 129–48.
5 Le Bouëdec, 'Pluriactivité', p. 63.
6 Le Bouëdec, 'Pluriactivité', p. 62.
7 R. A. G. Reyes, 'Flaunting It: How the Galleon Trade Made Manila, circa 1571–1800', *Early American Studies* 15/4, 2017, p. 686. I am indebted to David A. Nichols for this reference.
8 J. Boswell, *Boswell's Life of Johnson*, 6 vols, (ed.), G. B. Hill, Oxford: Clarendon, vol. 4, 1887, p. 201.
9 I. Land, 'Humours of Sailortown: Atlantic History Meets Subculture Theory', in G. Clark, J. Owens, and G. T. Smith (eds), *City Limits: Perspectives on the Historical European City*, Montreal: McGill-Queens University Press, 2010, pp. 342–3; the Sans Souci theatre was at 411 Strand, as noted in O. C. Jensen, D. Kennerley, and I. Newman (eds), *Charles Dibdin and Late Georgian Culture*, Oxford: Oxford University Press, 2018, p. xxvi.
10 A. Jones, 'A Russian Bourgeois's Arctic Enlightenment', *Historical Journal* 48/3, 2005, p. 628.
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9

Fishermen and their families in late medieval and Tudor Kent

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As an island nation, fishing and fishermen have played a key role in England's history throughout the ages. The provision of fish to an expanding population became even more crucial because of the medieval Church's teachings regarding the designation of certain seasons and particular days as non-meat days. Although such strictures applied to the general populace, the growth in the numbers of religious houses from the later Anglo-Saxon period, but especially under the Norman and Angevin kings, resulting from the monastic reform movement, meant that an increasing section of the population applied dietary restrictions more widely and rigorously.[1] These demands provided opportunities along the supply chain from those who caught the fish to those who supplied customers at the inland urban markets, as well as in London, with the city's fishmongers becoming one of the wealthiest and most important of its merchant guilds.[2] For the Kent ports, this provided considerable opportunities for the many fishermen and their families. Much of this rested on the dominance of herring, but by the late Middle Ages, this had changed, bringing a shift in the balance between the eastern and western ports.[3] Yet, the Kentish fishermen appear to have continued to take advantage of their local fishing grounds, as well as adapting as necessary to changing conditions, and it is this proposition that is explored in this chapter.

The rise and fall of king herring

Even though a wide variety of fish might be served at monastic, aristocratic, and other tables, the herring was king, and such was its dominance that herring from the east coast of England was sold in the Devon markets of Exeter.[4] Moreover, presumably in part to ensure sufficient supplies, monastic and other manorial lords sought renders in herring by the thousand, as exemplified by documentary sources including the Domesday Book, and it has been estimated that over three and a quarter million were caught annually in the late eleventh century.[5] The provision of seasonal markets along the English eastern seaboard similarly reflects the herring's pre-eminence. As a migratory species, the shoals moved south from the Baltic into the North Sea

during the autumn, which meant that the first fair at Newcastle began on 1 August, followed by, among others, Whitby on 25 August. The first of the great fairs took place at Scarborough between 15 August and 29 September, and the second at Great Yarmouth between late September and mid-November, while that at Grimsby began on 13 September and ended on 20 September.[6] In the later stages of the autumn, the herring shoals continued their southern migration, passing through the Dover Straits and into the English Channel. This provided further opportunities for some coastal fishermen with, for instance, the Domesday entry for Dover seemingly implying that the town's fishermen in the late eleventh century had returned to the town by 30 November (the feast of St Andrew).[7]

Great Yarmouth's premier position among the east coast fairs, and thus its dominance within the herring trade, was in part a reflection of the heavy involvement of London fishmongers, as well as the presence of the great monasteries, which often held property at the port in order to procure herring stocks. Overseas merchants, too, were major buyers, including men from Gascony and Spain.[8] Complications over the hosting system employed at Great Yarmouth at times resulted in friction between local burgesses and Londoners, but the greatest resentment was reserved for the Cinque Ports fishermen who had, by the thirteenth century, collectively received royal authority to oversee the running of the fair and to retain certain dues collected.[9] Kent mariners comprised by far the largest contingent of these Cinque Ports fishermen who, together and individually, jealously guarded this privilege, and were even prepared to defend by force what they saw as their rightful role.[10]

However, this dominance of the eastern ports in the national fishing industry and the high level of involvement of fishermen from the Cinque Ports confederation in the deep-sea herring fleets was not sustained into the later Middle Ages. As Maryanne Kowaleski, in particular, has argued, the post-Black Death era witnessed a rise in the relative importance of the west coast fishermen, who were able to capitalize on the problems experienced by the eastern ports.[11] Both Yarmouth and Scarborough witnessed a massive decline in the size of the fleets that used these ports, and, as Mark Bailey has shown, the Suffolk town of Dunwich and the coastal villages around it similarly saw a marked decline in the numbers of fishermen and boats.[12] In part, these issues related to natural factors, such as the difficulties caused by storm damage and deposition due to longshore drift that threatened to block the deep-harbour facilities at many ports, including Yarmouth. Attempts by all the head ports of the confederation to counter such problems were only partially successful, and the work was expensive in terms of financial commitments and labour. Moreover, at New Romney and Sandwich, for example, costly experiments in the late fourteenth and fifteenth centuries were initiated to try to flush out the sea channels, with little or no success.[13]

Others factors that led to the downturn in the eastern herring industry in the later fourteenth century were the problems Yarmouth, as the leading port, suffered relating to trading factors, especially the growing monopoly of local merchants, the lessening of interest by Londoners, the availability of salt for curing, and increased competition from the Low Countries.[14] In part, the latter was seemingly a consequence of technological developments, both with respect to boat design and building, and

techniques relating to fish preservation, a key feature for those seeking involvement in the long-distance or export trade.[15]

Such difficulties meant that the herring industry lost its dominance. Instead, fishermen turned increasingly to other species, leading to the availability of a much greater range of fish for a generally more affluent post-Black Death society, notwithstanding that the total population had fallen by between a third and a half. For the west coast fishermen, this offered considerable opportunities, and by employing a variety of preservation methods, these Westermen exploited the rich fishing grounds around Ireland, and to a lesser degree those close to Iceland. Moreover, by embarking on such long-distance fishing voyages during the summer, these fishermen were able to export their repacked fish cargoes to the expanding markets of Brittany, Iberia, and other southern European destinations, as well as participate in the Gascony wine trade during the autumn. A further advantage of being able to engage in this overseas trade was the opportunity to bring back salt relatively cheaply from Bourgneuf Bay.[16]

Not all the catch was exported, and growing home demand was another important factor in the rise of the west coast fishermen. Even though the picture is complex, some West Country towns expanded markedly between 1377 and 1524–5.[17] In addition, large urban centres such as Bristol offered marketing opportunities, which were apparently taken up by coastal fishermen in Devon, Cornwall, and Somerset. How much of this trade fresh fish comprised is unquantifiable because it does not feature in the customs accounts, but Kowaleski's work on tithe records suggests it was a significant sector.[18] Even if the financial returns from fish did not match those achieved in mercantile trading, the West Country fishing industry employed a sizeable proportion of the coastal population. Yet it is worth noting that those engaged in fishing or allied trades were often part of multi-functional households, thereby combining these activities with farming or another craft.[19] Consequently, seasonality was probably a crucial factor, leading to catches of mackerel, pilchards, and hake, as fishermen worked the local fishing grounds in the spring, as well as the summer season. Such occupational integration led to the development of a workforce that was able to take advantage of marine exploration, long-distance trading, and other opportunities during the reigns of the later Tudor monarchs.[20]

This is a very compelling case, but what about the fishermen and their families in late medieval and Tudor Kent? Had the marked decline in the North Sea herring industry led to their demise, or had post-Black Death Kentish fishermen looked elsewhere in order to continue to earn their living from the sea? If so, and if, akin to their west coast peers, they had extended their fishing of the local coastal waters to supply the home market, what are the most valuable documentary sources to chart such activities?[21] To answer these questions, the remainder of this chapter focuses on two areas. First, it examines the evidence to ascertain the incidence and range of the fishing activities that took place in Kent during the fifteenth and sixteenth centuries. Second, it investigates the experiences of a well-documented fishing family. The sources that permit such a study are probate materials, which can be supplemented by other documentary records. The use of the last will and testament had become relatively widespread in Kent from the middle of the fifteenth century, even though for the diocese of Rochester only the Consistory Court records are extant. Inventories

do not survive from before Elizabeth I's reign, but they are relatively plentiful thereafter and considerable numbers include items relating to fishing.

Looking beyond the probate sources, there are materials such as estate records, including for the Canterbury Christ Church Priory manor of Leysdown, the custumal from the archiepiscopal manor of Teynham, and lists of fish sent to Boxley Abbey from its Medway fishery.[22] Central government and local civic records, especially from several of the Cinque Ports are similarly valuable.[23] Of special note within these civic archives are the maletotes, local taxation returns that provide evidence regarding the identities of fishermen, the size of their annual catch, the methods employed, the fish species caught, and the time of year the catch occurred. Archaeological excavations in recent years have also offered useful evidence regarding identification of the species caught, fishing techniques, and preparation and storage of the catch.[24]

Fishing and fishermen: the Kent evidence

Kent's extremely long coastline, like that of Cornwall and to a lesser extent Devon, provided the county's fishermen with a wide range of marine species from shellfish such as oysters and mussels to herring, mackerel, cod, sprats, and other fish, as well as sea mammals including porpoises. Furthermore, the three different coastlines of north, east, and south offered estuarine habitats, foreshores that could be used for fish weirs or traps called kiddles, and offshore fishing grounds where hooks and lines, in addition to nets, could be employed. Ideas regarding the level of such diversity can be gleaned from the nomenclature applied to nets, for example, and in the probate sources alone, over 30 names are listed for medieval and Tudor Kent. For the south and east coasts as far as the Isle of Thanet, the most common names are flew, shot, and sprot, others being drawe, tucke, raigth, and norward.[25] Some nets were named for the species caught: herring, mackerel, plaice, mullet, prawn, pilcher, and shrimp, with one reference to a 'porpose' net.[26] The presence of 'flew' nets shows that herring continued to form part of the catch. Flews were a type of drift net that were used in the local, coastal fishing grounds.[27] In addition, some fishermen continued to fish for herring in the much deeper waters of the North Sea where they used another type of drift net, the much deeper 'norward' nets.[28] The Hythe maletote records also provide evidence for North Sea herring fishing. For example, in 1447 a third of those taxed as fishermen had landed at least part of their catch at Yarmouth, although often it is not clear what proportion was landed at the Norfolk port compared to the home port of Hythe.[29]

The presence of shot nets, another type of drift net, similarly highlights the significance of inshore fishing because they were used to catch mackerel since they were less deep than flew nets, while the third most common net, the 'sprot' net, was employed to catch sprats in the coastal waters around Kent during the winter months. Notwithstanding their more limited appearance in the probate records, 'tramel' nets, a form of trawl net, were used by some Hythe fishermen to catch bottom-dwelling fish such as plaice and other flat fish.[30] This form of fishing had been a specialism of Hythe and Rye to the west from at least the thirteenth century.[31]

Furthermore, by linking the type of net and fish species to the different fishing seasons, it is clear that Kent fishermen did not confine their fishing activities to the autumn herring season.[32] The coastal waters around Kent provided opportunities for fishermen for much of the year, as exemplified by this division of the year into fishing seasons or 'fares'.[33] Unlike Brighton, which had eight seasons and Rye, which had five, it is more difficult to ascertain exactly how the year was subdivided in New Romney, Dover, and Sandwich, but the Hythe records are more enlightening.[34] When Thomas Risdale appeared before the mayor and jurats in April 1480, for example, he was able to describe his work (and hence his income) using a combination of fish species, catching methods, and fishing seasons.[35] Regarding the latter, he had been involved in the Yarmouth fare before returning to Hythe, probably in mid-November, to continue fishing for herring in the Channel. Herring was not the only fish he was interested in because, between the feast of St Edmund, king and martyr (20 November) and Christmas, he went line fishing, possibly for cod and mullet. Although he referred to the fishing season before Easter as 'lentfare', some of his contemporaries saw it as beginning on the feast day of the Purification of the Virgin Mary (2 February) and extending until Easter. After Easter the 'tramel' fare began, which for some ended about the feast day of the Nativity of St John the Baptist (24 June) and was followed by the Scarborough fare for cod and herring, while others continued to fish locally for mackerel until Michaelmas (29 September).

Unlike the nets used on board ship, kiddle nets were set up from the shore, between the tides on the gently sloping open beaches, and were used to catch a variety of fish. Consequently, kiddle fishermen owned or leased the kiddle ground as well as the nets, and the owners of these grounds included institutions such as the churchwardens of St Nicholas' Church in New Romney, and the civic authorities there, as well as individuals such as Henry Robinson of Sandwich.[36] These grounds often had names; John Lane of New Romney (1488) owned one called 'Gold Pett' at Dungeness and another called 'Long Nett'.[37] 'Little Sak' was one of several belonging to the civic authorities at New Romney, and Battle Abbey in Sussex also had a number of kiddle grounds, one of its tenants being Richard Cokeyde of Lydd.[38]

Fish weirs were also a feature of the northern coast. Richard Furnes, a fisherman from Graveney, appears to have employed a variety of methods from the range of equipment noted at his death in 1582, and among his possessions were kiddle nets valued at 23s 4d.[39] In addition to those on the open beaches, the creek systems of the Medway and Thames estuaries provided mud flats where fish such as flounders, eels, and dabs were caught.[40] Nevertheless, the fish weirs were considered dangerous obstacles to shipping, especially by the powerful London merchants, and legislation from 1196 onwards required their destruction except on the seacoast.[41] Yet, as a form of fishing, weirs were prized and remained in use, even though they sustained a high level of damage during the storms of the late thirteenth century. At Faversham the weirs were known collectively as Snout Weirs, and among those holding such structures in the late Middle Ages was William Smelt of Seasalter, who in 1472 bequeathed to his wife not only his messuage but several pieces of land and his weir called 'le Snowte' for life.[42] She was also the recipient of another of his weirs called 'Shepyswombe', but the one called 'Newere' was sold to pay his debts. He was one

of a number of men from Seasalter, Whitstable, and the neighbouring parishes who bequeathed such assets, and a century later John Swanton the elder of Whitstable (1561) similarly intended his wife should be the primary beneficiary. However, he did not appear to expect her to hold the weirs beyond his sons' majority and, when they reached the age of 21, he stipulated that each should receive a specific weir provided he paid 10s annually to his mother.[43]

Institutional owners were similarly important and among these lessors were Faversham Abbey and Canterbury Christ Church Priory. The abbot received 23s 4d in rent from his tenants of the abbey's Snout Weirs, although when the weirs were in a poor state of repair this fell correspondingly.[44] Among those who leased one of these weirs in the late fifteenth century was Robert Gillmyn, who bequeathed the remaining years of the lease to his wife.[45] In addition, the abbot had other fishing rights, which included weirs in the royal manor of Milton to the west, but these were not as valuable as his own weirs at Faversham.[46] Similarly among the priory's manorial property at Leysdown on the Isle of Sheppey were several fish weirs. However, it is difficult to ascertain the value of these weirs for individual tenants during the fifteenth century because the relief and annual rent payments had become fossilized at 2d. The two exceptions between 1402 and 1479 were a relief payment of 1d paid by the heirs of Thomas Ponylond in 1410, and the relief of 4d and the same level of annual rent required from Thomas Broun in 1472 when he acquired a weir from the heirs of Richard Ruffyn.[47] Yet such property was presumably valuable because William Riche and William Norden jointly acquired five weirs, among other property, in 1478 from William Feyre.[48] Moreover, these tenants were not solely peasants because several members of the armigerous Cheyne family, including Lady Eleanor, held such property from the priory, although it is likely that they sub-leased their fish weirs to local men.[49]

Though it is difficult to ascertain from the extant documentation precisely how the shellfish, especially oyster, industry was organized in the medieval period, shellfish were clearly valued by Kentish fishermen, and Faversham-Whitstable oysters were particularly known for their high quality.[50] There was some governmental regulation of oyster fishing before the late sixteenth century, but, as Hyde and Harrington discuss, 'there was not the type of company and fraternity of free fishermen and dredgermen' at Faversham (and elsewhere on the north coast) as found thereafter.[51] In addition, specific references to oysters in the medieval manorial records are rare, but to the west of Faversham as part of the archiepiscopal manor of Teynham, the render for a particular two-acre plot was 300 oysters. Furthermore, the alternative of a cash rent of 6d highlights their abundance in the area.[52] These oyster fisheries were maintained along much of the northern coastline and fishermen from Queenborough on the Isle of Sheppey, and from Milton, Halstow, and Upchurch on the mainland owned dredges and boats, such as Michael Man of Milton whose dredging cocke (boat) with her furniture was valued at £4 6s 8d in 1582.[53] Fishermen at the various coastal settlements on the Isle of Thanet also had dredges but it is unclear whether these were used for oysters or mussels, or the exact site of the fishing grounds.[54] Mussels, like oysters, were also present in the Whitstable-Sheppey area, and even though fishing certainly took place, the evidence is limited. In 1521, for example, Robert Stabilgate stole 4d worth of mussels from John Grean at Leysdown.[55]

As noted above, hooks and lines were employed by Kent's coastal fishermen thereby providing further flexibility in terms of the fish caught and as a way of extending the fishing season. Two forms of hook are recorded in the sources, small hooks and 'herbews' or harbour hooks.[56] The former were generally employed from early November until Easter, yet at Hythe the peak season seems to have been February to Easter. Harbour hooks were used during the summer months. For the fishermen, this meant they could exploit fish stocks such as whiting, cod, and conger.[57] Although it is possible that fishermen from all the sea ports used both nets and hooks, the probate evidence appears to indicate that such diversity was favoured among the men of Thanet, Deal, and Walmer, and on the south coast at Dover, Hythe, Folkestone, and Lydd.

In addition to fishing equipment in the probate records, the presence of boats similarly reveals evidence concerning how the industry was organized, and the range of activities for which they were used. Boats varied considerably. There were over 20 names given to boats in the probate records in addition to the generic term 'boat'. Like nets, some were named for the type of fishing: sprotters, shotters, and tramellers; and perhaps hoker boats were used by those with lines and hooks. However, the basic fishing boat was probably a 20-foot long, clinker-built boat, with a crew of up to five men; tramellers were slightly bigger, that is long, narrow boats with a crew of seven men.[58] Other boat types in Kent included the hoye, the ketch, and the cocke boat, the latter often differentiated according to its use. Since they were worth less than larger deep-water boats, it is not surprising that these types are more numerous in the records. However, there are some references to crayers, which were suitable for deep-sea fishing and overseas trading voyages. Ellis Grafte of Queenborough owned a crayer or a share in such a vessel.[59] The 24-ton *Elizabeth Ellen* had two masts carrying a main sail and a top main sail, a fore sail and top fore sail, and she also had sprit sails. In total, she and her furniture were valued at £60 10s, which was considerably less than Robert Nasbye of Sandwich's third share of a crayer priced at £40 15s.[60] Nevertheless, his was exceptional and most crayers with their furniture were considered to be worth between £30 and £60. These larger boats required a safe harbour anchorage to load and unload their cargo, whether this was fish or other goods, but the smaller boats of varying kinds were capable of being hauled up onto the open beaches.

Moreover, the inclusion of capstans and cables among the equipment bequeathed or owned by these fishermen seems to indicate that a sizeable part of the county's fishing fleet was beached in this way. Gently sloping foreshores are extremely plentiful along much of Kent's coastline, including areas close to the coastal settlements and ports, or as at Lydd within a short distance of the town. These adjacent sites were frequently known as the Stade, and often fishermen are recorded as having fishing cabins there where they stored nets and other equipment, as well as their working clothes and materials including tar.[61] Although documentary references are rare, the area was also used for the drying of nets, another indicator of the local nature of much of the industry.[62] Among the assets Robert Lawlesse a Lydd fisherman had at Dungeness were three boats, four cabins with four capstans and in these cabins were various nets, fish hooks, baskets, casks, salt, and several ropes including four winding ropes.[63] Furthermore, as Kowaleski noted, the rich fishing grounds off the Kent coast

also attracted the Westermen.[64] Whether their presence was seen as detrimental to the local fishermen is unclear, but the Lydd civic authorities presumably welcomed this extra source of income.[65]

Competition might apply to marketing as well as catching, but consumer demand for fish was apparently large enough for both the native fishermen and the Westermen to sell their catch at the fish market at Dungeness.[66] Moreover, the proliferation of fish markets in these coastal towns offered major opportunities for fishermen and their customers alike.[67] The exact location of some of these markets is difficult to determine, but most seem to have been close to where the catch was landed, and thus to the fishermen's cabins.[68] It is not known whether part of the catch in these numerous ports was sold directly to local consumers. Yet the presence of men known as ripiers and fishmongers, as well as those who apparently engaged in the trading of fish more intermittently, seems to suggest that some Kentish fishermen were involved in the marketing not only of their own fish, but the fish of others.[69] Nevertheless, fresh fish was not the sole commodity and the presence of fish barrels, as well as red and white herring among the maletote and probate evidence, indicates the use of preservation methods.[70] However, this may relate far more to the need to preserve the catch for transportation to inland markets or for storage more broadly, than to fish being brought ashore at Kent ports from the deep-sea fishing grounds of the North Sea.[71] Indeed, where fish were transported only short distances from the point of landing, the fresh fish market operated successfully. In the later fifteenth century, an additional fish market in Canterbury was established that was specifically known as the Whitstable market, the fishwives from the coastal town regularly supplying 'their' market.[72] Such activities would not preclude some of this fish having been caught as part of the autumn North Sea herring trade, but the range of fish seen in the Canterbury chamberlains' accounts suggests the importance of local fishing. Consequently, although civic authorities imposed regulations to ensure, for example, the wholesomeness of fish transacted through these urban markets, the still relatively large population in the county, including the numerous religious houses, meant demand remained high. Additionally, the county's still relative affluence provided considerable demand for fish supplies throughout the year.[73]

Looking at this evidence collectively, even though the Cinque Ports continued to send their bailiffs to Yarmouth to try to safeguard their privileged status and to hold meetings at their court of Brodhull to counter breaches of their ancient rights, the number of fishing boats from the Ports landing catches at Yarmouth continued to fall.[74] Notwithstanding, though deep-sea fishing for herring had not been abandoned totally, as demonstrated by the presence of the Yarmouth or norward nets in the probate evidence, and corroborated by the Hythe maletote returns, it was no longer the dominant feature it had once been.[75] Instead, the chance to fish during other times in the year beyond the autumn herring season allowed fishermen to spread risk and to supply local and regional consumer demand. Thus, the evidence highlights the value placed on local fishing opportunities by Kent's fishermen in the late medieval and Tudor periods, albeit herring remained a significant part of the catch.

The organization of the industry aided this policy. The catch was divided among the crewmen, but others could also receive a share if they had provided a set number

of nets – a 'manshare' – were the master of the boat, or owned or had a share in the boat.[76] Consequently, by fishing locally all those involved did not need to wait for long periods before receiving their allocation.[77] For some widows this may have been crucial, although whether Robert Mayow's widow at Lydd (1535) was in this position is unknown. However, she and her daughter were bequeathed the profits from the shot net time after his decease, and she was the recipient of a few nets.[78] It might have been expected that fishing families would form partnerships through their extended kin group, but this is not seen in the Kent evidence, and instead there appears to have been a preference for links through the nuclear family, through marriage, or to look to others in the wider fishing community. How far or whether this extended to brothers as crewmen in the family's boat is difficult to ascertain, but the evidence suggests that in the early sixteenth century the Dyne family of Lydd seem to have shown a greater cohesiveness than most.[79] Yet a preference for non-kin members aboard family boats may also highlight a desire to spread risk due to the uncertain and dangerous conditions faced by fishermen, even in coastal waters. Similarly, bequests beyond a fisherman's family to members of the local fishing community may denote bonds relating to their shared occupation, and perhaps also feelings of separateness, which were reinforced by the physical distance between the town and 'the Stade' or the sea. This might explain the presence of small fishing companies, but possibly also the official, large fishing companies of the various oystermen along Kent's north coast (see above) and the formation, in 1571, of a fellowship of Lydd fishermen.[80] Even though these organizations were probably established in Elizabeth I's reign as part of the government's desire for greater occupational regulation, the initiative at Lydd does appear to have received local support.[81]

The late medieval incidence of life-cycle servanthood, as noted for Yorkshire by Jeremy Goldberg, may also have been significant in Kent, including service in the fishing industry.[82] Stephen Jonson of Deal (1517) bequeathed his house and lands to his son Stephen, but Thomas, his servant, received his master's fishing equipment. Thomas was probably a young man because this would explain the gift of various nets and two lines ready for the sea on condition that he stayed for a further two years in his old master's household.[83] The opportunity to serve an apprenticeship or the use of annual contracts to learn sea craft might have drawn boys and young men to the ports, but as Kowaleski noted for Devon and Cornwall, seasonal labour opportunities for those engaged in agriculture might have been equally important. Even though the evidence relates to the eighteenth century, the seasonal relationship between fishing and farming was seen in Kent where farm labourers sought permission during slack periods on the land to earn money from fishing. Consequently, when allowed, after sowing barley, they went mackerel fishing in May (shotfare). After harvest they joined the fishing boats until November (herringfare), returning to the farm to sow wheat.[84] These men were seen as equally capable workers at sea as on land, implying that Devon's role as the 'nursery of English seamen' ought to apply equally to their peers in Kent. This proposition finds support from the knowledge that Francis Drake gained his early maritime skills as an apprentice to a pilot on the Medway after his father brought the family to Kent to escape prosecution.[85]

The flexibility within the crews of the Kentish boats also applied to some of the more senior members of the craft who combined fishing with other commercial activities. Again, probably the most common combination was fishing and farming, the balance varying regarding which was the more important. In part, this presumably related to the farming strategy adopted, and even though much of the coastal marshland was used for mixed farming, cattle declined in favour of sheep farming by the later Tudor period. These changes in the region's agriculture had implications for the husbandmen, as well as the more prosperous yeoman farmers. In 1469, William Stokham of Lydd bequeathed to his wife both spot and shot nets, as well as three cows, several silver items, and his principal tenement with an adjacent plot of seven acres. John, his son, also received nets, half shares in two boats, and part of a cabin. William gave him another of his tenements, with the remainder of his lands and tenements shared among his other children.[86] However, a century later, testamentary examples are far less numerous, and a much greater proportion of these fishermen-farmers of Lydd can be categorized as belonging to the 'middling sort' and the poor, although this may reflect problems in farming rather than difficulties at sea.[87] Yet a few Lydd fishermen combined successfully the two occupations. Among Robert Lawles's bequests of 1584 were items of fishing gear and his work clothes to several local fishermen, with his wife and daughters receiving his lands and tenements, household items, and cash.[88]

An alternative to fisher-farming was trading. Additionally, the larger boats owned by Kentish fishermen could be used to carry pilgrims, or to transport livestock or other goods to France, the Low Countries, or to sail on coastal voyages to northern ports such as Newcastle, or to London.[89] For those fishing in the Thames and Medway estuaries, the chance to ship goods to London presumably also applied to those with smaller craft. Thus, the versatility of the region's shipping, and the flexibility of the workforce, was similar to that among the western fishermen.[90] Moreover, the proximity of the great cities of London and the Low Countries might have provided certain advantages for the mariners of Kent. Yet, the county's location also meant that at times it was vulnerable to raids on the ports, as at Sandwich in 1457 when much of the town was said to have been burned, as well as to disruption to overseas trade due to international political problems.

Building on this assessment of the nature of the fishing industry in Kent in the late medieval and Tudor periods, the final section of this chapter examines the probate records of a fishing family from New Romney, who were involved in the industry for three generations, to explore matters such as flexibility, sustainability, and longevity. Even though there are certain methodological issues regarding the investigation of inheritance strategies using such sources, in particular the absence of *in vitam* gift giving, these records can still offer insights into the way testators manipulated national legal and local customary practices. In Kent, the frequent practice of holding land under gavelkind, including the use of partible inheritance, was apparently applied more widely. In addition, will making provided a further dimension in the allocation of the testators' movable and immovable assets. This inherent flexibility within certain prescribed limits was deployed by many families, aided in part by the presence of a land market and a market in other capital assets that allowed the older generation

to extend the provision of inheritable possessions. They also used cash bequests to provide their offspring with the means to purchase their own resources, and thus maintain their livelihood.

Strategies of inheritance: the Bedyll family of New Romney

William Bedyll the elder first appears in the New Romney testamentary records as the executor of his father-in-law William Riche in 1511.[91] Apart from his tenement where he lived, Riche's main assets were his household and movable goods, including his fishing nets. His family had been residents in the town for at least a generation, and he seems to have intended that his probably only surviving son should continue in New Romney because he was to receive the family home when he was 20, allowing his mother to remain there for the rest of her life. Moreover, he wished his young son to follow his example by becoming a fisherman, and to this end he left all his flew nets to John. Margaret, Riche's married daughter, had presumably received part of her share of the family assets when she married William, perhaps including some fishing equipment, and at her father's death, her portion consisted of half the remainder of the household goods. Although speculation, it is feasible that after Riche's death his son-in-law used the nets on John's behalf. This would have enhanced William's share of the catch and provided an income until the young man came of age. Riche's remaining nets, his seven kiddle nets, were to be sold by his executors to cover his debts and legacies. They were also to provide 'for his soul' at his funeral and month's mind in the form of masses, prayers, and charitable deeds, a stipulation that might have favoured William Bedyll, who may have been able to purchase his father-in-law's nets at a reasonable price, thereby aiding the family materially and Riche spiritually.

About 35 years later, William Bedyll the elder made his own will.[92] By this time, his own sons were married adults and he had at least one grandson. Initially, the major beneficiary was William's wife, receiving all his goods and chattels, and his lands and tenements, except the tenement where he was living with its garden. On her death, these were to pass to his surviving sons William and Robert, retaining the majority of the family property jointly within the male line. Presumably, their father had aided them *pre-mortem*, either when they reached adulthood or marriage. Such gifts might have included fishing rights or equipment, which may explain why he bequeathed his eight kiddle nets and the accompanying kiddle ground to Stephen Pelland, his grandson. Stephen's parents might have been dead because his grandfather expected that Stephen would reside in William's own dwelling house, the tenement by the sea. However, if he refused this offer he was to receive instead the nets and 20s, but it is not clear whether the tenement, garden, and kiddle ground would then become the property of his uncles. William's actions on his grandson's behalf suggest that he wished to see the next two generations established in New Romney, his sons' children through their fathers, and his daughter's son through the right to fish his own kiddle ground. This would allow him to be an independent fisherman for at least part of the year, even if he supplemented his income by working as a crewman or in another occupation.

William the younger made his will before his father's death, but apparently did not die until 1548, two years after his father.[93] He was a fisherman and, unlike the elder

William, apparently gained all his living from fishing because he did not leave any land and the only livestock listed were two milk cows. He named his father as one of his executors jointly with his wife, and he intended them to receive the residue of his movable goods. His fishing nets and hooks were to be split equally between his son Robert and Joan, his wife, which suggests that he expected his son to continue fishing, possibly using his mother's nets as well as his own, and on one of the local fishing boats. In addition to the income, Joan would expect to receive from her share of the catch; she may have profited from the two house cows, but it is not clear whether William owned a house because his only other bequest to her was half of his household goods. His daughter Margaret inherited the other half and 40s, which may denote her dowry. This level of provision indicates a man of modest prosperity and might explain William's concentration on his immediate family.

William the younger's mother died three years later in 1551, leaving bequests to his two daughters Margaret and Parnell.[94] She also included bequests to his granddaughter, Robert's daughter Agnes, and a relative Letyse Bedyll. All these bequests were cash, goods, or a combination of both. Her son Robert was to act as her executor and he presumably shared the family lands and tenements on her death with his brother, but he was the sole beneficiary of the fishing rights she held: a kiddle ground previously purchased from Master John Cheyne. She possibly expected her sons would provide for her grandsons, although why she bequeathed the net she owned to Robert Snode rather than to a member of the family is unclear. Nevertheless, by keeping the kiddle ground in the family she was helping to maintain the family's connections in the industry as independent fishermen.

Stephen Pelland, her grandson, made his will in 1551, having held his grandfather's kiddle nets for five years.[95] He might have used them himself during that time but his will fails to mention his kiddle ground. The nets were to be sold, thereby providing 10s for Alice Down and 4s to be distributed among poor people of the parish. His treatment of the nets as commodities, which were available for sale rather than as family property, appears to emphasize the distinction between transient items and property or rights closely identified with the family.

Stephen's uncle Robert seems to have followed a similar strategy in 1553.[96] He made no specific bequests regarding his movable goods beyond the note that, after his debts and charitable donations had been paid, his wife Alice should receive the remainder. However, he did bequeath to her a life interest in all his lands, tenements, kiddle grounds, rents and annuities, to be inherited intact by his four sons (John, William, Thomas, and Robert) and their heirs on her death. His use of partible inheritance covering all his property suggests that he intended to keep the property within the family, while allowing his sons a degree of flexibility concerning its division. Consequently, only one or two sons would become fishermen, probably combining fishing with small-scale farming or other seasonal craft activities. Another related reason for this division might have been their ages: all were minors, which meant it was more appropriate to leave the division of the property until the survivors were of age. The idea that not all might reach adulthood could have been at the forefront of Robert's mind because his young daughter Agnes had recently died.

Mortality was an important issue for the family. Within two years of Robert's death, his wife died and was buried in St Nicholas's churchyard close to his grave and that of her mother-in-law. Alice bequeathed a considerable number of clothes and silver items to a wide circle of local women, and her business activities are reflected in the debt and credit transactions recorded in her will.[97] She did not refer to the property, including the fishing rights, but the overseer of her will was to have custody of her sons and, presumably, he also oversaw her property on their behalf. All four sons received a number of household goods that were to be kept in the family home until their majority when they might form the basis of an independent household. Whether her overseer was a fisherman is not certain, which may have meant some of Robert Bedyll's sons were directed toward becoming farmers or craftsmen instead of kiddle fishermen. Yet at least two of the four continued within the fishing industry, albeit William was also a successful farmer and, at his death in 1593, his assets included livestock, especially sheep, as well as 17 nets, and the lease of a kiddle ground.[98] Thomas, who died in 1600, was probably far less prosperous than his brother, and apart from his kiddle nets, kiddle grounds, house and 'close' (farmyard) his only bequest was £5 to his daughter at her marriage.[99] Nonetheless, he expected his two sons would maintain the family's position in the fishing industry, stipulating that the young Thomas would only inherit a particular kiddle ground when he married, with the other kiddle grounds shared between Thomas and John after their mother's death.

However, Thomas and John's great uncle Robert described himself as a yeoman when he made his will in 1570, and no mention is made of the fishing equipment he had inherited from his father.[100] Instead, his main concerns were the leases he held and the £60 owed to him by William Epps, the mayor of New Romney. With these assets, his wife was to maintain the family, bringing up his young son and daughter until adulthood. He appears, therefore, to have severed all links between his immediate family and the sea. Nevertheless, during this same period another member of the family, although his exact relationship is not clear, not only had interests in three boats, one of which was a crayer with all its equipment, but he also owed seven and a half fare of Yarmouth nets. William Bedyll's inventory (1573) suggests that even if he did not go North Sea herring fishing himself, he had a degree of investment in the town's continuing involvement in that sector of the industry.[101] Moreover, his crayer was capable of being deployed for fishing voyages, although equally he might primarily have used her for trading ventures. This degree of diversity within a particular family illustrates what was happening more widely by the late Elizabethan period. For the Bedyll family, this meant some family members had turned away from the sea, while others continued to work the family's kiddle grounds, and at least one member of the family had solely looked to the sea for his livelihood.

To conclude, Kowaleski is right to highlight the changing nature of the English fishing industry between the thirteenth and fifteenth centuries, and the consequent rise of the west coast industry. However, some of the factors she sees as enhancing that industry are also pertinent to the situation in late medieval and Tudor Kent. Kentish fishermen, too, seemingly concentrated their efforts on the local, coastal, and estuarine waters, albeit some Cinque Port fishermen did not abandon the North Sea

herring season, and the county continued to be a 'nursery of able seamen and mariners'. This illustrates the importance of diversity – fishing seasons, fish species, fishing methods – as Kentish fishermen sought to exploit as many areas as possible. Furthermore, even though there are examples of men who relied on fishing alone for their income, occupational diversity was similarly recognized as valuable for its flexibility and as a means to spread risk. Another area of importance was the use of inheritance strategies as families sought to enhance their ability to survive and even prosper. Yet, notwithstanding such means, the fishing families of Kent were not a homogeneous group, and this might have become more marked over the period. Thus, there were prosperous fishing families in late medieval and Tudor Kent, but many should probably be characterized as being of 'the middling sort' and for some poverty was the harsh reality in what was and remains a risky industry.

Notes

1 A. S. Littler, 'Fish in English Economy and Society down to the Reformation', PhD diss., University of Wales, Swansea, 1979, pp. 2–5.
2 M. Kowaleski, 'The Internal and International Fish Trades of Medieval England and Wales', in D. Starkey, C. Reid, and N. Ashcroft (eds), *England's Sea Fisheries: The Commercial Sea Fisheries of England and Wales since 1300*, London: Chatham Publishing, 2000, pp. 29–30.
3 For example, according to Domesday the men of Sandwich provided Christ Church Priory with 40,000 herrings each year. See P. Morgan (ed.), *Domesday Book: Kent*, Chichester: Phillimore, 1983, 2.2.
4 M. Kowaleski, 'The Commercialization of the Sea Fisheries in Medieval England and Wales', *International Journal of Maritime History* 15/2, 2003, pp. 177–231.
5 Kowaleski, citing James Campbell, in 'The Commercialization of the Sea Fisheries', p. 179.
6 Kowaleski, 'The Commercialization of the Sea Fisheries', p. 180. For the Grimsby fish trade, see S. H. Rigby, *Medieval Grimsby: Growth and Decline*, Hull: University of Hull Press, 1993, pp. 64–7.
7 Morgan, *Kent*, D.4.
8 A. Saul, 'The Herring Industry at Great Yarmouth c.1280–c.1400', *Norfolk Archaeology* 38, 1981, pp. 36–7.
9 Saul, 'Yarmouth', pp. 38–40; K. M. E. Murray, *The Constitutional History of the Cinque Ports*, Manchester: Manchester University Press, 1935, pp. 146–8, 232, 234.
10 Murray, *Constitutional History*, pp. 148–55.
11 M. Kowaleski, 'The Expansion of the South-Western Fisheries in Late Medieval England', *Economic History Review* 103/3, 2000, pp. 430–44.
12 Saul, 'Yarmouth', pp. 36–7, 40–1. P. Heath, 'North Sea Fishing in the Fifteenth Century: The Scarborough Fleet', *Northern History* 3, 1968, pp. 60–9. M. Bailey, 'Coastal Fishing off South East Suffolk in the Century after the Black Death', *Proceeding of the Suffolk Institute of Archaeology and History* 37, 1990, pp. 102–14.
13 G. Draper and F. Meddens, *The Sea and the Marsh: The Medieval Cinque Port of New Romney*, London: Pre-Construct Archaeology, 2009, pp. 18–19. H. Clarke et al., *Sandwich the 'Completest Medieval Town in England': A Study of the Town and Port from its Origins to 1600*, Oxford: Oxbow, 2010, pp. 72–5, 121–4, 127–30.
14 Kowaleski, 'Commercialization', pp. 191–2.
15 Kowaleski, 'Expansion', pp. 449–51; M. Kowaleski, 'Warfare, Shipping, and Crown Patronage: The Impact of the Hundred Years War on the Port Towns of Medieval England', in L. Armstrong, I. Elbl, and M. Elbl, *Money, Markets and Trade in Late Medieval Europe*, Leiden: Brill, 2007, pp. 244–53.
16 Kowaleski, 'Expansion', pp. 440–4, 448–50.

17 A. Dyer, *Decline and Growth in English Towns 1400–1640*, Basingstoke: Macmillan, 1991, pp. 72–4.
18 A. Dyer, *Decline and Growth*, pp. 444–5.
19 M. Kowaleski, 'Working at Sea: Maritime Recruitment and Remuneration in Medieval England', in S. Cavaciocchi (ed.), *Ricchezza del Mare, Richezza dal Mare, secc. XIII–XVIII*, Florence: Le Monnier, 2006, pp. 929–30. This combination of fishing and farming was employed by early settlers on the eastern seaboard of the United States, adopting a system their ancestors had used in England. See D. Vickers, *Farmers & Fishermen: Two Centuries of Work in Essex County, Massachusetts, 1630–1850*. Chapel Hill: University of North Carolina Press, 1994.
20 Kowaleski, 'Expansion', p. 452.
21 The absence of fish caught and sold locally in the national customs accounts is again a problem for the historian.
22 Canterbury Cathedral Archives and Library [henceforth CCAL]: U15/20; K. Witney (trans. and ed.), *The Survey of Archbishop Pecham's Kentish Manors 1283–85*, Maidstone: Kent Archaeological Society, 2000, pp. 134, 142, 158; E. Eastlake, 'Redressing the Balance: Boxley 1146–1538. A Lesser Cistercian House in Southern England', PhD diss., University of Winchester, 2014, p. 209.
23 For example, Elizabethan wage-rates and guild regulations; see G. Mayhew, *Tudor Rye*, Falmer: University of Sussex, 1987, pp. 155–6, 157–8, 165–6; Kent History and Library Centre [KHLC] Ly/ZB9.
24 K. Parfitt, B. Corke, and J. Cotter, *Townwall Street Dover: Excavations 1996*. Canterbury: Canterbury Archaeological Trust, 2006, pp. 353–70, 402–5, 410–12; Draper and Meddens, *Sea and Marsh*, pp. 106–11.
25 For example, flew, shot, and sprot nets; KHLC PRC 21/10/23; drawe nets; KHLC PRC 21/2/109; tucke nets; KHLC PRC 21/7/312; raigth nets; KHLC PRC 21/6/49; norward nets; KHLC PRC 21/7/132.
26 For example, herring and mackerel nets; KHLC PRC 21/8/208; plaice nets; KHLC PRC 21/8/333v; mullet nets; KHLC PRC 21/1/202; prawn nets; KHLC PRC 10/10/102v; pilcher nets KHLC PRC 21/8/337; shrimp nets; KHLC PRC 21/6/77; eel net; KHLC PRC 21/2/109; 'porpose' net; KHLC PRC 32/19 f. 67.
27 Littler notes that drift nets in the late medieval and Tudor periods consisted of between 40 and 70 individual nets attached end to end that were weighted top and bottom so that they floated vertically and in which fish became entangled. See Littler, 'Fish', p. 136.
28 Norward nets were eight to ten yards deep and 20 to 30 yards long; whereas flew nets could be 48 to 60 yards long (minimum of 28 yards) and half as deep; Littler, 'Fish', p. 136.
29 One of these fishermen was Richard Rawlyn who was taxed on 17 lasts of herring sold at Yarmouth and Hythe, with a further three lasts sold at Yarmouth and nine lasts at Hythe; KHLC H1055 f. 98.
30 Among his nets, John George of Hythe in 1545 had 'two tramels with all things belonging'; KHLC PRC 32/20 f. 26.
31 Littler describes these nets as comprising 'a triple wall of mesh resting on the bottom and of up to 18 furlongs in length in which […] bottom-feeding fish entangled themselves'. See Littler, 'Fish', p. 135.
32 For example, the naming of seasons at Dover used a mix of fish species and fishing techniques: herringyfare, hokfare, mackerellfare, saltfare, and shotfare.
33 However, governments did impose some restrictions on certain fishing techniques and times when fishing could take place. See Littler, 'Fish', pp. 134–6.
34 A. J. F. Dulley, 'The Early History of the Rye Fishing Industry', *Sussex Archaeological Collections* 107, 1969, pp. 42–4; Parfitt, *Townwall Street Dover*, pp. 400–1, 404; Draper and Meddens, *Sea and Marsh*, pp. 108–9.
35 KHLC H1058 f. 211v.
36 In 1551, William Hackett, Thomas Foster, and Richard Waller each paid the Romney town treasurer 6s 8d for their kiddle rents; KHLC NR/FAe 7 f. 68v. Among Robinson's possessions at his death was a kiddle net; KHLC PRC 10/3/163.

37 KHLC PRC 32/3 f. 201.
38 Those renting a kiddle ground from New Romney appear to have paid 6s 8d per year in the sixteenth century: KHLC NR/FAe7 ff. 64, 68, 83, 189, 231v. KHLC PRC 32/1 f. 73.
39 KHLC PRC 10/13/44v.
40 Eel catching was also conducted in such areas. See I. Jackson and K. Robinson, *Of the North Kent Marshes*, Privately Published, 2015, pp. 9–10.
41 P. Hyde and D. Harrington, *Faversham Oyster Fishery Through Eleven Centuries*, Lyminge: Arden Enterprises, 2002, p. 40.
42 KHLC PRC 17/2 f. 124.
43 KHLC PRC 17/35 f. 141.
44 Hyde and Harrington, *Faversham Oyster Fishery*, pp. 24, 40.
45 KHLC PRC 17/7 f. 44.
46 Hyde and Harrington, *Faversham Oyster Fishery*, p. 24.
47 CCAL U15/20/4, U15/20/5.
48 CCAL U15/20/4.
49 CCAL U15/20/4.
50 D. Coombe, *The Bawleymen: Fishermen and Dredgermen of the River Medway*, Rainham: Pennant Books, 1979, pp. 33, 92–6. As early as 1550, Faversham oysters were exported to Holland. See P. Reid, D. Harrington, and M. Frohnsdorff, *Faversham in the Making. The Early Years: The Ice Ages until AD 1550*, Oxford: Windgather Press, 2018, p. 156.
51 Littler, 'Fish', pp. 134–5; Hyde and Harrington, *Faversham Oyster Fishery*, p. 13.
52 Witney, *The Survey*, p. 155.
53 Michael Man, KHRC PRC 10/11/203; others included John Harbrowe of Halstow, PRC 10/15/139v; John Gregge of Rainham, PRC 10/17/134; William Hamon of Upchurch, PRC 10/6/48v; Ellis Grafte of Queenborough, PRC 10/9/403v.
54 See: Stephen Garrett of St Lawrence's, Thanet, KHLC PRC 10/6/69; Richard Emptage of St Peter's, Thanet, PRC 10/4/273v; Robert Nasbye of Sandwich had two dredges valued at 4s among his extensive fishing equipment and three boats. In total this was said to be worth £191 13s 4d; PRC 10/9/24.
55 CCAL U15/20/4.
56 Parfitt, *Townwall Street Dover*, pp. 365, 397.
57 Dulley, 'The Early History', pp. 44–5.
58 Dulley, 'The Early History', pp. 37, 44, 46–7.
59 KHLC PRC 10/9/408v.
60 KHLC PRC 10/9/24.
61 For Dungeness, see M. Gardiner, 'A Seasonal Fisherman's Settlement at Dungeness, Kent', *Medieval Settlement Research Group* 11, 1996, pp. 18–20. For comparable arrangements in the West Country, see H. Fox, *The Evolution of the Fishing Village: Landscape and Society along the South Devon Coast, 1086–1550*, Oxford: Leopard's Head Press, 2001, pp. 12–4.
62 In 1528, John Tydeman of Folkestone stated that his wife was to have the right to dry the nets she had inherited from him outside his son Henry's cabin; KHLC PRC 17/18 f. 128. At Dover, certain fishermen were fined for drying their nets upon the beach; KHLC Do/FCa2, ff. 39v, 91, 270.
63 KHLC PRC 21/6/378v.
64 Kowaleski, 'Expansion', p. 441.
65 The presence of these Devon fishermen continued to provide Lydd with a source of revenue well into the late 1570s; KHLC LyFAc3, 240, 243, 245. Occasionally West Country fishermen travelled further east to Dover; KHLC Do/FCa1, f. 222.
66 S. Dimmock, 'Class and Social Transformation of a Late Medieval Small Town: Lydd *c.*1450–1550', PhD diss., University of Kent, 1998, p. 42. Now published as S. Dimmock, *The Origin of Capitalism in England, 1400–1600*, Leiden: Brill, 2014, pp. 237–71.
67 However, some tried to circumnavigate the market by buying directly from the boats before the catch had been landed. In 1533, a rippier called Graunte was fined 12d at Dover for trying to buy 200 mackerel this way. See British Library Add MS 29618B f. 268.

68 At Dover the fish market seems to have been more elaborate and included the 'fishmarket house'; KHLC Do/FCa2 f. 114v. See also Parfitt, *Townwall Street Dover*, pp. 400, 403; Draper and Meddens, *Sea and Marsh*, pp. 45–6; Mayhew, *Tudor Rye*, p. 259.
69 In 1468/9, John Sende of Hythe not only sold his own herring, mackerel, and sprats, but he also bought and sold a further 1,000 herring; KHLC H1058 f. 3. See also Mayhew, *Tudor Rye*, pp. 258–62; Draper and Meddens, *Sea and Marsh*, pp. 45–6.
70 Two fishermen from Hythe received allowances on their 1446/7 maletote returns: William Harman took nine barrels of herring to London for Stephen Slegge, and William Halman took another barrel; KHLC H1055 ff. 80, 83. See also, Parfitt, *Townhouse Street Dover*, pp. 365–7.
71 Such markets attracted London fishmongers, as at Lydd in the fifteenth century; Dimmock, 'Lydd', p. 42.
72 CCAL CC/FA2, f. 1999.
73 According to Canterbury's custumal, fishermen should not attempt to sell fresh fish in the market that was over a day and a night old; HMC 9, pt 1, p. 172. For the national perspective, see C. Rawcliffe, *Urban Bodies: Communal Health in Late Medieval English Towns and Cities*, Woodbridge: Boydell, 2013, pp. 251–4.
74 For example, at Rye the decline in the number of North Sea fishermen apparently occurred in late Tudor times. See Mayhew, *Tudor Rye*, pp. 164–5.
75 Among those who continued to fish there was Simon Makerell of Hythe (1584), whose 21 'norwarde flues' were valued at £6 5s, which was more than the total for all of his other nets; KHLC PRC 21/7/132.
76 For the various share systems see Littler, 'Fish', p. 174.
77 Dulley, 'The Early History', pp. 43, 48.
78 KHLC PRC 32/15 f. 367.
79 S. Sweetinburgh, 'Strategies of Inheritance among Kentish Fishing Communities in the Later Middle Ages', *The History of the Family* 11, 2006, p. 103.
80 KHLC Ly/ZB9.
81 There is no evidence to indicate this occurred in any of the other Kentish Cinque Ports, and a similar attempt at Rye in 1567, and again in 1581, was resisted by the fishermen. See Dulley, 'The Early History', pp. 52–3.
82 P. J. P. Goldberg, *Women, Work, and Life Cycle in a Medieval Economy: Women in York and Yorkshire c.1300–1520*, Oxford: Clarendon Press, 1992, pp. 158–202; Kowaleski, 'Working at Sea', pp. 918–22; Mayhew, *Tudor Rye*, pp. 156–60.
83 KHLC PRC 32/12 f. 59.
84 Coombe draws on the Rev. John Lewis' book (1723). See Coombe, *Fishermen*, p. 149.
85 R. Southey, *English Seamen: Howard, Clifford, Hawkins, Drake and Cavendish*, London: Methuen, 1897, p. 205; however, Stephen Coote is less sure Francis Drake went to Kent, suggesting that he went to his relatives, the Hawkins family in Plymouth instead. See S. Coote, *Drake*, London: Simon and Schuster, 2003, p. 14.
86 KHLC PRC 32/2 f. 197.
87 Dimmock, 'Lydd', pp. 120–7; S. Elks, 'Lydd 1540–1644: A Demographic Study', MA diss., University of Kent, 1987, p. 125.
88 KHLC PRC 32/35 f. 111.
89 M. Mate, *Trade and Economic Developments, 1450–1550: The Experience of Kent, Surrey and Sussex*, Woodbridge: Boydell, 2006, pp. 44–6, 51, 59, 81–101.
90 Kowaleski, 'Expansion', pp. 446–8, 451–2.
91 KHLC PRC 32/10 f. 73.
92 KHLC PRC 32/20 f. 40.
93 KHLC PRC 32/21 f. 92.
94 KHLC PRC 32/24 f. 10.
95 KHLC PRC 32/24 f. 32.
96 KHLC PRC 32/26 f. 12.
97 KHLC PRC 32/26 f. 47.

98 KHLC PRC 21/12/498v.
99 KHLC PRC 32/38 f. 300.
100 KHLC PRC 32/31 f. 388.
101 KHLC PRC 21/2/46.

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10

Ships and shipping technology

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Ships of the world

In 1400, different ship types and maritime technologies dominated the oceans in different parts of the world. The western Pacific and China Seas were the domain of junks from China. Among the far-flung islands in the central and southern Pacific, log rafts maintained connections over great distances. In the Indian Ocean, it was vessels with designs based on practices in what is now the Indonesian archipelago. In the waters of the western hemisphere, paddled boats were the vessels of choice. The only place to find ships of European design was in European waters. Over the following 400 years, the world's ships went through dramatic changes. The quality of European vessels improved markedly from the fourteenth century on, providing unparalleled tools to accomplish a broad range of tasks, some never previously imagined. By 1800, vessels of European design dominated the world's oceans in numbers, size, variety, and range. There were European builders everywhere practising their trade and passing on their technical skills and knowledge to non-Europeans. The vessels from other design traditions borrowed from European practice. Local shipwrights even built imitations of European ships, accepting the superiority of those designs. Europeans also borrowed from some practices in other parts of the world. It was the superiority in ship design and building techniques that gave the people from western Europe an insurmountable advantage in commerce and in violence in any contact around the world.

Because of the improvements and growth in nautical archaeology in recent decades, much more is now known about the evolution in ships from 1400 to 1800. The development of effective SCUBA gear after the Second World War revolutionized underwater archaeology. Certain major projects brought attention to the burgeoning field. Greater experience and technical advances, such as the use of hyperbaric chambers for decompression, made work at greater depths possible. Sidescan SONAR made surveying sites much easier. Advances in photography made accurate recording of finds faster and more accurate. The many digs, including investigations of ships and harbours, in all parts of the world over the years have supplied and continue to supply a range of information about varied aspects of many types of vessels.[1]

The melding of a number of European shipbuilding traditions around 1400 into the full-rigged ship led to a long period of development, modification, improvement, and refining of the design of sea-going ships of all types. Design advances in smaller vessels used on coastal and inland routes contributed to qualitative changes in relatively large ones. That was part of a long-term process of interchange, of borrowing from different building practices in Europe and, later, as European ships ventured further afield, from Asia and the New World. In the thirteenth century, different building traditions prevailed in different parts of Europe. In the north the cog, a tubby clinker-built vessel with a single mast and single square sail, had emerged as the principal carrier of bulk goods on any kind of scale because of its relatively small crews and large carrying capacity. It also served as an effective warship.[2] There was competition for the cog from vessels of designs descended from the rowing barges that Vikings used so effectively in raids in the early Middle Ages. A variant of the ship used for violence, the *knarr*, was tubbier and suited for carrying cargo. The high and late medieval keels which evolved from that type were cargo ships capable of inland and coastal work as well as crossing the North Sea.[3] There were also flat-bottomed vessels of Celtic design that found work in shallow waters and another type with a banana-shaped hull that found use on rivers and in estuaries.[4] Almost invariably all types relied on a single square sail for power. None of the designs was static. Cogs grew out of the flat-bottomed Celtic design and were made more seaworthy by the addition of a keel around 1200. After that the cog grew in size. The hull shape meant it was best to mount a rudder on the sternpost with a helmsman to handle the tiller. By the fifteenth century, northern ships like the cog could be very large. The *Grace Dieu*, the failed warship of King Henry V of England built between 1416 and 1418, may have reached 1,400 tons.[5] The planking was heavy and the limited uses of a ship of its size and design, despite an advanced rig, suggested that alternative designs were needed.

The design breakthrough in Renaissance Europe

In the south, two general ship types, the galley and the round ship, inherited from the classical world, remained the preferred choices of Mediterranean mariners. Galleys were low, narrow vessels powered by both oars and sails, the sails being triangular lateen ones that had been in use in the region for centuries. By 1300, the smaller versions of the galley were almost exclusively warships, their arrangements of rowers leaving little room for cargo. A big or great galley developed around 1300 proved useful on certain routes but the large crews needed to pull the oars meant use of the type declined over time. It disappeared by the end of the sixteenth century.[6] One thing the great galleys could do was to get out through the Straits of Gibraltar and so make return trips to northern Europe. On those trips, the galleys carried a second set of sails which were square, an exception to standard practice for galleys and a sign of things to come. The use of small galleys also declined. In the sixteenth century, they were already restricted to patrol and amphibious work. Their low freeboard meant they could not survive in the open Atlantic. Navy after navy in the Mediterranean abandoned galleys, among the last being that of the Kingdom of Sardinia in the late eighteenth century.[7] The scope of galleys was increasingly circumscribed by the

success of pure sailing ships for all seafaring purposes as a result of the dramatic design changes in the years around 1400.

In the high Middle Ages, Mediterranean vessels powered exclusively by the wind had rounded hulls, were steered with side rudders, and carried lateen sails. The sail plan meant the crews were sizeable, perhaps with tons-served-per-man ratios of around 7:1.[8] The hulls were built in a way different from northern practice. There is no question that there was a change in ship construction in the Mediterranean in the early Middle Ages which had unpredictable and massive long-run implications, but describing the construction methods has proven difficult.[9] Terminology is not invariably precise. In addition, there were always variants and hybrids in ways of constructing ships and boats. In the north, the usual form was plank-first building where the shipwright made decisions by eye, based on his personal experience and inherited wisdom, possibly along with some rules of thumb. What emerged in the medieval Mediterranean was frame-first construction where the hull planks were nailed on to a pre-designed and built framework. It was possible to set up the lower framing first, add hull planks, and then build a next level of framing which, in turn, was closed in and so on until the hull was complete. The more common method in the medieval Mediterranean and ultimately the standard one throughout Europe, though, was to build the whole frame first and then tack on the planks.[10] Northern ships had overlapping or clinker planking which supplied both strength and water tightness. The planks on Mediterranean ships were flush, creating a smooth hull and in fifteenth- and sixteenth-century Europe, that flat hull was called carvel. Between plank-first (clinker) and frame-first (carvel) building there were great differences in how a ship was conceived, built, the costs involved, the weight of the finished vessel, the extent of maintenance needed, the ease of doing repairs, the organization of work on the shipbuilding wharf, and, above all, in the capabilities of the ship.[11] Frame-first building expanded the possibilities for builders and produced ships that were typically lighter, more flexible, possibly required less wood, were easier to repair but more difficult to maintain and possibly less durable. Between 1400 and 1800, the method spread from the Mediterranean to northern Europe and from there around the world.[12]

In general, the thirteenth century was a period of contact and technical exchange between the naval traditions of the western and eastern Mediterranean, while the fourteenth century was a time of contact and technical exchange between Mediterranean and Atlantic naval traditions. The diffusion of frame-first construction was set in motion by the appearance of northern cogs in the Mediterranean as early as the thirteenth century. Once shipwrights in the south saw the efficient bulk carrier they tried to imitate it by planking the hull like a Mediterranean ship. It was the beginning of a melding of the two building traditions.[13] The next development was to work out a sail plan for the new type. Mediterranean shipwrights added a second mast, not unusual in those waters, and put a triangular lateen sail on it. The latter increased manoeuvrability, a problem with a tubby vessel like the cog. By the end of the fourteenth century, they added another mast, at the bow, with a square sail to balance the lateen near the stern, creating the full-rigged ship. With a combination rig the crew could handle each of the three sails separately so the numbers of men on board could be kept under control and less cargo space was needed for crew supplies. That increased the range of

the vessel. The type could be scaled up or down with no loss of advantageous characteristics. It gained acceptance through the fifteenth century for a variety of chores, especially for high seas voyages, among them voyages of exploration.[14]

Medieval ship types with well-established credentials held on in specific trades or tasks where they excelled. The two-masted or single-masted lateen-rigged caravel with origins in a Mediterranean fishing boat proved valuable for trips by Portuguese traders to uncharted waters along the coast of Africa. Built low, it could deal effectively with contrary winds. Larger versions carrying four masts, three of which had lateen sails, would ultimately find a home in trade from Iberia to the Atlantic islands and Brazil.[15] Keels held on in coasting trades and lightering as in, for example, carrying coal in England.[16] Coastal fisheries throughout Europe retained proven small boats of various types.[17]

Full-rigged ships in various forms took on an ever-larger share of the carrying trades in the fifteenth century. The emergence of this type and its long-term success proved that experimentation with designs and building practices along with cross-fertilization could yield great dividends. Shipwrights worked on small changes, gradual advances which, over time, could yield major cumulative gains in efficiency. The sail plan of full-rigged ships is a good example. Over time it became more balanced as, instead of one very large mainsail, designers put first two and then three square sails on the fore- and mainmasts. The total canvas area increased, the size of the individual sails decreased so each was easier to handle. Captains got much greater flexibility in deploying sail. A fourth mast at the stern seemed to make sense. With a lateen sail it would also serve to balance the foremast and also improve manoeuvrability. Popular for a while, by the mid-seventeenth century the bonaventure mizzen mast and sail were abandoned as unnecessary. More and smaller sails on each of the other three masts over time produced better results.[18]

Another long-term trend in European shipbuilding also emerged in the course of the fifteenth and sixteenth centuries with full-rigged ships. There were signs of specialization in design. The most obvious case was caused by the introduction of gunpowder weapons on board. At first carrying largely light firearms, by the end of the fifteenth century ships were fitted with heavy cannon. On galleys, the guns went in the bows and had to be balanced. The shallow draught of the type meant a heavy cannon even tilting to one side could capsize the vessel. For galleys there was no marked change in construction other than reinforcement in the bow to carry the ordnance and keep it in place. Sailing ships had heavy guns placed in the waist amidships. Through the sixteenth century, guns became more reliable and builders got better at fitting them for effective use. The larger the complement of guns, the more powerful the fighting ship, but also the smaller the payload. The distinction between warships and cargo ships was still in train in the early seventeenth century with vessels intended to carry cargo often still carrying guns, especially those visiting dangerous waters. A trend of differentiation, though, was obvious and intensifying.[19]

Large carracks were the common type of full-rigged ship in the fifteenth century. They had deep waists and high castles both fore and aft. The goal was often to increase carrying capacity, the extreme case being the giant version that Portuguese yards produced for trade to India and on to East Asia. The ships were of 1,600 tons and more,

among the largest wooden ships ever built. Often subject to problems of being built too quickly, or with improperly seasoned wood, gradually they and the East Indiamen from other countries in Europe became more reliable. The shape of the hull presented some problems for carracks, for example in crosswinds. To combat those difficulties, builders, first in Venice and then throughout Europe, experimented with borrowing hull features from galleys to make a better fighting ship out of the carrack. The end result was a different type of full-rigged ship. The galleon, as it came to be called, proved effective as a long-distance cargo carrier in the Atlantic and beyond, as well as a serviceable warship when heavily armed.[20]

The impressive voyages made by carracks and galleons in the sixteenth century overshadow the success of smaller types such as the boyer and the buss which builders improved as well. In the Baltic and North Seas, the two-masted boyer proved highly versatile in regional trades. It carried a number of different sails of different types: a lateen on a mizzenmast, and on the mainmast two square sails along with a sprit sail, the last in the same plane as the keel of the ship with the square piece of canvas held up by a large boom or sprit fixed to that mainmast. This was the start of increasing use of such fore-and-aft sails and not just in the north. They were already known in small boats with a crew of just one, used in rivers and waterways near the coast. The sail would make its way onto sea-going ships over time. In the fifteenth century, Low Countries shipwrights also developed new types for the fisheries. The most prominent example was the herring buss. Improved through the sixteenth century, it was made to pull long drift nets and to carry supplies of salt for preliminary treatment of the herring when brought on board. The rising scale of investment made in ships and shipping made it possible to deploy more purpose-built types for specific tasks.[21]

Seventeenth- and eighteenth-century innovations in European shipbuilding

Specialization in design, under way in the sixteenth century, became ever more obvious in the seventeenth century. The most prominent advance was in the development of the Dutch fluyt. It was a full-rigged ship developed in the late sixteenth century with features that made it the workhorse of bulk trades in the Baltic and North Seas and even beyond. Among other things, it had a relatively high length-to-breadth ratio. Early full-rigged ships, carracks of the fifteenth century, were 2.5 times as long as they were wide. The first fluyts went up to 4:1 and over time got even longer, possibly helped by having an extended curve to the stempost which lengthened the bow. Small vessels might have high length-to-breadth ratios but the fluyt was a sea-going cargo carrier able to handle sizeable payloads. The rigging was kept extremely simple with ropes in place so that much of the work of handling the sails could be done on deck. Crews were small relative to carrying capacity, up to around 15 tons per man.[22] The width at the waterline was considerably greater than at the deck, giving the sides marked tumblehome. Originally, probably for tax reasons since toll collectors would measure the width of the ship at the deck, that hull shape proved to be an advantage in sailing and so became common on seventeenth-century vessels. The design gave a pear-shaped appearance to the stern. The basic design could be, and often was,

modified for specific trades. In the north, fluyts were lightly armed or not armed at all. For voyages to Spain and the Mediterranean they carried cannon.[23]

Dutch shipbuilding of the seventeenth century was a case of the incomplete adoption of a new technology. The highly successful shipwrights in the Low Countries adapted frame-first construction, disseminated from the Mediterranean, to local conditions and their own experience. They developed a unique way of building, a composite or compromise merging the old and the new. They started the lower part of the hull with plank-first construction, placing the planks end-to-end, and then extended the rest of the hull using frame-first methods. This decreased the amount of forward planning required, and allowed them to make adjustments as work went along. In the course of the seventeenth century, Dutch shipwrights went over to setting up all the frames and then adding the hull planking, following the full, long-established Mediterranean practice. In the late seventeenth century, two books appeared in the Dutch Republic describing the trade of shipbuilding. The first book, Nicolas Witsen's of 1671, described the hybrid method of starting with the first strakes put in place before the frames, while the second, Cornelis van Yk's of 1697, talked about putting the frames up first.[24] The appearance of written works on the technology was both a sign of changes in work on wharves and of efforts to systematize the process of construction. The transition from traditional northern building to partial adoption in some kind of hybrid, and then to the full imitation of frame-first construction, might well have prevailed in other parts of Europe. Older ways of building were probably most durable with smaller boats. It was apparently true with forming planks. In the early Middle Ages, boat builders in Scandinavia split trees into eight or 16 parts and then dressed the pieces to make hull planks. In the Mediterranean, sawing was the norm for making planks as it was better suited to frame-first construction. In Scandinavia, with abundant supplies of wood, split planks, and even naturally curved pieces of wood specially selected to fit in where needed, remained common in small boats for some time.[25]

In the eighteenth century, the trends toward specialization in ships and systematic thinking about design increased. Advances in other vessel types reduced the scope for full-rigged ships though it still was by far the dominant type for ocean-going trades. The sailing packet became the workhorse of international commerce. Generally well below the maximum potential size of such vessels, they were typically less than 600 tons and often about half that size in, for example, transatlantic trades. Ships sailing round the Cape of Good Hope were typically larger full-rigged ships, the East Indiamen of the increasing number of state-supported companies in Europe arming their heavily built ships generously.[26] Decoration, on the other hand, became less elaborate. While in the seventeenth century ships carried extensive carved additions on virtually all parts of the vessels, in the eighteenth prudence and cost-saving prevailed. All sorts of animals and the coats-of-arms that festooned warships were largely gone from the rising number of ever-larger and more heavily armed vessels of European navies.[27] The distinction between warship and cargo ship, already clear by the late seventeenth century, led to the expansion of navies and to administrative and financial challenges for European governments. The development of reliable iron guns around 1600 meant lighter weight and lower cost of armament.[28] The number of cannon

on warships increased and through the eighteenth century the battleships leading fleets into engagements relentlessly grew in size. Navies replaced the lateen sail on the mizzen mast with a fore-and-aft gaffsail, trapezoidal in shape and hanging from a relatively short yard or gaff. This change made the sail easier to handle and allowed a topsail to be put on the mast. Warships themselves became more specialized. For protection of commerce, European navies deployed relatively more, faster frigates, leaving the fighting of set-piece naval battles to bigger ships with more guns.[29]

Specialization in cargo ships became more pronounced in the eighteenth century. Smaller ships are generally under-represented in depictions of vessels and that is true for the late Middle Ages and on into the nineteenth century. It is harder to describe their development since less visual evidence about them survives. Better designs of various kinds of two-masters gained them an increasing role in trade in the North and Baltic Seas. They had varying types of rigs, often incorporating fore-and-aft sails which were easier to handle and so kept crew size down. Brigs were two-masted, each with a gaffsail. Snows were relatively large two-masted vessels with square sails on each mast and a small mast just behind the mainmast which carried a spritsail which, like a gaffsail, was trapezoidal and fixed to a yard in the same plane as the keel. With ketches, instead of a mainmast and foremast as with a brig, the smaller mast was fixed toward the stern of the vessel and served as a mizzenmast. Kofschepen were Dutch two-masters fitted with a mainmast rigged with squaresails and a spritsail, and a mizzenmast behind the mainmast carrying a fore-and-aft spritsail. The various types had some success on the Atlantic as well in northern European waters.[30] The single-masted sloop with two fore-and-aft sails, one in front and the other behind the mast, proved fast and easy to handle. The type made considerable inroads in coastal trades in North America and, by the end of the eighteenth century, armed versions appeared in navies. In the Mediterranean, variations on two-masted vessels had long found many uses. The felucca even had a third mast added in some cases to power larger versions though, no matter the size, freeboard was low and the hull relatively long. The sails were lateens as with the xebec which also started as a two-master but, by the eighteenth century, might well have had a third mast to carry another lateen. It could have oars as well, indicating its connections to earlier variants of the galley. The polacca, a seventeenth-century design, had a third mast, fitted with square sails, and placed between two lateen-rigged masts. The seemingly odd rig does indicate a flexibility and willingness to experiment among shipbuilders. Toward the end of the eighteenth century, larger vessels in the eastern Mediterranean like the polacca took on square sails, lateen rig being retained on smaller vessels. The shift was in response to a sudden and rapid expansion of Greek shipping in the Ottoman Empire.[31] There were various kinds of fishing boats throughout Europe, built with the specific conditions and the target species in mind, a further sign of the maturing of shipbuilding technology.

The voyages of exploration and the trade routes that followed created new problems for shipbuilders. Some, most notably the slave trade, placed a great premium on speed. That meant regular cleaning of hulls to minimize fouling. Conditions in tropical waters resulted in a threat from shipworm. Actually a mollusc, the animal bores into wood and is abundant in warmer waters in Asia and the West Indies. A

way to address both problems of speed and shipworm was to cover hulls with some form of sheathing. It was common in the seventeenth century to add an extra set of hull planking under the waterline and put tarred hair in between the two layers of wood. In the early decades of the century, the Dutch East India Company even tried a layer of lead sheathing. Problems with electrolysis, the weight of the lead, and the cost involved caused the Company to abandon the practice by the 1620s. Both archaeological finds and the works of writers on shipbuilding confirm that at least stem- and sternposts were still sheathed in copper in the eighteenth century. Those valuable and heavy timbers were seen to be more vulnerable. A solution to the danger of shipworm came in the last decades of the eighteenth century when the Dutch and English East India Companies, and the navies of the two countries, went over to copper sheathing of the hull below the waterline. Among the results, apparently, were decreases in the time it took for ships to travel between Europe and ports in India and East Asia.[32]

In the eighteenth century, established trends continued. Sail plans became more divided, fore-and-aft sails came into ever wider use and studding sails, small pieces of canvas on temporary yards fixed at the end of existing yards, appeared on ships where speed was important. The steering wheel slowly replaced the whipstaff, a vertical lever in use since the fifteenth century to control the tiller. There was resistance to the steering wheel, which found acceptance for warships and large cargo carriers but only slowly spread to smaller vessels.[33] The literature on shipbuilding expanded as more writers with credentials as scientists took up questions of best design practice. There were some rare full-scale experiments and some, very few, efforts to establish a system of formal education for men in the profession. The use of builders' models became common and mathematical formulae began to intrude into shipbuilders' practice.[34] While in trading companies and navies there might have been some interest in putting ship design on a more scientific basis, for builders on most wharves traditional methods sufficed.

The success of European ships led to their imitation in other parts of the world and exposure of Europeans to designs elsewhere led builders to consider modifying what they were doing. Though there were independent traditions which builders followed, they were by no means cut off from what was going on elsewhere. The dissemination of information was easy because ships travelled widely and offered examples of options. The adoption of newly learned forms of building was slowed by the high cost of error but, even so, shipbuilders were apparently interested in what others did and tried out new variants based on what they learned from examining the products of other shipyards. Between 1400 and 1800, shipping on the high seas over long distances expanded in volume and the variety of destinations. Dominated for a considerable time by countries along the Atlantic front, from the fifteenth century the situation changed. In the eighteenth century, the maritime states of Britain and the Dutch Republic still had very large merchant marines while France and the Iberian kingdoms also continued to have considerable tonnage involved in trade. However, new European regions joined the field. People from the Scandinavian states of Sweden and Denmark-Norway and, more important for the long term, Greeks, began to supplant more established rivals. They adopted ships built in the same style and

design, easily and comfortably borrowing from their predecessors in order to compete effectively with them.[35]

Warship design was subject to more varied influences than cargo ships. The competition of other naval powers created pressure on builders to imitate the success of their opponents. The geography of ports created constraints: countries with easy access to bases could build heavier, more stable, and faster ships with narrower hulls and deeper draught. Governments were buyers different to ship owners whose commercial interests shaped all decisions. Everyone, though, wanted to cut costs. Governments typically built ships in their own yards, hired the ship designers and builders and set standards, hoping to gain some level of interchangeability. Navies had establishments with fixed dimensions and armament for vessels of each class or rate. It proved extremely difficult to achieve standardization though regulations to achieve that goal did tend to stifle innovation in warships. It also proved difficult to control costs since naval procurement became so large and navies were prone, like other government departments, to corruption.[36]

Non-European shipbuilding, 1400–1800

Across the world, ship designs borrowed features and characteristics from the most successful of European vessels. In New World waters, European technology completely dominated. The collapse of indigenous populations, thanks to epidemic diseases brought by Europeans, and with that the collapse of social organization, left the field open for Europeans to import their maritime technology and make it the norm. On inland waterways, canoes in various forms held their own, built by local people or by immigrants from across the ocean. Relatively long boats, powered by paddles wielded by the relatively large crews, were found along rivers and in short-distance coastal voyages. For any substantial coastal carriage, naval operations, and oceanic travel, ships of European design quickly took over from traditional craft. The same was largely true in the Pacific from the eighteenth century, when European ships became more common visitors. The islanders' rafts, which had much smaller payloads, faded in importance. Vessels built in the traditional style of the Indonesian archipelago were related to Pacific rafts and they suffered the same fate. While traditional Malaysian craft in the Indian Ocean had an extensive history of long-distance shipping, a new heavier and larger variant appeared in the course of the thirteenth and fourteenth centuries. Built of teak and equipped with two side rudders, the type still had no iron nails as was standard practice in the Indian Ocean. The hull form was sharp, the planking heavy, as much as four layers thick. Despite its size and heavy planking, European ships largely replaced the type in ocean-going trades in the seventeenth and eighteenth centuries.[37] Smaller versions of Malay design remained in use in the Dutch East Indies with some cross-fertilization; Dutch shipbuilding practices it appears influencing traditional designs. If trade through Makassar on the island of Sulawesi is a reliable indicator, both local and European traders employed by the Dutch East India Company used ships of European design and of traditional Malaysian design side-by-side. There were indications that there was borrowing across sets of practices. Local designs continued to evolve with new types appearing through the eighteenth and

into the nineteenth century. The Dutch East India Company used larger vessels for trade to the island, including vessels consistent with the design of the ships that sailed from the Netherlands to the southeast Asian colony. There, local shipwrights found they could produce European-style traders as was the case in shipyards in Vietnam, India, and other parts of Asia. Over time, on Sulawesi, types with roots in Malay building traditions were supplanted. By the late eighteenth century ships were more commonly Chinese or European. Even the local type, the chialoup, which was based on a European design as the name suggests, was pushed aside by larger vessels most notably in long-distance trades. The presence of a colonial government with power to hand down rules on ship movement did have some impact on the types in use. Still, the apparent long-term success of, especially, vessels of European design throughout Asia suggests that they had certain commercial advantages in the context of prevailing circumstances.[38]

By the eighteenth century, builders in India were producing the pal which had all the features of contemporary European vessels and found use as both a warship and a cargo ship. Alongside those larger craft were smaller, narrower ghurābs which had low freeboard and carried a sail much like a lateen. It was a traditional Arab-Indian boat so the hybrids that borrowed from western practice did not completely eradicate existing types. Often, though, even vessels of traditional design acquired European characteristics. The dhow, probably developed in the fifteenth century, was the one- or two-masted double-ended sailing ship of the Arabian Sea. Based on Malaysian design, hulls were held together by stitching with no iron used in construction. Baghlas, the largest of dhows, had square sterns, a sternpost rudder and, in many cases, the sterns had ornamentation similar to that on Portuguese ships. By the eighteenth century in India, shipwrights often used iron nails to fasten hull planking, a change from sewn-planking which was traditional standard practice, and a sign of European influence.[39] Though the Portuguese were very impressed by what they saw of ships in the Indian Ocean when they first arrived, there is little evidence that they copied characteristics of local vessels. The borrowing went more strongly in the other direction, with influence greater in the design of larger ships because in those Europeans apparently enjoyed an advantage.[40]

One type that withstood European design influence was the Chinese junk. The type, which dated from the early Middle Ages and had proven an efficient cargo carrier capable of operating over an extensive range, remained in use alongside full-rigged Dutch and English vessels into the twentieth century. Even European traders used junks for the South China Sea trade in the eighteenth century since the type was more than competitive. Junks proved highly versatile, effective as small river boats or high seas traders going from China to Southeast Asia, or even Africa. They could be as large as 2,000 tons with motive power coming from batten lug sails, up to seven of them on separate masts on the largest ones. The junk lacked a keel, the bow was squared, and the bottom flat. There was an axial rudder and heavy bulkheads dividing the hold into watertight sections. Methods of building junks appear to have changed little after the arrival of European ships in the sixteenth century, a fact that led to their being superseded over time.[41] On inland waterways traditional narrow, relatively long vessels with flat bottoms, powered by sails or oars, continued to predominate. While

Chinese builders did little to change their junks, Europeans appear to have borrowed from the design. Leeboards were prominent on many Dutch inland craft by the late sixteenth century. The heavy pieces of lozenge-shaped wood could be lowered to simulate deeper draught and so reduce drift. With leeboards raised, the boats could still navigate shallow rivers and canals. They were probably inspired by a removable keel-like extension on Chinese ships.[42]

Navigation

The ability of European ships to make longer voyages created a need for better methods of navigation. At the same time, advances in navigation made possible different kinds of trips and so created a need for improvements in ships. Wayfinding on the water in 1400 borrowed from Greek and Roman practice and also from Chinese methods, most notably in the use of the compass, which was either developed independently in Europe or borrowed from East Asia. Knowing direction sailed and approximate measures of distance travelled, it was possible by the thirteenth century for Europeans to compile books of sailing directions. Those lists, produced in the Mediterranean, reported how to get from one port to another. Even before 1300, cartographers made graphic summaries of such data in the form of portolan charts. People on land then had visual representations of shipping routes, while sailors could literally chart a course at sea on a map. How extensively navigators used charts is not certain but in the long term they proved a valuable asset. Making portolan charts required some knowledge of mathematics, part of a general long-term trend of the infusion of science into what had been a traditional craft, learned by experience and based on simple visual observation of coastal landmarks.[43] As Portuguese ships went further south along the African coast in the fifteenth century, they found that prevailing winds and currents made it easier to return home if they stood out to sea, out of sight of land, and going north until they reached the latitude of Lisbon. So navigators needed ways of measuring north-south position to know when to change course for the Portuguese capital. The height of the sun at midday was the easiest option for establishing latitude, but then sailors needed to know how the angle of the sun to the horizon changed through the year. By the late fifteenth century, longer open-ocean voyages led to consultation among scholars and the production of tables which reported relevant data about changes in the height of the sun with the seasons and over time.[44] Armed with a well-made mariner's astrolabe, a navigator could get reasonable readings and sufficient accuracy for his purposes. Charts in use had errors but with more observations they got better, as did the instruments on board.[45] By the eighteenth century, sextants and octants, in use on naval and some cargo ships, provided better readings. Celestial navigation became another tool available to captains and while its use was exceptional in the late Middle Ages, it much improved over time, became common, and was even required of sailors by 1800.

For that transition, knowledge of methods needed to be disseminated and practitioners had to be trained in needed skills. From around 1500, books of sailing instructions called rutters, which gave not only compass directions but other details of how to navigate, increased in number and extent. The development of printing made easier

the production and distribution of such books, which could also include tables for establishing latitude. Trying to measure longitude remained problematic. Some of the best scientific minds of the era attacked the problem. It was an English clockmaker, John Harrison, who solved it. He made a chronometer, successfully tested at sea in 1736, that retained accuracy on board ship and so could consistently show the time at a specific location. Comparing high noon, established by finding the zenith of the sun, with what the chronometer said would produce the distance between the ship and a meridian which passed through the specific location. Until the device became standard equipment on board ships, sailors had to guess their longitude, a matter that became more pressing by the end of the fifteenth century when European ships began venturing further and further afield.[46] The greater availability of books that taught celestial navigation was matched by a growth in the number of schools, often run by retired sailors, teaching navigation. As employers increasingly demanded sailors understood celestial navigation techniques for any career advancement, such schools became a feature of port towns in Europe. Even with better ways to establish position using sightings of heavenly bodies, many sailors continued to rely on traditional methods of simple observation of birds and seaweed and landmarks along the coast.[47]

Cargo handling and port facilities

Also important for the increased scope of the use of sailing ships were improvements in cargo handling. Northern European ports saw the introduction of cranes in the high Middle Ages. They advanced over time from simple devices to, in some ports, large ones with complex pulley systems and power sources. Cranes were a small part of investment in harbour facilities.[48] Places for ships to tie up increased in size. Ports moved downstream to accommodate bigger ships, to give easier access to open waters, and to take advantage of underutilized land. At many sites, wooden docks gave way to more permanent stone quays, warehouses on the docks grew in number and size, and access to the docks through streets, increasingly paved, improved. The first one-way street scheme, introduced in 1617, was to help carters negotiate their way to and from the London docks on the left bank of the Thames. Work in harbours was better organized by civic authorities often through the mediating institution of a guild or guilds of stevedores. These specialists relieved ships' crews from having to handle cargo.[49] Better ways of packing cargo, a result of learning by doing over time, in barrels, bales, bags, or even loose in the holds of ships, made the vessels more efficient and also eased the work of longshoremen on the docks with the task of shifting cargo.[50]

European shipping also benefited from scale economies as volumes, especially on certain routes with specific and consistent cargoes, rose over time. The increasing quantities of goods shipped meant that costs, both at sea and in harbours, could be spread more widely and reduce expense per unit. As specific trades between known locations developed, there were sufficient rewards to warrant designing, building, and using specialized vessels. This emerged as a long-term trend first within Europe, for example between the Baltic and the Low Countries, and then in extra-European trades such as those to Africa for slaves, or to East Asia and South America for tropical

goods. Copper sheathing for tropical waters was a case of technical change in light of growing commerce. The same was true of reinforcements in the bows of ships sent to the Arctic in search of whales. The biggest gain from rising trading volumes, though, came from reducing turnaround times. Vessels often spent long periods of time inactive, tied up in the winter because of fear of bad weather or sitting in port waiting to gather a large enough cargo to make travelling worthwhile. From the high Middle Ages, the sailing season lengthened, as navigational techniques improved and as ships became more reliable. As routes became more established, captains could more accurately predict when and where they would find paying cargoes waiting for them. The gathering of goods at one site, the concentration of long-distance trade in certain ports with smaller ones acting as sources, and smaller vessels serving to marshal the goods in one hub, served the same purpose. Improvements in coastal craft and, in some cases, taxing methods of governments which preferred to have goods directed to so-called headports where it was easier to levy duties, also contributed over time to ships spending relatively more time at sea with goods in their holds during the year, always an advantage to ship owners.[51]

Technically improved ships were an essential feature of maritime success. Vessels became more efficient. The number of tons served per sailor rose over time as sailing ships replaced oared ones, as convoys and naval protection translated into fewer guns and crew on board, and as designers improved the rigs and rigging of their products. The rise in manning ratios between the fourteenth and nineteenth centuries was more than threefold. While there was a sailor on board for every six tons in 1400, on average the figure was one for every 18 tons, more or less, by 1800. The growth in labour productivity was the result of technical advance, more efficient organization, and capital investment in shipping and related cargo handling. The smaller crew size per unit of cargo meant vessels could travel further without stopping to resupply with food and lower overall costs which could yield higher profits for the owners of vessels or, along competitive routes, lower freight rates. The greater efficiency contributed to the overall growth in trade which, in turn, contributed to an expansion of shipping.[52]

Conclusion

In around 1400, shipbuilders, probably along the Atlantic coast in Iberia or south-western France, created the platform for a ship type that was more efficient and reliable than others in the world by mixing the designs and construction methods represented in the vessels they saw. The superiority of the ship-rigged, frame-first built vessel was clear in the eighteenth century. The design, like all others, evolved and improved over time. Builders did not completely abandon old methods and designs but accommodated and adjusted what they knew and gradually improved the output of their shipyards. There was always a great variety of building techniques and ship types in use, to meet specific conditions and needs. While historians and even contemporaries may try to apply strict divisions and names, implying precise characteristics to the ships that builders produced, information strongly suggests that any taxonomy of ships in the period from 1400 to 1800 is overly simple. Builders did borrow ideas and practices, learning from other shipwrights and even those they never met and

from different parts of the world. The strength of European shipbuilding, its success in supplying effective vessels for shipping, came from major innovations but also from flexibility, a willingness to experiment, and the presence of a great variety of types with different attributes available to be borrowed and exploited.

The result of technical changes in ship design, shipbuilding, and navigation over the years from 1400 to 1800 was increasing efficiency in moving goods and people, especially when those advances were combined with improvements in harbour facilities, and the packing and organization of cargoes. It is all too easy to read back the remarkable success of European shipping in the nineteenth century into earlier years. The scale in the previous four centuries was not like it would be in the era of the Industrial Revolution. After 1800, shipping was transformed by the introduction of iron for internal supports for hulls and then for building entire hulls of iron and later steel, and the introduction of steam power, first for tugboats and then for regional and finally deep-sea trading vessels. The era from 1400 to 1800 was a pre-industrial one. It was also a pre-globalization era. The volume of trade was not great enough to join economies into mutual dependence and extensive specialization in production, a pattern that emerged in the wake of industrialization. However, in the earlier era the geographical range of shipping did become global.

Better shipping technology grew out of the unique economic and political developments of the late Middle Ages. Advance grew out of the multiple strands that went into fifteenth-century European maritime technology. It would be wrong to diminish the accomplishments of shipbuilders in the ports large and small from Greece to Finland from the late fourteenth to the early nineteenth century. Theirs was no modern industrial world with massive increases in production, population, output per person, and extensive imposition of imperial power, nor were there new processes and products becoming available to supplement or replace inferior older materials. The ships they built at least did create, in part because of their design improvements, international connections on a regular basis. They were a critical and necessary contributor to a shift to Europe as the centre of global trade and to the European domination of the high seas.

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11

Navies and naval operations

John B. Hattendorf

Typically, historians have described navies and naval operations as a nation-state's actions that involve a specific range of activities within the spectrum of armed conflict and violence at sea. The traditional historiographical focus has been on the scope of naval activities at sea that a state directly controls and directs with state-owned, state-hired, or purpose-built warships. In these interpretations of naval operations, the primary historical focus was on battles at sea between fleets, squadrons, or individual ships of similar types. In this approach, naval operations were distinct from the maritime activities that private business enterprises, chartered companies, political groups, individual leaders, or warlords might have carried out. Such other forms of violence at sea also included piracy, buccaneering, filibustering, and ship hijacking, although navies have, from time to time, worked to combat and control such activities.[1] Throughout the early modern period, states deliberately encouraged privateering and corsairing as complementary to naval operations in carrying out economic warfare. Scholarship on such related subjects has been marred by a common failure to define the terms, to look with care at the translation of foreign words, and to understand the legal systems behind these activities.[2]

The traditional historiographical understanding of naval power and naval operations derives from several practices and influences. Until the late twentieth century, writers have tended to examine navies and naval operations from the limited viewpoint of a specific nation's history or through the biography of a particular national naval hero.[3] For example, in Dutch naval literature, Gerard Brandt's 1687 biography of Admiral Michiel de Ruyter was an early model for heroic naval biographies.[4] In the English-language literature of the field, the Secretary of the Admiralty, Josiah Burchett, published the first British national naval history in 1720.[5] Similar to the biographies, Burchett's work exemplified the early approach to naval history that focused on descriptions of heroes, battles, and tactics. This approach dominated through the late nineteenth century with writers such as William James,[6] Johannes Cornelis de Jonge,[7] William Hepworth Dixon,[8] Charles de la Roncière,[9] George Lacour-Gayet,[10] and the many British authors who wrote biographical studies of Admiral Lord Nelson and his battles beginning as early as 1802.[11] Even today, biographical studies of naval heroes continue to be a significant approach to naval history.

In an early attempt to change the emphasis on heroes and battles, Sir Nicholas Harris Nicolas, in his 1847 history of the Royal Navy, divided naval history into two categories, civil and military, while making pioneering use of original manuscripts for the medieval and early modern period.[12] Half a century later, Michael Oppenheim devoted an entire volume to English naval administration between 1509 and 1660, connecting it to merchant shipping.[13] Another major effort to change the approach began in late nineteenth-century Britain and the United States, starting with the writings of Sir John Knox Laughton, Rear Admiral Stephen B. Luce, Captain Alfred Thayer Mahan, and Sir Julian Corbett. These four highly influential figures were either naval officers or civilian scholars closely associated with navies. They studied early modern naval history as the period in which they found the most recent major naval wars before their own time. All were involved in using naval history to create a scientific approach with principles of naval strategy and operations for modern and future naval application.[14] In the twentieth century, many naval historians still reflected the general lines of the approach that these Anglo-American historians used as they focused on national history, the role of the navy in the rise of their nation-state, the characteristics of decisive naval battles, and exemplary heroic national naval leaders. The writers of such works were also typically professional naval men, whose writing demonstrated a mixture of nationalistic impulses as well as a desire to prove the historical importance of naval power in a way that contributed to support their national naval development in the authors' own time.[15] Others, in a more antiquarian vein, continued the tradition of writing about naval heroes and detailed technical descriptions of battles with lists of warships with their measurements and armament.[16]

Two major historiographical issues arose out of these earlier approaches to understanding naval history in the early modern period. First, naval historians in the nineteenth and early twentieth centuries focused on the latter part of the early modern period, drawing their conclusions and understanding of navies and naval operations from the period of the mid- and late seventeenth-century Anglo-Dutch and the Anglo-French naval wars between 1689 and 1815. They saw these years as the origin of modern navies and gave little attention to the earlier, formative period for navies in the two and a half centuries between c.1400 and c.1650. Second, writers such as the American naval historian Alfred Thayer Mahan and the German political economist Max Weber emphasized the role of individual nation states in exercising a monopoly on the legitimate use of violence. Building on concepts of public law found in Jean Bodin's 1576 *Les Six Livres de la République* and Thomas Hobbes's *Leviathan* from 1651, Mahan and other naval writers contributed to this general understanding. They argued that by the end of the early modern period, states were developing a permanent monopoly over violence at sea, which involved the eradication of buccaneering and piracy.[17] The 1856 Paris Declaration on Maritime Law, the first multinational attempt to codify in peacetime a set of rules for maritime warfare, underscored the role of the state. The signatories rejected privateering and contributed to the further growth of late nineteenth-century liberal thinking on international and maritime affairs that led to The Hague Conventions of 1899 and 1907. Such contemporary developments influenced naval historians of the time who were looking for practical lessons in history for naval practitioners. Similarly, the events in naval affairs during

the early twenty-first century have begun to suggest to historians that the idea that national navies developed an effective monopoly over violence at sea was not a permanent one. Moreover, scholars have begun to argue that this understanding is overstated for the early modern period.[18]

In the mid-twentieth century, an additional and new interpretative factor entered the scene. Michael Roberts' 1956 inaugural lecture on 'The Military Revolution, 1560–1660'[19] set off a widespread debate among military historians and naval professionals, some of whom sought to find a similar naval revolution. The historiographical discussion first moved toward changing technology as a reflection of a revolution in naval affairs. The pacifist scholar Carlo Cipolla, who thought revolutions an impolite and irrational way of settling issues, led the way with his study of technological innovation and the early phases of European imperial expansion.[20] In another influential study, John Guilmartin pointed out how changing technology brought about a fundamental change in sixteenth-century naval warfare in the Mediterranean.[21] Historians such as Guilmartin, Richard Barker, Geoffrey Parker, and Andrew Thrush all pointed to technological innovations that marked vital turning points in early modern naval history.[22] Parker went much further to argue that

> a revolution in naval warfare occurred in early modern Europe which was no less important than that by land, for it opened the way to the exercise of European hegemony over most of the world's oceans for much of the modern period.[23]

N. A. M. Rodger urged scholars to make a more careful evaluation. He suggested the need for a better understanding of the links between naval developments and the nature of the national societies that supported navies, the character of those governments, and the types of naval operations involved.[24] More recently, Louis Sicking has argued that none of this made a revolution in naval affairs. While there were fundamental technological, organizational, operational, and tactical changes for navies, these changes took place over three centuries and constituted an *evolution*, not a *revolution*.[25]

By the middle of the second decade of the twenty-first century, scholars have come to see the naval history of the period between the beginning of the fifteenth century and the early nineteenth century in two separate segments. The two centuries from 1450 to 1650 were the formative period when navies developed from their medieval character, evolving into a protomodern form in the 165-year span between 1650 and 1815. In contrast to the nineteenth-century historians, who focused singularly on battles and tactics, the latest scholarship has explored a much more comprehensive range of categories in understanding them as complex organizations.

Modern historians are careful to point out variations in these matters for navies operating in different parts of the world. Up to the end of the second decade of the twenty-first century, only one scholar has been successful in analysing this period in a national naval history in terms that bring the numerous strands together in a single work. N. A. M. Rodger's multivolume *Naval History of Britain* does this by grouping themes in alternating chapters or parts of chapters to interweave a descriptive analysis of four different layers of national activity that he identifies as the fundamental elements of the navy's role in broader national history: (1) policy, strategy, and operations;

(2) finance, administration, and logistics, including technical and industrial support; (3) social history; and (4) the material elements of navies: ships and weapons.[26] At the time of writing this chapter, no other scholar has used this approach to deal with the multidimensional and complex character of another navy or in a comparison of navies.

The historical monographs that deal with the newer approaches to naval history have tended to focus in seven broad areas: (a) the relationship of navies to state formation and the rise of the fiscal bureaucratic state for the support and administration of fleets; (b) the development of maritime strategic thinking; (c) technology and the developments of naval architecture for warships; (d) the development of naval tactics in battle; (e) the range of naval operations including trade warfare, and privateering; (f) the beginning of the development of international law touching on war at sea; and (g) culture, society, and the development of sea officers and sailors who specialized in naval affairs. Each area will be discussed, in turn.

The relationship of navies to state formation and the rise of the fiscal bureaucratic state for the support and administration of fleets

In the fifteenth century, the medieval concept still operated in which navies were not entirely controlled by princes. A sovereign typically owned only a few vessels, if any. When the king needed to arm a fleet for some specific purpose, such as an expedition to France, officials had to impress or hire vessels for particular periods. By the fifteenth century, this system was extremely sophisticated. Edward III regularly assembled fleets of more than 400 vessels. Between 1345 and 1347, he probably managed to assemble over 1,000 merchant ships for a variety of war fleets.[27] Edward IV of England owned ships in the 1470s, but, probably due to political instability, there was no officer, such as the Keeper of the King's Ships, who had responsibility for managing the fleet. King Henry V of England owned only 18 vessels in the period around the time of his expedition to Agincourt in 1415. The chroniclers of the day reported that the expedition had between 1,500 and 1,600 ships of various sizes, but modern historians estimate that there were between 700 and 750; 36 per cent of them hired abroad. The size of Henry V's royal warships ranged from *Grace Dieu* of 1,400 to 1,500 tons completed in 1420 and two other 'great ships' of 500 to 700 tons displacement, to five oared balingers of 24 to 40 tons.[28] By contrast in the eighteenth century, the largest warships in Europe reached 3,000 tons. In the 1650s and 1660s, observers had regarded warships of 1,000 to 1,500 tons as massive giants, but by the mid-eighteenth century this same size of a ship had become too small to be in the fleet line of battle.[29]

There was not yet a standing navy in England as there was in some other countries, and as England and some other countries would have by the seventeenth century. English kings in this period did not need a standing navy since they could very effectively requisition large fleets of 400 to 750 merchant vessels manned by over 16,000 men.[30] For example, the English Crown could still ship armies of 10,000 men and twice that number of horses to France for military expeditions during the Hundred Years' War. While there were few English ships specially designed or built specifically as warships, ordinary merchant vessels used for trade sufficed. There was one notable

exception, Henry V's *Grace Dieu* was built in 1418 as a warship and was never used in a commercial capacity. At 1,500 tons, she was the largest English warship built until the 1600s.[31] To maintain vessels of increasing size, England under Henry VII built the first recorded dry dock at Portsmouth in 1495, where the carrack *Mary Rose* was constructed in 1509. Elsewhere in northern Europe, France had active royal shipyards and purpose-built bases dating from the reign of Philip IV in 1293–5 at the *clos des galées* at both Rouen and its offshoot, Harfleur. Such developments provided the initial infrastructure for further development through the fiscal-military state.

The example of the Habsburg Netherlands between 1488 and 1558 illustrates an intermediate situation. The issuance of a series of Ordinances on the Admiralty, the development of the office of Admiral General of the Netherlands, and the establishment of a small royal fleet at Veere demonstrated Habsburg objectives to gain control over armed violence at sea. Conflicts of interest among seafarers, merchants, the admiral, and the central government led to a failure to achieve centralized management, but these initiatives did foreshadow later developments in the Spanish Netherlands and the province of Holland.[32]

In southern Europe, Genoa, like England, did not maintain a state naval fleet, but relied on privately armed vessels until 1559, when it began to create a state fleet.[33] In contrast, Venice had long maintained state shipbuilding facilities and expanded them further with the development of the *Arsenale Nuovissimo* in the late fifteenth century.[34] Until the sixteenth century, practice varied widely in both northern and southern Europe as to the degree of central control and maintenance of naval forces. The change seems to have begun with the more widespread use of heavy guns in warships. The heavy guns could not be easily used in ordinary merchantmen, so they became less useful. In England, during Henry VIII's campaigns in 1512–14, the king used most of the merchant ships that had been arrested for war service only for supplies, while only the largest, well-armed merchant ships were useful in combat and offensive operations. The balance between armament and manning changed as the number of seamen needed to man the large guns increased.[35]

The rise of the fiscal bureaucratic state created a significant change in European history, bringing with it a new and sophisticated form of organization that transformed the nation and the control of armed forces through innovation and entrepreneurship. It first appeared in early modern Europe. As Jan Glete described it, the fiscal bureaucratic state was a double contractual relationship between rulers and society and between rulers and the armed forces. The rulers raised their financial resources through taxes from their subjects in exchange for societal stability and security for their interests, both at home and abroad. In turn, the rulers used the funds they raised to pay the armed forces to provide the security and stability that their subjects required.

The rise of this new type of state organization took place in three stages: the years 1480–1560 saw a significant change, with an increase in domestic peace within states and a parallel rise in cooperation within countries, along with the formation of improved organizations for tax and fiscal matters. Gunpowder weapons also came into use in this period, bringing with them the obsolescence of older forms of static defence through fortifications and a rise in mobile armed forces, including the beginnings of

permanent naval forces. Only wealthy states could afford to keep up with such technological innovations and this, also, enhanced the process of centralization.

The second phase in the transition period, from the 1560s to 1660s, is marked by domestic political crises that were resolved with outcomes that transformed the state through an aggregation of power into large and complex governmental administrative organizations. The third phase, during the latter half of the seventeenth century, saw a rapid rise of permanent naval forces. In the period up to 1570, the total displacement tonnage of all European state navies was about 200,000 tons. Growth was moderate up to 1650 when there was a naval tonnage of slightly less than 300,000 tons. In 1675, 25 years later, the total was suddenly 500,000 tons. By 1700, it reached 800,000 tons.[36]

The Mediterranean states used the traditional galley as a warship. At the centre of European trade, commerce, and culture, Mediterranean navies multiplied in size until the 1570s and were the largest in Europe, with the Ottoman, Spanish, and Venetian naval forces as the principals alongside such smaller and specialized forces as those of the Order of St John at Malta[37] and the Sacred Military Order of St Stephen at Florence.[38]

The first sailing ship navies were small forces and grew along the periphery of the continent – in Portugal, England, Denmark-Norway, and Sweden. These navies grew out of the dynastic ambitions and protection-selling interests of their sovereigns. Portugal was the first to develop a long-distance capability for its growing overseas trading empire.[39] States that controlled the most significant amount of shipping – Spain, Venice, Genoa, the Netherlands, and the northern German states – only slowly came to sail.[40] Spain, the Dutch Republic, and Sweden provide three quite differing models for the development of a fiscal-military state.

In contradiction to some scholarly interpretation, Glete argued that Spain was the first fiscal-military state because of its initial successful combination of aggregating internal interests and building government organizations. Yet, in contrast to others, Spanish innovation in this area failed in the mid-seventeenth century. Although Spain had the resources and was not inextricably exhausted, Glete argued that its attempt failed because it was based, not on central governmental organization, but on a network of private entrepreneurs, aristocrats, and city elites that came to control the nation's military and naval structure.[41]

The Dutch Republic provides an example of a Bourgeois military-fiscal state. The Dutch political and economic systems were advantageous for the development of complex organizations. The two government-chartered East India and West India companies provided trade and protection in both Asian and American waters. Dutch society had relatively little internal strife and encouraged cooperative entrepreneurial activity. In observing the English, Voltaire later commented on a comparable situation when commenting 'On Trade' in his *Lettres philosophiques sur les Anglais* (1778). The several Dutch admiralties' ability to tax trade provided funding for a core of standing Dutch naval forces.[42]

In contrast to the Dutch Republic, Sweden provided the example of a dynastic fiscal-military state. The development of robust state organizational structure gave Sweden an advantage over others. Its ability to mobilize resources, aggregate political interests, and maintain armed units with long-term coherence, was supported by

officers and bureaucrats who developed professional skills and who, along with aristocrats, identified their interests with the state and were, therefore, loyal to it. As long as these factors held, they radically transformed northern Europe and contributed to the maintenance of a naval force that was able to dominate the Baltic. The development of fiscal-military states resulted in the ability of those states to add to the formation of a state monopoly that attempted to control the use of armed forces.[43]

In 1918, Joseph Schumpeter argued – in a precursor to Roberts' 1956 military revolution argument – that the power of the state to tax stemmed from the need in early modern Europe to support standing armies. Looking back to this argument in 2004, Jürgen Backhaus, Rodger, and others joined in a conference to examine the applicability of Schumpeter's thesis to navies, which were vastly more expensive.[44] This group of scholars found no evidence of a tax-financed navy. In contrast, their examination suggested that various influences in different states gave rise to navies. These factors included the interrelationship of sea power with overseas trade, indirect taxation, royal patronage, and more efficient and adaptable bureaucracies.[45] These examples demonstrate that navies and naval power played a role in the development of European states from a collection of separate autonomous cities and groups, into a continent of territorial states. The process, however, might have been more complicated for northern European states than Glete suggested. British historians of the fourteenth and fifteenth centuries argue that France and England developed national identities and a 'state' in the period before either had a true navy, and such developments were shaped by the Hundred Years' War.[46]

As part of the emerging modern state, the development of a naval bureaucracy, as well as the creation of government-owned dockyards and a burgeoning support enterprise for navies, became distinctive features of this era.[47] Further studies have begun to examine the interrelationship between the state and commercial entrepreneurs through non-state networks of suppliers, human resources, construction, manufacturing, and food supplies.[48]

The concepts behind the idea of the fiscal-military state have broader applications and are not limited to the transitional period, but also have application to the proto-modern and modern navies. For example, the early eighteenth century saw the successful rise of two significant navies, both backed by significant fiscal-military bureaucracies and infrastructure that supported a navy. These are the Russian Navy from 1696[49] and the revived Spanish Navy after 1714.[50] At the same time, the study of the fiscal-military state is not necessarily a study of success, as shown by the deterioration of the Spanish Navy after its defeat in 1588,[51] or the failure of the infant United States to develop the infrastructure and bureaucracy to maintain its Continental Navy after winning its independence in the early 1780s.[52] Fiscal matters are also reflected in conscious downsizing and change in strategy, as France did during the Nine Years' War of the 1690s.[53]

The development of maritime strategic thinking

The classical Greek word for a general in the army – *strategos*, and its cognate *stratēgia*, the art of a general – did not begin to acquire the modern meaning of 'strategy' in European languages until the period between the 1770s and the 1830s. By that time,

writers such as Henri Jomini and Carl von Clausewitz had refined the meaning of the word to designate the higher direction of military forces in a war to achieve particular ends. Despite the fact that there was no explicit theoretical concept of strategy during the period, some historians have found elements of strategic thinking in the early modern documents. Writings on naval affairs in the early modern period initially tended to follow the model set by the fourth-century CE Roman writer Publius Flavius Vegetius Renatus in his *Epitoma institutorum rei militaris*, commonly referred to as *De re militari*. Although largely devoted to land warfare, the work contained a short section on galley warfare and tactics. Vegetius' work had been influential in western European warfare during the medieval period when it had circulated in manuscript form and then was first printed in several editions in the 1470s and 1480s.[54] It continued to be influential as the basic practical manual on the art of war through the mid-eighteenth century. The early writers on naval matters in the early modern period – for example, Christine de Pizan (*c.*1364–1430) and Jean V. de Bueil (*c.*1404–77), who served in the post of Admiral of France from 1450 to 1453 – placed their thoughts in the context of the practical issues of shipbuilding, navigation, and followed closely the naval tactics that Vegetius described.

Of the classical texts, Thucydides' *History of the Peloponnesian War* had the most to say about naval strategy with the book's discussion of the limitations of the Athenian navy's power during the Sicilian expedition, along with ideas of command of the sea and *thalassokratia*. In the early modern period, Thucydides was available to influence English thinking after 1550 when an English translation from the French version was published. Thucydides had a major impact on strategic thinking after his work came to influence Thomas Hobbes, who first translated the work from Greek in 1628, and Carl Andreas Duker, a German-born philologist at the University of Leiden, who published his translation at Amsterdam in 1731.

The earlier English views on the 'sovereignty of the seas' came from medieval feudal concepts that had nothing to do with strategy, but rather were based on a medieval legal fiction that asserted the king's symbolic authority and right to maritime revenues. Early English mariners typically spoke of safeguarding their ships and shipping. In contrast, by the mid-1560s, a Spanish naval commander wrote that battles at sea vindicated Philip II's claims for Spanish dominion over the oceans.[55]

Scholars make a distinction between the actual practice of strategy in maritime wars and the early traces of maritime and naval strategic theory in the early modern period. There is clear, but highly scattered, documentary evidence that rulers, governments, and naval leaders thought strategically in sending out their naval forces to achieve broad objectives in international relations. It was neither a consistent nor necessarily a conscious activity, and the evidence is found in dispersed documents that require deductive analysis.[56] Only in modern times have theorists fully developed the ideas of grand strategy, maritime, and naval strategy, but historians have convincingly found evidence of it in practice before the development of theory.[57]

While central governments had the means to develop broad strategic activity, the question arises as to what degree those who commanded at sea understood or were informed of such matters.[58] This observation raised the natural linkage between

strategy and tactics. Before one can grasp fully the linkages between strategic concepts and tactics, one must understand the character of the ships and weapons available to translate concepts into actions.

Technology and the development of naval architecture for warships

Navies in the first phase of the early modern period used a range of new technical innovations to move beyond the galley warfare that had characterized navies and naval actions in Antiquity. One of these innovations was a fundamental change in naval architecture. Up until about 1450, shipbuilders constructed ships by unwritten rules of thumb and empirical methods passed on through apprentices. In southern Europe, there were two types of vessels, long-ships or galleys, with oars, and round ships, with sails. In northwestern Europe, there were a greater variety of ship types with specialized uses. In the north, building techniques were more varied but less mature than those used in the Mediterranean. Shipbuilders in Scandinavia used the shell-first, clinker building technique with strakes that overlap at the edges in Viking longboats. Shipbuilders on the coast of northwestern Europe later adopted this approach for the cog and hulk designs used up until the late sixteenth century. Mediterranean shipwrights traditionally built vessels with their frame first and a smooth caravel-built hull in which the edges of the strakes butted up against one another. Between the twelfth and fourteenth centuries, the northern cog design began to influence Mediterranean ship design. The builders of the Mediterranean round vessel, although caravel-built, shaped their hulls first. The design innovation of a nearly vertical stern-post with attached deadwood at the lower part of the vessel's stern provided the position to introduce the northern-style pintle and gudgeon rudder. These innovations jointly increased manoeuvrability. Also, the number of masts increased, improving the sailing qualities of ships.[59]

In the early fifteenth century, designers at the Arsenale in Venice were the first to separate the design process from the building process, with the introduction of geometric design methods on paper. This approach involved the use of the *mezzaluna* (half-moon) to determine the narrowing of the frames. At first, its purpose was only a means to translate rule-of-thumb construction methods to paper, but eventually, it allowed for standardization, quality control, and improvements in design through developing an archive of plans. As the process evolved to design the shape of the hull in advance of construction, the frames could be built separately in a moulding loft. The use of drawings gave ship-owners and government officials a means to evaluate design before construction.

Venice also was the first to employ ship models as a design tool as a means to pass on the classic galley designs of Theodoro Bazon (d.1407). In France, Jean-Baptiste Colbert required floating models in his 1673 regulation, although his innovation failed to take hold. Spanish shipwrights were using models by about the mid-eighteenth century. In contrast, the seventeenth- and eighteenth-century British Admiralty models were probably built for royal approval of a design rather than as a design tool.[60] By the end of the eighteenth century, builders had begun to use solid

half models of the hull. These became important in private shipyards where shipwrights shaped the underwater body by eye. The Royal Navy occasionally used this method from 1716 onwards.[61] By 1750, the scientific understanding of shipbuilding increased.[62] This involved knowledge of the principles of vessel displacement in water, buoyancy, metacentric height, and stability as well as the relationships of hull shape to speed.

Shipbuilders in the early modern period did not widely employ Archimedes' principles of displacement and buoyancy, although some knew of it, before about 1600 when gun ports began to pierce hulls and thereby lower freeboard. In 1608, the Flemish mathematician Simon Stevin was the first to differentiate the centre of gravity from the centre of buoyancy, and to develop a theory of hydrostatics. In this period, naval constructors such as Anthony Deane in England and Olaus Judichær in Denmark calculated displacement by complicated geometric methods. In 1687, Isaac Newton's *Principia* replaced all earlier theories of hydrodynamics by using calculus to define a solid of least resistance. Père Paul Hoste was the first to create a synthesis of the theory of naval architecture with his 1697 work, *Théorie de la construction des vaisseaux*. Pierre Bouguer's 1746 *Traité du Navire* and Henri-Louis Duhamel du Monceau's 1752 treatise, *Elémens de architecture navale*, signalled the beginning of the practice whereby mathematics predicted a ship's performance and characteristics.

Based on these early works, the French Minister of the Navy, Choiseul, created in 1765 a corps of naval engineer-constructors steeped in scientific theory.[63] In Sweden, Frederik af Chapman introduced scientific method to calculate waterplane areas and displacement in his 1775 work, *Tractat om Skeppsbyggeriet*. In the last half of the eighteenth century, state-sponsored scientific academies, at the direction of naval ministries, supported this line of development. The Napoleonic Wars brought an end to such academies, and with it the theoretical scientific approach. The development of measuring instruments that quantified resistance, power, and energy eventually replaced the abstract theories with engineering standards and criteria.[64]

There were some fundamental characteristics of warships that carried across the centuries from the late fourteenth up to the mid-nineteenth century. Ships designed as warships were usually built of oak, mahogany, or teak with additional wood built into the hull for buoyancy and protection of the crew in battle. A warship's framework was robust with well-supported decks and sturdy internal fittings necessary to carry guns high up within the hull. As ships became larger and took on more guns, the placement of the decks, the distribution of weight, and the hull-lines became increasingly important. The stability of the ship, with a small metacentric height and a short rolling period, became essential characteristics. In a seaman's words, a 'stiff ship' was preferable to a 'tender' one, so that the gun ports on the lowest deck could open. To increase gun power, the number of guns needed to be raised, with the heaviest guns on the lowest tier for stability and the relatively lighter guns on the higher decks. With space limitations in the bow and stern, most guns lined the sides of the ship. A complicated system of masts, sails, and rigging controlled propulsion and a single rudder at the stern provided manoeuvrability. As such, the wooden sailing warship

of the early modern era was a weapons system that was tactically defensive, but was capable of being strategically offensive due to its capability for travelling long distances on the open sea. In an innovative study, Carla Rahn Phillips followed six Spanish galleons of the early seventeenth century from their initial contracts, through construction, fitting out, manning, and later employment to encapsulate the entire range of issues involved in the full process.[65]

Over the early modern period, warship design was not static but continuously improved. Joining many other factors, hull design, and sail plans incrementally improved, making ships more seaworthy and manoeuvrable, with better endurance, speed, and weatherliness. As warships became larger and more complicated, naval architects could no longer optimize a single warship design to meet all naval missions. As a result, specialized types of naval vessels with increasingly standardized equipment developed to carry out different and complementary tasks. The largest ships, ships-of-the-line, were built to be part of battle fleets and have a long endurance, while smaller vessels could control sea lanes. Medium-sized ships, such as frigates, could attack merchant shipping, provide surveillance, and carry communications. Others, such as the bomb vessel and fireship had special missions. From the mid-eighteenth century, single-deck ships became numerous for patrol, escort, coast guard, and reconnaissance work.[66]

The development of naval tactics in battle

The appearance of gunpowder weapons brought a major change in naval warfare, but their use and application developed incrementally over several centuries. Known in China by about 1128, references to guns and projectiles launched by gunpowder became common in Europe by the beginning of the fourteenth century, when the Catalan forge began to produce high-quality wrought iron. A century later, they were starting to have serious potential for military and naval use. Early shipboard use coincided with developments ashore as cannon balls were able to breach the walls of fortifications and gunpowder mills developed. By the last quarter of the fifteenth century, cast bronze cannon began to replace wrought iron guns.[67]

The presence of gunpowder weapons on board ships did not immediately change naval tactics. In the 1460s and 1470s, small bombard type guns were mounted to fire on the broadside or over the bulwarks. The traditional tactics continued. For the attacking ship, these involved taking the weather gauge to be upwind of the opponent and better able to select timing and angle of attack. When the moment came, the attacking ship bore down upon her enemy. As the distance between the two closed, every type of available missile – arrows and other projectiles, holding the bombard to the last moment in close range – was launched in order to kill or injure the opposing crew to facilitate grappling the enemy ship. In this manoeuvre, the approaching ship often rammed the enemy ship. Although ships at this time were no longer fitted with a ram, as ancient galleys once were, the concussion of hitting the other ship could knock the enemy seamen off their feet, and damage the hull and rigging. When a ship's crew boarded an enemy vessel, hand-to-hand fighting ensued with the object

of capturing, rather than destroying, the enemy ship. The tactic of raining arrows and deadly missiles on an enemy led to the construction of galleons with higher defensive superstructures, fore and aft, to provide for counterattacks. This change made the galleon a far superior vessel in combat against the low Mediterranean galley.[68] As a result of the need to counter galleys in combat, northern European navies had developed, by the sixteenth and early seventeenth centuries, a new and distinctive type of warship with guns concentrated along the broadsides. This development suggested the opportunity for a new approach to naval tactics, but this did not take place for some time.[69] The Spanish Armada of 1588, with its distinctive semi-circular battle formation provides a prominent example of Spanish naval tactics in use against Elizabethan English naval tactics.[70]

Naval warfare continued to have a variety of types of operations for different purposes that ranged from transporting soldiers and landing them on distant shores to blockade, patrolling for defensive purposes, and attacks on merchant shipping in forms of economic warfare. The increasing use of large guns presented a particular problem to be solved in fighting similarly armed warships with broadside guns.

The first significant change came on 29 March/8 April 1653, following the battle of Portland during the First Anglo-Dutch War. The three English Generals at Sea – Robert Blake, Richard Deane, and George Monck – jointly issued two documents: 'Instructions for the better ordering of the Fleet in Fighting' and 'Instructions for the better ordering of the Fleet in Sailing'. While these instructions incorporated existing procedures, they also established a connection between cruising formations and battle formations as well as implying the need for exercising and training a permanent fleet in standardized practices. As preparation for battle, the instructions gave the flag officers in command an improved ability to discipline and command over a fleet at sea. At the battle of the Gabbard, a year later, both the Dutch and English commented on the fact that the English fleet was under better control and that its broadside gunnery, when in a line, was effective in preventing the Dutch from approaching to grapple and board the English ships. Thus the experiences of naval warfare between 1652 and 1654 led naval leaders in England and the Dutch Republic to begin to think differently about naval tactics. During the years of peace that followed, the Dutch Navy, then the largest in Europe, was the first to adopt what quickly became the new standard for European navies: a large, permanent, national navy with purpose-built warships.

During the Second Anglo-Dutch War additional tactical ideas developed. The Dutch institutionalized and expanded their thinking. The Dutch admirals acknowledged the long-observed need for discipline and a well-ordered fleet in battle. They agreed that the fleet should be a fighting unit in a single line of battle. Ideally, the ships in the line of battle should be close-hauled to the wind with all three squadrons within the line positioned to windward of an enemy. In addition, the flag officers should be less exposed at the opening of an engagement and it was necessary to have a reserve corps of ships available. Naval officers debated and refined these issues for decades.

In June 1666, the Four Days Battle off the Thames Estuary, often denoted as the longest and bloodiest battle of the age of sail, gave rise to further contemplation on naval tactics. As a result, in July 1666, James, Duke of York, issued new instructions to the English fleet that were designed to ensure that it maintained the advantageous weather gauge during a battle. He made additional points on the importance of keeping in the line formation and dividing an enemy's fleet by tacking through the enemy's battle line to gain the windward position. These points established tactical practices that continued until the end of the eighteenth century.[71]

In the years between 1666 and 1815, fleet naval tactics developed further. From the 1690s onward, French tacticians approached the subject with a more intellectual, geometrical, and abstract approach to that of the British and Dutch who remained more pragmatic. In France, Hoste's *l'Art des armées navale* (1697) set the tone, followed by Sébastian-François Bigot de Morouges' *Tactique navale* in 1763, Jacques Bourdé de Villehuet's *Le Manœuvrier* of 1765, and le Viscomte Grenier's 1787 *l'Art de la guerre sur mer*. These works provided theoretical treatises on naval tactics that also had extensive influence in English translation. From a British perspective, a Scot, John Clerk of Eldin, provided a counterpart in 1790 with *An Essay on Naval Tactics, Systematic and Historical, with Explanatory Plates.* His work reached a wider audience, with translations into Dutch, Portuguese, and Russian.[72]

Emphasis on studying the theoretical literature of naval tactics and the various instructions led to overstressing rigidity of naval tactics and stagnation of thought among naval officers. One of the problems was the late nineteenth-century idea of correlating principles of military theory to attempt to create laws of sea power similar to the laws of natural science.[73] Taken blindly and to its extreme, this approach created inflexibility of thought rather than stimulating new ideas. More recent approaches to the history of naval tactics of the period stress the need to think about the abstract concepts of tactical thought in the light of their limitations in practical application and experience at sea.[74] As one historian has stated, 'In the absence of a consideration of such questions, the intricate three-dimensional business of fighting at sea has been reduced to a sterile one-dimensional narrative cleansed of its complexity'.[75]

Naval practitioners and historians often cite the battle of Toulon in 1744 as an example of stagnation in naval tactics, while they see Admiral Lord Nelson's leadership and tactics at the battle of Trafalgar in 1805 as the apogee of tactical thinking in the age of sail. When current and future historians come to think about naval tactics in the age of sail they need to take into account a number of complex factors beyond the orders, instructions, and theoretical studies. Operating a sailing warship in combat presented a rapidly changing environment that involved a wide range of relative conditions and capabilities: relative ship or weapon design advantages or weaknesses, relative leadership and tactical skills in commanders, the weather, wind, speed, sea state, physical condition of the ships and guns, as well as the morale, health, training, group mentality, emotional state, and discipline of the officers and men. To understand the employment of naval tactics it is necessary to consider the interaction of the human and physical elements in terms of the wide range of unpredictable, chaotic, and lethal conditions involved in naval battle.[76]

The range of naval operations including trade warfare, and privateering

In general and in retrospect, one can see that nations used their sea power for a number of different strategic and functional purposes. Although the following terminology is cast in modern definitions, the anachronism, in this case, assists understanding when used with care:

1. To destroy or blockade an enemy fleet to prevent it from interfering with its own trade or other uses of the sea. In this an inferior force used its lesser resources to challenge by keeping a fleet in operation and to threaten it, thereby diverting its enemy's resources.[77]
2. To control the sea by protecting one's own trade and trade routes. This was done typically by patrolling key geographic areas where shipping routes converged and accompanying convoys of merchant ships with armed escorts.[78]
3. To protect the coast of the nation or its overseas possessions, at the same time making it difficult for an enemy to operate in those waters.[79]
4. To deny the use of the sea to an enemy by using the navy or privateers to attack an enemy's merchant shipping and to damage the enemy's economy.[80]
5. To support military operations through amphibious landings.[81]
6. To represent or serve as a symbol of state or princely power. Associated with this is the ability to demonstrate latent power and political interest through naval presence.[82]
7. To carry out policing duties, such as curbing piracy, maintaining order, regulating trade, or collecting customs duties.[83]
8. To carry out diplomatic functions; carry important officials, diplomatic correspondence, specie, or other important cargoes.[84]

All of these approaches and functions were in use during the early modern period. In the transitional period from 1400 to 1650, these strategies were much more limited in scope and local in nature than became the case in the protomodern period from 1650 to 1815, when navies developed global strategic reach.[85]

A notable development from the Hundred Years' War through the Napoleonic Wars was the increased ability, mainly by the British Army and Royal Navy, to work together to undertake and to control amphibious landings of military forces from troop transports. This involved three essential elements: naval predominance to prevent disturbance of the operation from the sea; the availability of a commercial fleet hired to carry troops; and the development over time and extensive experience of the ability to reconcile the differing opinions and approaches of military and naval commanders during such operations.[86]

The beginning of the development of international law touching on war at sea

Maritime law derives from the laws of merchant trading that extend back to ancient times and by the medieval period were known *as lex maritima et mercatoria*. In the ancient and medieval periods, various codes of law developed in specific maritime

regions. These regional legal codes provided the basis for maritime law as it grew during the early modern period. One of the oldest is the Rhodian Sea Law. Roman Maritime Law incorporated aspects of this law and applied them in all parts of the Roman world. When the Roman Empire receded, many legal practices from that period remained in the local tradition. The most famous of the regional legal codes is the 'Roll of Oléron', originating from the island at the mouth of the Charente River in the Bay of Biscay. It came to form the basis of English maritime law through Eleanor, Duchess of Aquitaine, whose personal property included Oléron. About 1346, King Edward III of England declared it the basis for all legal decisions that the Admiral of England would make, leading it to become the basis for maritime law in the English-speaking world. The inquisition of Queenborough of 1375–1403 expanded upon it.[87] As a compilation of legal judgments in French ports, the Laws of Oléron also became the basis of all subsequent Atlantic and Baltic maritime law. Louis XIV's 1681 *Ordonnance de la Marine* incorporated it. In the Mediterranean, the *Consolato del Mare*, printed as early as 1494, supplanted various local legal codes. While much of maritime law pertains to trade and merchant shipping, essential portions of it directly affect navies and naval operations. In England, the Admiralty Court was a function controlled by the Lord High Admiral, but through a vacancy in the post in 1575, the Judges of the High Court of Admiralty became independent in judgment and jurisdiction. The High Court of Admiralty and its subsidiaries, the Vice Admiralty Courts in various colonies, became highly relevant to the navy and privateers through those courts' jurisdiction over prize cases.[88]

In a broader strategic sense, the legal debates of the seventeenth century over rival national claims to the sovereignty over the seas established national objectives for naval operations. Several European states claimed control over portions of the open sea. In addition to England's claim over the 'British Seas',[89] Spain and Portugal maintained the legal settlement that divided the East and West Indies between them in the 1494 Treaty of Tordesillas.[90] Denmark claimed the seas around Iceland, Greenland, and the Færoe Islands. Gustavus Adolphus of Sweden declared his power to tax merchant ships coming from outside the Baltic.[91] Genoa claimed sovereignty over the Ligurian Sea, while Venice claimed the Adriatic.[92] Several states began to object to these claims and argue for freedom of the seas. In 1580, while Elizabeth I rejected Spanish legal objections to Sir Francis Drake's circumnavigation of the world, Spain sent an armada to the Magellan Strait to prevent a repetition.[93] France objected to Danish claims and the Dutch Republic rejected Portuguese claims.[94] It was in support of the Dutch position that Hugo Grotius published his *Mare Liberum* in 1609, though he modified his viewpoint in his 1625 work, *De Jure Belli ac Pacis* to accept a state's control and defence of its immediate coastal waters. John Selden's 1636 *Mare Clausum* was part of a widespread doctrinal debate over the freedom of the seas. Many naval powers initially opposed this concept, but the idea gradually gained broad support after David Hume in 1752, and Adam Smith in 1776, helped revive the idea through their thinking on free trade and free markets.

In 1702, the Dutch jurist Cornelis van Bynkershoek laid the groundwork for the solution by arguing that the decisive factor was the control of coastal waters from the shore, not by ships which might or might not be present. Thus, the measure of control

was the distance that a shore-based cannon could shoot. The Swiss philosopher Emer de Vattel accepted this in an influential book in 1758 and soon treaties and national regulations reflected this thought. In 1782, the Neapolitan author Ferdinando Galiani defined the distance of a cannon shot as one league or three miles. These issues in maritime law from this period provided the basis for what developed in the early twentieth century as the law of naval warfare and in the later twentieth century as the international law of the sea.[95]

Culture, society, and the development of sea officers and sailors who specialized in naval affairs

For much of the early modern period, there was a high volume of interchange between seamen in the various sectors of the seafaring world – fishing, whaling, coastal and regional merchant shipping, privateering, long-distance and colonial trade, the chartered trading companies, and the navy. A sense of nationality or religious identity arose only slowly among seamen and this allowed navies to recruit a variety of men of different nationalities from these various sectors for naval service during this period.[96] This situation continued up through the end of the age of the fighting sailing warship for lower deck seamen.

Traditionally, in England, the fishing industry was 'the nursery of the Navy'. In Elizabethan England, the Crown depended on being able to draw from a pool of mariners both for volunteers and impressed men. The lack of a permanent standing navy prevented seamen from specializing in naval affairs, although they might have alternated service in the navy with other maritime activities.[97] The situation was not too different at the end of the eighteenth century for the ordinary seamen during the period when the Royal Navy was in desperate need of manpower during the Napoleonic Wars.[98] When navies in Western Europe became permanent standing forces after the middle of the seventeenth century, it became possible for seamen to specialize in naval service. This specialization became common among the three classes of officers: petty officer, warrant officer, and commissioned sea officer. But, even the commissioned sea officers – the highest of the hierarchy – were known to serve in merchant ships in the late eighteenth century when they were on half pay. There is clear evidence that there is a link between the nature of societies, governments, and their military activities. Sea power became most successful in countries with open social systems, notably in Britain and the Dutch Republic, where the complex, highly technical, industrial nature of navies reflected modern society as opposed to the rigid agrarian societies of the aristocratic military powers.[99] As a result of the growing internal social differences within navies, scholars have begun to look at specific groups of seamen.[100]

In many European navies, the professional development of both officers and men was initially a process of on-the-job training. The historically minded sociologist, Norbert Elias was among the first to compare major western European navies in terms of their professional genesis in the seventeenth century. Writing in the 1950s, few noticed his work on this subject until his studies appeared posthumously in 2007.[101] Among British naval historians, social history was in its infancy with the

works of Michael Lewis and Christopher Lloyd.[102] Rodger's *Wooden World* was a pioneer archival based study in eighteenth-century naval social history, followed by David Davies' *Gentlemen and Tarpaulins* on the seventeenth century.[103] A widening range of recent scholarship has explored specific social issues, such as naval families, wives and mistresses, manpower, gender, order, discipline, crime, punishment, religion, shipboard life, naval medicine, and the health of seamen.

The Royal Navy was distinctive in establishing a practical qualification examination in seamanship for promotion to lieutenant in 1677. By the end of the eighteenth century, the prerequisite for taking the test was a minimum of six years of sea service with one of those years as a warranted, working midshipman. Such a requirement placed young aristocrats on the same level of competition as middle- and even lower-class applicants for commissions.

In 1702, the Royal Navy created the seagoing position of schoolmaster with the primary purpose of teaching navigation. The Royal Navy established a Naval Academy at Portsmouth in 1729, but it was neither widely attended nor highly regarded. The Admiralty eventually created another alternative by allowing potential officers to attend grammar or navigation schools ashore to reach the required standard in mathematics for navigational work.[104]

The French Navy's method of officer education was different. From the time of Cardinal Richelieu, Colbert, and his son the Marquis de Seignelay, prospective naval officers had to be of noble birth and heritage, and have attended one of the three schools for the *gardes de la Marine* at Toulon, Brest, or Rochefort. The initial focus was the creation of learned men, reflecting the French Navy's approach to the navy, in general, as seen in its naval architecture and extensive use of mathematics. French naval misfortunes during the Seven Years' War led to controversial reforms in the educational system that divided the focus between mathematics and developing a zeal for combat.[105] Current scholars are just beginning to make comparative examinations of naval officer education and leadership styles in different navies.[106]

The academic investigation of navies and naval operations in the early modern period has an expanding research agenda that has moved far beyond the model of battle narratives typical of earlier periods. No longer confined to the traditional and narrow nationalistic institutional approach of the past, the modern understanding of naval history as a sub-discipline of the broader field of maritime history has widened and enriched its scope to cross standard academic disciplinary lines and benefit from wider perspectives and insights. While the study of ships and seamen in battle continues to have its place, scholars are now moving to see this aspect of naval activity in much broader terms and in relation to other functions and activities of navies as complex governmental organizations. The widening modern research agenda has multiple dimensions that range from the relationships of navies to the nation and the state, comparative organizations, management, economics, industry, science, technology, international relations, and social relations as well as in terms of comparing differing regions and cultures over wide periods of time.[107] Most importantly, whole new areas of research are opening up that involve understanding navies and naval affairs in social and cultural terms of nationhood, community, society, race, empire, gender, ideology, memory, commemoration, and other social and cultural themes and issues. As the

situation stood in 2019, scholars have not yet applied investigation of these themes evenly across the early modern period. Many have tended to examine issues in the late protomodern years, 1793–1815, rather than in earlier phases or in the transitional between 1400 and 1650. At the same time, the largest body of recent work has been on British naval history, not on other European navies nor on comparative aspects across different navies. This pattern suggests lacunae that future scholarship has the opportunity to fill.[108]

Notes

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12

Nautical manuals and ships' instruments, 1550–1800

Lessons in two and three dimensions

Margaret E. Schotte

The early modern navigators who guided European merchant ships and naval vessels around the world relied on numerous specialized instruments, from wooden cross-staffs to brass quadrants. These tools served many functions; prime among these were wayfinding, observation, and calculation, but they also facilitated record-keeping, offered shortcuts to avoid mathematics, and aided memory and comprehension. Yet we have only a partial understanding of how mariners deployed these instruments. Although historians have studied the invention and function of prominent tools, they have paid less attention to the accompanying documents: charts and logbooks, astronomical and mathematical tables, and innumerable manuals. These paper instruments were an integral component of early modern nautical equipment. Not only did they help mariners learn to use their new three-dimensional tools and consequently expand the market for those objects, but printed materials also served as instruments in their own right, for visualization, calculation, and reference.

Even as scholars have been attending closely to the materiality of instruments, we must pay equal attention to the materiality and content of nautical texts. By reading the manuals, ephemeral documents, curricula, and legislation that were produced for early modern maritime audiences, we learn three important findings about the function of technical texts. First, nautical instruments and nautical manuals were intended to be used in conjunction with each other, and thus must be assessed together. Second, the manuals themselves served multiple functions, from do-it-yourself guides to advertisements, as well as offering explicit and implicit instructions. Finally, these texts reveal details about usage that instruments themselves cannot, ultimately enabling us to recover evidence of the many ways that mariners and others actually used their tools, in two dimensions as well as three.

This chapter interrogates the connections between diverse navigational instruments and printed materials from the mid-sixteenth to the eighteenth centuries. It

opens with a brief survey of the historiography of instruments, where catalogues of high-end museum collections have given way to studies that focus on either theoretical or material aspects of instruments. Recent work on paper instruments is particularly germane here. We then examine the development of the genre of nautical manuals in the sixteenth century, which aimed to teach sailors the new observational and computational techniques required by long-distance voyages. By analysing this explosion of printed material, it becomes clear that texts and instruments were intended to be used in tandem. Maritime experts turned to print to introduce concepts *and* instruments to a wide range of readers in Spain, England, France, the Low Countries, and beyond. Instruments occupied prominent textual and visual positions in these books, and the earliest texts were notable for their attention to materiality, specifying how to make instruments, and from what materials.

As nautical manuals became more established in the late seventeenth century, the genre served an increasingly sizeable but more specialized group of sailors and associated professionals, who in turn helped instrument makers expand their commercial presence. We find that these manuals fulfilled distinct purposes that varied by author and reader: certain volumes were overt advertisements, whereas others were intended as reference works or comprised back-up plans for emergencies. These texts also offer a window into how working mariners acquired and personalized their tools. We read of challenges – accuracy, durability – and regional preferences. We also gain new insights into how students engaged with these paper tools, with their diagrams, moveable parts (volvelles), and tables, to learn how to manipulate equipment onboard ship. This more complete picture of the interdependence of printed materials and instruments illuminates the ways in which European technical knowledge was applied and disseminated during this period of imperial expansion. The interplay between books and tools turns out to have been essential for sailors to make sense of the wider maritime realm.

Defining terms

Early modern nautical instruments have attracted significant scholarly attention, but there is considerable uncertainty about the definition of the category. In classic volumes devoted to 'Scientific Instruments', navigational tools were typically limited to half a dozen direction-finding and time-keeping tools.[1] There are studies of individual instruments: the cross-staff, the sextant and, perhaps most famously, the timekeeper designed by John Harrison that enabled the accurate calculation of longitude by the final decades of the eighteenth century.[2] Important collections, like those at the National Maritime Museum (Greenwich), have been carefully catalogued, while Sotheby's and Christie's auction houses have published authoritative guides for collectors.[3] However, these surveys place a disproportionate emphasis on expensive gifts to prominent patrons, since they were preserved at far higher rates than those used at sea. Such bespoke instruments, which show few signs of wear or repair, do not provide a full picture of how a navigator carried out his day's work.[4] For that, we must turn to instructional texts that explain the nuances of shipboard practice. From these texts we can see that the navigator relied upon a host of additional equipment to track and calculate his position. Although mathematical compasses, globes, maps,

and tables have figured less frequently in accounts of navigational instruments, they merit inclusion.

Historians of science and technology have theorized extensively about the broader category of scientific instrument, with more recent work adopting the contemporary term 'mathematical instrument'.[5] Once again it proves challenging to define the category: were mathematical instruments primarily for measurement? Was their main purpose productive 'work' as opposed to education – as Deborah Warner suggests in her important early discussion – or the opposite, as Adam Mosley argues?[6] Other scholars have focused on instruments travelling across borders, carrying with them the perspective and priorities of their makers.[7] Historian of technology Richard Sorrenson frames ships themselves as scientific instruments, while John Law likens vessels to Bruno Latour's 'immutable mobiles', emphasizing how they carried stable meanings from metropole to periphery.[8] In response to these philosophical discussions of instruments, scholars like Lorraine Daston have embraced the 'material turn'.[9] In efforts to learn more about the knowledge encoded in each instrument and the expertise required of each user, scholars have reconstructed instruments, with Nicolàs de Hilster focusing specifically on wooden navigational tools like the backstaff and its variants.[10] To some extent, this emphasis on material objects has deprioritized the study of related printed documents – but the material turn cannot escape text. Exciting new work is being done on the materiality of paper in domestic and technical spheres. Books and diagrams have been framed both as instructions and as instruments.[11] However, scholars of paper instruments have as yet paid only passing attention to maritime examples.[12] This chapter seeks to bring together these strands of scholarship, first to understand the parallel rise of nautical instruments and manuals, and then to mine the texts for new insights.

Texts and instruments in tandem

Between the fifteenth and eighteenth centuries, the practice of navigation changed significantly. Short-distance voyages within sight of land gave way to open-water expeditions to distant corners of the world. Where mariners once could determine their position by sighting familiar coastal landmarks, they now needed to turn to the skies, observing heavenly bodies to track their progress. This major conceptual shift in position-finding required new instruments and new training.[13] It was no longer enough to have a sounding lead, magnetic compass, notebook, and a very good memory – the tools that had sufficed for medieval European mariners.[14] Instead, the men charged with wayfinding began to use astrolabes and cross-staffs to determine the angular position of heavenly bodies, and logarithms and trigonometry to convert these numbers into geographic positions. It became increasingly difficult to serve as a ship's captain or navigator without being literate. Mathematical skills, too, became essential. Faced with more complicated concepts that were not straightforward for mariners to pass on to apprentices, young sailors turned to experts on shore – teachers and textbooks – for instruction.

During the early modern period, education and literacy rates climbed in tandem with the explosion in printing. As publishing proved profitable, growing numbers of

printers began producing nautical materials. Technical manuals flew off presses not only in large cities but also in ports.[15] This ready availability of print had an effect on maritime communities and navigational practice. Even if sailors were not among the earlier groups to become literate, navigators and captains were. Many of these men, in charge of trade in foreign ports, computing accounts, and lading ships, were already comfortable with numbers. Nonetheless, with the introduction of trigonometry in the final years of the sixteenth century, they could no longer carry out every calculation in their heads; they turned to new handbooks of logarithmic and trigonometric tables, such as Edmund Gunter's *Canon of Triangles* (1620) or Richard Norwood's *Trigonometrie* (1631), 'chiefly for the use of seamen'. As voyages took men further afield, they also needed atlases of charts and almanacs updated with the latest astronomical tables (ephemerides). According to their own testimony in popular travel narratives, as well as archaeological evidence from unsuccessful voyages, it is apparent that sailors began relying upon these increasingly affordable volumes. By the seventeenth century, most boats had at least a few reference works, the core of a shipboard library.[16] The meticulous standardized inventories of equipment on Dutch East India Company (VOC) ships confirm that these were well established by the late seventeenth century. Alongside instruments from universal quadrants to sandglasses, each 'Ship's Box' contained atlases, printed or manuscript charts, up-to-date tables, and at least one nautical manual, typically Gietermaker's *'t Vergulden Licht der Zeevaert* (1660), which included trigonometrical tables. On the 1673 'General list', nearly half of the items were charts and instruction booklets, and as the company revised the list over the ensuing century, the proportion of documents only grew.[17]

The earliest books about the 'art of navigation' – those published in Iberia in the first half of the sixteenth century, and those northern European examples that followed later in the century – helped introduce a wide range of instruments, both traditional and new, to mariners and the literate general public. Some manuals, particularly those produced in Spain as the Crown began institutionalizing navigational training, emulated traditional university textbooks, namely the popular cosmographical works on 'the Sphere' by Sacrobosco and Apianus. The structure, approach, and iconography (especially volvelles, paper instruments with rotating disks and pointers) proved well suited for teaching the new, abstract celestial astronomy.[18] Sailing directions were also among the earliest nautical publications. Rutters – textual directions – were gradually replaced by charts gathered into atlases.

In one of these atlases, Willem Jansz Blaeu's influential *Licht der Zeevaert* (1608), we find further evidence that by the first decade of the seventeenth century, sailors already had numerous textual materials at hand. Not only do 'Al Seafaring men […] have certain tables' to tell time from the Pole Star, as Blaeu writes in the introductory section, but the related rotation of the Little Dipper is further explained 'in most part of the bookes made for Seafaring'.[19] Some of Blaeu's readers distrusted print, but that did not imply that they rejected all charts or tables; they simply copied them by hand. We find references not only to proliferating texts, but also to unorthodox instrument use. In his overview of standard navigational equipment, Blaeu noted with dismay that 'many men', when faced with a discrepancy between their observations and their instrument reading, would try to resolve this

conundrum in a dangerous way: 'some of them to mend it cutt off a peece of their Crosse-staffe, others make themselves tables according to their owne fantasies'. Blaeu, of course, had a solution: instead of hacking away at their cross-staffs, or risking tables inaccurately computed, he recommended that 'al seafaring men' simply buy *his* new tables, 'collected, & (not without great labour) perfectly made'.[20] A master of promoting his own innovations, here Blaeu encourages mariners to adopt his charts *and* texts.

In their pioneering nautical manuals, authors such as Blaeu and Pedro de Medina (*Arte de Navegar*, 1545) addressed audiences of disparate educational levels and social backgrounds. These included sailors who were already familiar with the practical side of sailing but who wished to learn the theory behind celestial navigation in order to climb through the ranks of the navy or the merchant marine. The books were also popular with merchants who would have overseen the loading of vessels at the docks and thus recognized some of the terminology and equipment, and gentlemen, for whom the world of tar and ropes remained notional. Medina's *Arte*, for instance, was an oversized quarto, printed with numerous full-page images, a sign that he or his publisher was confident of a wealthy audience. Aware that varied readers would be interested in different aspects of the material, Medina prepared two additional versions of his work, a school textbook lacking the *Arte*'s advanced geometrical theory, and a treatise heavy on astrology and navigation for a non-maritime audience.[21] Other authors addressed different segments of these diverse maritime communities in the same volume: William Bourne intended his *Regiment for the Sea* (1574) for 'all seafaring men and trauellers, [that is] pilotes, mariners, marchants'.[22] In his *Spieghel der Zeevaerdt* (1584), Lucas Janszoon Waghenaer addressed merchants, who could best afford the relatively pricey illustrated atlases, but also solicited corrections and additions from practising navigators, the readers whose expertise made the charts so valuable.[23]

Nautical authors were as diverse as their audiences. Some, especially those hired to teach at larger centralized institutions, such as Martín Cortés at Cadíz, or the Jesuit Georges Fournier, were theoreticians who had never been to sea. Others, like Cornelis Janszoon Lastman, author of the first Dutch bestselling manual, *Schat-kamer des Grooten Zeevaerts-kunst* (1629) or the opinionated Samson le Cordier in Dieppe, were teachers retired from maritime careers. Still others, such as Michiel Coignet of Antwerp and John Blagrave of Reading, had devised new instruments and wished to promote them. While every author of an introductory manual spent time explaining nautical terminology and shipboard equipment, many of the early works stand out for providing specific details about materials and dimensions. For instance, Cortés' pioneering *Breve Compendio de la Sphera y de la Arte de Nauegar* (1551), which he dedicated to Charles V, included chapters on 'the making and use' of ten key instruments.[24] His explanation of how to make a cross-staff (in the 1561 English translation) uses common measurements:

> Make a square staffe or yarde of the thycknesse of a fynger […] And of le[n]gth syxe spannes, or more. For the longer that it is, the more precise shal it be, and the degrees shall be the greater, whereby fol[l]oweth the certayntie of the altitude.[25]

Cortés was clearly aware of the relationship between the materiality of instruments and the precision of their results.[26]

An important work by Flemish mathematician and sometime instrument maker Michiel Coignet, the *Nieuwe Onderwijsinghe op de principaelste puncten der Zee-vaert* (1580), also devoted numerous chapters to ships' equipment, from the compass and maps to the astrolabe. Few of the instruments Coignet described were new; instead, he presented modified versions of standard tools, such as his own 'marine Hemisphere', which aimed to simplify calculations.[27] He gave concise instructions on how to hold the tools and how to sight with them to get the desired observations. To further help his readers understand the instruments, Coignet included full-page woodcuts, augmented in four cases with volvelles similar to those in Apianus' treatise. A dozen years later, mathematics tutor Thomas Blundeville paraphrased several chapters of Coignet's work for an English audience, and included the volvelles. While Coignet had focused on the process of making observations, Blundeville wished to describe 'both the making and the use'. Before briefly relating Coignet's instructions, he added a number of pages detailing the configuration of the physical objects, based on instruments from his own collection. For an instrument designed to compute the time of high tide, Blundeville outlined simple steps: 'First upon some bord well playned and made smooth, draw a Circle, and devide the same into 30 parts signifying the days or the age of the Moon'.[28] By describing each component clearly, he demystified the entire apparatus.

These careful descriptions in early manuals have two purposes: in a culture where only a small proportion of books were illustrated, such textual explanations helped literate individuals conjure up mental images of unfamiliar objects. Yet these passages also (probably) enabled men to craft their own tools.[29] Cortés' elite readers were not likely to pick up a piece of wood and start carving; instead, they would commission instrument makers to create bespoke items. Readers of lesser means, however, would have had difficulty purchasing prefabricated instruments, especially in less cosmopolitan locales. If they had better-than-average manual skills, they *could* follow the instructions of Cortés and Blundeville to make their own equipment.[30]

Step-by-step instrument guides flourished in the late sixteenth century. The authors recognized that many readers would have limited access to construction materials. Consequently, manuals frequently suggested paper as a valid alternative to brass or even wood. Paper had many virtues: it was flexible, easy to cut out, lines on it could be erased, and so on.[31] John Brown, in a volume that included sundials and 'several sea-instruments', deemed woodcut images multipurpose: they could be 'pasted on a Board' but also used to 'work all questions [for] them that are out of the way to have them made'. If a reader did live close to a craftsman, however, that same figure 'may serve as good directions to the young Instrument-Maker, though these are made too too small a Radius to arrive at exactness'.[32] At this early stage, when it was not yet possible to acquire ready-made instruments, one could provide specifications, and even paper patterns, to skilled artisans.

Half a century later, another English instrument maker, Thomas Stirrup, published a guide to his 'Universall Quadrat' (1655). He informed his readers that they could purchase the instrument directly from him, but he also provided meticulous

instructions should they wish to construct their own examples. In that case, the readers were expected to refer to the printed text *and* its illustrations. First, Stirrup explained, you should 'prepare a piece of Box[wood] or Brasse'. Next, 'Your Wood or Brasse being thus prepared, draw thereupon 4 right lines […] like as you may perceive by the figure'. Finally, after a number of intervening stages, 'To this Instrument, as to all other of this kinde, in their use, is added Sights with a thred, bead, and plummet according to the usual manner'.[33] Stirrup presumed that his readers were handy at inscribing scales on wood and metal, and that they had hung more than one plumb bob. In 1669, Samuel Sturmy, for his part, recommended that 'ingenuous' sailors build sophisticated 'Instruments for Mathematical Uses' during their 'spare-time' aboard ship. To do so, they would need a substantial list of equipment and supplies, including boards of various sizes, screws, clamps, a sharp tool for producing an accurate graduated scale, and even steel letters 'with a neat Hammer to use with them' for labelling the tools they produced.[34] For every reader who might carry a hammer to sea and construct his own quadrant, there were far more who would only skim those instructions. One of the powerful advantages of these manuals was the way in which they offered different things to different readers.

The multiple uses of instrument texts

By the later seventeenth century, the increasing demand for mathematical and other instruments facilitated by nautical manuals created a stable commercial market.[35] In many metropolitan areas and a smaller number of port towns, instrument makers were able to establish dedicated businesses. In England, they could now practise their trade with relative freedom, allowed to belong to any guild rather than a specific company. French instrument makers, by contrast, found themselves caught between competing companies and consequently often sought protection from the court, a stable but less entrepreneurial environment. (In France, instrument making was associated variously with clock-making, founding, or inlay work, but growing rivalries between these corporations disrupted production.)[36] In the bustling London market, specialist engravers were associated with luxury goods, and there was an explosion of consumer interest in natural philosophy over the course of the eighteenth century, all of which encouraged innovation. Steady sales of smaller, everyday instruments generated sufficient capital for skilled craftsmen to purchase specialized machinery and materials, in turn enabling them to create 'large, prestigious, and innovative instruments'. British instrument makers, according to French contemporaries, also enjoyed an international reputation that allowed them to command higher prices for their products, reinforcing their dominance of the market.[37]

Many bookshops also sold instruments; their advertisements shed light on the range of material offered at all price points.[38] Women were involved in the instrument trade to a greater extent than has been recognized. There is evidence of a number of women participating in the book-keeping and shop-keeping aspects of the English trade, particularly the daughters and widows of men with established businesses. Intriguingly, a number of instrument makers employed female apprentices, for example, in spectacle-making, and in the eighteenth century, in clock-making.[39]

These flourishing commercial establishments made it increasingly possible to cater to the men whose careers encompassed both maritime and mathematical activities. These shops also attracted curious landlubbers who might have the means to purchase instruments, but as they would never see a ship's deck they did not need to be particularly accurate or sturdy. (Although there are documented instances of women such as Elizabeth Pepys, Margaret Cavendish, and Maria Winkelmann using the latest scientific tools, upper-class women did not pursue careers at sea.)[40]

Certain entrepreneurial men combined teaching, writing, and invention, each facet of their businesses supporting the others. For instrument makers like Coignet, books were first and foremost marketing vehicles. An aspiring navigator might buy an instrument that was not intuitive to use. He could then purchase a handy printed manual from the inventor, and if that was confusing, he could pay for in-person lessons. Similarly, when mariners signed up for general navigation classes, they were often given a list of suggested purchases, which typically included their teacher's textbook and perhaps one of his patented instruments.[41] The entrepreneurial Amsterdam teacher Pieter Holm had such a strategy in the mid-eighteenth century: his textbook, the *Stuurmans Zeemeeter* (1748) was so concise as to be cryptic for anyone who did not attend his school (the textbook cost 2 guilders 8 stuiver, and a whole winter's worth of lessons cost 36 guilders). While they were on the premises, the VOC officers taking Holm's classes could be among the first in the city to acquire an octant (pricey at 25 and 40 guilders, depending on their size). For those who preferred simpler tools, Holm sold traditional Gunter's scales (3 guilders 3 stuiver), compasses (6 guilders), and a range of atlases and charts (3 to 5 guilders). Continually innovating, Holm also sold tobacco boxes of his own invention that doubled as gauges for assessing the boat's speed (the brass box cost 5 guilders 10 stuiver, and the lessons to learn how to use it 3 guilders).[42] While the instruments had the largest price tags, entrepreneurs netted the healthiest profit from lessons.

Author-inventors promoted their books and tools with tempting but often overblown rhetoric: some claimed their tools were universal, or perpetual; others promised shortcuts that would help navigators avoid mathematics entirely. Léonard Duliris, a French Oratorian priest with grandiose dreams of solving the longitude problem, invented a globe that he tested on a voyage to New France in the 1640s. So easy, useful, and necessary was this 'extraordinarily equipped' device, Duliris wrote, that experienced pilots now regularly used it with 'incredible joy'.[43] The promotional tone remained constant, even as the market evolved. By the eighteenth century, men no longer described instruments in meticulous detail. In his popular *Epitome of the Art of Navigation* (1765) for instance, James Atkinson offered his readers a way to avoid 'Arithmetic Calculation', promising them instead 'an Instrumental way of Operation, that's quick & true, easy & ready on Gunter's-Scale, an Instrument so very well known, it needs the less Description'.[44] Authors saw little need to specify materials and dimensions now that readers were more familiar with these technical devices and could instead visit a shop, or turn to glossaries and dictionaries for help with the arcane vocabulary.[45]

It took time for sailors to accept new tools. Cerebral authors complained that hidebound mariners shunned new techniques and instruments, and mistrusted print.

One early Dutch author, Heyndrick Reyersz, characterized the problem not as one of intelligence but of motivation: in a navigation lesson, 'the scholar gave the navigator the instruments, which few understood, nor wished to learn to understand'.[46] To some extent, such rhetoric stemmed from the fact that sailors were widely presumed to be unintelligent because of their low levels of literacy, but the theoretical experts who wrote many of the early books may also have been embarrassed by their own lack of nautical experience. (According to Reyersz, working sailors preferred to read 'low ship's Dutch' rather than the work of men 'who had never seen the blue sea'.)[47] Although the criticisms were often overly dramatic, it seems true that many navigators preferred to use familiar instruments rather than rushing to embrace complex, untested ones.

Navigators usually owned at least one position-finding instrument – most likely a cross-staff or a backstaff – which, as Blaeu bemoaned, they would personalize. In addition to drawing compasses and up-to-date astronomical tables, they might also acquire specialized quadrants or sectors. However, those who worked for large merchant companies or who served in the navy would be provided with their equipment. Young men who studied at the Royal Mathematical School (RMS) in London, in preparation to serve in the Royal Navy, would be outfitted with a backstaff (Davis quadrant) upon completing their examinations.[48] Metropolitan instrument makers or their family firms provided instruments to these larger institutions. Interestingly, the RMS accounts include the names of several women instrument-sellers.[49] The VOC's navigators had at their disposal all of the items in the 'Ship's Box' (*Scheeps Doos*), the extensive 'General lists' mentioned above. The instrument makers and publishing firms that supplied these items were guaranteed a large market.[50] In turn, such institutional favour pushed the broader community to take up particular tools. For instance, in the 1740s, two Dutchmen advised the VOC to update the Ship's Box; their suggestion to add the recently invented octant and azimuth compass helped ensure that these more technical instruments were widely adopted by Dutch mariners.[51]

Instrument use varied considerably by region. While certain tools became popular because the large companies favoured them, others proliferated for patriotic reasons. English authors proudly endorsed the backstaff or Davis quadrant, invented in the late sixteenth century by the adventurer Captain John Davis, and the eponymous scales and sector designed by the London-based mathematician Edmund Gunter. Foreign-language texts often referred to instruments by their place of origin; French writers labelled Davis' and Gunter's tools, respectively, the 'quartier Anglois' and 'échelle Angloise'.[52] If mariners could learn about foreign instruments from other sailors in multinational crews, books helped disseminate technical details of these innovations.[53] Inexperienced mariners favoured different instruments. Skilled Dutch navigators could tell how fast a vessel was sailing from a fleck of passing sea foam, but it took many years to develop the ability to read this foamy 'Dutchman's log'. Less adept sailors opted to simply throw a log-and-line off the stern and get a reasonable estimate of the speed.[54] French mariners preferred to plot their courses on graphical instruments such as universal quadrants, while Dutch mariners turned to books of tables to compute routes using trigonometry.

These regional differences in practice turn out to have had as much to do with the local economic situation – how many men made their living from the sea – as with educational background or the instruments themselves. When a large percentage of the population had extensive experience on the water, the community developed a more comprehensive, although not necessarily centralized, system for training the next generation. In the Netherlands, for example, at least 10 per cent of the adult male population worked in maritime occupations, compared to less than two per cent in France.[55] Dutch sailors competed for better paying roles, seeking out educational opportunities – independent schools like Holm's – and developing an elevated facility with new techniques that required more expertise. Consequently, the technical and mathematical expectations, as evinced in textbooks and examinations, were significantly higher.[56] Printed manuals reveal similar variability between the ways in which mariners worked with their tools in the classroom, and how they actually applied them in the field.

The multiple uses of instruments: at sea and in school

As a genre, nautical manuals routinely offer multiple solutions for each of the navigator's essential tasks. Authors might recommend a geometrical approach, a trigonometrical one, a table, or an instrument. In terms of instrument-based solutions, textbooks presented many options. For instance, to make daily observations of the sun or stars, mariners could use astrolabes, quadrants, fore- and backstaffs, nocturnals, and a variety of other implements.[57] A navigator-in-training needed to learn how to fine-tune his observations with each of these. In 1685, Daniel Newhouse noted that a pilot should carry at least three altitude instruments with him: a quadrant for noon observations, a cross-staff for other times, and the 'Astronomical Ring and Astrolabe' – Newhouse's preference – for occasions when the horizon was obscured by fog.[58] Tools could also be geographically specific: when mariners were below the equator, they could not rely on the North Star, but needed to switch to the Southern Cross. In addition, authors warned that tools might break, or be commandeered by pirates.[59]

At times, instruments failed to produce reliable numbers because their users were incompetent. Even if a mariner understood how to use a particular tool, he might not be able to make reliable observations. Authors recommended that novice sailors take considerable time to practise taking observations and to become otherwise comfortable with the instruments of celestial navigation. Experienced men could have difficulties as well, especially trying to adjust to a new tool after spending years compensating for another instrument's quirks. As one early eighteenth-century French galley captain, the Sieur de Radouay, noted, 'A pilot needed to use the same instrument for a long time to be assured of such precision'.[60] Just as men needed to gain their sea-legs to negotiate the roll and pitch of a ship, so too did they need to perfect their 'observer's arm', in order to hold their instrument steady enough to get an acceptable reading.

Worn, damaged, and poorly made instruments were persistent sources of concern. In the 1630s, William Oughtred warned that mariners needed to be 'rather scrupulous' that their compasses 'be *exactly made*, and not bungled up, as those usually are,

which are made for sale'. He recommended that they be 'framed [made] by some skillfull and conscionable Artificer'.[61] Radouay viewed inaccurate instruments as the key problem besetting the French navy. In the 1720s, he assessed a variety of instruments used by navy navigators, and found, in one instance, a variation of 40 minutes between his cross-staff and two others. He criticized the pilots' skill levels and the 'falseness' (*fausseté*) of their equipment.[62]

There were ways to identify and correct such inaccuracies. Radouay offered tricks for improving measurements, from stabilizing an astronomical ring with the user's other hand, to adding a new paper dial and a few small globs of wax to a compass face to account for magnetic variation.[63] Other authors mentioned simple tests, such as checking that the shadow from a sighting vane was centred on the face of the quadrant, as well as strategies for how to fix a sandglass that was not running smoothly.[64] French naval trainees were expected to learn geometry so that they could 'recognize the accuracy (*justesse*) or irregularity of the mathematical instruments useful for navigation, and to correct the erroneous operations of those instruments'.[65] While Radouay claimed that these techniques 'avoided complicated corrections', sometimes such ad hoc repairs could lead to greater problems.[66] The eminently thorough French Jesuit, Georges Fournier, insisted that sailors examine each of their instruments, to check that they were 'accurate, well made, and not falsified or distorted'. He then devoted ten pages of his magnum opus, *Hydrographie* (1643, 1667), to the proper methods of graduating the scale on a cross-staff, and repeated the warning against the widespread 'dangerous' convention of sawing off the ends of staffs to bring them in line with a star's position.[67]

Mariners were taught to use comparison and repeated estimates to calibrate their tools properly. Two-way comparisons did not guarantee accuracy, however, since consonant observations could in fact both be similarly wrong. Radouay offered a means to verify compass readings mutually, a difficult but vital task: one pilot should face north to observe magnetic variation, the other south. If they obtained differing amounts of variation, 'this is a clear proof that one of the two had observed badly, or maybe even both of them'.[68] Only by introducing a third observation or instrument – as Radouay did in his cross-staff and watch tests, and the Royal Navy did with timekeepers a generation after Harrison – could a reading be confidently declared accurate.[69] These concerns about reliability, far from being new in the eighteenth century, had a long history.

Books thus helped introduce a variety of instruments to the broader maritime community, offering insights not only into how to use them, but also construct, adjust, and repair them. Nautical manuals had other functions as well: for some readers, they were reference works for times of crisis; for others, they were mnemonic tools.[70] Images in these books also played a salient role as heuristics. Early modern authors recognized the explanatory power of diagrams.[71] In the late seventeenth century, John Seller felt that images could clarify his text: 'because possibly this manner of division may not be understood by everyone that has occasion for this Instrument, for their sakes therefore I have annexed this following Figure'.[72] In *Certain Errors in Navigation* (1657), Edward Wright instructed readers to glue images of instruments to the margin of several pages so they would be visible throughout the entire lesson.[73]

Woodcuts of instruments could also help the reader produce his or her own examples. In *The Geometrical Sea-Man* (1652), Henry Phillippes explained, 'I have provided such figures [of various cartographic projections], as serve not only for demonstration of the thing, but may serve for Instruments to work upon; or you may easily, by the directions given, make the like'.[74]

Diagrams in these volumes also crossed the divide from representation to reality.[75] Navigational instruments, often keyed to the rotating heavens, were particularly well suited to translation into two dimensions, animated with volvelles. Despite suggestions that they were an older technology that fell out of use with the advent of easily updated and more accurate star tables, volvelles continued to appear in many seventeenth- and eighteenth-century manuals and manuscript workbooks, and are drawing renewed interest from historians of science.[76] For some users, a moveable diagram of an astrolabe or a nocturnal was explanatory, enabling them to comprehend how the actual instrument worked. In other instances, they were intended to be legitimate tools, used to calculate calendrical information or determine angles using adjustable pointers and knotted threads. In one instance, Dutch cartographer Lucas Janszoon Waghenaer, who devised a large volvelle for calculating time and direction from the Pole Star, gave instructions on how to hold the atlas in which that plate appeared: 'let the upper part of the booke […] be turned to the South […] for so shall these stars stand in order'.[77] Paper repeatedly made the leap from providing instruction to function.

The resale market underscores the value of these diagrams, with and without volvelles. Publishers reprinted plates as broadsheets intended for independent circulation. Waghenaer's Pole Star volvelle was reissued separately from the expensive atlas, for instance.[78] Teachers used loose sheets in their classes, a strategy that helped keep lessons affordable. When a prominent French navigation professor, Guillaume Denys, recommended one type of compass, he reassured his students: 'do not worry that it will cost you more, for our bookstore, having the plate, will make you a reasonable price'.[79] Denys's successor in Dieppe, Samson le Cordier, produced separate plates of his 'quartier de proportion' (sinical quadrant), which were sold to students as far afield as Québec City.[80] However, authors or inventors were unlikely to profit from these sales, as the publisher simply repurposed copper plates whose cost would long ago have been recouped. The low survival rate of these broadsheets testifies to their use – and to their fragility. To remedy this problem, in his 1727 treatise on navigation Radouay had a number of copies of the full-page engraved 'spherical quadrant' printed on vellum, a pricey and outdated medium, but one that was substantially more durable than standard paper.[81] From these accounts, we see early modern mariners actively engaged with their books and documents, gaining tacit knowledge about how instruments functioned. Not only was this an extension of the tradition of making implements for personal use rather than purchasing them, but it also indicates that assembling and manipulating tools was a valuable step toward understanding underlying theory.

Experts wanted mariners not just to be familiar with the structure and function of navigational tools, but also to master the nuances of operating them. By the later seventeenth century, the most common place for developing a preliminary competence was not the ship's deck but the classroom. Extant curricula reveal that educators used standard tools in concert with globes and paper instruments to explain challenging

concepts in navigational lessons. Students were expected to work 'pen in hand' when listening to a lesson or reading a textbook, drawing their own diagrams, solving problems – and manipulating paper models. Taking instruments into their own hands was an equally important pedagogical strategy. Many teachers took their students to the shore or onto an observation platform so that they could gain hands-on ease with their instruments.[82] French navigation instructors teaching around the turn of the seventeenth century explicitly discussed the need for equipment for their schoolrooms. Claude Joachim Thoubeau, S.J., professor of hydrography and mathematics at Brest in the 1690s, had a lengthy wish-list of instruments he needed for teaching public lessons: a pair of globes, an astrolabe, one of Davis' 'English quadrants', atlases, as well as compasses and rules. Thoubeau also wished to have models of pumps, dry docks, a 'machine for masting vessels', and a litany of more basic tools – pulleys, vices, measuring chains, and geometrical solids (*volumes en bois*).[83]

The RMS in London also emphasized instruments in their curriculum. In the school's early years, the mathematician Jonas Moore persuaded the Mathematical Committee to send students to the Royal Observatory to study 'ye Practicall Use of Instruments, for ye takeing of Observa[tion]s, the know[ledge] of ye Starrs &c before they goe to sea'.[84] School trustee Samuel Pepys insisted that the students learn how to use 19 different instruments, even if only a small part of that list would be germane to daily navigation.[85] Not everyone approved of this hands-on approach. Isaac Newton would have preferred RMS students to focus on theory, with the goal of them becoming 'Mathematicall Artists' who, he felt, would be more advantageous to the nation. He found it 'preposterous' that the curriculum should 'comprehend little more than the use of Instruments, and the bare practise of Seamen'.[86] Newton's protests only confirm that such manual manipulation was widespread.

For Thoubeau and many other instructors, globes topped their list of teaching tools. The RMS had three pairs, for example. Navigators used them to understand how to chart courses, but they were equally well suited for demonstrating astronomical concepts in a classroom.[87] Indeed, shortly after the supernova of 1604, the Rotterdam-based teacher, Jan van den Broucke, taught his readers how to document a 'new or strange star' by triangulating from two known stars, and then marking the location upon a blank paper-covered globe.[88] From surviving manuscript workbooks, we can see that students worked with instruments alongside their mathematical exercises, evidence that their classroom education consisted of far more than rote memorization.[89] By taking up tools, marking positions on charts, identifying elements of rigging on model ships, or carrying out observations outdoors with intrepid instructions, young sailors were more likely not only to learn the physical operations required at sea but also to grasp the concepts.

Conclusions: precision or pragmatism?

As the eighteenth century continued, maritime practitioners found themselves part of the widespread drive toward ever-increasing accuracy and precision. Instruments and techniques had been invented that allowed observers to obtain more accurate results: sextants and octants were outfitted with reflecting mirrors, 'artificial horizons'

facilitated observations on foggy days when the actual horizon was obscured, vernier scales could precisely subdivide the graduations of a degree and clocks like John Harrison's could finally keep time for days or even weeks.

Of course, the latest tools were not always welcomed. In certain cases, using these instruments as stipulated by their inventors would be prohibitively time-consuming. Others were exorbitantly priced, and many still suffered from sloppy workmanship that reduced their accuracy. Edward Riou, a British Lieutenant, was frustrated to find that he could not afford an accurate marine timekeeper of Harrison's design – as of 1789, 16 years after the Board of Longitude had finally disbursed his award – not enough had yet been produced.[90] The ship's watches Riou did have on board HMS *Guardian* en route to Australia were constantly losing time. Riou identified his tools by their maker – Ramsden, Troughton, and others – as if to place the blame for any errors on their shoulders rather than his.

Authorities could hold mariners to high standards. In 1793, the VOC revamped its instructions for the men who examined the navigators before and after their voyages to Asia. These examiners had to check that each chart had prick-marks, proof that the navigator had inserted his dividers at every point along the way. Yet in this age of exactitude, practitioners continued to complain about the instruments, for the examiners were explicitly told to review the main tools before the vessels set off, 'to allay all complaints over the reputableness of the instruments'.[91] The crew should not be able to blame their equipment if they had trouble producing exact enough positions.

Not everyone agreed that navigators needed such perfect observations, however. In the midst of their daily tasks, practitioners could not always find time to carry out meticulous, repetitive calculations. The reduced size of portable instruments hindered precise measurements. Even if the instruments themselves were accurate, the boat's motion could derail any but the roughest of estimates.[92] Authors and administrators began to begrudgingly admit that a rough guess could 'be exact enough […] for most common Uses'.[93] Astronomical observations could be taken with a cross-staff rather than the more exact quadrant; tides could be calculated according to general guidelines rather than the most recent tables; and in some cases, the vessel's route could be aggregated rather than charting each individual leg.[94] The difference between the theoretically ideal method and an approximation might be virtually imperceptible, and the challenging calculations or manoeuvres would cancel out any marginal benefits. Thus, even in an age where calculations that are more exact were possible, they might not have been the goal for every navigator. Rather, when we examine records of how instruments were *actually* used, we see that all too often pragmatism won out over precision.

By considering early modern nautical instruments alongside their instructions, representations and legacies in print, we gain a clearer understanding of not only how they were used, but also how they were fabricated, marketed, and taught. From lists of equipment used on merchant ships, inventories of schoolroom tools and the records of instrument makers themselves, we can trace the development of viable commercial markets in maritime communities across Europe. Popular navigational manuals introduced readers to material aspects of their tools, and to their construction, assessment,

and repair. Textbooks were sources of instruction, both tacit and explicit, but they also provided supporting documentation for use if a navigator ran into trouble and needed to use a back-up method. Instruments and texts were intended to be used together, in creative and individualized ways. Ultimately, to cope with concepts that were unfamiliar or unintuitive, navigators, in the classroom and on the open water alike, turned not only to wooden and brass instruments, but also to paper ones. Historians would do well to follow suit.

Notes

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40 R. Latham and W. Matthews (eds), *Diary of Samuel Pepys: A New and Complete Transcription*, 11 vols, London: G. Bell and Sons, 1970–83, vol. 4, pp. 302, 434; vol. 5, pp. 6–25, 242. E. Wilkins, 'Margaret Cavendish and the Royal Society', *Notes and Records of the Royal Society*

of London 68/3, 20, 2014, pp. 245–60; L. Schiebinger, 'Maria Winkelmann at the Berlin Academy: A Turning Point for Women in Science', *Isis*, 78/2, 1987, pp. 174–200.

41 'Letter and invoice received by Sir Francis Child and Thomas Child from Mr [Samuel] Newton' (1704), LMA MS 28949. In this instance, the mathematics master S. Newton sold a full suite of instruments to his young pupil for £5 12s, and then charged his father an extra shilling to rent a drawer in which to store them.

42 W. F. J. Mörzer Bruyns and E. K. Spits (eds), *In de Gekroonde Lootsman: Het kaarten-, boekuitgevers en instrumentenmakershuis Van Keulen te Amsterdam 1680–1885*, Utrecht: HES, 1989; W. F. J. Mörzer Bruyns, *Schip Recht door Zee: De octant in de Republiek in de achttiende eeuw*, Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen, 2003, pp. 79–80. See also the VOC Lysten for representative costs of instruments and books.

43 L. Duliris, *La Theorie des longitudes, reduite en pratique sur le globe celeste*, Paris, 1647, i.

44 J. Atkinson, *Epitome of the Art of Navigation*, London, 1765, p. 20.

45 For example W. A. Winschooten, *Seeman: Behelsende Een grondige uitlegging van de Nederlandse Konst, en Spreekwoorden, voor soo veel die uit de Seevaart sijn ontleend, en bij de beste Schrijvers deeser eeuw gevonden warden*, Leiden, 1681; N. Aubin, *Dictionnaire de marine contenant les termes de la navigation et de l'architecture navale*, Amsterdam, 1702; N. Bion, *Traité de la construction et des principaux usages des instruments de mathematique*, Paris, 1709, included navigational equipment (in book seven) within the category of mathematical instruments. Compared to the earlier manuals, these reference works are largely silent on physical specifications.

46 H. Reyersz, *Stuurmans-Praetje Tusschen Iaep en Veer*, Amsterdam: J. Colom, 1637, p. 24.

47 Reyersz, *Stuurmans-Praetje*, p. 14; 'plat Scheepsduyts' (closely related to 'Low German' spoken across much of northern Germany).

48 'Royal Mathematical School Account Book', London Metropolitan Archives MS 12874 records the 'mathematicall instruments 10 quadrants for boyes to be placed apprentice' (Spring, 1682). See G. Clifton, 'London Instrument Makers and the British Navy, 1700–1800', in P. van der Merwe (ed.), *Science and the French and British Navies, 1700–1850*, London: National Maritime Museum, 2003, p. 26.

49 'Royal Mathematical School Account Book', MS 12874 notes at least two female instrument purveyors (9 June 1697, Elizabeth Seller, Jane Hayes), not included in Baker, '"This Ingenious Business"'.

50 The Van Keulen firm, for instance, produced more than 1,100 cross-staffs for the VOC between 1731–48. Manuals that were included on these lists similarly saw upwards of a dozen editions. See Mörzer Bruyns, *The Cross-Staff*, p. 44.

51 C. A. Davids, *Zeewezen en Wetenschap*, Amsterdam: De Bataafsche Leeuw, 1986, p. 350; see HaNA VOC 5019, 5020.

52 Bion, *Traité de la construction*, p. 249; V. F. N. Dulague, *Leçons de navigation*, Rouen, 1768, p. 301.

53 French mariners learned of the 'corrections' (the rules for adjusting longitude estimates) devised by Dutchman J. H. Jarichs van der Ley from a Latin treatise by A. Metius. C. Douwes' new method of determining longitude spread to English and American sailors via the textbook by N. Bowditch, *The New American Practical Navigator*, Newburyport, MA: Edmund Blunt, 1802.

54 D. W. Waters, *The Art of Navigation in England in Elizabethan and Early Stuart Times*, New Haven: Yale University Press, 1958, pp. 427–29.

55 J. van Lottum estimates that in 1607 18 per cent and in 1780 15 per cent of 'the male labour force in the coastal provinces were employed aboard Dutch deep-sea vessels'. See J. van Lottum, 'The Necessity and Consequences of Internationalisation: Maritime Work in the Dutch Republic', in C. Bouchet and G. Le Bouëdec (eds), *The Sea in History: The Early Modern World / La mer dans l'histoire: La période moderne*, Woodbridge: Boydell Press, 2017, p. 841. See T. Le Goff, 'Labour Market for Sailors in France', in P. C. van Royen, J. R. Bruijn, and J. Lucassen (eds), *'Those Emblems of Hell'? European Sailors and the Maritime Labour Market, 1570–1870*, St John's, Newfoundland: IMEHA, 1997, p. 300.

56 These regional differences, and the reasons behind them, are explored at greater length in M. Schotte, *Sailing School: Navigating Science and Skill, 1550–1800*, Baltimore: Johns Hopkins University Press, 2019.
57 For an example of multiple solutions to a single problem, see C. H. Cotter, 'Early Tabular, Graphical, and Instrumental Methods for Solving Problems of Plane Sailing', *Revista Da Universidade de Coimbra* 26, 1978, pp. 105–22.
58 D. Newhouse, *The Whole Art of Navigation in Five Books*, London: for the author, 1685, p. 2.
59 This is a recurring motif in textbooks; see R. Norwood, *Trigonometrie. Or, the Doctrine of Triangles*, London: William Jones, 1631, p. 88, question #10, where 'A Merchant man […] falls into the hands of pyrats; who amongst other things take away his sea-compasse'.
60 M. de Radouay, *Remarques sur la Navigation et moyens d'en perfectionner la pratique*, Paris: Francois Fournier, 1727, p. 12.
61 W. Oughtred, *An Addition unto the Use of the Instrument called the Circles of Proportion*, London: A. Matthewes, 1633, p. 20; italics in original.
62 A difference of that magnitude equated to an error of 40 nautical miles. See Radouay, *Remarques sur la Navigation*, pp. 19, 108–10. Radouay compared cross-staffs to 'bad guns' ('*mauvais fusil*') which might torque right or left; for a detailed account of the 'finesse' with which a conscientious navigator constantly adjusted his log and line to refine his dead reckoning estimate, see p. 115.
63 Serv. Hist. Déf.-Vincennes, SH 284, M. de Radouay, 'Nouvelle pratique de navigation, par de Radouav, capitaine de vaisseau', SH284, pp. 11, 6.
64 'Proeve. Om door de schaduwe der Sonnen te bevinden: oft u Instrument perfeckt is'; B. Keteltas, *Het Ghebrvyck der naeld wising*, Amsterdam: Barent Otiz. Boeckdrucker, 1609, f. 31; C. J. Lastman, *De Schat-kamer*, Amsterdam: C. J. Lastman, 1629, p. 56.
65 [Louis XIV], *Ordonnance de la marine, du mois d'aoust 1681*, Paris: Charles Osmont, 1714, p. 65.
66 Radouay, 'Nouvelle pratique', p. 6; Radouay was not arguing for the status quo, but instead promoted instruments of his own devising that he claimed were 'exempt from these defects', p. 15.
67 G. Fournier, *Hydrographie*, Paris: Jean du Puis, 1667, pp. 123, 376–83.
68 Radouay, 'Nouvelle pratique', p. 4. The Dutch author Mathijs Sijverts Lakeman had recognized this conundrum a century earlier when assessing the discrepancies between dead reckoning and observed position: 'either the pilot made good estimates, which didn't match the degrees south and north on the plane chart, or the pilot estimated confusedly but these confusions matched each other'. M. S. Lakeman, *Een tractaet, seer dienstelijck voor alle zee-varende luyden*, Amsterdam: for Laurens Jacobsz, 1597, Bii.
69 From the early nineteenth century, Royal Navy vessels were outfitted with three of Harrison's expensive but admirably accurate chronometers; see W. J. H. Andrewes (ed.), *The Quest for Longitude*, Cambridge: Harvard Collection of Historical Scientific Instruments, 1996, p. 159.
70 See e.g. C. Antoniszoon, *Safegard of Sailers*, trans. R. Norman, London: John Windet and Thomas Hudson for Richard Ballard, 1584, f. [76v], 'I have hereafter set down [a woodcut of] a co[m]passe flie, & the maner how to knowe the apertiment by memorie'.
71 The literature on scientific illustration is burgeoning, see e.g. Jardine and Fay (eds), *Observing the World through Images*; S. Kusukawa and I. Maclean (eds), *Transmitting Knowledge: Words, Images, and Instruments in Early Modern Europe*, Oxford: Oxford University Press, 2006.
72 J. Seller, *Practical Navigation*, London: J. Darby, 1680, pp. 209–10, p. 178.
73 E. Wright, *Certain Errors in Navigation*, London: J. Moxon, 1657, facing pp. 57, 65.
74 H. Phillippes, *The Geometrical Sea-Man*, London: R. and W. Leybourn, for G. Hurlock, 1652, preface.
75 Hester Higton identifies five different categories of images, from schematics to 'diagrams so detailed that they could function as instruments themselves'; see H. Higton, 'Instruments

and Illustration: The Use of Images in Edmund Gunter's "De Sectore et Radio"', in Jardine and Fay (eds), *Observing the World through Images*, pp. 180–200, 188, 199.

76 O. Gingerich, 'Astronomical Paper Instruments with Moving Parts', in R. G. W. Anderson, J. A. Bennett, and W. F. Ryan (eds), *Making Instruments Count: Essays on Historical Scientific Instruments Presented to Gerard L'Estrange Turner*, Aldershot: Variorum, 1993, pp. 63–74, at 74. This dour view has been rebutted by the sheer number of later volvelles that survive, as well as by studies such as C. Eagleton and B. Jardine, 'Collections and Projections: Henry Sutton's Paper Instruments', *Journal of the History of Collections* 17/1, January 1, 2005, pp. 1–13; S. Karr Schmidt, *Interactive and Sculptural Printmaking in the Renaissance*, Leiden and Boston: Brill Academic Publisher, 2017; and forthcoming work by G. Danişan Polat on 'Paper Instruments in the History of Ottoman Astronomy'.

77 See L. J. Waghenaer, *Mariners Mirrour*, f. B2v. Similarly, J. Moore, *New Systeme of the Mathematicks*, London: A. Godbid and J. Playford, for Robert Scott, 1681, p. 276.

78 Waghenaer, 'Tamme Dragende [Recte Drayende] Compasse Ofte Instrumenten Metten Ghesternte' n.p., [1584]; also issued with English and French engraved captions.

79 G. Denys, *Art de Naviguer*, Dieppe: Nicolas du Buc, 1666, p. 183, 'Advertissement'.

80 Hydrography teacher Jean Deshayes had a stock of copies of Le Cordier's instrument on hand to sell to his students in Québec c.1702–06; see 'Inventaire', G. de F. La Cetière (22 December 1706), Bibliothèque et Arch. nationales de Québec (QQA) cote CN301, S146, folder 672.

81 Radouay, *Remarques sur la Navigation*, John Carter Brown Library, RI, 1-SIZE E727 .R131r.

82 R. Coubert, *Abrégé du pilotage*, Brest: Malassis, 1685, f.2v. On Nierop's lessons, Mar. Mus. Rotterdam H631, J. W. Sleutel, 'Konstige oefeningen begrepen in drie boecken', Manuscript workbook, Hoorn, 1675–7, p. 125.

83 F. de Dainville, 'L'instruction des Gardes de la Marine à Brest en 1692', *Revue d'histoire des sciences et de leurs applications* 9/4, 1956, pp. 323–38, 333–4.

84 Pepys Library MS 2612, 'Matters Pertaining to Christ's Hospital' (1681), p. 370.

85 Pepys Library MS 2612, pp. 371–8, (inventory); pp. 684–5 (Pepys regarding the instrument curriculum).

86 I. Newton and R. Cotes, *Correspondence*, ed. J. Edleston, London: J. W. Parker, 1850, p. 283. For an earlier criticism of instrument-based learning, see W. Oughtred, *Circles of Proportion*, London: Augustine Matthewes for Elias Allen, 1632, Epistle Dedicatorie.

87 Dekker, *Globes at Greenwich*, pp. 4, 7. W. Barlow, *The Navigators Supply: Conteining Many Things of Principall Importance Belonging to Navigation*, London: G. Bishop, R. Newberry, and R. Baker, 1597, f. [K2v] deemed them 'The onely good methode of teaching and learning Cosmography'. See Wright, *Certain Errors*, p. 128, on the downsides to carrying globes on board ship.

88 J. van den Broucke, *Instructie der zee-vaert*, Rotterdam: Abraham Migoen, 1609, pp. 43–5.

89 Schotte, *Sailing School*, pp. 107–10, 122–3.

90 M. D. Nash, *Last Voyage of the Guardian*, Cape Town: Van Riebeeck Society, 1989, p. 10, Letter from Riou to Banks (July 15, 1789); and see *Guardian* Computation book (1789–90), National Maritime Museum (UK) RUSI/NM/235/ER/3/8.

91 HaNA VOC 5026, 'Instructie [van Heren XVII] voor de examinateurs der stuurlieden by de edele Oost-Indische Compagnie' (1793), pp. 11, 12 Art. II.

92 Radouay, *Remarques sur la Navigation*, pp. 10, 111. A. Mackay, *The Theory and Practice of Finding the Longitude at Sea or Land*, London: printed for J. Sewell, P. Elmsly, and J. Evans, 1793, viii, list of longitude methods 'scarcely practicable at sea'.

93 J. Moxon, *A Tutor to Astronomie and Geographie*, London: for the author, 1659, p. 58.

94 A. de Graaf, *De kleene Schatkamer*, Amsterdam: d'Erfg. Van Paulus Matthysz, 1688, preface, 'the usual tables or numbers that serve this science are noticeably shortened' (every fifth degree). On simplified route calculations, see V. F. N. Dulague, *Leçons de navigation*, Rouen: chez la veuve Besogne, 1768, p. 291, para. 775.

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13

Spectacles of the sea

Warship decoration and ideology in early modern Europe

Benjamin W. D. Redding

Throughout recorded history, warships have been used as tools of martial strength, and as symbols of political power. Roman quinqueremes (large galleys consisting of three banks of oars) were constructed to defeat the Carthaginians, but their size and design, similar to many early modern successors, also served to empower and promote their owners.[1] Warships were, and to some extent continue to be, decorated as well as represented in both elite and popular forms to convey royal, state, mercantile and, in some instances, personal superiority. Through their decoration and representation, warships could serve as a deterrent from opposing threats and competition, even if in reality they had only a limited operational use. The name of a ship, its size, colour scheme, painted imagery, carvings and artillery, as well as its representation in print, artwork, and on other mediums, could all assist in establishing and strengthening the ideological prominence of its owner.

During the early modern period, and particularly during the sixteenth and seventeenth centuries, the emergence of state-owned navies along with the strengthening and revitalization of monarchies, especially in northern Europe, produced an environment whereby monarchs sought to impress through both the military and cultural significance of their warships.[2] Indeed in many regards, monarchs' martial responsibilities became engrained within a wider national and international cultural theatre: naval warfare was integrated into royal identity. States, especially those governed by monarchies whose egos and beliefs of their supremacy encouraged naval developments, competed not only on the battlefield but also, through warship design, to boast of the largest or most attractive vessel. Warships could be a powerful deterrent with a clear message: the monarch with the greatest warship must be a powerful and sophisticated ruler; by threatening them, the belligerent could face the wrath of such a weapon. With this in mind, a warship did not need to be the most successful in combat. It only needed to suggest that it could be, and an intimidating exterior conveyed this message. Warships' designs and decoration were products of this competition.

Not only were warships developed because of the competitive nature of the international theatre, they were also products of transnationalism, having been influenced by foreign designs, and in some cases constructed with guidance from non-nationals. The majority of the most celebrated warships of the period were not constructed using only domestic expertise, but instead rulers employed foreign shipwrights and carvers. In England, Henry VIII employed Venetian shipwrights during his construction scheme of the late 1530s and 1540s, which witnessed the development of a number of warships including galley hybrids such as the *Galley Subtle* and *Antelope*. His daughter, Elizabeth I, benefitted from the employment of the Venetian shipwright Augustino Levello to maintain her three galleys during the opening years of her reign.[3] In seventeenth-century Sweden, Dutch shipwrights led the famed *Vasa*'s construction, while Germans coordinated its carvings.[4] It is clear that the escalating importance applied to warship decoration was the product of both international competition and influence.

Researching warship decoration has a number of obstacles. Detailed written accounts of vessels' appearance are rare, and when available, the creative dramatists and humanists commissioned to design the warship often write them. These works could be state sponsored and were designed to promote only the leading ships of the fleet, which served as flagships and represented the Crown. Examples of such material include Thomas Heywood's *A True Description of his Majesties Royall and most Stately Ship called the Soveraign of the Seas* published in 1638 and Juan de Mal Lara's *Sa Descripción de la Galera Real del Sermo. S[eigneu]r. D[on]. Juan de Austria*, produced between 1568 and 1571.[5] Rarely do first-hand descriptions of warships produced by courtiers, ambassadors, and, in some cases, members of the wider populace provide detailed comments, but instead only make brief reference to size and initial impression, leaving much to the imagination. Diarists such as the London merchant Henry Machyn recorded the launch of warships such as the *Elizabeth Jonas* in July 1559, yet were more likely to comment on the spectacle of 'shutyng of gunes', or on the presence of well-known courtiers at the launching ceremony, rather than detailing ship appearance.[6] Perhaps of greater value are those sources that provide visual stimulus, including paintings. Warships were often the focus of works of arts, especially during the Dutch Golden Age, but they were also represented in print, etchings, sketches, and drawings, as well as medals, carvings, coinage, and, of particular value, ship models. However, the verisimilitude of these visual sources is questionable, since many of them were designed to promote royal, state, or regional power, compromising their accuracy. A key example of these processes is *The Embarkation of Henry VIII at Dover* completed in the early 1540s. In this painting, the Tudor fleet is depicted as being uniform in size and design when, in reality, this was not the case because the majority would have been significantly smaller.[7] Artists, especially during the sixteenth century when state-owned warships were in their infancy, both in terms of quantity and operability, prioritized promoting state grandeur, not realism. Consequently, the representation and reality of a warship's military strength were not necessarily balanced when bearing in mind that these representations, both in words and images, have promotional aims.

This is also apparent in work commissioned to celebrate the English victory against the Armada of 1588, such as *The Armada Portrait* and *English Ships and the Spanish Armada, August 1588* (see Figure 13.1), with both paintings commissioned shortly after the battle.[8] The highly detailed, gilded, and frivolous design of the warships depicted are most likely intended to immortalize the event, which in reality was far less epic, divine, or decisive than the sources portray. Indeed, comparing *English Ships and the Spanish Armada, August 1588* with another painting, *Elizabeth I and the Spanish Armada*, shows significant differences in decoration, including an almost total absence of gilding in the latter, suggesting that art celebrating the event prioritized political power and elitism over historical accuracy.[9] It is therefore extremely difficult to accurately determine the appearance of more than a handful of warships until as late as the mid-seventeenth century, when the artistic family, the Van de Veldes, gained patronage in England and the Netherlands for their maritime art. Besides, when detailed and authenticated evidence of ships' appearances is available, it needs to be acknowledged that our understanding of decoration is often a snapshot, most often based on a ship's initial launch. The gilding of warships might have impressed spectators at first, and it was this impression that was most frequently documented and therefore survives in the historical record, but decoration was of course perishable and relatively easily altered. For example, Charles I's *Sovereign of the Seas* was lauded for its beauty when

Figure 13.1 *English Ships and the Spanish Armada, August 1588*, unknown artist. National Maritime Museum, Greenwich (BHC0262). Wikimedia Commons.

launched, and yet its gilded carvings were described as 'gingerbread' both because of their golden appearance and also because they are said to have regularly snapped off when placed in dock.[10]

This chapter will explore early modern European warship design and decoration and relate it to wider political, cultural, and international trends. It will focus on state flagships and other prominent warships within European fleets, although where relevant, small and medium craft will be considered. The decision to concentrate predominately on larger, state-owned vessels has been made for two reasons. First, they were costly endeavours designed both for military gain and to make political and ideological statements. Second, as the principal warships within navies, more attention was given to them in contemporary records. Smaller vessels were most likely to be selected for sea patrols and other forms of service because they cost less to operate and maintain, but the largest warships in the fleet continued to hold power, even when sitting in dock, by representing the Crown and state.

By employing a loosely chronological structure, first focusing on the period before 1600 and subsequently the period up until 1800, I argue that although the two periods marked complementary developments in visual design, there was also important change. The earlier period was characterized by the emergence of warships as a form of sophisticated elite culture, while the latter refined it further by using more extravagant forms of baroque design from northern Europe. The latter period built on previously developed representational devices and mediums. Thus, the years prior to 1600 can be described as an initial developmental phase of warship decoration, whereas the period 1600–1800 focused on consolidation and enhancement, as warships became an art form. In broad terms, between 1400 and 1800, warships were increasingly designed to reflect historical, religious, and political ideals, before refining and becoming more reserved in their appearance during the long eighteenth century. Their design as tableaus of identity meant that, for some warships, iconography was prioritized over military function. They were symbols of state rather than weapons of state.

Pre-1600 designs

When maritime historians discuss ship decoration in relation to cultural and political values, we usually turn our attention to the seventeenth and eighteenth centuries – the so-called 'Golden Age of European Sail' – when warships such as the *Sovereign of the Seas*, *Vasa*, and Louis XIV's *la Réale* traversed the seas. Yet focusing only on this time overlooks similarities both before and after; the construction and use of warships as statements of political power long predates the Golden Age.

Legendary vessels held historical and mythological significance in Europe and beyond. Biblical accounts of Noah's voyage, and legendary stories of Jason and the Argonauts, for instance, told of great ships that accomplished impressive maritime feats. These tales inspired wealthy and powerful leaders and states into producing great vessels that could mirror *Argo*'s renowned career. Of course, it was extremely unlikely that vessels would actually succeed in maritime feats that paralleled those of Jason and the Argonauts, but this did not mean that a vessel could not be constructed to present itself as worthy of such exploits. As well as originating from legendary acts at sea, other

sources of secular and religious authority influenced warships' symbolic power. In England, Henry V built a strong fleet during his short reign, including four great ships which, according to Ian Friel, were 'built to impress as well as fight'.[11] In size, name, and design the vessels featured many of the characteristics that continued to shape warships in the nineteenth century.[12] The *Grace Dieu*, *Holy Ghost*, *Jesus*, and *Trinity Royal* were all named to recognize Henry's religious convictions while expressing his divinely blessed royal authority. They were painted in heraldic colours, and included the king's arms, religious symbols, patron saints, and other heraldic devices in the form of lions and leopards. Through these devices, the ships combined and promoted the king's pious and royal qualities.

This tradition continued into the sixteenth century, when the most famous European carracks, caravels, and galleons were often large, imposing, and seemingly impressive, but impractical at sea. For the aspiring European state, it seemed compulsory to possess a large trophy ship: Henry VIII had the *Henri Grace à Dieu* (also known as *Great Harry*), James IV owned the *Great Michael*, Francis I commissioned the construction of *la Grande Françoise*, the Knights of Malta had the *Santa Anna*, and the Portuguese owned the *São João*. Yet all these vessels had somewhat unsuccessful careers at sea consisting of elongated periods of time being mothballed, or being damaged by storms, and thereby requiring extensive and costly repairs. In the *Great Michael*'s case, the warship was sold to France because of maintenance expenses after James IV's death at Flodden in 1513. Aside from being a large financial strain on state revenue, their size and bulky fore and aft castles hindered their manoeuvrability, which led to far smaller and more operable vessels generally being employed for service instead. These colossal weapons' greatest service to their owners was in fostering prestige rather than having actual military function.

Their size was a novelty that impressed. Holy Roman Emperor Charles V commented favourably on Henry's warships when visiting England in May-June 1522, and was optimistic that with England's sea power, a combined Anglo-Spanish alliance would easily defeat the forces of Francis I.[13] It was typical of these vessels for their fore or aft castles to comprise of two or, in some cases, three decks, which caused significant complications when sailing, especially in bad weather. Unsurprisingly, warships such as the *Henri Grace à Dieu* were easy targets for storms; in June 1522, heavy wind severely damaged Henry VIII's flagship in the Channel, which caused it to remain inactive in repair at Northfleet until as late as 1525, while its bowsprit, main topmast, and rigging were changed.[14] Francis I's great warship *la Grande Françoise* had a similar, yet more devastating history. Constructed in direct competition with the English ship, *la Grande Françoise* could reportedly hold up to 2,000 men and featured both a windmill and tennis court, yet when launched in 1520 it failed to leave Le Havre harbour because of the ship's heavy draught in shallow depths.[15] Despite numerous attempts, the vessel remained at Le Havre without sailing on the open sea until 1533, when it was hit by a storm, likely struck by lightning, and later destroyed. By the early sixteenth century, Renaissance monarchs were prioritizing the size of prestige warships over their functional use as sailing ships, at great financial and material cost.

In this period, France, England, and Scotland were closely connected both geographically and politically because of the Franco-Scottish Auld Alliance. As a result,

competition in warship construction between the three powers was long established and almost naturalized, with other European countries not far behind. The Swedish *Elefant* was completed in Stockholm in 1534 and was nicknamed the Great Carvel because of its size. Its aft castle rose 54 feet above water.[16] Meanwhile, its successor, *Mars* was comparable to the *Henri Grace à Dieu* at 1,500 tons, although in this instance, the limitations of ship design were demonstrated in May 1564 when the ship suffered a damaged rudder during an encounter against an allied Danish/Lubeckian fleet, causing it to be an easy target to cannon fire and its eventual sinking.[17]

It was not only with the round ships of northern Europe that the powerful and wealthy experimented with size. In the Mediterranean, Venetian galleys and galleasses were commissioned to display superiority and power in a theatre that also witnessed elitist rivalry. During the 1520s, the Venetian Republic constructed a quinquereme based upon classical manuscripts, which at 74 metres in length was one of the largest wooden ships ever to be constructed. Yet, similar to its northern counterparts, it was too unwieldy to be useful in combat.[18] This did not deter Venetian ingenuity: such attempts inspired others to create large, manoeuvrable, and combat-engineered ships which led to the design of the galleass around a decade later.[19] The galleass (such as pictured in the foreground of Figure 13.1) was longer than most galleys but was propelled through use of both oar and sail. Its design influenced English ship construction, with the *Antelope* and *Tiger* being two examples of a number of forms of galleasses produced in England during the 1540s.[20] Mediterranean galleasses, like galleys, could serve as a clear representation of wealth, power, and identity. On their poop deck their captains, owners, and patrons could sit surrounded by gilded works, often under a portico, which would appear both theatrical and impressive.

One of the most heavily decorated Mediterranean galleys was the Spanish *la Galera Real* constructed in 1568–9 on the orders of Philip II of Spain. The galley was built for the king's younger brother Don John of Austria to lead the Holy League against the might of the Ottoman Empire. *La Galera Real* led the Christian war effort at Lepanto and its decoration was intended to complement a vessel with these divine and majestic responsibilities.[21] It was luxuriously ornamented and painted in the red and gold colours of Spain. Its transom and wider poop were elaborately carved with various embellishments designed to evoke the strength of the Catholic Church as well as showing humanist influences. Among a number of decorations celebrating Philip II's messianic ambitions, scenes of Jason's quest for the Golden Fleece were included, an icon depicted as a tribute to Philip II's Catholic chivalric order, the Knights of the Golden Fleece, of which his brother was also made a member in July 1559.[22] For Sylvène Édouard, the ship's design 'was a prolepsis of the events to come. By seeing the beauty of the vessel it encouraged the Holy League towards victory'.[23] It was a clear piece of both political and religious propaganda.

Such a high level of decoration was the exception rather than the norm. For Spanish and other Mediterranean galleys and galleons, including those of France, portraits on the transom were normally connected with the vessel's name be it a protecting saint, hero, animal, or some other virtue related to the country of origin.[24] For sixteenth-century Spain, with Charles V and Philip II as defenders of the Catholic faith, this usually related to religion, typically with a saint represented. Surrounding

this portrait were gilded works, although the extent of their use varied and were not as consistent as those portrayed in *English Ships and the Spanish Armada, August 1588* (Figure 13.1). Indeed, evidence suggests that the majority of Spanish galleons had very little decoration or colour. It was not even the case that the upperworks were always painted with national or regional colours. Galleons were designed to sail across long distances throughout the wealthy Spanish Empire, not to sit in dock, which is likely why their decoration was often minimalist.

Nevertheless, one device, the figurehead, often featured on a galley, and it was gradually introduced to galleons in the sixteenth century. Although the origins of the figurehead cannot be accurately dated, they were used in classical antiquity as a ramming device on oared warships.[25] Galleys continued to use them in this way into the sixteenth century, and their carving, typically into some sort of beast, normally a dragon, was merely to make more aesthetically pleasing something that was essentially a weapon. During the late-medieval and early modern period this changed, when ramming techniques slowly ceased and were replaced by heavy ordnance onboard vessels. Yet despite this, figureheads increased in popularity as a decorative device, even on sailing vessels. By the late sixteenth century, both state and private ships commonly sported figureheads relating to the nation and/or the ship's name. Ornate carvings and gildings featured, designed to embody a ship, making it a piece of high-end material culture. Galleys, as well as large sailing warships became prestigious and elite signifiers, and the figurehead played an important part in establishing this image as the period progressed.

The Anthony Roll, an inventory of Henry VIII's navy produced in 1546, includes illustrations of each of the king's warships and shows evidence of a slow introduction of figureheads during the sixteenth century. Of the 58 warships depicted, only two include a figurehead (the *Unicorn* and *Salamander*, with their devices being a representation of their names) while the *Mary Rose* also displayed a badge of the Tudor Rose at the bow.[26] Both the *Unicorn* and *Salamander* were prizes captured from Scotland (although constructed in France) in 1544; clearly figureheads, as a decorative device, were not commonplace on sailing vessels, such as cogs and carracks at that time. In part, the absence of figureheads on the majority of warships was because most did not feature an obvious protruding platform at the prow of the vessel (a beakhead), thereby preventing the integration of figureheads because there was no obvious space to attach them. Consequently, as the century progressed, figureheads were increasingly integrated on ships which included beakheads, such as galleons, by being placed underneath the fore end of the beakhead. As a result, by the end of the century, lions and leopards were increasingly employed as figureheads on Elizabethan warships. England was not alone in this preference; throughout Europe, from Sweden to Spain, the lion became a popular heraldic figurehead.[27]

The importance of heavy artillery to early modern design and prestige is apparent in *The Anthony Roll* where, on the exterior of the ships illustrated, large pieces of ordnance protrude from almost every crevice possible (see Figure 13.2). Images such as these are inaccurate, since before the seventeenth century, warships rarely had more than one gun deck below deck; as exemplified by guns being found on the *Mary Rose*'s main, upper, and castle decks.[28] It was rare to have more than eight gun ports

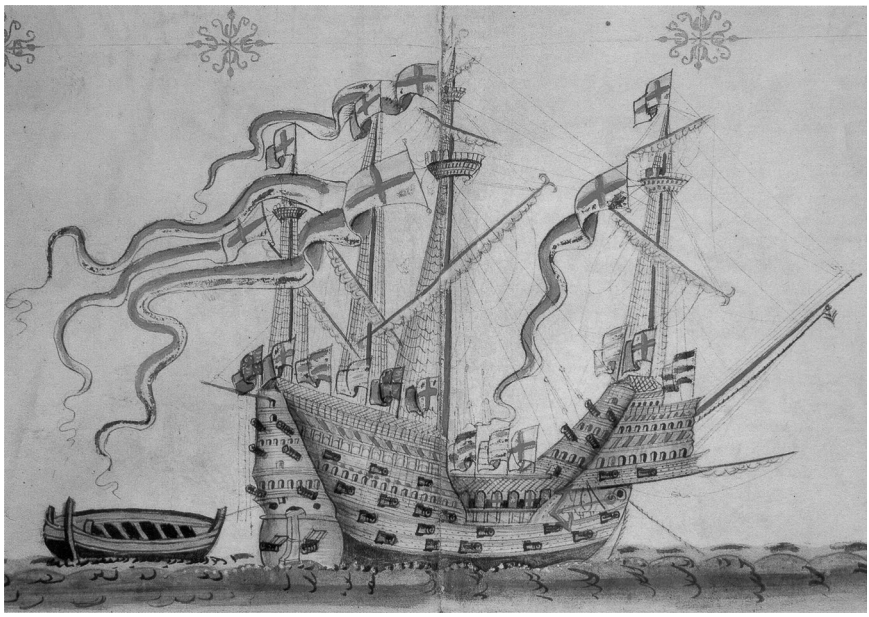

Figure 13.2 *The Peter (Pomegranate)* from the Anthony Roll of Henry VIII's Navy, 1546. Wikimedia Commons.

on a single side of a deck during this transitional phase when cannon was becoming a central component of naval warfare. Even when a warship was not mothballed, a large amount of artillery on board a warship during the mid-sixteenth century was unlikely to be an advantage in battle. Artillery could weigh the vessel down, making it even more cumbersome and this could lead to dire consequence, as when the *Mary Rose* sank in July 1545. Advances in shipbuilding and tactical operation meant sixteenth-century warships struggled to hold and effectively utilize the mass of guns they carried.[29] The point here is that early sixteenth-century warships were not tailored to holding heavy guns. They had limited space, and large cannon were heavy, bulky, and difficult to operate and support. Consequently, although a warship could be recorded with a lot of firepower, this did not necessarily equate to greater naval strength; less could be more. When French galleys wreaked havoc on the English fleet during the war of 1512–14, sinking several English ships in the English Channel, it was not because they were overloaded with ordnance, but because they skilfully used it by placing a heavy gun, known as the basilisk, at the prow of the vessel.[30]

Overpowering warships with artillery during the mid-sixteenth century held more importance as a deterrent than for actual combat. The appearance of military strength could be of greater significance than actual military effectiveness, which more often than not was limited for the northern European sailing warship.[31] A large array of cannon could denote military power, even if their effectiveness was limited in reality. Heavy artillery therefore became an essential component of a warship's appearance, decoration, and representation for much of the sixteenth century. The

illustrations of *The Anthony Roll* should be considered in this context. Heavy ordnance designed to impress and deter did not feature as a pioneering catalyst for naval warfare until the late sixteenth or even seventeenth centuries.

Post-1600 design

During the first half of the seventeenth century, the construction of large warships for prestige was increasingly prevalent, while their effectiveness as weapons of war was of secondary importance, as they remained restricted by size and design. When Gustavus Adolphus of Sweden's *Vasa* foundered in Stockholm harbour during its first maiden voyage in August 1628, the cause was poor structural integrity, since its large and slim hull resulted in it being top heavy. Being heavily armed with bespoke cast-bronze cannon, and lavishly decorated, the vessel was unstable. But the ship was an important status piece. When the Swedish king ordered its speedy launch to Poland, where he was engaged in war, his shipwrights obeyed his order despite seemingly being aware of the design problems.[32] This is an indication of the relationship between monarch and warship. Ships were not only weapons, but also symbols of the Crown that needed to be both preserved and resolute. The hasty launch of *Vasa* was necessary because it was a representation of the Crown at a time when the kingdom's military forces were being tested.

Vasa's decorative carvings reflect the desire to promote and enhance the image of the Crown at a time when it was being verified by war in Poland. Along with the various motifs of beasts, sea creatures, and gods that referred to stories from antiquity and celebrated the current monarch, *Vasa*'s figurehead also made a clear and direct political statement. Along the beakhead, individual carvings of each Roman emperor were displayed in chronological order of reign, with the exception of Augustus. In

Figure 13.3 Beakhead and figurehead of Stockholm's *Vasa* (Vasamuseet). Author's collection.

place of Augustus, *Vasa* used a rampant lion as its figurehead, a symbol of the Vasa royal family. With this design feature, Gustavus Adolphus was simultaneously replacing and representing Augustus as the next in line to the great empire. He was Augustus reborn, which was particularly appropriate since their names were anagrams of each other.

Gustavus Adolphus' contemporaries expressed similar ideas, when the image of monarchy was being transformed and strengthened. In 1604, Christian IV of Denmark commissioned *Tre Kroner*, an 80-gun vessel. Similar to *Vasa*, *Tre Kroner* was heavy with a deep draught and was consequently difficult to manoeuvre.[33] Yet this did not prevent spectators from being highly impressed by the beauty of the warship, thus fulfilling its most important strategic function. *Tre Kroner* transported Christian IV to visit his daughter and son-in-law in England in 1606 when a large English audience commented favourably on the gilded carvings that adorned the warship.[34] Indeed, like other contemporary prestigious vessels such as Charles I's *Sovereign of the Seas* and Louis XIII's *la Couronne*, *Tre Kroner* remained in dock for most of its career. Such warships were not only hard to operate because of design flaws and heavy ordnance, but were also expensive to equip and crew. Nevertheless, even if these warships were rarely put to sea, when they were employed for service, usually for diplomatic events such as in 1606, the impression that they provided internationally could serve to justify their continuation as symbols of power.

Although large warships continued to be constructed in the sixteenth and seventeenth centuries, their design and decorative style changed. Baroque design transformed warship decoration over time as it became less concerned with religion as the basis of identity and power, and instead prioritized national sentiment, history, and culture as a method of justifying rule. The Protestant nations that became major maritime powers in this period discarded religious saints as protectors of their nation and company, replacing them with secular defenders, honouring the monarchy and great nobles of the realm. This was something that did occur in the earlier period, but from 1600 it became far more pronounced, especially in northern Europe where the Protestant Reformation was most established.

Yet this development was neither universal nor synchronized across Europe. Understandably, for Catholic Europe, warships continued to be named and decorated to honour religious saints, while using them as protectors of ships, and this endured into the mid-seventeenth century, with local patron saints taking prominence, such as Saint Denis and Saint Jeanne in France, and San Juan Baptista and San Ambrosio in Spain. Yet even in these countries, warships were increasingly named in connection to nationalist traits that were associated more with the realm than Rome. *La Rèale* was the name given to the lead galley of the French Mediterranean squadrons from the sixteenth to eighteenth centuries, while *la Couronne* and *le Souverain* served its Atlantic fleet. Meanwhile in England, with the exception of patron saints, no English warship was named after a saint apart from *Saint Michael*, constructed in 1669, although this was likely agreed on with the understanding that Saint Michael was not canonized but an archangel.[35] The naming of warships was therefore highly relevant to domestic and international politics; in no case is this more apparent than with the *Sovereign of the Seas*, which Charles I named as an anti-Grotian statement.[36] The warship's name was a direct attack on the free seas debate founded by the Dutch Lawyer Hugo

Grotius to justify Dutch maritime policy, which questioned English claims of ownership of its surrounding sea.

Regarding the naming of vessels, it is clear that as the period progressed warships became increasingly representative of secular identity. France is a good case study here, given its Catholic identity and connection to northern, Atlantic, and Mediterranean waters. It is unsurprising that during a period of increased centrality, heightened monarchical power, and strengthened identity, the names of French warships were revised. Martine Acerra records that between Louis XIV's majority and the end of the *ancient regime*, just 15 vessels and two frigates bore the names of the virgin mother or of saints, out of a colossal 1,376 ships of the period, indicating an almost total absence of religious names in stark contrast to those adopted in the early seventeenth century.[37] Instead, names were far more likely to reflect on mythology and the sea, the monarchy, war, or geography. Indeed, *le Constant* was the name of five vessels between 1670 and 1690 alone.[38] This is comparable to the Netherlands. *Eendracht* (English: unity) was the name of two Maas admiralty flagships, in addition to at least ten further warships across the three Anglo-Dutch Wars.[39]

Other examples that highlight the gradual shift away from religious identity for warships come from lasting cultural devices employed during the late Renaissance movement of the late sixteenth and early seventeenth centuries. *Neptune*, *Trident*, *l'Aigle*, *Lion*, *Tigre*, and *l'Hercule* are all common names used in France during both the seventeenth and eighteenth centuries.[40] Religion slowly decreased in importance as a major influence on vessel design, even in Catholic Europe after 1648, while names of a more secular nature that were present in the sixteenth century continued to be employed during the later period. This occurred at the same time as new names were introduced, often in order to commemorate military victories in war such as *Naseby* and *Newbury*. This was a European-wide phenomenon; indeed, although England and the other Protestant nations were the first to ditch names with religious sentiments, many of the names of vessels introduced during the sixteenth century continued to be used for centuries after. Elizabethan titles such as *Victory* and *Dreadnought* are now more commonly associated with Vice-Admiral Horatio Nelson and the twentieth century, respectively. In another example, *Antelope* was an English galleass originally constructed in 1546 and named after a device used on the coat of arms for the Lancastrians. The ship served several successive English monarchs, and the same name was still being used into the twentieth century. HMS *Antelope* was sunk by Argentine bombs in May 1982, and was the last of 12 different Royal Navy vessels to inherit the name.[41]

The move toward the secularization of warships is particularly evident when considering ship decoration, such as figureheads. Whereas Gustavus Adolphus used a rampant lion for his figurehead on the *Vasa* to represent his ambitions and hereditary power, for the *Sovereign of the Seas* Charles I used Edgar, the legendary tenth-century English king of the seas who is said to have led a fleet of 3,600 ships. Edgar was selected in order to signify English claims over sovereignty of their surrounding waters during a period in which this was legally contested.[42] Meanwhile, the figurehead of Louis XIII's *la Couronne* comprised Hercules slaying the Hydra.[43] Louis' father's defeat of the many-headed Catholic League regularly used this mythological image and

iconography. Likewise, one of Louis' vessels used Jupiter riding an eagle for a figurehead, another common motif of the time in the king's iconography.[44] It was standard practice, especially from the seventeenth century onwards, for the leading warships of the fleet to be a direct embodiment of the Crown.

Yet, not all nations appear to have been subject to this change in visual design; for some, such as Spain, the sailing operability of a ship was of paramount importance because of the need to travel great distances to protect the Habsburg Empire. As a result, as the aesthetic design of northern European warships heightened under the influence of the baroque movement, Spain, in contrast, fell behind. Descriptions of six warships constructed by Martin de Arana for Philip IV in 1625–8 suggest that Spanish warships changed little from their late-sixteenth-century ancestors. There was, as Carla Rahn Phillips has suggested, 'a more austere image than legends of Spanish galleons have led us to believe'.[45] Decoration remained limited with little colour, with only red, as representative of Spain, being prominent on the upper works, which would have stood out against the black appearance of the hull.[46] With this exception, the standard decoration of Spanish warships of the early seventeenth century would have been very different to the lavish designs produced in the north. Indeed, the only other decorative devices mentioned in Spanish inventories were gilded rampant lions placed as beakheads on all six vessels, in addition to each having a painted image on the transom associated with the name of the ship. The names of all six vessels allow us to not only envisage these paintings, but also to clearly understand the differences in warship decorations between Protestant and Catholic Europe. All six were connected to the Catholic faith: *Nuestra Señora de Begoña*, *San Felipe*, *San Juan Baptista*, *Los Tres Reyes*, *San Sebastiàn*, and *Santiago*. Although some decoration was clearly present, its extent was dissimilar to the frivolous designs present in the English and Swedish examples. This would suggest that Spanish priorities for their warships were focused on operable sailing abilities, which were needed to protect the varsity of the empire – function rather than impression was key.

There were, however, a number of parallels between Spanish and French design during the earlier seventeenth century, principally because Catholicism was a key identifying trait prior to the end of the Thirty Years War. In France and Spain, saints played an important role in warship decoration and embodiment. According to naval chaplain Georges Fournier, writing in 1643, in French design 'the protecting saint of the ship is always painted on the stern' along with an inscription that blessed the ship.[47] The Catholicism of the two states was also reflected in the choice of warship names. While France had a warship named *Saint Louis*, Spanish warship names included *San Mateo* and *San Maria* among others; meanwhile the name *les Trois Rois/Los Tres Reyes* was regularly used in both kingdoms.[48]

Northern Europe continued to lead developments in ship design during the remainder of the period, although the nation spearheading the introduction of these new design features shifted. As previously discussed, for most of the seventeenth century it was Protestant states, particularly the Dutch Republic, which steered developments in vessel construction and decoration. This certainly could be connected to new aspiring Protestant nations trying to establish or reshape their identity; warships became a tableau on which to express ideas of both a personal and collective character.

Dutch shipwrights were valued for their expertise across Europe and were regularly commissioned by foreign adversaries. During the 1620s and 1630s, 26 vessels were constructed in Holland for the French navy.[49] In many respects, Dutch expertise in this field is understandable both before and after 1648, since the war for independence shaped the Netherlands' identity as a maritime power. After the Peace of Münster, Dutch maritime affairs were divided among five admiralties: Amsterdam, Mass, Friesland, Noordeckwartier, and Zeeland. Each region was responsible for designing and decorating its own vessels, encouraging competition in design and artistry.[50] Sculptors such as Artus Quellin, who designed the decorative baroque works for the Amsterdam City Hall, influenced the decoration of future ship ornamentation, permitting a shared identity and iconography on land and sea. This enabled Dutch warships to be characterized by both national and provincial connections. Broadly speaking, the majority of Dutch warships of this time used a painted lion as their figurehead, which also often featured on the upperworks of the transom. This was a symbol of unity, as the lion, a symbol used to represent a number of European states, was also the emblem of the Dutch Republic. Meanwhile, at a local level, warships were often painted and adorned with flags that reflected regional differences, as well as the admiralty they served. The foregrounding of vessels' connections to regional identity was not unique to the Dutch Republic, with Spain, Italy, and France all including similar characteristics on their warships, especially during the earlier period. In these cases, national shipyards were scattered across the realm, enabling regional identity to play a bigger role in design alongside general national connections, in contrast to England where royal shipyards were mostly located near to London.

Despite having both national and provincial influences in their decoration, Dutch warships tended to have less decoration than those of the autocratic monarchies that developed in Europe during the seventeenth century. One example of such work is *Brederode* (launched 1646), flagship of Admiral Maarten Tromp and Admiral Michiel de Ruyter during the first Anglo-Dutch War.[51] Van de Velde's drawing of *Brederode* (Figure 13.4) shows a transitional vessel whose pomp was toned down in contrast to England's *Sovereign of the Seas* and Sweden's *Vasa*. *Brederode*, like many of its successors, had very little decoration to its upper-side works; instead reserving focus to its stern, which included Neptune, gilded lions, a windowed gallery and the crowned arms of William II, Prince of Orange. Although comparable to the *Sovereign of the Seas* in that it was easily the largest and most heavily armed vessel in the Dutch fleet, its decoration was more elegant and avoided the theatrics observed on the English ship and *Vasa*. Other examples of Dutch reductionism, secularization, and relations to both the national and local, include the *Zeven Provincien* launched 1665, and the *Gouda* of 1656, named after the town.[52] Although with some richly gilded devices on its stern, *Gouda*'s centrepiece on its transom was a painting of its namesake town.[53]

As the seventeenth century progressed, however, warship decoration and design gradually transformed in a process that would witness it becoming more standardized and reserved in comparison to the flagships produced during the first half of the century.[54] After the Thirty Years' War, and especially during the final quarter of the century, ship design became more uniform. By the 1640s, both England and France, and shortly after the Dutch, had introduced a ranked system to categorize

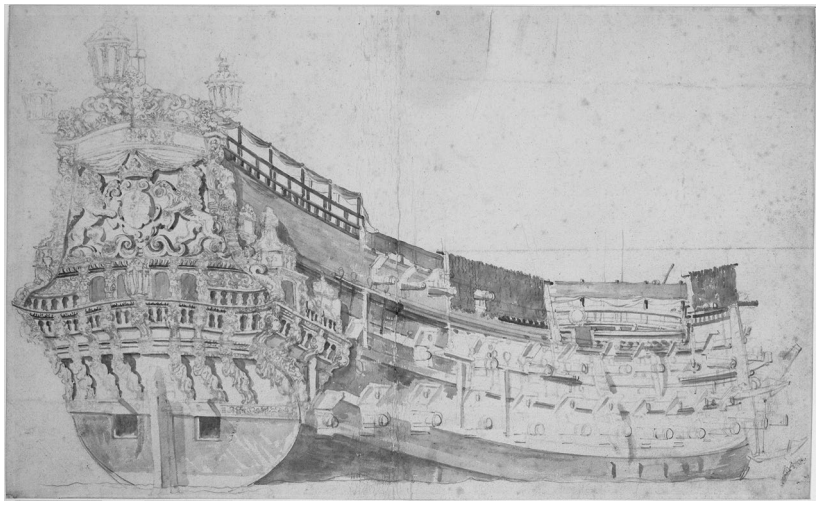

Figure 13.4 Portrait of the *Brederode*. Launched in 1646. Drawing by Willem van de Velde the Younger (National Maritime Museum, Greenwich, London, PY1720). Wikimedia Commons.

warships. Although the Cromwellian navy had accrued a colossal debt by 1660, the navy expanded and it was more efficiently maintained through its systematization.[55] Decoration also reflected these changes. By the Restoration, Stuart warships conformed to the baroque styles introduced in the late sixteenth century, which were adopted as norm during the seventeenth century, which accentuated the importance of gilding while using darker colours in the background. The two mediums complemented each other by drawing attention to the gilded works. Decoration on the upper works of the vessel's sides was reduced, with the carved motifs embedded on the *Sovereign of the Seas* and the stripped heraldic paint more accustomed to sixteenth-century decoration being replaced by a simple one-tone colour for the upper decks. Although frivolous display was reduced, both figurehead and transom décor were maintained, and by the end of the seventeenth century, stern decoration too was significantly condensed.

In part, French design was responsible for changes to the transom during the later period. Louis XIV's desire for spectacular and pompous display was enacted on his warships, and gradually France became the leading nation in maritime design instead of the Netherlands. To some degree, this was a result of Louis' ambitions and ideological image, but the Dutch were also responsible for the change, through refusing to adapt to new methods of design, instead preferring to emphasize Dutch tradition and identity.[56] The emergence of French leadership in design was gradual, and during the earlier years of Louis' majority France returned to purchasing Dutch-constructed warships. France commissioned ten Dutch warships in 1665, with their emblematic importance apparent in drawings such as Figure 13.5. Van de Velde's drawing shows a highly embellished design intended to celebrate the power of the Crown, and its

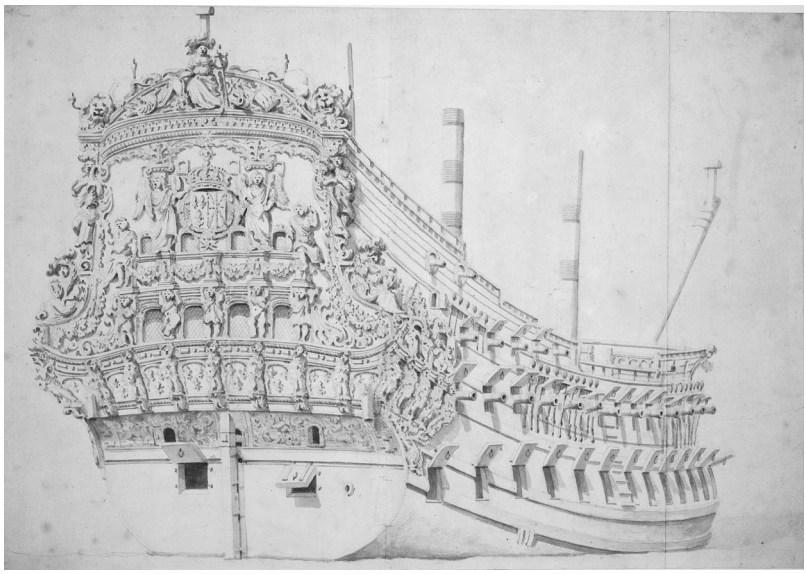

Figure 13.5 Portrait of a French two-decker. Built in Holland 1666–67 by Willem van de Velde the Younger. National Maritime Museum, Greenwich, London, PY3881. Wikimedia Commons.

appearance would have rivalled the European flagships developed during the 1620s and 1630s. Indeed, its tafferel at the centre of its transom bore the Crown's arms and Royal Orders being supported by two angels, and it would therefore have been very similar to the stern's centrepiece on Louis XIII's *la Couronne*.[57]

The turning point for French innovation seems to have been in the following decade. It is not coincidental that the change occurred while France was at war with the Netherlands from 1672–8, when the inferiority of French warships compared with Dutch ones was starkly apparent. Indeed, imitating Dutch practice, Louis employed French artist and architect Charles Le Brun to be the chief decorator of his great fleet. As *premier peinture* for the king, Le Brun was responsible for decoration inside Louis' palace at Versailles and the Louvre. Intrigued by English and Dutch warships, France's northern rivals influenced Le Brun's decision to reduce the number of carvings on French vessels in order to make them more operable.[58] This change was most noticeable after the death of Jean de Baptiste Colbert in 1683, when Jean Bérain, Le Brun's successor, was commissioned to continue Le Brun's work by standardizing warships, focusing on their operability rather than decoration. Consequently, although some ornament was maintained to reflect the power of the Sun King, decoration of the transom was significantly overhauled. Whereas during the sixteenth and early seventeenth centuries the stern of a warship served as a blank canvas that could be transformed for artistic appeal and propaganda, by the early eighteenth century this emphasis had been reduced. French warships became uniform, symmetrical, and minimalistic, and this quickly spread across Europe. No longer was the transom of

the ship adorned only with cultural motifs that reflected royal (or elite) power, but instead this feature was replaced with large panels and windows that were lighter and more efficient at sea.

It must be stated that as with any study that covers a large geographical area and time, there are exceptions to this analysis. Here, it is worth considering the emergence of Russia on the naval scene under Peter the Great, where 'westernization' of the country and navy is a clear indication of the international cultural influences that shaped warship decoration. This is despite the decoration and ideology that underpinned Russian warships not conforming to the wider European trends of the late seventeenth and early eighteenth centuries. Peter's famous 'Grand Embassy' visited the maritime powers of England, the Netherlands, and France in 1697–8, and during this time, Peter worked in foreign shipyards where he observed the precise and detailed art of ship decoration.[59] Once back in Russia, and following the visit of English shipwrights John Deane and Joseph Nye in the autumn of 1698, Peter ordered the construction of the prestigious *Predestinatsiia*, the keel for which was laid on 19 November.[60] The warship was a clear symbol of a new western outlook; its two Russian shipwrights had previously trained in Venice and similar models seen in Chatham influenced the vessel's design. Dutch engraver Adrian Schoonebeck was employed to assist with the conceptualizing and engraving of the warship's emblems. Maria di Salvo has drawn attention to the vessel's name, which by using Dutch and Latin forms instead of Russian (*predvedenie*) indicated a western approach. Alongside carvings of Cupid and Triton, Hercules was featured defeating the Nemean lion on a side gallery, an allegory of Peter's ambitions to defeat Sweden. Meanwhile, at the centre of the stern, a scene depicting Saint Peter kneeling on land against a backdrop of the sea was included, on which an angel was represented sailing on a small ship.[61] The warship was extravagant, and adorned with a number of heavy carvings, which would not have looked out of place on northern European ships more than 50 years earlier.

It is also worth stressing that galleys continued to be used in exceptional cases in the Mediterranean during the late seventeenth and early eighteenth centuries, while continuing to be used in the Baltic throughout the eighteenth century. Historians agree that the Battle of Lepanto of October 1571 was the turning point after which galleys declined in value for naval conflict.[62] Yet this does not mean that they did not continue to be constructed after 1600. Indeed, their continued presence in the Mediterranean after Lepanto is an indication of oared vessels' use in the cultural sphere, as an object of elite power.[63] This was facilitated by their appearance. Members of the elite continued to own galleys during the seventeenth and eighteenth centuries. *Le Cardinal*, *le Richelieu*, and *l'Olivares* (a Spanish prize captured in 1638) were in operation as part of the French navy during the late 1630s, and named after their owners.[64] Louis XIV's *la Réale* was decommissioned only in 1720, and the gilded decorations of its stern remain on display at the Musée de la Marine, Paris.[65] The stern used devices of angels, classical figures, and the globe in order to reflect on Louis' imperial outlook. *La Réale* was a clear indication of the elitist value of warships even when their military worth was limited. This is not to say that galleys did not develop decoration in line with developments to sailing vessels. By the late

seventeenth century, oared vessels were being designed in accordance with the more reserved baroque styles developed in France, and their sterns were similar in design to their northern counterparts in focusing on symmetry and window panels.[66] Galleys were a symbol of elite power in the Mediterranean, and their military value pre-1600 allowed memory to transcend military logic. They continued to be seen as a weapon of war due to their armament and decoration despite no major galley battle being fought after 1571. Mediterranean galleys, instead, became a major tool of prestige under Louis XIV, whose *corps des galères* was unrivalled in strength before being dissolved in 1748. Its presence, without any significant competition in the Mediterranean reflected and bolstered Louis' imperial ambitions; it was principally maintained to sustain the image of power.

With these exceptions recognized, during the late seventeenth and early eighteenth centuries, most European states simplified transom decoration, in favour of enhanced manoeuvrability, causing many of the motifs that emblazoned and complimented early seventeenth-century monarchs to be removed. With limited space available on the panels of late seventeenth-century transoms because of the introduction of windows, and with a heightened understanding of restrictions to sailing abilities caused by heavy carvings, the vivid theatrical displays prevalent on European flagships during the late sixteenth and early seventeenth centuries became less common. The transom model adopted by most European warships used the baroque style and divided the stern into three sections. The upper portion, situated at the back of the poop deck was the smallest, and usually consisted of the ship's lanterns and upper carved and gilded works. The second, the centrepiece of the transom, was a large canvas on which was present the royal coat of arms or a painting associated with state and ship name. Finally, the third section consisted of the ship's galleries whereby windows provided the stern with a sense of symmetry. This was not something that was necessarily new, indeed *Vasa*'s stern had many similar qualities, but by the later period this design was almost standard, and windows had a far greater prominence.

This change was not only because of a gradual realization that majestic decorations could compromise a ship's stability and operability. During a period of increased awareness of monarchical power and its limitations, secularization and enlightened ideas, there is a correlation between political power and warship design. Although this relationship is more apparent for some states (England, the Netherlands, and Spain) than in others (France), the sacred and frivolous image of monarchy, which decorated warships, does appear to have been downplayed in the sailing navies as the seventeenth and eighteenth centuries progressed. This was, after all, a period of political and social revolt and even regicide. The design of warships, and their pompous character, was inherently connected to political circumstance. As one country adapted their warships because of this new atmosphere, others soon were influenced by these new designs. By the end of the seventeenth century, the pomp and fervour of European warships appears to have reduced. Warships now were formidable weapons of war. Even with those flagship vessels that remained highly impressive visually, skill and expertise in design triumphed over majestic flare. By the eighteenth century, a warship's strength was principally in its value as a weapon of war.

Conclusion

The early modern period was not the first to employ symbolism and decoration on warships in order to reflect and promote ideology, but it was able to tailor and exploit it far better because of the opportunities that came with absolute monarchy, reformed identities that were shaped by faith, and the birth of new states. Within this context, it has been suggested that the fifteenth and, more importantly, sixteenth centuries experienced the establishment of warships as a form of elite culture, while the seventeenth and eighteenth centuries witnessed the zenith of its exploitation and gradual refinement. Warship design was reconditioned by political and religious transformations between 1400 and 1800, but, at the same time, political and religious change could be influenced and deterred by the imagery and ideology expressed on warships.

This chapter has primarily focused on state-owned warships, but it must be acknowledged that private craft also played an important part in design history. Vessels owned by individuals used for trade and/or privateering could be equally or, in some cases, more lavishly decorated, as shown by the *Ark Ralegh* sold by Sir Walter Ralegh to Elizabeth I and renamed the *Ark Royal* in 1587. As depicted in *English Ships and the Spanish Armada, August 1588* (Figure 13.1), *Ark Royal*'s stern, displayed at the bottom right of the painting, was designed to appear majestic through its decoration. A further reflection of state ideology in the private sphere can be observed with coastal surveys of shipping, where available. The name *Elizabeth*, for example, remained a popular name for English vessels during the late sixteenth century. The point is that although it would have been extremely rare for private ships to have been decorated to the same heightened scale as royal flagships, princely culture was able to transcend class boundaries, with both nobles and merchants understanding and embodying the political power that could be represented on these ships. Arguably, this was even more pronounced in the Mediterranean, where monarchs, nobles, and merchants jointly owned galleys throughout the period.

The early modern flagship did not need to be the most manoeuvrable, powerful, or generally effective warship in battle. It merely needed to suggest these qualities to create an image that would encourage others to trust the message. In 1624, it was written that despite the inferiority of its navy, which was in need of 'new builde and repayre', England controlled in its arsenal the '*Prince-Royal*, a Ship' so powerful that 'England needed not feare all the Fleetes of the World'.[67] For some nations, in particular the new or reformed and militarily restricted states of northern Europe fashioned by the reformation, it was more important to assert power and ideology through the design and decoration of these vessels as a way to combat the perception of deficiencies in economic or land power. In contrast, for the well-established military powers of Catholic Europe, most importantly Spain, the strength of their land forces meant that there was little need to impress and deter its adversaries through decoration. Spanish galleons were thus generally designed for maritime function over long distances. Their cargo carrying and sailing capabilities appear to have been of greater priority than their visual appearance. By contrast, states that had begun this period militarily and economically weaker believed it necessary to decorate vessels in order to provide a false exterior, which would enable the Crown or state to appear

as an equal to the greatest Catholic European powers. Almost in parallel, as Protestant European nations stripped the altars during the iconoclasm movements, religious symbols were transformed and transferred to secular artefacts and possessions as they moved from church to ship. As a result, this process of secularizing warships with political ideology was not experienced by Catholic Europe until far later in the period. It is interesting to note, however, that by the end of the seventeenth century it was a Catholic state with a particularly potent monarchy that strived for cultural supremacy, which led developments in warship design. The importance of Louis XIV's reign to the redevelopment of warship appearance is hardly surprising given French military and cultural hegemony at this point, showing the importance of politics to cultural developments. Just as the competing monarchies of the early sixteenth and early seventeenth centuries strove for military strength and cultural elitism, by the end of the seventeenth century Louis XIV, the new face of monarchy, adapted and advanced these developments by embracing the ideas developed in northern Europe and moving them in new directions. Warship design and decoration was, as it had long been, transformed due to international competition and influence.

Notes

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12 Konstam, *Sovereigns of the Sea*, pp. 25–31.

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36 Redding, 'Sovereign of the Seas', pp. 411–13.
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38 R. Winfield and S. S. Roberts, *French Warships in the Age of Sail 1626–1786: Design, Construction, Careers and Fates*, Barnsley: Seaforth, 2017, p. 421.

39 Examples include J. Bender, *Dutch Warships in the Age of Sail, 1600–1714: Design, Construction, Careers and Fates*, Barnsley: Seaforth, 2014, pp. 182, 219, 234.
40 Acerra, 'La symbolique des noms', pp. 48–9.
41 The *Antelope* title was used by a number of British warships between 1546–1982, the years of their launch/rebuild were: 1546, 1558, 1581, 1618, 1651, 1660, 1703, 1741, 1784, 1802, 1808, 1846, 1893, 1929, and 1972. See R. Winfield, *British Warships in the Age of Sail: Design, Construction, Careers and Fates*, 4 vols, Barnsley: Seaforth, 2009–14.
42 N. A. M. Rodger, *The Safeguard of the Sea: A Naval History of Britain, 660–1649*, Suffolk: Penguin Books, 2004, pp. 19–20.
43 Redding, 'Sovereign of the Seas', pp. 24–5.
44 Fournier, *Hydrographie*, 'Description d'un Navire Royal'.
45 C. R. Phillips, *Six Galleons for the King of Spain: Imperial Defense in the Early Seventeenth Century,* Baltimore, MD: Johns Hopkins University Press, 1986, p. 74.
46 This dark appearance was the product of tar and alquitrán produced to make the vessel watertight.
47 Fournier, *Hydrographie*, p. 45. [Le Sainct protecteur du Navire est tousiours peint dans le Mirouer de la Pouppe, avec cét Escriteau].
48 James, *Navy and Government*, pp. 169–71; J. L. Casabán, '*Santiago de Galicia* and the Illyrian Squadron: Characteristics, Dimensions and Tonnages of Mediterranean-built Galleons for Philip II's Atlantic Fleets (1593–1597)', *The International Journal of Maritime History* 29/2, 2017, pp. 238–60.
49 Winfield and Roberts, *French Warships*, pp. 49–53.
50 A. Peters, *Ship Decoration 1630–1780*, Barnsley: Seaforth, 2013, pp. 65–8; G. Rommelse, 'National Flags as Essential Elements of Dutch Naval Ideology, 1570–1800', in J. D. Davies, A. James, and G. Rommelse (eds.), *Ideologies of Western Naval Power, c.1500–1815*, Padstow: Routledge, 2019, pp. 39–43.
51 *Brederode* is another case in which a flagship was named after a state leader. Johan Wolfert van Brederode was the brother-in-law of Frederik Hendrik, Prince of Orange.
52 Bender, *Dutch Warships*, pp. 200, 205, 223.
53 D. Cordingly and W. Percival-Prescott, *The Art of the Van de Veldes*, London: Lund Humphries Publishers, 1982, p. 86.
54 Glete, *Navies and Nations*, pp. 44–5.
55 B. Capp, *Cromwell's Navy: The Fleet and the English Revolution 1648–1660*, Oxford: Oxford University Press, 1989, pp. 9–11.
56 J. D. Davies, 'Introduction' in Bender, *Dutch Warships*, p. 36.
57 Redding, 'Sovereign of the Seas', p. 24.
58 Peters, *Ship Decoration*, pp. 39–44.
59 Much of the detail included in this paragraph comes from M. Di Salvo, 'About Peter the Great's Ship Predestinatsiia', in M. Di Salvo, D. H. Kaiser, and V. A. Kivelson (eds.), *Word and Image in Russian History: Essays in Honor of Gary Marker*, Boston, MA: Academic Studies Press, 2015, pp. 43–54.
60 E. J. Phillips, *The Founding of Russia's Navy: Peter the Great and the Azov Fleet, 1688–1714*, Westport, CT: Greenwood Press, 1995, p. 76.
61 This scene has been viewed as 'complex' and 'confusing' for the message that it conveys. For further information see Di Salvo, 'Peter the Great's Ship', pp. 49–52.
62 Glete, *Warfare at Sea*, p. 106; J. F. Guilmartin, *Gunpowder and Galleys: Changing Technology and Mediterranean Warfare at Sea in the Sixteenth Century*, New York: Cambridge University Press, 1975, pp. 253–73; Guilmartin, *Galleons and Galleys*, p. 211.
63 Anderson, *Oared Fighting Ships*, pp. 71–3.
64 James, *Navy and Government*, p. 100.
65 Peters, *Ship Decoration*, pp. 41–2.
66 See N. Witsen, C. van Eyk, and C. Allard, *L'Art de Bâtir les Vaisseaux et d'en Perfectionner la Construction,* vol. I, Amsterdam, 1719, pp. 21–3.
67 S.R.N.I, *Vox Coeli, or Newes from Heaven*, 'Elisium', 1624, p. 53.

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Part III

Social and political seas

14

Tudor shipmasters and maritime communities, 1550–1600[1]

Craig Lambert

In 1572, after heightened tensions resulting from the 1569 Northern Rebellion and the 1571 Ridolfi Plot, Elizabeth I's government ordered a survey of all the ships in England.[2] Thomas Colshill was responsible for producing this survey, which by his own account amounted to a record of 'the number of ships and vessels and the masters' names being in all the ports and creeks within the realm of England and trading the wave of merchandise as shown by the customers' accounts'.[3] This ship survey was not the first of its kind, but it is one of the most important to have survived.[4] There are, however, problems with the survey; most significantly it does not record all English or Welsh ships.[5] Yet, despite its weaknesses, the survey contains a wealth of important information. It records for each vessel its name, tonnage, home port, and the name of the shipmaster who commanded it. Put simply, it offers a snapshot of England's master-mariners at a crucial moment in England's growth as a maritime power. Indeed, some masters listed in the 1572 survey were pioneers of English voyages of exploration. In the 1550s, for example, Stephen Borough (master of the 200-ton *Black Greyhound* in the 1572 survey) and William Borough (master of the 120-ton *Margaret* in the 1572 survey) had sailed to Russia.[6] The relatives and descendants of other masters named in the survey would, no doubt, go on to extend the range of England's commercial enterprises to cover the Americas and the Indian Ocean.[7]

The 'Tudor maritime community'

Tudor seafarers were an occupational group of great importance. They provided the manpower to move goods and people, through fishing they nourished the nation, and they were central to the Crown's wartime needs. However, despite the importance of the maritime community, defining it can be difficult. Vessels of up to 15 tons could sail inland as far as Bedford, and vessels of this size regularly sailed across the Channel and North Sea to France and the Low Countries.[8] Boats and other craft plied the great rivers to provide inland counties with a multitude of products.[9] A large demographic was involved in building, supplying, repairing, loading, and manning these vessels.

Mariners also engaged in farming activities.[10] These 'fisher-farmers' played an important economic role in coastal and estuarine communities.[11] Given the diffuse nature of the maritime labour force, maritime communities are in some senses ephemeral, evolving as a multitude of exogenous and endogenous factors shaped them.

Historiography reflects the complex nature of the maritime community. At one end we have the biographies of the great men of Tudor maritime society,[12] and, at the other, works that examine shipboard culture.[13] Scholars have tended to look at specific strands of maritime society by examining the demographics of coastal communities, the social world of sailor towns, naval service, and shipman guilds.[14] Great strides have been made: historians now understand much better how shipboard communities trained, worked together, how they formed a shipboard economy, how they cared for each other's financial and legal requirements, and how their health and religious well-being was provided for on board ships.[15] Historians have often focused on deep-sea mariners, a perhaps more glamorous sub-group within the maritime labour force.

Geoffrey Scammell did much to lead the way in investigating the English maritime community.[16] He showed how mariners sought work in numerous locations, how they were pressed into naval service, and how they endured arduous voyages.[17] Scammell also drew attention to the commercial world of seafarers, how they were responsible for navigation, and how they were able to move seamlessly from traders to pirates.[18] At the same time, Kenneth Andrews expanded our knowledge of the maritime labour force of Tudor England.[19] Andrews was able to reconstruct the causes and cases that led to privateering and piracy, and drew attention to the entrepreneurial spirit of shipmaster-merchants.[20] Research has also highlighted the important role master-mariners and merchants played in expanding England's overseas fisheries, their involvement in efforts to colonize North America, and how war with Spain encouraged them to look beyond Europe for trade.[21] More recently, Cheryl Fury's work on Tudor and Stuart maritime communities has shown that rather than men 'relegated to the periphery of respectable society', mariners were an independently minded occupational group, who cared for their families, and who forged shipboard relationships with fellow mariners and, in the case of master-mariners, became socially embedded within their communities.[22]

Given the complex nature of England's wider maritime community, this chapter will focus on shipmasters over the mid-to-late sixteenth century. It has two central aims. First, it will offer a prosopographical survey of English shipmasters by examining length of careers, service patterns, and levels of geographical mobility. The roles that family groups played in shaping and developing trade links will also be examined. Second, it will examine the socio-economic position of shipmasters within the places they lived and worked. It will show that shipmasters usually occupied a middling socio-economic position within their communities. That masters were an important sub-group within coastal and riverine urban centres owed much to the type of voyages they undertook. Most English masters undertook short-range trips which meant they were frequently at home and, as such, laid down familial roots in the places where they resided.

The source material for such a study is voluminous, but there are two sets of records that provide the bulk of evidence for this chapter. Of greatest importance are

the national customs accounts, especially the port books. Port books were formally implemented at Easter 1565 when each of the 20 designated head ports was required to submit to the central Exchequer for audit a series of books recording customs duties for overseas trade.[23] Coastal trade was also recorded, even though this was not subject to tax. This procedure resulted in the production of a huge corpus of records, of which a large proportion have survived. Port books provide the name of the ship, its master, tonnage, home port, the date it docked in port, and voyage details. This nominal information contained in port books can be supplemented with information recorded on the 1572 ship survey.

The second set of source materials are Tudor tax assessments.[24] There were two types of taxation. The first were subsides and fifteenths granted by parliament; the second were royal prerogative taxes. It is the former with which we are concerned here. Each individual was assessed against scales laid down by statute, and each taxpayer only paid once for their main residence. Due to the voluminous nature of the lay subsidy returns, this chapter will sample documents that were produced between 1571 and 1576. In the lay subsidies, individuals were assessed on land and goods. For land, this meant the rental value of the taxpayer's holdings; for goods, each taxpayer was assessed on their stock of goods, coin, plate, and all corn and blades that were cut from the land. Those assessed against land therefore paid tax on income generated from land, while those taxed against goods were paying against the capital value of their asset(s). There are, of course, problems with these types of tax returns. It is difficult to know if the assessment of goods or land was a true valuation of what an individual possessed, or how evenly distributed the assessments were within each county or hundred. Nonetheless, used carefully, these records have proved useful in investigating the socio-economic status of shipmasters.[25]

Career patterns of shipmasters

Investigating the careers of shipmasters provides a window into the socio-economic and cultural world of Tudor seafarers. Masters who focused mainly on coastal routes can be said in general to have less experience than those who sailed to Iberia and beyond (although we should not discount the value of local knowledge in and around the English coast). Nevertheless, masters commanding ships to foreign shores can generally be presumed to have been entrusted with assuming greater responsibilities. As well as requiring detailed knowledge of navigating foreign waters and coastlines, they also had to manage a series of complex and often nuanced rules, conventions, and customs when trading overseas. Moreover, they often had to deal first hand with diplomatic and political crises that swept across Europe which could affect the welcome they and their crews received when they entered a foreign port. However, maritime trade in England was highly regionalized. The careers of many shippers working out of the ports from Newcastle to Colchester were undoubtedly shaped by the coal trade. This involved vessels sailing from ports such as King's Lynn into Newcastle and leaving with coal bound for their home ports, or other large conurbations such as London. In this sense, therefore, the chief maritime economic activity of moving coal ensured that a large number of north-east and east coast masters worked coastal

routes.[26] In ports such as Plymouth and Bristol, trade was focused more on overseas routes, principally to the ports of south-west France and Iberia.[27] Indeed, it is worth remembering that before 1550, earlier generations of shipmasters from Plymouth had expanded their range to the shores of West Africa. In October 1541, for example, the *Paul* of Plymouth commanded by John Landy (Laudy) entered port carrying 92 tons of 'brasylls' and one ton of 'olyfants tethe' for William Hawkins.[28] While voyage details are not given, it is likely the *Paul* entered Plymouth from West Africa, a destination Hawkins had sailed to in the previous decade in the same ship.[29] Masters working from Bristol and Plymouth, therefore, had the opportunity to command larger ships over longer distances, duties that required a greater portfolio of skills in navigation than those possessed by some masters working coastal routes.[30]

From 1550 to 1600 we have the records of over 9,500 separate shipmasters operating out of over 500 English ports. Although this not a complete record of all serving masters, it offers a large sample base from which to work. Even if we take account of the regionalization of maritime trade, the port books show that approximately three-quarters of English ship-voyages in this period were coastwise. This means that most master-mariners predominantly worked within strict geographical limits. Typical of a master working in the coal-based coasting trade was Christopher Blaxton of Newcastle. The Blaxton name appears in Newcastle customs records from the mid-1450s.[31] From the mid-to-late fifteenth century, and into the sixteenth century, the Blaxtons operated as merchants and ship-owners, and they continue to play an important role in town administration and politics.[32] When the port books began in 1565, we see Christopher Blaxton acting as a shipmaster-merchant in command of the *Elizabeth* of 50 tons freighting coal to Hull.[33] From this time until he disappears from the records in 1571, Blaxton undertook 42 voyages: 37 in the *Elizabeth* and one each in the *Samson*, *Geanet*, *Anne*, *James*, and *Bull*.[34] That 37 voyages were undertaken in the *Elizabeth* suggest that Blaxton owned, or part owned, this vessel.[35] While his trading life was busy, his commercial activity was restricted to the coal trade, and his documented voyage range was limited to Flamborough, Grimsby, Hull, and Scarborough. Nonetheless, he continued the family business, which by 1571 had endured for over a century.

The coastal coal trade dominated Blaxton's career, but other Newcastle shipmasters had a wider experience. Richard Harrogate was a typical enterprising master mariner, who had purchased from a Newcastle merchant one-quarter of a ship that he subsequently commanded.[36] Harrogate's appearance in the customs accounts comes in 1553 as commander of the *Barbara*.[37] In 1571, Harrogate commanded the *Christ* of 90 tons, for its time a large vessel, sailing from London to Hamburg with a cargo of cloth.[38] Yet the rest of his 16 recorded voyages were spent solely on the coastal route from Newcastle to Boston and Hull; during these coastal voyages, he also acted as a merchant.[39] In 1583, 30 years after first appearing in the port books, Harrogate sailed out of London to Newcastle in command of the *Grace Dei* of 34 tons, showing he was later active in the London routes.[40] On the 1583 voyage, Harrogate freighted five tons of iron, six barrels of tar, eight barrels of soap, haberdashery wares, four butts of wine, and two pipes of 'sacke', a fortified wine usually sourced from Iberia or the Canary Islands.

Bristol's merchants largely focused on overseas trading voyages, so the careers of shipmasters from this port follow somewhat different patterns to those working in Newcastle. Bristol's key trading partners were the Iberian ports and Ireland. Imports into Bristol varied greatly, and included dried fruits, soap, fish, wine, olive oil, woad, and salt; cloth was the most important export.[41] On the 1572 ship survey, Thomas Nayler appears as the commander of the *Ragged Staffe* (240 tons), a ship owned by Andrew Barker and, at the time of the survey, the largest ship in Bristol.[42] Nayler's career can be traced back to 1561 when he appears as commander of the *Jesus*.[43] Over a ten-year period, Nayler undertook 22 voyages: one each in command of the *Jesus*, *Ragged Staffe*, and *Hare*, two in command of the *Helen*, six in command of the *Nightingale*, and 11 voyages on the *Flower de Luce* (*Fleur-de-Lis*). His voyages took him to Ayamonte, Saint-Jean-de-Luz, Cadiz, Lisbon, Vigo, the Bay of Biscay, Waterford, and ports closer to home such as Carmarthen.[44] In 1569, he commanded the *Helen* (which appears in the accounts at 5–10 tons) from Bristol to Carmarthen and from Waterford to Bristol, shipping foodstuffs such as 'tritin' (a mix of three types of grain), and fish.[45] For the 1569 Carmarthen trip he was also one of the merchants and this suggests he owned (or part owned) the *Helen*. Coastal trade was less risky, and involvement in it required smaller amounts of capital than overseas trade; it made sense for Nayler to use his wages and other gains from overseas voyages and invest them in a small coasting ship (*Helen*) which he could use to supplement his income.[46] Nayler's career also warns us against making generalizations about the skills of masters who appear in port books that record coastal trade.

William Agwilliam, another Bristol shipmaster, had a similar career to Nayler. First recorded in 1559 as commander of the *Faucon Gray*, his career spanned almost 20 years.[47] As coastal trade is not recorded systematically until 1565, we do not know if Agwilliam learned his craft in the coasting trade, but his appearance in 1559 marks his entrance into the elite world of overseas masters. They were men with the necessary skills to command ships in deeper waters and negotiate the risks, both environmental and political, of sailing into foreign ports. Until he disappears from the records in 1576, Agwilliam commanded eight ships. After the *Faucon Gray*, he took command of the *Dragon*, the *Marye Fortune*, and the *Grace of God*, before taking charge in 1565 of the 35-ton *Harte*, a ship that took him to La Rochelle, the Bay of Biscay, and Plymouth.[48] His outward cargoes consisted mainly of cloth, while his inward voyages brought back commodities such as wine and olive oil. In 1569, he switched command to the 85-ton *Tiger*, a vessel that he sailed to Sanlúcar de Barrameda and La Rochelle. In 1571, he sailed the *Swallow* of 80 tons to Galicia, before taking charge of the 120-ton *Minion* for voyages to Lisbon, Andalusia, and Cadiz.[49] The chronology of Agwilliam's voyages reveals the career trajectory of a talented master. After honing his skills in command of a 35-ton ship, he ended his career in command of a large vessel of 120 tons, which took him to some of the major ports in Europe. Agwilliam's career fitted very much in line with Bristol's focus on overseas trade.

As noted above, while Newcastle and Bristol offer good records for shipmasters' careers, these ports differ in their trading outlooks. Bristol was an overseas trading port with trade links stretching from Iceland to southern Spain, while Newcastle

shippers tended to focus on the coasting trade, especially in coal. We can examine the masters working out of Boston in Lincolnshire, which has a good series of both coastal and overseas port books, to see if masters specialized in one branch of trade. In the period 1565–81, 67 separate masters accounted for 633 voyages out of Boston. Of these voyages, the majority were coastal (545). The experience of Boston shippers working out of a relatively small east coast port might not be the same as masters working from larger ports in the same region. In Ipswich, of the 153 masters working from 1565–81, 28 (18%) undertook overseas voyages. In Boston, five (7%) of the 67 masters sailed overseas.

Reginald Bell was one of the few Boston masters who sailed overseas and coastal routes. From 1565–81 Bell undertook a remarkable 102 voyages into and out of Boston, of which 81 were coastwise. Bell's turnaround time in harbour was sometimes quick, showing that he was a master keen to expand his income. On 11 June 1579, Bell arrived in Boston from Flanders carrying a cargo of damask and other items, but on the following day he sailed into Boston from Newcastle with a cargo of coal, indicating that on unlading his Flanders cargo at Boston he immediately sailed to Newcastle.[50] Coastal trade is not recorded systematically until 1565, so it is not known if Bell progressed from a coastal shipper to a master specializing in both types of service. We do know that on one voyage Bell could be sailing from Boston to Newcastle, only to cross to Bruges, Antwerp, or Hamburg on the next. Neither did the size of the vessels he operated impact on destination. He commanded the *William* of 50 tons to Bruges, Amsterdam, and Newcastle, and in the *Mary Anne* of 50 tons he sailed to and from Hamburg, Flanders, Bruges, Rouen, London, Newcastle, and King's Lynn.[51] As expected from an east coast master, freighting coal dominated Bell's coasting routes, while wool, cloth, and tar, among other things, were goods that he exported and imported. There were, of course, a small number of specialists in Boston. Robert Comoke worked in the 1570s and 1580s and never sailed beyond East Anglia and, over the same period, William Bateman sailed principally between Newcastle and Boston, with occasional trips to London and Hull.[52] Looking at the career patterns of shippers from Newcastle, Bristol, Boston, and Ipswich, it is clear that geography and birthplace played a significant role in shaping the careers of masters.

There were other 'types' of masters who forged productive careers based on riverine trade. From 1566–77, there were 32 masters working out of Bewdley in Worcestershire, of which Humphrey Barnsley, Thomas Beal, Hugh Sallenwaye, John Brook, James Chamberlain, and Adam Marshall were the most active. No Bewdley master is recorded sailing beyond Cardiff, showing that these were indeed riverine specialists.[53] The River Severn trade centred on moving luxury imported goods from ports such as Bristol and Cardiff to smaller riverine settlements inland. On 13 February 1570, for example, the 5-ton *Magdelane* of Frampton-on-Severn in Gloucestershire, commanded by John Dee, freighted Gascon wine and train oil from Bristol to Frampton; the wine clearly came from the Bordeaux region, but the train oil probably originated from whales caught in the Atlantic or Newfoundland Banks.[54] Similarly, in 1576, the 6-ton *Cherupin* of Awre in Gloucestershire, commanded by Owen Beyman, shipped

cloth, wool, and train oil from Cardiff to Frampton-on-Severn.[55] In June 1570, the 16-ton *Margaret* of Bridgnorth in Shropshire, commanded by Thomas Lowe, brought a cargo of wool into Bristol for Thomas Pitte, draper, no doubt for shipment overseas. In the same month Lowe, on behalf of Robert Davyes of Bridgnorth, shipped sack wine and soap from Bristol to Bridgnorth.[56] Bristol shippers needed men like Lowe to bring wool to them so they could send it overseas, and the traders of Bridgnorth needed the luxury wares that flowed into Bristol so they could sell these goods in their home towns. The bond that held this riverine trading system together were the shipmasters who rarely moved beyond the Bristol Channel but who were an essential part of the regional economy. Many such 'micro-economies' centred on riverine trade existed across England, all dependent on a large body of shipmasters and mariners that only feature fleetingly (especially before 1565) in the records. The River Thames provided access to several counties, and the rivers of East Anglia supported a thriving riverine shipping industry.[57]

As the port books were not implemented until 1565, an analysis of career lengths needs to draw on the earlier national customs accounts and local port records. The length of a master's career would depend on a series of factors. Those undertaking coastal trade might have longer careers than masters running the risks of deeper waters might have.[58] Through the study of Agwilliam's career, we have already seen that overseas masters could work for decades. The potential longevity of a master's career who worked principally in coastal trade is shown by examining records about John Holford of Hythe in Hampshire. Holford appears in the 1572 ship survey as commander of the *Jesus* of 5 tons, a vessel he used for fishing (principally for oysters) and coastal trading.[59] By exploring the local port customs of Southampton we can trace his career back to 1552.[60] Once the port books begin, a fuller picture of his career emerges. From 1565–80 he undertook 78 voyages in and out of Southampton Water, mainly shipping wine and other goods to and from Dorset and Sussex ports.[61] In the mid-1580s, he extended his reach and sailed from Southampton to Dieppe and Alderney, shipping train oil and prunes.[62] Like Bell, Holford could quickly turn his ship around in port. On 20 May 1574, he left Southampton Water for Chichester, with a cargo of raisins, currants, alum, steel, and one packet of grocery wares, and on the following day he left Chichester bound for Rouen carrying a cargo of white and russet cloth for John Holland, a London merchant.[63] Holford's career was far from unblemished and he occasionally flouted local trading laws, such as selling oysters outside of designated markets.[64] He is still visible in the local port customs of Southampton in 1585, but after this date these documents rarely record the names of masters and owners.[65] Using the port books, Holford's career as a shipmaster can be traced to 1587, and other records show that in the following year he passed away.[66] Holford, therefore, had a recorded career as a shipmaster spanning at least 35 years. During his career at sea, he commanded five ships, but the majority of his voyages were undertaken in command of the *Jesus* (58 voyages) and the *John* (20 voyages), which suggests ownership of these vessels. Holford is perhaps an unusual case, but, taken together, the careers of Blaxton, Nayler, Agwilliam, and Bell show that merchant-masters' careers went beyond the seven years that is sometimes stated.[67]

Family groups

Maritime family groups have been the focus of previous research, but such work has centred on inheritance strategies, marital relationships, and how kinship groups provided the connection between the often absent mariner and land-based society.[68] Here the focus will be on the role family groups played in the formation and expansion of commercial enterprise. Family groups were a fundamental part of shipmaster careers because they offered access into the world of the shipboard community.[69] Apprenticed boys might have come from outside the immediate family, but often master-mariners and merchants took the opportunity to foist their relatives aboard ships which they either commanded or part owned. This enabled a father to ensure his son learned the trade aboard a family-owned ship, or a merchant placed his son on a vessel well known to him, to learn the skills of trade, cargo handling, and experience foreign shores.[70] As we shall see below, shipowner-masters like Richard Swanley could ensure their relatives became established shipmasters.

The ship survey of 1572 shows approximately 69 family groups totalling 140 individuals. This means that over 12 per cent of the masters named on the survey were associated with members of their family. The true number is likely to be higher, as family groups worked across regions and not just within individual ports, and some family members, such as cousins, might not have shared surnames.[71] Some of these masters had already achieved an important status. As noted above, Stephen and William Borough of London had already proved themselves experienced navigators and explorers. Yet other, perhaps less adventurous, families played an important role in the commercial development of England. The Swanley family, who operated out of Gloucester, Bristol, Ilfracombe, Frampton-on-Severn, Westbury-on-Severn, Broadoak, Carmarthen, Tewkesbury, Combwich, Framilode, and Farleys End, provide a fascinating case study to show the important role family groups played in the creation and expansion of regional coastal trade networks.

Richard Swanley first appears in the records in 1558 in command of the *Henry* (12 tons) shipping out of Bristol, among other things, hops, card, women's hose, cinnamon, and cloves.[72] In 1569, he appears as both the commander and merchant of the *Henry* sailing from Gloucester to Carmarthen. Over the next few years, we can see Richard acting as a merchant on numerous occasions.[73] Assisting Richard in his endeavours were Edward, George, John, Thomas, and William Swanley. We know from the 1592 will of Richard's wife, Elizabeth, that George, Thomas, and William were Richard's sons.[74] In total from 1558 to 1595, family members took charge of 15 ships ranging from the *Jesus* of 4 tons to the *Elizabeth* and *Mary Fortune* of 30 tons each.[75] Richard's career is interesting: although he was taxed in Gloucester, the ship he took charge of the most (the *George* of 14 tons) was an Ilfracombe vessel, although for 15 of his 17 recorded voyages he either entered or exited Bristol and Gloucester.[76] His last appearance in the shipping records is in 1571. While Richard perhaps retired to the dockside, his sons continued to maintain the business.

For the most part the Swanley trade network remained stable, with activity centred on the River Severn/North Devon/Welsh routes. In June 1570, however, the Swanleys branched out into the Irish trades. Four years later Thomas Swanley sailed the

Bristol/Irish trade routes in command of the 30-ton *Mary Fortune* and 13-ton *Sacre*; on the latter ship he acted as sole merchant bringing into Bristol six tons of salt.[77] It may be that Richard's voyage out of Bristol in 1558 was destined for Ireland, but the pattern of Richard's career suggests his most likely destination was a Welsh port.[78] The 1570 foray into the Irish trade does not seem to have borne immediate fruit because not until 1595 did another Swanley (John) sail to Waterford and the family association with this route remained sporadic.[79] Where their activities as master-merchants can be traced, they traded in variety of commodities including black soap, malt, cotton, wine, wool, and wheat. When shipping the goods of other merchants, the Swanleys preferred to work with Gloucestershire or Bristol men such as William Blaste, Edward Long, Ralph Hunte, and Richard Daveys.[80]

The Swanley family worked in a trading system that was well developed by the late sixteenth century.[81] The River Severn area offered a significant opportunity for those shipmaster-merchants who chose to focus on the coasting and inland trade.[82] The Swanleys worked across several ports and were an essential component in the redistribution networks that linked overseas and coastal trades. For instance, Richard Swanley's reshipment of Castilian black soap and wine from Bristol to Barnstaple in July 1569 is indicative of the way imports fed coastal trade.[83] The Swanleys never fully entered the overseas market, instead focusing mainly on the coastal routes of North Devon and Wales, either shipping their own commodities or freighting goods for a handful of known associates. This re-export of goods coastwise could create a great deal of wealth.[84] The Swanleys might have operated within a well-developed trading network but their recorded 137 voyages from 1558–1601 shows they had a role in shaping and developing that system.[85] There was economic sense in undertaking frequent voyages since this meant they spread their fixed costs over more trips, and thus increased profits.[86]

The Swanley family were prolific in their shipping activities, but such commercially minded spirit was not the sole preserve of the West Country shippers. The Swetman family from Suffolk were equally entrepreneurial. From 1565–77, three members of the family appear in the port books. Thomas sailed out of Ipswich and Southwold, while Christopher and Robert worked from Aldeburgh, Ipswich, and Leigh-on-Sea. In his will of June 1581, Thomas Swetman senior left a quarter of his ship, called the *Primrose*, to his son Thomas (junior) and a quarter of his vessel, the *Great Mary Anne*, to his son William and his son-in-law John Turner.[87] From the surviving port books, it is possible to identify the *Great Mary Anne* as a vessel recorded between 80 and 100 tons.[88] The *Primrose* is more difficult to identify, as members of the family commanded two vessels of that name: one recorded at 80 tons the other at between 16 and 20 tons.[89] However, because the other male relatives received quarter shares in a large vessel, we can assume that Thomas junior inherited a quarter share of the 80-ton *Primrose*. To his wife and daughter-in-law, Thomas senior left a lighter, which was probably the 16–20-ton *Primrose*.[90] The coastal routes exploited by the Swetman family included voyages to and from Dunwich, Newcastle, London, Southampton, and Great Yarmouth, for which they shipped a variety of cargoes including woad, wine, and various foodstuffs.[91] As can be seen from Table 14.1, the family's focus on overseas trade was on Bordeaux and Iceland.[92] After Thomas's death, the family

Table 14.1 The Swanley (1565–1601) and Swetman (1565–77) family trade links shown by ships and voyage destinations

Forename	*Name of ship commanded*	*Voyage details (number of times journey undertaken)*
Swanley Family		
Edward	*Elizabeth*	Bristol/Gloucester (2); Gloucester/Carmarthen (4)
George	*Henry*; *Trinity*; *Jesus*; *Sacre*	Bristol/Gloucester (5); Gloucester/Carmarthen (11); Gloucester/Padstow (7); Newnham/Padstow (1); Carmarthen/Bristol (2)
John	*Henry*; *Elizabeth*; *Jesus*; *Mary Fortune*	Bristol/Waterford (6); Bristol/Gloucester (3); Bristol/Cardiff (1); Bristol/Carmarthen (3); Gloucester/Carmarthen (12); Gloucester/Padstow (3); Bristol/Yoghul (1)
Richard	*George*; *Henry*; *Lawrence*; *Peter*; *Trinity*	Bristol/Barnstaple (4); Gloucester/Haverfordwest (1); Gloucester/Caernarfon (1); Gloucester/Padstow (1); Gloucester/Barnstaple (2); Gloucester/Bristol (1); Gloucester/Carmarthen (1); Ilfracombe/Aberystwyth (1); Ilfracombe/Bristol (1); Bristol/Waterford (2); Bristol/Aberystwyth (1); unknown (1)
Thomas	*George*; *Henry*; *Matthew*; *Peter*; *Sacre*; *John*; *Mary Fortune*	Bristol/Gloucester (37); Bristol/Berkeley (1); Gloucester/Barnstaple (1); Gloucester/Gatcombe (1); Gloucester/Carmarthen (4); Gloucester/Padstow (3); Bristol/Malahide (1); Bristol/Padstow (1); Tewkesbury/Gloucester (1); Bristol/Waterford (1)
Swetman Family		
William	*Matthew*; *John*; *Margaret*; *Roebuck*; *Black Swan*	Bristol/Waterford (3); Bristol/Cork (1); Gloucester/Bristol (1); Gloucester/Padstow (1); Newnham/Bideford (1); Newnham/Ilfracombe (1);
Christopher	*Great Mary Anne*	Ipswich/Bordeaux (2); Ipswich/unknown (1)
Robert	*Primrose*; *Robert*; *Greyhound*	London/Aldeburgh (3); Aldeburgh/Southampton (2); Newcastle/Aldeburgh (1)
Thomas (senior)	*Andrew*; *Lion*; *Christopher*; *Grace of God*; *Mary Katherine*; *Peter*; *Primrose*	Ipswich/Bordeaux (14); Great Yarmouth/Ipswich (1); Iceland/Ipswich (2); London/Ipswich (3); Newcastle/Ipswich (3); unknown (1)

Home ports of ships: **Swanley:** *Black Swan* (unknown port); *Elizabeth* (also known as *Parvo Elizabeth*: Gloucester); *George* (Gloucester; Combwich; Ilfracombe; Tewkesbury); *Henry* (Gloucester; Tewkesbury); *Jesus* (Westbury-on-Severn; Boadoak); *John* (Gloucester); *Lawrence* (Ilfracombe); *Margaret* (Framilode; Farleys End); *Mary* (also known as *Mary Fortune*: Gloucester; Ilfracombe); *Matthew* (Framilode); *Peter* (Gloucester; Framilode); *Roebuck* (Bristol; Gatcombe); *Sacre* (Frampton-on-Severn; Gloucester); *Trinity* (Gloucester; Carmarthen). **Swetman:** *Andrew* (Ipswich); *Christopher* (Ipswich); *Grace of God* (Southwold); *Greyhound* (Aldeburgh); *Lion* (Ipswich); Great Mary Anne (Ipswich); *Mary John* (Leigh-on-Sea, appears in 1572 ship survey and may be the *Mary Anne*); *Peter* (Ipswich); *Primrose* (Ipswich and Aldeburgh); *Robert* (Aldeburgh).

maintained the Bordeaux connection. In 1590, for example, John Turner arrived into Ipswich from Bordeaux in command of the *Great Mary Anne* freighting a cargo of feathers for John Donnes.[93]

Family connections played an important role in forming links across the wider shipboard community. The Hampton family of Plymouth provide a good example of how cross-family relationships were created; in this case, how a series of interlinking connections formed through trade partnerships and frequent master service developed between the Hampton and the Hawkins families. In January 1561, James Hampton (as master) and Thomas Hampton (as merchant) sailed into Plymouth aboard the *Peter* with a cargo of, among other things, 4 packs of hops, 1 wey of cheese, 2 barrels of butter, 3 barrels of herrings, 3 kegs of sturgeon, 12 bundles of fletchers wood, 2,000 weight of ropes and cables, 2 Spanish chains, 6 firkins of soap, and 2 barrels of candles.[94] Six months later (27 July), James, in command of the *Peter*, sailed into Plymouth from London, but this time John Hawkins was principal merchant with a cargo that included two chests of arrows, two chests of harquebuses, one last of powder, 155 pikes, and 48 black-bills.[95] As Plymouth merchants and shipmasters, Thomas and James formed a working relationship with the Hawkins family that culminated in a series of voyages to the West African coast and the Caribbean. In 1562, Thomas Hampton, in command of the *Jonas*, sailed with John Hawkins to Guinea and the Caribbean. Indeed, the arms shipped by Hawkins into Plymouth in the *Peter* in July 1561 were probably procured for the 1562 voyage. In 1566, Thomas and James sailed back to Guinea and the Caribbean with John Lovell, a relative of Hawkins.[96]

James' connection with the Hawkins family meant his career overlapped and intersected with that of Francis Drake. The port books show that the ship James took command of most frequently was the *Pasco*, a vessel that Drake also commanded.[97] In 1569, James took charge of the *Judith*, the ship that Drake commanded during a slaving voyage in 1568 at San Juan de Ulúa.[98] Throughout the 1560s, James sailed to La Rochelle and Bordeaux, but he also made frequent journeys to London and Bristol. In most cases when James took command of the *Pasco* or *Peter* either John or William Hawkins were moving goods on the vessels as the merchants.[99] The key difference between masters from the Hampton family and Swetman family was that the Hampton's associations with the Hawkins family meant that they were involved in long-range English voyages to the New World and West Africa. The Swanley family, on the other hand, chose to focus on trading closer to home, a business that required less capital investment and produced fewer dangers.

Further research is needed into the role played by shipmasters in creating, shaping, and developing trade and merchant networks. A survey of the merchants shipping goods on the Swetman family vessels shows a significant level of repeated use, suggesting merchants formed close connections with shipmaster-owners. Over 1571–3, for example, Robert and William Cutler and Edmund Flicke regularly used Swetman family ships.[100] The Swanley family also formed comparable links. In 1569, Thomas Peugate, a Gloucester shipmaster, who resided in the same ward as Richard Swanley, shipped 10 weys of malt aboard the *Sacre* under the command of George Swanley.[101] In the same year, Henry Horn, who also lived in the same ward in Gloucester as Richard Swanley, shipped nine weys of malt in the *Trenytie* commanded by

Richard.[102] William Blaste, too, was a merchant who frequently used Swanley family ships.[103]

This short survey of the activities of the Swanley, Swetman, and Hampton families shows that kinfolk connections could be important in shaping and developing wider social and commercial links.[104] The foundation of these networks, or linkages, was based on the relationships the Swanley, Swetman, and Hampton families had with other masters and merchants. The wealth accumulated through these commercial links allowed shipmaster-owners to pass on their wealth to the next generation. Richard and Elizabeth Swanley gave to their sons George, Thomas, and Andrew £13 6s 8d each, while William was bequeathed a bark called the *Harrye* which had been built and kept in good repair by John Swanley.[105] Similarly, Thomas Swetman bequeathed to his sons and son-in-law shares of large ships that ensured the continued prosperity of the family. Maryanne Kowaleski has argued that in the late medieval period, shipmasters were entrepreneurial, and Andrews offers similar evidence for this in the Tudor era.[106] What we see with the Swanley, Swetman, and Hampton families is evidence of that commercial intelligence that links medieval shipmasters with their early modern counterparts. It is precisely this kind of commercial enterprise that led to England's aspirations for, and ability to achieve, a maritime empire. True, English voyages of exploration and colonization were started by wealthy merchants, or members of the gentry eager to expand their wealth through a mixture of trading, plundering, and colonial endeavour, but we should remember too that future generations of coastal shippers played an important role in facilitating England's maritime expansion. Indeed, Robert Brenner has argued that as English maritime commerce expanded across the globe, imports became a great stimulus to the economy.[107] Imports, however, needed redistributing. Without the next generations of Swanley or Swetman family members – master-shipowners ready to invest in shipping and eager to engage in commerce – wealthy merchants would struggle to distribute their 'exotica' beyond the major ports in which they lived and operated. The importance of the coasting and inland trade to England's wider economy was not lost on Daniel Defoe who, in 1726, wrote that through it 'all the vast importation from our own colonies is circulated and dispersed to the remotest comer of the Island, whereby consumption is become so great'.[108] Put simply, the Tudor shipmasters who chose to focus on coastal or short-range European voyages were essential cogs in England's history of maritime expansion.

The socio-economic position of Elizabethan shipmasters

Tudor shipmasters have often been portrayed as landless, itinerant drunks.[109] As Fury and Andrews have demonstrated, however, the Tudor mariner was a more complex character than the established caricature. We can further explore the life of Tudor shipmasters ashore by examining the socio-economic position they occupied within coastal communities. As noted above, tax records supplemented by evidence from wills permit such a survey. The method is simple: we take the names of the seafarers recorded in the database for whom we know home ports and link this information with the names of taxpayers listed for those same ports. Applying this method to an

earlier period has shown that fourteenth-century English shipmasters held important socio-economic positions within port communities.[110]

Space dictates that the current investigation is confined to a small number of ports and shipmasters. Given that we have examined the career of Richard Swanley in some detail, it is appropriate to start in Gloucester. In the 1571–2 lay subsidy return for Gloucester Westward, Richard is recorded as possessing £5 in goods.[111] Only 21 out of 74 assessed residents in Gloucester Westward had more wealth in either goods or land. In addition to Richard Swanley, there are three more identifiable masters on this document.[112] One was Henry Horn. The Horn family first appear in the customs accounts in 1516 when Roger Horn commanded the *Bata Mare* of Tewkesbury.[113] By the 1550s, his sons, or other relatives, Roger, William, and Henry were all active as shipmasters or merchants.[114] Henry is visible in the customs records from the mid-1550s as a merchant and a shipmaster in command of the *Trinity* and the *George*.[115] As Henry does not appear in the port books as a shipmaster, we should perhaps conclude that by the mid-1560s he had retired from active service at sea. In the 1571–2 lay subsidy, Henry was assessed at £9 in goods, which saw him pay 9s in tax.[116] Only ten of the 74 people in Gloucester Westward were assessed at the same or higher rate.

Turning the spotlight on Southampton's masters we find similar results.[117] Discounting aliens, 152 people were assessed for tax in Southampton in 1571. Six of these can be identified as shipmasters. Nicholas Roche of St Michael's Ward was assessed at £6 and taxed 10s in goods. Only 12 residents in St Michael's Ward were assessed at the same or a higher rate. Roche first appears in 1552 and continued working until 1574. His voyages took him to Goes in the Netherlands, and Bordeaux in south-west France. However, his main commercial focus, like many masters, was the coastal trade. Roche sailed to Newcastle, London, and Rye, but his favoured routes were to the south-west ports of Dartmouth, Helford, Falmouth, Plymouth, and Truro.[118] In Plymouth too, shipmasters were assessed at high to medium rates. In the 1571 lay subsidy returns, William Hawkins was assessed at £20 in goods, the highest amount in the port.[119] This might not be surprising, for William was more a merchant than a shipman. The connection to Drake and the Hawkins family certainly had benefits for Thomas and James Hampton. In the 1571 lay subsidy for Plymouth, Thomas was assessed at £6 and James at £5.[120] Only 18 out of 73 people were assessed at the same or higher rate than Thomas, and 30 at the same or higher rate than James. Similar patterns are discernible in Ipswich. In the 1576 lay subsidy return for Ipswich Eastward, Thomas Swetman junior was assessed at 20s in lands (an amount only surpassed by 16 of the 44 people assessed on lands) and Thomas senior was assessed in Ipswich Northward for £5 in goods, an amount surpassed by 11 of the 34 residents in the ward who were also assessed on goods.[121]

Moving the focus away from major ports to smaller coastal communities such as Southwold in Suffolk, we see places where the shipboard community also held prominent socio-economic positions. Thomas Jentleman was a master who plied the coastal routes to Newcastle, King's Lynn, Dunwich, and London.[122] In the 1576 lay subsidy, Thomas was assessed at £5, which placed him within the middle echelons of Southwold society; 21 people were assessed at the same or higher rate.[123] However, the first name on the tax return is John Jentlman (Jentleman) senior, assessed at £18,

Table 14.2 Assessed wealth of denizen shipmasters based on a sample of three settlements, 1571–6

	Nos of denizen taxpayers	*Under £3*	*£3 to under £5 (no. of shipmasters)*	*£5 to under £9 (no. of shipmasters)*	*£9 and over*
Gloucester (1571–2)					
Westward	74	4	38 (2)	21 (2)	11
Northward	88	8	44	25	11
Eastward	32	5	10	12	5
Southward	32	4	14	9	5
Southampton (1571)					
St Michael's Ward	33	0	17 (3)	8 (2)	8
Holy Rood Ward	46	2	12	15 (1)	17
St Lawrence Ward	34	0	11	11	12
All Saints Ward	39	1	17	11	10
Southwold (1576)	51	2	27 (6)	16 (6)	6

the second highest assessment in Southwold. John cannot be traced in the port books, but his surname suggests a familial link with Thomas. Shipmasters and their families might have held important socio-economic positions within smaller coastal communities because, other than the sea, the inhabitants had fewer options for employment. In large ports such as Southampton, or interconnected and wealthy regional cities like Gloucester, shipmasters were competing with hundreds of traders, craftsmen, merchants, and other guildsmen. Table 14.2 clearly shows that economically shipmasters sat within the middle branches of the communities they lived in.

Wills also provide access to the socio-economic world of Tudor shipmasters. Such documents have been analysed previously, but the largest recent survey concerned the early English voyages to Guinea, while others have looked at narrowly defined geographical areas with only limited focus on the sixteenth century.[124] Wills tell us much about the socio-economic position of master-mariners at the end of their lives. The wills of two Wirral masters who died before 1600 show they bequeathed over £50 each in goods and money.[125] In his will, Thomas Swetman bequeathed a total of £58 and shares in two large ships.[126] Akin to the inter-indebtedness revealed by wills of the sailors who perished on the Guinea voyages, Swetman also bequeathed to his servant John Swetman '£5 that John's father owes him'.[127] As John had the same surname as Thomas we can only assume that he was a relative who was employed in Thomas' household, showing that wealthy shipmasters could offer opportunities to their less fortunate kin. The 1579 will of Robert Spodell of Dartmouth is illustrative of a master mariner 'made good'.[128] Robert had a productive career that spanned the 1560s and 1570s and included voyages to Spain and France, mainly shipping cloth.[129] Similar to most mariners discussed here, Robert was probably helped into

the world of the shipmaster by earlier generations. In the early 1550s, two ships sailed out of Dartmouth called the *Mare Spodell* and the *Trinite Spodell*, and in 1554 George Spodell commanded the *George* of Dartmouth.[130] In his will of 1579, Robert bequeathed lands in Dartmouth and tenements in Prittlewell in Essex to Edward, his eldest son. He also gave Edward 33s 4d per year for life, and to his second son Thomas he gave 25s 8d per year for life. He also left goods valued at over £11, which included tapestries and silver spoons. His investment in lands and tenements outside of his native Dartmouth suggest that Spodell was an enterprising man keen to expand his business activities. Prittlewell had a long association with shipping and its proximity to the River Thames perhaps offered Spodell a way into this important trading centre.[131]

Thomas Page of Brightlingsea, Essex, was a shipmaster who also had a varied career. He appears in the 1572 ship survey as master of the *Mary Grace* of 50 tons, a vessel we know he owned from his will.[132] Similar to many of the masters featured in this chapter, his career was a mixture of overseas and coastal voyages, in the former case mainly shipping salt to Bruges, Hiers-Brouage, and Bordeaux, and in the latter case with the occasional coastal trip to Colchester, Newcastle, and King's Lynn, usually carrying coal.[133] At the end of his career, he was able to leave to his two sons, Thomas and Steven, 'his crayer called the *Mary Grace*', and to Steven a boat called the *Helen* named after his wife. He also left 20s to the poor of the parish. Bequeathing lands, tenements, and ship-shares was, perhaps, beyond the means of most ordinary seamen. In 1564, John Stanley, mariner of Prittlewell, was only able to leave £1 14s and a few livestock to his relatives.[134] Here then is the stark comparison between the elite of the shipboard community – the shipmaster – and the 'ordinary' mariner.

Conclusion

Tudor shipmasters were central to the country's economy and they were rooted firmly in the landed communities in which they dwelt. Their careers show too that while some master-mariners might be seen by some contemporaries as 'mere coasters', men such as Nayler, Agwilliam, and Thomas Swetman were experts in their craft.[135] Even 'mere coasters' like Holford sometimes ventured away from familiar waters, and the fact they remained in command of the same ship for long periods shows they were competent seamen.

The evidence from lay subsidies, while not precise and open to underassessment, shows that master-mariners occupied a middling to high socio-economic position within their resident communities. Shipowner-masters must also have provided a source of local employment. The ships owned by Thomas Swetman, the *Great Mary Anne* and the *Primrose*, had a combined tonnage of approximately 180, and they would have been manned by 15 to 20 men.[136] True, the crews of vessels might have contained a number of men serving from outside the home port, but it would be relatively easy for Swetman to find eager crew members from the mariners of Ipswich.[137] Masters such as Robert Spodell also chose to invest in land and tenements, and through inheritance strategies passed on their wealth to the next generation. Indeed, some master-mariners might have even provided the means for the

gentrification of future generations. At some point in the early seventeenth century, the Gloucestershire-based Swanley family branched out and took up residence in London. The visitation of 1663 shows that John Swanley, gentleman, bore the coat of arms 'a fess wavy ermine between three unicorns' heads erased'.[138] It is also possible that the Thomas Swanley, gentleman of Eastington, who made his will in 1653, was a scion of the sixteenth-century shipmasters.[139]

As the greatest proportion of masters at this time worked in the coasting trade, these men established a presence within their communities. Indeed, while the masters sailing to Guinea or the Indian Ocean might be away for several months, these men were the exception and not the norm.[140] Even when masters like Thomas Swetman sailed to Bordeaux, the journey times would not have been great, and his sons and wife maintained a presence in the community. Masters like Spodell, who held lands and tenements in two regions, would have often been absent from one, but residence in two areas was a way of expanding commercial reach. There were, of course, masters who sought employment away from their community. Richard White, commander of the *Starre* of Bristol, lived in Tenby; William Agwilliam, worked out of Bristol but resided in Woolaston; and Hugh Willye of Milford Haven commanded the *Clement* out of Bristol.[141] Masters working out of Plymouth, too, could dwell outside the port.[142] Yet when the port books identify the place of residence of the master, the majority resided in the port from which they principally worked.

What also emerges from the linkage of nominal data from the port books with the lay subsidies is that, overall, shipmasters concentrated their residence within certain districts of major ports. In Ipswich in 1576, of the 12 identifiable shipmasters, seven lived in Eastward.[143] In Southampton, of the six identifiable masters only one resided outside St Michael's Ward, and in Gloucester none of the four identified shipmasters lived outside Westward. A nationwide survey is needed before sweeping conclusions are reached, but these clusters of shipmasters within specific districts look like proto-sailor towns, or neighbourhood areas filled with master-mariners. It makes sense for members of a particular occupational group to live close to one another. Business partnerships can be created, it is easier for ships to be bought and sold, and new charter-parties can be written. The link between Richard Swanley and Henry Horn noted above is illustrative of these kinds of commercial and residential links. If ordinary mariners also lived or boarded in these districts, it would make finding work from one voyage to the next easier. These residential clusters should not be seen as ghettos, or as places where the customs of the sea held sway.[144]

That masters sought to settle in the heart of port towns made sense as it was here where they could oil the wheels of commercial enterprise, and nurture existing contacts as well as forge new ones. Indeed, current research is revealing that shipmasters were highly integrated into local economies. Several shipmasters from Southampton, including those that worked in overseas and coastal trade, were also publicans, while other Southampton masters worked in the brewing industry.[145] Like the Swanley and Swetman families, many shipmasters also operated as merchants, suggesting that commanding and owning ships was part of a much larger business portfolio. In the 1550s, Richard Baxter of King's Lynn imported salt as a merchant, but did so in command of the *Mary Jermeyn* (a ship he probably owned, or part owned).[146] Indeed, the 1552

lay subsidy listed Baxter's principal occupation as a merchant.[147] The idea that sailors lived separately from landed society is a trope that this chapter seeks to challenge. Other types of traders and artisans must also have lived in the same space and, as shipmasters worked in other trades and established commercial links with merchants, they became interwoven with urban life just as much as seafaring.[148] As Isaac Land notes 'the waterfront – as the intersection of maritime and urban space – is obviously a meeting place rather than a self-contained world'.[149] There will, of course, be exceptions, but on the whole master-mariners of this period were equally at home aboard their ship and on land.[150]

Notes

1 I gratefully acknowledge the Arts and Humanities Research Council for supporting my AHRC project: AH/L004062/1, C. Lambert, 'The Evolution of English Shipping Capacity and Shipboard Communities from the Early Fifteenth Century to Drake's Circumnavigation (1577)', 2014–17: http://gtr.rcuk.ac.uk/projects?ref=AH/L004062/1. The findings from this project form the basis of my analysis here and is referred to as The Medieval and Tudor Ships Project. For the free-to-access database linked to the project see C. Lambert and G. P. Baker, 'The Merchant Fleet of Late Medieval and Tudor England', 2017: www.medievalandtudorships.org.

2 R. L. Pollitt, 'The Spanish Armada and the Mobilization of English Resources, 1570–85', in W. B. Cogar (ed.), *New Interpretations in Naval History: Selected Papers from the Eighth Naval History Symposium*, Baltimore, MD: Naval Institute Press, 1992, p. 22.

3 The National Archives of the United Kingdom, Kew (hereafter TNA) SP15/22 f. 1r.

4 See, for example, R. W. Unger, 'The Tonnage of Europe's Merchant Fleets, 1300–1500', *The American Neptune* 52/4, 1992, pp. 247–61.

5 TNA SP15/22, f. 2v; TNA E190/306/12, f.1r. There is more on this survey in C. L. Lambert and G. P. Baker, 'An Investigation of the Size and Geographical Distribution of the English, Welsh and Channel Islands Merchant Fleet: A Case Study of 1571–72', in J. Davey and R. Blakemore (eds), *The Maritime World of Early Modern Britain,* Amsterdam: Amsterdam University Press, forthcoming 2020.

6 TNA SP15/22, f. 10r. On their careers, see R. C. D. Baldwin, 'Borough, Stephen (1525–1584), Explorer and Naval Administrator', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press, 2004 (www.oxforddnb.com/search?q=stephen+borough&searchBtn=Search&isQuickSearch=true, accessed 16 August 2018).

7 J. Davey, 'Adventurers: England Turns to the Sea, 1550–80', in J. Davey (ed.), *Tudor and Stuart Seafarers: The Emergence of a Maritime Nation*, London: Bloomsbury Publishing, 2018, pp. 38–53.

8 D. Loades, 'The English Maritime Community', in C. A. Fury (ed.), *The Social History of English Seamen, 1485–1649*, Woodbridge: The Boydell Press, 2012, pp. 5–26. The smallest vessel undertaking cross-Channel trade that 'The Medieval and Tudor Ships Project' recorded is the 4-ton *Michael* commanded by John Holford of Hythe (Hampshire) which left Chichester for Rouen on 21 May 1574 (TNA E190/740/19, f. 2r). On 1 June 1565, the 3-ton *Thomas* of Jersey, commanded by Martin Marcaunt, entered Southampton from the Channel Islands, see TNA E190/814/1 f. 5v.

9 N. J. Williams, *The Maritime Trade of the East Anglian Ports, 1550–1590*, Oxford: Clarendon Press, 1988, ch. 2.

10 H. S. A. Fox, *The Evolution of the Fishing Village: Landscape and Society along the South Devon Coast 1086–1550*, Oxford: Leopard's Head Press, 2001.

11 M. Kowaleski, 'Working at Sea: Maritime Recruitment and Remuneration in Medieval England', in S. Cavaciocchi (ed.), *Ricchezza del mare, ricchezza dal mare, secoli XIII–XVIII*, Florence: Le Monnier, 2006, pp. 909–35; A. Ayton and C. Lambert, 'The English Mariner

in the Fourteenth Century', in W. M. Ormrod (ed.), *Fourteenth Century England VII*, Woodbridge: The Boydell Press, 2012, pp. 153–76. See also Sweetinburgh's chapter in this current volume.

12 See, for example, J. McDermott, *Martin Frobisher: Elizabethan Privateer*, New Haven, CT: Yale University Press, 2001; H. Kelsey, *Sir Francis Drake: The Queen's Pirate*, New Haven, CT: Yale University Press, 2000; A. L. Rowse, *Sir Richard Grenville of the Revenge*, London: Book Club Associates, 1977; J. A. Williamson, *The Hawkins of Plymouth*, London: A. and C. Black Ltd., 1949.

13 C. A. Fury, *Tides in the Affairs of Men: The Social History of Elizabethan Seaman, 1580–1603*, Westport, CT: Greenwood Press, 2002; P. E. H. Hair and J. D. Alsop, *English Seamen and Traders in Guinea, 1553–1565*, Lewiston: Edwin Mellen Press Ltd, 1992.

14 M. Kowaleski, 'The Demography of Maritime Communities in Late Medieval England', in M. Bailey and S. Rigby (eds), *Town and Countryside in the Age of the Black Death: Essays in Honour of John Hatcher*, Turnhout: Brepolis, 2012, pp. 87–118; Loades, 'The English Maritime Community', pp. 5–26.

15 F. E. Dyer, 'The Elizabethan Sailorman', *The Mariner's Mirror* 10/2, 1924, pp. 133–46; C. A. Fury, 'Training and Education in the Elizabethan Maritime Community, 1585–1603', *The Mariner's Mirror* 85/2, 1999, pp. 147–61; J. D. Alsop, 'Tudor Merchant Seafarers in the Early Guinea Trade', in C. A. Fury (ed.), *The Social History of English Seamen, 1485–1649*, Woodbridge: The Boydell Press, 2011, pp. 75–116; V. V. Patarino Jr, 'The Religious Shipboard Culture of Sixteenth and Seventeenth-Century English Sailors', in C. A. Fury (ed.), *The Social History of English Seamen, 1485–1649*, Woodbridge: The Boydell Press, 2011, pp. 141–92; C. A. Fury, 'Health and Health Care at Sea', in C. A. Fury (ed.), *The Social History of English Seamen, 1485–1649*, Woodbridge: The Boydell Press, 2011, pp. 192–228; C. A. Fury, 'The Elizabethan Maritime Community', in C. A. Fury (ed.), *The Social History of English Seamen, 1485–1649*, Woodbridge: The Boydell Press, 2011, pp. 117–40.

16 A number of Scammell's most important works are collected in G. V. Scammell, *Seafaring, Sailors and Trade*, Aldershot: Ashgate, 2003.

17 See Scammell, *Seafaring, Sailors and Trade*, pp. 27–52, 73–97, 179–205; G. V. Scammell, 'Manning the English Merchant Service in the Sixteenth Century', *The Mariner's Mirror* 56/2, 1970, pp. 131–54.

18 Scammell, *Seafaring, Sailors and Trade, 1450–1750*, pp. 1–22.

19 K. R. Andrews, 'The Elizabethan Seaman', *The Mariner's Mirror* 68/3, 1982, pp. 245–62.

20 K. R. Andrews, *Elizabethan Privateering: English Privateering during the Spanish War, 1585–1603*, Cambridge: Cambridge University Press, 1964.

21 A. Grant, 'Breaking the Mould: North Devon Maritime Enterprise, 1560–1640', in T. Gray, M. Rowe, and A. Erskine (eds), *Tudor and Stuart Devon: The Common Estate and Government. Essays Presented to Joyce Youings*, Exeter: Exeter University Press, 1992, pp. 119–40; K. R. Andrews, *Trade, Plunder and Settlement: Maritime Enterprise and the Genesis of the British Empire, 1480–1630*, Cambridge: Cambridge University Press, 1984.

22 Fury, *Tides in the Affairs of Men*, ch. 5. See also Fury, 'The Elizabethan Maritime Community'.

23 At Easter 1466 Edward IV issued an order for port books to be implemented, but these orders were ignored, see TNA E159/242 m. 27d. In 1565, Elizabeth's government ordered the port books to be introduced as part of an overhaul of the customs system, see E159/350 mm. 319–28. On sixteenth-century port books, see Williams, *The Maritime Trade of the East Anglian Ports*, ch. 1. On the implementation and regulation of the customs system with regard to coastal trade, see S. Gadd, 'Illegal Quays: Elizabethan Customs Reforms and Suppression of the Coastal Trade of Christchurch, Hampshire', *The Economic History Review* 71/3, 2018, pp. 727–46.

24 The best guide to Tudor taxes is R. Hoyle, *Tudor Taxation Records: A Guide for Users*, London: PRO Publications, 1994.

25 Ayton and Lambert, 'The English Mariner'.

26 On the importance of the east coast coal trade, see J. R. Blake, 'The Medieval Coal Trade of North East England: Some Fifteenth Century Evidence', *Northern History* 11, 1967,

pp. 3–26; P. Nash, 'The Maritime Shipping Trade of Scarborough, 1550–1750', *Northern History* 49, 2012, pp. 202–22; J. F. Wade, 'The Overseas Trade of Newcastle upon Tyne in the Late Middle Ages', *Northern History* 30, 1994, pp. 32–48.

27 See Chapter 5 by Gary Paul Baker in this present volume, pp. 95–124.

28 TNA E122/116/13 f. 1v. Brazilwood was an Asiatic timber that was used to dye cloth. Hawkins might have picked this up in Africa or in Iberia, see E. T. Jones and M. M. Condon, *Cabot and Bristol's Age of Discovery*, Bristol: Cabot Project Publications, 2016, p. 13.

29 R. Hakluyt, *The Principal Navigations, Voyages, Traffiques & Discoveries of the English Nation, Made by Sea or Over-land to the Remote and Farthest Distant Quarters of the Earth at any Time within the Compasse of these 1600 Yeeres*, vol. 11, Glasgow: James MacLehose and Sons, 1904, pp. 23–4.

30 Merchants would usually send factors on long-distance voyages who would manage the cargo. However, masters still held some responsibilities, not least for the safety of the ship they commanded, while also negotiating sometimes difficult trading conditions brought about by diplomatic and political problems.

31 J. F. Wade, *The Customs Accounts of Newcastle upon Tyne, 1454–1500*, Woodbridge: Publications of the Surtees Society, 1995, pp. 32, 116, 154, 271.

32 Wade, 'The Overseas Trade of Newcastle upon Tyne', p. 34; C. M. Fraser (ed.), *The Accounts of the Chamberlains of Newcastle upon Tyne, 1508–1511*, Newcastle upon Tyne: Athenaeum Press, 1987, pp. 27, 41, 67, 86, 235. In the 1470s, William Blaxton was collector of customs and, in the first decade of the sixteenth century, John Blaxton was Chamberlain.

33 TNA E190/303/2 f. 2r.

34 As Blaxton is absent from the 1572 ship survey we can be confident that his career had ended by 1571.

35 TNA E190/303/2, ff. 2r, 3r, 8v; E190/304/2 ff. 15v–23r.

36 Andrews, 'The Elizabethan Seaman', p. 257. Andrews does not name the ship but in the 1560s and 1570s, all Harrogate's voyages were in command of the *Christe* (sometimes called the *Christopher*), suggesting that he part-owned this vessel.

37 TNA SP15/22 f. 1r; E122/110/11 m. 3.

38 TNA E190/5/6 f. 3r. He is recorded as the commander of this vessel in the 1572 ship survey, but the survey records the ship at 100 tons; SP12/22 f. 1r.

39 TNA E190/304/5 f. 10v.

40 TNA E190/7/5 f. 4v.

41 On Bristol's' overseas trade, see S. Flavin and E. T. Jones (ed.), *Bristol's Trade with Ireland and the Continent: The Evidence of the Exchequer Customs Accounts*, Bristol: Bristol Record Society, 2009.

42 TNA SP15/22 f. 23r.

43 TNA E122/24/11A m. 1.

44 TNA E190/1128/4 ff. 1r, 2r; E190/1128/15 f. 5v; E190/1128/8 f. 3r; E190/1128/4, f. 2r; E190/1129/5 f. 12v; E190/1129/16 f. 7v; E190/1128/12 f. 6v.

45 TNA E190/1128/12 f. 6v; E190/1128/11 f. 19r.

46 Andrews, 'The Elizabethan Seaman', p. 257.

47 TNA E122/24/3 f. 13v.

48 TNA E122/199/10 f. 2r; E122/24/12; E190/1128/7 f. 3r; E190/1010/18 f. 13r; Flavin and Jones, *Bristol's Trade*, pp. 643, 656, 701, 703, 706, 708, 709, 718, 730.

49 TNA E190/1129/4 f. 2r; E190/1129/6 f. 9r; E190/1129/5 f. 1; E190/1129/21 f. 9v; E190/1129/14 f. 6v.

50 TNA E190/389/1 f. 15r; E190/389/5 f. 3r.

51 TNA E190/388/6 f. 8v; E190/387/6 f. 2r; E190/387/3 f. 9v; E190/5/5 f. 22r; E190/389/9 f. 9v; E190/387/4 f. 1r; E190/387/1 ff. 1r, 4r–5r.

52 TNA E190/307/17 f. 1v; E190/388/12 f. 2v; E190/389/4 f. 9r; E190/389/5 ff. 1v, 5v; E190/389/6 ff. 1r, 2r; E190/389/7 ff. 2r, 5v, 7v; E190/389/10 f. 6r; E190/389/12 f. 5v; E190/427/8 f. 23v; E190/428/1 f. 7v; E190/428/2 f. 2r; E190/428/3 f. 7r; E190/428/4

f. 8v; E190/428/2 f. 2r; E190/428/3 f. 13v; E190/389/4 ff. 3r, 9r; E190/389/10 f. 6r; E190/389/6 f. 3v; E190/389/12 f. 5v; E190/307/16 f. 5v; E190/389/7 f. 5r; E190/388/6 f. 3v.

53 TNA E190/1128/11 ff. 2r–14r; E190/1128/13 ff. 3r, 12v–15v; E190/1128/14 ff. 2v–10v; E190/1129/22 ff. 6r, 9r; E190/1129/15 ff. 4r–7r.

54 TNA E190/1128/11 f. 11v.

55 TNA E190/1129/15 f. 6v.

56 TNA E190/1128/14 ff. 8v, 9r.

57 M. Kowaleski, 'The Maritime Trade Networks of Late Medieval London', in W. Blockmans, M. Krom, and J. M. Mrozewicz (eds), *The Routledge Handbook of Maritime Trade Around Europe, 1300–1600*, London: Routledge, 2017, pp. 383–410; Williams, *The Maritime Trade of the East Anglian Ports*, pp. 61–8.

58 Alsop, 'Tudor Merchant Seafarers'; Scammell, 'The Merchant Service Master', p. 3.

59 TNA SP15/22 f. 17r. Colshill mistakenly allocates him to Hythe in Kent. For his career in fishing for oysters, see The Southampton Tudor Project: From Records to Revels, 2012, (www.tudorrevels.co.uk, accessed 21 September 2018). Hereafter 'Tudor Revels'.

60 Service in 1552: Southampton Archives, Southampton: Local Port Book of Southampton (hereafter LPS) SC/5/4/49, f. 8v; service in 1553: LPS SC/5/4/20 f. 2r; service in 1555: LPS SC/5/4/52 f. 8r; service in 1559: LPS SC/5/4/57 f. 13v; service in 1585: LPS SC/5/4/78 f. 1r.

61 For wine, see LPS SC/5/4/66 f. 13r.

62 TNA E190/817/1 f. 2r; E190/817/2 f. 2v.

63 TNA E190/814/9 f. 7v; E190/740/19 f. 2r.

64 Details on Holford's misdemeanours can be found on Tudor Revels (www.tudorrevels.co.uk, accessed 21 September 2018).

65 LPS SC/5/4/78 f. 1r.

66 TNA E190/816/11 f. 6r; E190/817/1 f. 2r. Tudor Revels (www.tudorrevels.co.uk, accessed 21 September 2018).

67 R. Hope, *Poor Jack: The Perilous History of the Merchant Seamen*, London: Greenhill Books, 2001, p. 3.

68 Andrews, 'The Elizabethan Seaman', p. 257; Fury, 'The Elizabethan Maritime Community'; S. Sweetinburgh, 'Strategies of Inheritance among Kentish Fishing Communities in the Later Middle Ages', *The History of the Family* 11/2, 2006, pp. 93–105.

69 Fury, *Tides in the Affairs of Men*, pp. 9–11.

70 Andrews, 'The Elizabethan Seaman', p. 257. This practice, however, was long established. In the fourteenth century, the survival of a number of crew lists show that family groups were present aboard some requisitioned merchant ships. In 1337 and 1340 two King's Lynn ships (the *Gracedieu* and the *Godbefor*) contained several clusters of family groups, as did two ships of Dover in 1372 (the *Mighel* of Dover and the *Marie*), see TNA E101/20/28; E101/22/30; E101/31/32.

71 For example, William and Leonard Clay from Walberswick and Southwold are likely to be related, TNA SP15/22 f. 6r.

72 TNA E122/199/6 f. 9r.

73 TNA E190/1128/12 ff. 8r, 9v, 10r; E190/1128/14 f. 3r, 4r, 8r; E190/1128/13 ff. 3r, 7r, 10r, 14v; E190/1129/1 f. 9r; E190/1129/20 f. 3r.

74 TNA PROB11/83 f. 210r. Andrew is also named as a son, but he does not appear in the surviving records as a shipmaster.

75 TNA E190/1128/11 f. 13r; E190/1129/3 f. 11r; Flavin and Jones, *Bristol's Trade*, p. 744.

76 TNA E190/1128/13 f. 3r, 8v; E190/928/12 ff. 1v, 9v, 10r; E122/199/6 f. 9r; E190/1128/14 ff. 4r, 9v; E190/1128/13 ff. 10r, 15r; E190/1128/14 f. 3r; E190/1010/11B f. 2r; E190/928/5 f. 1r; E190/1128/1 f. 5v; E190/1128/17 ff. 4r–5r. The recording of a ship's home port could be imprecise; especially in areas where several ports lay close to one another.

77 TNA E190/1129/3 ff. 11r–11v.

78 TNA E122/199/6 f. 9r.

79 Flavin and Jones, *Bristol's Trade*, pp. 743, 744, 762, 805, 814, 823, 827, 847, 861, 879, 897.
80 TNA E190/1128/14 ff. 3r, 4r; E190/1128/13 ff. 3r, 7r.
81 See, for example, D. Taylor, 'The Maritime Trade of the Smaller Bristol Channel Ports in the Sixteenth Century', Unpublished PhD thesis, University of Bristol, 2009.
82 T. S. Willan, *The Inland Trade: Studies in English Internal Trade in the Sixteenth and Seventeenth Centuries*, Manchester: Rowman and Littlefield, 1976, pp. 19–20.
83 TNA E190/1128/12 f. 10r.
84 R. Brenner, *Merchants and Revolution: Commercial Change, Political Conflict, and London's Overseas Trades, 1550–1650*, London: Verso, 2003, pp. 4–23.
85 See for example, Taylor, 'The Maritime Trade'.
86 E. T. Jones, 'The Bristol Shipping Industry in the Sixteenth Century', Unpublished PhD thesis: University of Edinburgh, 1998, pp. 93–4.
87 TNA PROB11/63 ff. 268v–269r.
88 TNA E190/589/13 f. 4r; E190/593/23 f. 2r.
89 TNA E190/589/13 f. 16r; E190/473/5 ff. 1r, 3r.
90 Lighters were usually small vessels that were used to freight cargo from large ships to the quayside. D. Burwash, *English Merchant Shipping, 1460–1540*, Toronto: Toronto University Press, 1947, p. 140, suggests that some lighters could carry up to 21 tons of cargo. Thomas's wife received two-thirds of a flyboat, which could have been the 80-ton *Primrose*; in effect Thomas senior shared the vessel between his son and wife.
91 TNA E190/473/5 f. 2v; E190/814/6 f. 6r; E190/588/5 f. 4v; E190/587/4 f. 8v.
92 TNA E190/589/10 f. 9v; E190/589/13 f. 25v. It could be Ireland, since the MS is not clear; however, the ship returned to Ipswich with a cargo of stockfish, suggesting an Icelandic run.
93 TNA E190/593/23 f. 2r.
94 TNA E122/118/3 f. 2r. James is referred to as Jacob Hampton (Jacob being the Latin form of James).
95 TNA E122/118/3 f. 10r.
96 Kelsey, *Drake*, pp. 17–22.
97 TNA SP15/22 f. 21v. For Hampton's connection with this vessel see E190/1010/7 f. 7v; E190/1128/4 f. 5v. Drake, with his brother John, may have owned the *Pasco* by this time, see Kelsey, *Drake*, p. 50.
98 TNA E190/1011/12, f. 4r; Kelsey, *Drake*, pp. 38–9.
99 TNA E190/1011/12 f. 4r; E190/1010/7 f. 7v; E190/1011/7 f. 13v; E190/1128/1 f. 5r; E122/118/3 f. 10r.
100 TNA E190/589/6 f. 2r; E190/589/10 ff. 2v, 4r, 4v, 9v, 11r; E190/589/13 f. 16r.
101 TNA E190/1228/12 f. 1v. Peugate appears in the 1563–4 lay subsidy (assessed at £6) for Gloucester West Ward, E179/115/367 r. 1. Peugate was active in the Gloucester, Welsh, Cornish, Bristol, and Irish trades: E122/24/6 f. 5r; E190/1128/6 ff. 2r, 4r, 8r; E190/1128/11 ff. 3r, 5v, 6v; E190/1129/1 f. 7r; E190/1129/5 f. 5r; E190/1129/6 f. 2r; E190/1129/7 f. 4v.
102 TNA E190/1128/12 f. 1v.
103 TNA E190/1128/12 ff. 1v, 3v.
104 M. Bukhardt, 'Networks as Social Structures in Late Medieval and Early Modern Towns', in A. Caracausi and C. Jeggle (eds), *Commercial Networks and European Cities, 1400–1800*. London: Routledge, 2014, pp. 13–44, where the definition of 'networks' is explored.
105 TNA PROB11/83 f. 210r.
106 M. Kowaleski, 'The Shipmaster as Entrepreneur in Medieval England', in B. Dodds and C. D. Liddy (eds), *Commercial Activity, Markets and Entrepreneurs in the Middle Ages*, Woodbridge: The Boydell Press, 2011, pp. 165–82; Andrews, 'The Elizabethan Seaman', pp. 257–9.
107 Brenner, *Merchants and Revolution*, p. 5, n.6.
108 D. Defoe, *The Complete English Tradesman. Originally Published in 1726: Now Published with Notes*, London: William and Robert Chambers, 1839, p. 76.
109 Fury, *Tides in the Affairs of Men*, pp. 201–2.

110 Ayton and Lambert, 'The English Mariner'.
111 TNA E179/115/385 m. 1. The subsidy was granted in 1571, but the resulting document was not returned to the exchequer until 1572.
112 Henry Horn of Gloucester (£9: taxed 9s on goods: TNA E179/115/385 m. 1); John Cowley (£3: taxed 3s on goods E179/115/385 m. 1); William Lightfoot (20s: taxed 18d on land E179/115/385 m. 1): John Lightfoot commanded the *Clement* in 1512); John Horn (£3: taxed 3s on goods: E179/115/385 m.1).
113 Flavin and Jones, *Bristol's Trade*, p. 103.
114 Flavin and Jones, *Bristol's Trade*, pp. 548, 581, 612.
115 TNA E122/199/5 f. 3v; E122/199/6 f. 9r; E122/23/20 f. 3r; Flavin and Jones, *Bristol's Trade*, p. 548.
116 TNA E179/115/385 m. 1.
117 TNA E179/174/387.
118 LPS SC/5/4/49 f. 6v; SC/5/4/57 f. 8r; TNA E190/814/3 f. 7r; E190/814/5 f. 2r; E190/814/8 f. 44v; E190/1010/14 f. 5r; E190/814/7 f. 3v; E190/1010/18 f. 16r; E190/814/9 f. 6r; E190/929/8 f. 2r; E190/1010/12 f. 4r; E190/1010/23 f. 1r; E190/1011/4 f. 8r; E190/1011/19 f. 5v; E190/814/2 f. 12v; E190/814/1 f. 3r; E190/814/6 f. 1v.
119 TNA E179/100/368 m. 7.
120 TNA E179/100/368 m. 7.
121 TNA E179/182/370 mm. 35, 36.
122 TNA E190/185/6 f. 12v, 44v; E190/425/1 f. 10r; E190/425/2 f. 10v; E190/473/6 f. 4r; E190/473/11 f. 2v.
123 TNA E179/182/370 m. 14.
124 Hair and Alsop, *English Seamen and Traders*; D. Woodward, 'Ships, Masters and Shipowners of the Wirral, 1550–1650', *The Mariner's Mirror* 63/3, 1977, pp. 233–48. The wills of only two sixteenth-century Wirral-based master-mariners are detailed.
125 Woodward, 'Ships, Masters and Shipowners of the Wirral', p. 246. The one recorded mariner who died before 1600 (William Guile) left £23 19s 4d in various goods and money. In contrast, Thomas Wilford, master of the *Moon* on the 1554 Guinea voyage, left £4 in money and various items including maps and clothes (Hair and Alsop, *English Seamen and Traders*, pp. 214–15).
126 TNA PROB11/63 ff. 268v–268r
127 For issues surrounding debt, see Alsop, 'Tudor Merchant Seafarers'.
128 TNA PROB11/63 ff. 409r–409v.
129 TNA E190/928/9 f. 6r; E190/929/11 ff. 4r, 19r. In 1576, a Robert Spoddle commanded the *Julian* of Bristol to Ireland, but as the Robert in this chapter worked out of Dartmouth this might be a different master with the same name: Flavin and Jones, *Bristol's Trade*, p. 693.
130 TNA E122/44/4 m. 12; E122/44/6 m. 10d; E122/201/14 f. 7r.
131 For Prittlewell's historical association with the sea, see A. Ayton and C. Lambert, 'Shipping the Troops and Fighting at Sea: Essex Ports in England's Wars, 1320–1400', in J. Ward, N. Wiffen, and C. Thornton (eds), *The Fighting Essex Soldier*, Hertfordshire: Hertfordshire University Press, 2017, pp. 98–142.
132 TNA SP15/22 f. 8r; PROB11/59 ff. 32v–33r.
133 TNA E190/387/1 f. 5r; E190/589/7 f. 20v; E190/387/1 f. 5r; E190/589/12 f. 8r; E190/425/1 f. 9v; E190/425/2 f. 10v.
134 TNA PROB11/47 f. 109v. Hair and Alsop, *English Seamen and Traders*, provide more evidence from wills on the socio-economic position of ordinary mariners. However, these are exceptional voyages and most mariners were young men who had not yet lived long enough to accrue wealth.
135 E. G. R. Taylor (ed.), *A Regiment for the Sea and Other Writings on Navigation, by William Bourne of Gravesend, a Gunner, c.1535–1582*, Cambridge: Cambridge University Press, 1963, pp. 293–4.

136 Scammell, 'Manning the English Merchant Service', pp. 131–2, notes that English ships were undermanned in this period, but a good estimate would be one man per 8 to ten tons.
137 A survey dated to 1559 shows 415 mariners in Suffolk and 565 in neighbouring Essex, see TNA SP12/11 f. 64.
138 W. Ryley and H. Dethick, *The Visitation of Middlesex Began in the Year 1663*, J. Foster (ed.), London: Privately Printed for Joseph Foster, 1887, p. 68. The Swanley family of Poplar were descended from John, Richard, and William Swanley of Framilode. According to the visitation, William of Framilode named his son John, and John named his son William and his daughter Elizabeth (names used by the Gloucestershire branch). Richard and William Swanley of Poplar were shipmasters for the East India Company, suggesting the 'family trade' was carried on. The William of Framilode recorded in the visitation may have been the son named in the 1592 will of Elizabeth who was left the bark called *Harry*. There is still some confusion surrounding the London branch. In 1601, Richard Swanley (the East India Company master) married, but the 1592 will of Elizabeth Swanley of Gloucester does not mention a son called Richard. The only conclusion to reach is that either Richard of Poplar was illegitimate and ignored by Elizabeth in her will, or he was from a cadet branch of the family, see M. L. Baumber, 'An East India Captain: The Early Career of Captain Richard Swanley', *The Mariner's Mirror* 57/3, 1967, pp. 265–79.
139 TNA PROB11/235/189. Eastington is close to Gloucester.
140 This was still the case in later periods, see I. Land, 'The Many-tongued Hydra: Sea Talk, Maritime Culture, and Atlantic Identities, 1700–1850', *Journal of American and Comparative Cultures* 25/3–4, 2003, pp. 412–17.
141 TNA E190/1128/7 ff. 3v, 7r; E190/1128/3 ff. 3v, 6r; E190/1128/5 f. 2v. Andrews had noted this previously; see Andrews, 'The Elizabethan Seaman', p. 249.
142 TNA E190/1010/7 f. 2r
143 TNA E179/182/37 mm. 34–7.
144 For arguments that when on land sailors were somehow separate from the wider community, see M. Rediker, *Between the Devil and the Deep Blue Sea: Merchant Seamen, Pirates and the Anglo-American Maritime World, 1700–1750*, Cambridge: Cambridge University Press, 1998, ch. 1.
145 L. Brinkley, 'England's Maritime Communities: A Study of Elizabethan Coastal Trade, 1568–1580', Unpublished PhD thesis: University of Southampton, 2020.
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149 Land, 'Tidal Waves', p. 731.
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15

Women and the Sea, 1600–1800

Margarette Lincoln

In 1781, there was a report in a London newspaper about a girl who had been discovered, disguised as a seaman, on a ship trading to the East Indies. Her motives are unknown. 'Can you believe', the report states, 'that after being five weeks at sea, we found a young girl in boy's cloaths'.[1] In the second half of the eighteenth century, a one-way passage from Britain to India cost at least £30, substantially more than a male labourer could earn in a year, and she might have hoped to take advantage of the brisk marriage market operating in the territories controlled by the East India Company.[2] She was discovered only when there was a theft on board. The enquiry that followed included a search of seamen's bedding, and her petticoat and gown were discovered in her pillow. This was an incident calculated to catch public interest and sell newspapers. In Britain there was a long tradition of women going to sea dressed as men.[3] Such stories had romantic and salacious undertones and found a ready market. Yet the girl herself had probably made a calculated life choice, based on information acquired in the maritime communities along the River Thames and on known accounts of women who had served at sea, both legitimately and disguised as men.[4]

Before air and rail travel, given that roads were generally bad and in winter often impassable, travel by water was the norm. In the same way that we might have a passing knowledge of different makes of car, people would have known about different types of sailing vessels. They would have seen men working on these ships in ports and major rivers. They would have been more aware of winds and tides, which affected the price of goods in market. And while we think now of seafaring as an exclusively male province, in fact it impacted strongly on women's lives and women themselves often went to sea. This essay explores the links between women and seafaring, focusing for the most part on Western Europe in the seventeenth and eighteenth centuries.[5]

Romantic partners

The custom of naval officers taking women to sea was entrenched. As early as 1587, when the Armada was preparing to invade England, its commander, the Duke of Medina Sidonia, specifically included in his orders, 'No public woman aboard the ships'. He threatened severe punishment for anyone contravening the order, regardless of rank.[6] Yet in navies there must always have been a distinction between officers' women and those whom common seamen tried to smuggle aboard. The custom persisted into the seventeenth century. One of Samuel Pepys's closest friends, the wealthy merchant James Houblon, sent him a letter on 7 May 1677, imploring him, in his capacity as Secretary of the Admiralty, to do something about 'the rascally officers of the fleet':

> Particularly that the King's ships may not be made bawdyhouses nor the captains publicly carry and entertain their whores on board as some of them have formerly done and that from port to port in the Mediterranean, to the great scandal of our religion and government both amongst Turks Jews, and Christians'.[7]

A slow change in naval attitudes is reflected in the early novel, in *The Jamaica Lady; or, The Life of Bavia* (1720), which describes a British warship's return voyage from Jamaica to England. Captain Fustian expostulates with one of his officers, Frutesius, who has brought Holmesia, his mistress, on board, drawing a distinction between sleeping with a prostitute ashore and keeping one at sea: 'Tho' you went every Night on Shore to your loose Woman at *Jamaica*. I pass'd it by without Notice; but this is such an Affront to her Majesty, that I am oblig'd to resent it.'[8]

In January 1731, Admiralty orders forbade officers and seamen from taking women to sea 'without Orders from the Admiralty'. An Admiralty Directive of 1756 tightened up this ruling. It stipulated that there should be no women in the ship but 'such as are really the Men's wives', and then only in port.[9] But it was difficult to establish whether visiting wives were genuine or spurious. When the *Royal George*, a first-rate warship with a crew of 800, sank in an accident at Spithead in 1782, some 300 women and 60 children were on board. The numbers could never be confirmed as the majority drowned.

Officers continued to take women to sea without reprimand unless the matter was officially brought to the Admiralty's notice. For some, having their wives aboard was a way to save money. A captain's pay was not high and the officers not only had to pay for their uniform and equipment but also entertain others at table.[10] If they failed to win prize money, when peace came they would have to maintain their family on half pay alone. Jane Austen's naval brother Charles took his wife on board ship with him, where tragically she died in childbirth. Other officers took their mistresses aboard when serving overseas – although as the navy became more professionalized, this was increasingly frowned upon. Yet there were always exceptions: when Admiral Rodney sailed from Portsmouth during the American Revolutionary War, he was so anxious to catch a favourable wind, he did not delay to put the women and children ashore.[11]

Women working at sea

Some women were legitimately allowed onboard naval vessels. The Sick and Wounded Board ruled on 1 January 1703, 'every Hospital Ship to have Six Nurses and Four Laundresses, none under the age of Fifty Years'.[12] Six days later, Admiral Sir George Byng, a member of the Board of Admiralty, inspected the hospital ships and insisted that, instead of women, men only should be employed. His order was duly enforced but it was noted that many men died who might have lived if they had been allowed female nurses.[13] By 1705, women were back on hospital ships as 'nurses and Laundresses' and paid as crew. British warships also carried women in their own right. The wives of certain warrant officers (boatswains, carpenters, and gunners, who remained on ship even when the vessel was out of commission) were allowed on board. They had particular roles in battle – often helping the surgeon or carrying gunpowder from the ship's magazine to the guns.[14] After Admiral Nelson's victory against the French at the Battle of the Nile in 1798, two women, Ann Hopping and Mary Ann Riley, applied for medals, already awarded to men, but were refused on the grounds that other women had been equally useful.[15] Women also served at Trafalgar in 1805, in both the French and British ships. In Nelson's fleet, few have been identified by name. Ellis Armstrong, wife of the quartermaster on the *Swiftsure*, received £10 from Lloyds Patriotic Fund in 1808 for the help she gave to the ship's surgeon in the battle. And when, in 1847, Queen Victoria directed that the Naval General Service Medal for Trafalgar be awarded 'without reservation to sex', Jane Townshend, alongside another surviving woman, duly applied for it, based on 'useful services' in the 74-gun warship, *Defiance*. Her application was warmly supported by the ship's former captain, Philip Durham, but turned down. The official reasoning was that consent would expose the navy – and army – to many other applications.[16]

In peacetime, warrant officers' wives were not always welcome to live on board warships maintained in reserve or laid up for repair. In 1767, the Admiralty issued orders to remove women from ships in ordinary (reserve) at Chatham, on threat of suspending the officers involved.[17] And in 1772 there were complaints from men in Sheerness who said that when they came back to their ship from work, wet and cold, they could not get to the fire because of the numbers of women and children on board.[18] Standing warrant officers were poorly and infrequently paid. They found it difficult to maintain their wives ashore, so the most practical step, if they had no young family, was to bring their wife on board with them. In time, there were young children as well as women on the ships.[19]

Many women routinely sailed with the army on troop ships. Travelling with the army became a 'quasi-acceptable, if not precisely respectable', way for some women to see the world. For example, in 1777 the Gibraltar garrison had 4,000 men, 500 women, and 1,000 children.[20] Conditions on troop ships would have been cramped and chaotic. Susanna Middleton, who in 1805 sailed to Gibraltar with her husband, a dockyard official, described her ordeal to her sister in London. She complained of drinking water that was almost black, of stinking meat, and of 'such a collection of dreadful nasty smells' that she felt nauseated whenever she tried to sit in the cabins below.[21] Yet some remarkable women, such as Elizabeth Marsh (1735–85), born into

a seafaring family, had the stamina to lead global lives, crossing oceans and continents, their experiences shaped 'as much by water as by land'.[22]

Women in disguise

There are also famous tales of cross-dressing women who went to sea.[23] Anne Bonny (1690–1782) and Mary Read (*c.*1690–1721), were immortalized in Captain Charles Johnson's *A General History of the Robberies and Murders of the Most Notorious Pyrates* (1724). The book, sometimes attributed to Daniel Defoe, was an immediate best-seller and went through four editions by 1726. Born in Ireland, Bonny grew up in South Carolina where, having married against her father's wishes, she was barred from the family home and she and her husband settled in the Bahamas. There she took up with Captain Jack Rackham, one of the many pirates thereabouts and in 1720 sailed with him. Legend has it that on board she met Read, another cross-dressing female pirate, who apparently had always been dressed as a boy by her mother in order to receive an inheritance intended for the male line. Some claimed that the two women only wore men's clothes in combat: both were said to be active whenever fighting was involved, particularly Bonny:

> When any Business was to be done in their Way, no Body was more forward or courageous than she, and particularly when they were taken; she and *Mary Read*, with one more, were all the persons that durst keep the Deck'.[24]

When Rackham's ship was captured, pregnancy saved Bonny from execution. She lived out her days in South Carolina. Read died from a violent fever while in jail.[25]

In Britain, Hannah Snell won fame for her military career dressed as a man. She claimed to have joined the British army in 1745, after the Jacobite rising, using the name of her brother-in-law, James Grey, and taking some of his clothes. In 1747, she joined the marines in Portsmouth and sailed with Admiral Boscawen's squadron to the East Indies. Snell served at sea and in India for three years, only revealing her sex when she was paid off in 1750. Afterwards, she became a kind of entertainer. She celebrated her military life on the stage and was applauded for her patriotism.[26] Snell's audiences were chiefly interested in the gory episodes – her injuries and sufferings – but it is difficult to tell how much of her story is true. The 500 lashes she claimed to have received as a soldier in Scotland is almost certainly a fabrication.[27]

Closer in time to the 1781 cross-dressing female discovered on the East Indiaman, is the story of Mary Lacy (*c.*1740–1801), who went to sea in masculine clothes and later trained as a shipwright, still disguised as a man. She published her autobiography, *The Female Soldier; Or, the Surprising Life and Adventures of Hannah Snell, etc*, in 1773. As in the story of Ann Bonny, there are several titillating episodes of same-sex eroticism, when she describes advances women made to her believing she was a man. The book was an instant success and there was a New York edition as late as 1807.[28] We can read it closely for details of life at sea during the Seven Years War (1756–63), or a first-hand view of what it was like to work in a naval dockyard, or even scan it for material

about contemporary attitudes toward women and relations between the sexes. But we need to be careful: Lacy claims to have written a factual account but may have coloured events to appeal to a market and probably had help to write the book. All the same, we know that during the American Revolutionary War (1775–83) several other women dressed in men's clothes and tried to enlist as seamen in privateers, or join the army.[29]

Women and shipwreck

Women who accompanied seamen or troops on voyages, or who just travelled overseas, were subject to the same dangers of piracy, shipwreck, or battle. Disaster at sea was an everyday occurrence (one source claims that in the 1750s around 4,200 Britons a year perished through shipwreck).[30] The notion that women and children should leave a sinking boat first was not current before the loss of the *Kent* East Indiaman in 1825, when soldiers on board behaved better than the majority of the seamen and ensured an orderly evacuation. If seamen and passengers took to an open boat, a woman was often a liability and might become a target. Survivors often resorted to cannibalism, the weakest being sacrificed to save the strongest. This was accepted practice among seamen and not considered a crime provided that lots were properly drawn. But even when lots were cast, the shortest straw seems to have been reserved for the weakest among them.[31] Another problem was women's cumbersome dress which restricted movement; it seems genteel women were not overly willing to strip in an emergency. This is reflected in *Paul et Virginie*, a hugely popular story of innocent love first published in 1788, in which the heroine drowns. A burly sailor does his best to save her: 'The man approached Virginia with respect, and kneeling at her feet, attempted to force her to throw off her clothes, but she rejected him with modesty, and turned away her head […] seeing death inevitable.'[32]

When, in 1786, the *Halsewell* East Indiaman foundered in a blizzard on precipitous cliffs at Purbeck, Dorset, several passengers managed to scramble to rocks and safety.[33] Captain Pierce had his two daughters on board, who could only take refuge in the ship's roundhouse and await their fate, although he secretly ordered his chief officer to make sure the ship's long boat was reserved for officers and the ladies, should there be a chance to use it. Unable to save his daughters, Pierce drowned with them when the ship broke up. He had hoped to marry them well in India and was posthumously criticized for putting them in danger in the pursuit of mercenary alliances.[34]

If shipwrecked women survived to be captured by native peoples on non-European shores, they were assumed to suffer a fate worse than death. Survivors from the wreck of the *Grosvenor* in 1782 on the North African coast faced protracted suffering. Women's reputations did not survive captivity. Several white women were reported to be living among the Caffres after the *Grosvenor* went down. Later they were offered escape but allegedly, 'apprehending that their place in society was lost, and that they should be degraded in the eyes of their equals after spending so great a portion of their lives with savages', they chose to stay with their children and the chiefs who protected them.[35] Yet some women turned captivity to advantage. Elizabeth Marsh,

daughter of a British naval official based in Gibraltar, had the bad luck to be captured by Moroccan corsairs off the North African coast in 1756. The British government negotiated her release after a few months. Over a decade later, in 1769, she published an account of her ordeal, called *The Female Captive*. Writing for an established literary marketplace, she followed the pattern of earlier popular romances, notably by Penelope Aubin, shaping her narrative as a battle to retain her sexual virtue against acting ruler and future sultan, Sidi Muhammad, who allegedly tried to entice her into his harem.

Working ashore

If we consider what happened beyond Britain, the obvious point is that seafaring, by removing men to sea, everywhere made them dependent on the work of women ashore. Women played an important role in the economy of maritime communities. In Europe, this was as true in coastal areas where people were dependent on local fishing as in larger ports where resident seamen were chiefly involved in long-distance trade or naval warfare. The role of women in maritime communities, therefore, differed from that of women in urban economies where, in early modern times, trade became more regulated and women's formal involvement in it declined.[36] In early modern Portugal, for example, in northern coastal communities and in larger maritime centres such as Lisbon, women looked after the household while men were away in the cod fisheries for months at a time. They also sold the catch when the men returned.[37]

While the greater proportion of women in these communities were restricted to low-level, supporting roles, some became involved in financing these high-seas fishing voyages and even owned fishing vessels. A register of ships in Aveiro in 1552 shows that of 70 vessels, mostly used for the cod fishery off Newfoundland and in the coastal trade off Ireland, England, and Flanders, 19 were either owned or part-owned by women.[38] Opportunities for these Portuguese women probably differed from those in other northern European fishing ports where male primogeniture was a more established tradition and women less economically independent.[39] However, studies have found that in some small European maritime communities, along the Brittany coast and in Basque country, households were woman-centred whether or not husbands were at sea. Local women were fiercely self-reliant and resilient, and took care of all household matters ashore.[40]

Women in fishing communities were not always tied to the land: mending nets, processing and selling fish. In Norway and Sweden, they also helped with the catch.[41] In Sweden in particular, where many households combined farming and fishing, women were adept at handling small boats. They rowed out to cattle pastured on spurs of land in order to milk them. Eighteenth-century Swedish oarswomen even made a living by ferrying people across rivers.[42] In England, bum boat women earned money by rowing out to the fleet and selling fresh produce, and whenever there was a shortage of men in wartime, women in ports would have been able to do small boat work, as they did in Europe.[43]

Women petitioners

In Britain, women married to seafarers were often expected to look after their husbands' interests while they were away, or to lobby on their behalf. This was certainly true of the wives of seamen captured by the Barbary corsairs. Throughout the seventeenth century and into the early 1700s, corsairs routinely terrorized the Western Mediterranean from North African bases, and pillaged even as far as West Country villages, where they seized women and children too. In England and subsequently Britain, the wives of male victims were licensed to beg in order to raise the ransom needed to set them free.[44] It is estimated that, during the seventeenth and eighteenth centuries, there were over 20,000 British captives in Barbary.[45] Some seafarers languished in captivity for ten years or more before their release could be negotiated – if it ever was – meanwhile their families endured poverty at home.

Economic distress could spur seamen's wives to action. During the Dutch Wars, on 10 July 1666, Samuel Pepys recorded in his diary that the navy office was plagued by a crowd of over 300 women. They were protesting on behalf of their menfolk, who had not been paid and who languished in Dutch jails as prisoners of war. The women were so rowdy, Pepys was afraid to send out his supper – a venison pasty – to be baked in the cook shop.[46] On 14 June 1667, he noted that sailors' women were again unruly, as news spread that the Dutch fleet, which had daringly raided Chatham on the River Medway and seized English ships, had been partly crewed by English sailors. This Dutch triumph brought shame to the navy, but sailor's wives in Wapping cried out that it was the Admiralty's fault for not paying their men handsomely as the Dutch did.[47] One woman had actually confronted Sir William Batten, Surveyor of the Navy, on Tower Hill, accusing the old naval officer in colourful language of penny-pinching mismanagement. In Queen Anne's reign, even the wives of pirates holed up in Madagascar felt entitled to lobby for their husbands to be pardoned and allowed home with their loot. The queen had made a gracious response to an address in the House of Commons calling for the suppression of piracy. Encouraged, the wives submitted their petition to her in 1707. It was unsuccessful.[48]

Rowdy sailors' women typically came to notice during periods of impressment. Britain depended on trade to finance wars and there were never enough experienced seamen to man both merchant and naval vessels in wartime.[49] While impressment was unavoidable, it was always felt to be a contravention of Englishmen's boasted liberties. Pepys was deeply affected by the lamentations of the wives of impressed sailors during the Second Anglo-Dutch War (1666–67):

> But, Lord! how some poor women did cry; and in my life I never did see such natural expression of passion as I did here in some women's bewailing themselves, and running to every parcel of men that were brought, one after another, to look for their husbands, and wept over every vessel that went off, thinking they might be there, and looking after the ship as far as ever they could by moone-light [*sic*], that it grieved me to the heart to hear them. Besides, to see poor patient labouring men and housekeepers, leaving poor wives and families,

> taken up on a sudden by strangers, was very hard, and that without press-money, but forced against all law to be gone. It is a great tyranny.[50]

Women encouraged their men to resist press gangs. In 1755, Captain Wheeler reported that in Newcastle he might have recruited more men if he had been able to transfer volunteers promptly into a tender, or holding vessel used to ferry men out to warships, before they changed their minds, but the next day they were 'teazed and baited out of it' by the women.[51] Women were prominent in anti-impressment riots, collecting missiles for men and themselves pelting press gangs with stones, chunks of coal, and broken bottles.[52] In 1759, one recruiting captain in Bristol reported that women even helped men escape from the tenders.[53]

In maritime parishes like Wapping in London, the local populace was ready to help sailors who said they were evading press gangs, although this excuse was used by thieves to gain entry to premises they later robbed. It was also used as a defence in trials for theft, when the accused might claim he was only caught running because he was trying to escape a press gang.[54] Equally, women used the excuse, or fact, that their husbands had been pressed to gain sympathy and to encourage others to wink at crime. One woman, fencing stolen goods in the 1790s, allegedly cajoled a shopkeeper to accept the items with just such a hard luck story.[55]

There was a tradition of women energetically petitioning the authorities for all kinds of favours and benefits. In early modern Europe, petitioning was ubiquitous at all levels of society because it was the only acceptable way to address local and national authorities when seeking redress or advancement. Women could employ a professional scribe to produce an elegant document and be sure of adopting the correct tone, or they could follow one of the many guides to letter writing and chance their own efforts. In 1702 Frances Moody, a seaman's wife, petitioned the commissioners of the navy's Sick and Wounded Board for travel funds to transfer her mentally ill husband to Newcastle. He had been discharged from the navy as unlikely to recover and refused admittance to a London hospital but, as she explained, family in Newcastle would care for him. The commissioners obliged.[56] In 1775, Lacy traded on her reputation as 'the female shipwright' to lobby naval officials on her husband's behalf at Deptford dockyard, where he worked as a shipwright, asking that he might be granted an apprentice.[57] In the same way, middling and elite women lobbied those naval officers with influence, seeking promotion for their sons and husbands.

Widows might petition naval authorities for their husband's back pay, or plead with charities for an allowance. Resourceful widows of naval supply contractors might petition to be allowed to continue a naval contract after their husbands' deaths. In these situations, widows claimed a good understanding of their husband's business, or reassured the navy that they had a capable foreman who could help shoulder the responsibility. Merchant seamen's widows might seek charitable relief from Trinity House. The corporation, set up by Henry VIII in 1514 to regulate pilotage and maintain navigational lights and buoys, used some of its large income from light dues to help mariners and their dependants. Those in need had to submit a petition and be recommended to the corporation as a proper object of charity.[58] In the eighteenth century, Trinity House supplied printed forms, presumably to spare the petitioner the

expense of a scribe while at the same time smoothing their own administration.[59] The forms were then completed by hand. The signatures strongly indicate that some petitioners were semi-literate, able to sign only their first name with any assurance. Trinity House received requests for assistance from all over the kingdom, with most petitioners applying for an annual allowance rather than accommodation in their almshouses, which was highly prized and more difficult to obtain. During the French Wars (1793–1815), Trinity House also provided a form that allowed a merchant seaman's wife to claim temporary relief for herself and children if her husband was a prisoner of war in France, supplementing whatever parish relief she might obtain. The certificate had to be signed by the owner of the vessel in which the seaman had been captured.[60]

Communications and relationships

Women kept in touch with men at sea through customary seafaring networks, and by letter. It is notoriously difficult to estimate literacy levels. Some figures suggest that literacy was as low as 30 per cent in the eighteenth century but others indicate that between 1700 and 1790 literacy remained fairly steady at 60 per cent for men, rising in women from 40 to 50 per cent.[61] At the end of the seventeenth century, we know that the wives of pirates in New York were able to communicate by letter to pirate bases on Madagascar.[62] And if a woman could not write, she could get someone to scribble a letter for her.

In all cases where menfolk were absent at sea for long periods, women acquired power – over the home, child-raising, and domestic finances. This did not advance their legal status since property was still owned by men, but marriages to seamen sometimes developed into good partnerships. In other cases, the absence of men at sea for long periods produced fractured relationships. At sea, mariners were constantly reminded of the power that others, more senior, had over them. If they compensated on return by asserting their authority over the home, there could be violent scenes. Domestic violence was high in port towns.[63] Lacy gives a vivid picture of marital relations in Portsmouth in her autobiography of 1773. As a carpenter's assistant, she witnessed passionate quarrels between her master and his common-law wife. In one such episode, her mistress threw her two-month-old baby at the carpenter. The child's howls could be heard through the open window and disturbed the whole neighbourhood. When Mary tried to calm the woman, she roared at her man, 'Oh the dog! I'll pull out his guts!' Both parents neglected their children and left them to the casual care of servants. This is a unique picture of a maritime community, described by someone who actually experienced it.[64]

Women in maritime districts might have long-term relations with more than one man, co-habiting with whoever was in port. Such arrangements potentially suited all parties. The woman was assured of a more regular income; the men returned to trusted partners. This was an important consideration since prostitutes and bawdy-house keepers routinely fleeced returning sailors of their wages.[65] Sometimes women fell into multiple relationships by chance rather than design, if there had been no news of their first partner for years and it was presumed he had been killed or lost

at sea. Obviously, if ever their men happened to be ashore at the same time, there was plenty of room for disagreement. In 1761, mariner Daniel Looney was tried at the Old Bailey for murdering Captain Joseph Shanks at their home in Wapping. Looney had complained to his 'wife' that it was very hard she could not bring him a roll and butter for his breakfast as he brought so much money home. Shanks had retorted, 'Captain Looney, it is d – d hard I cannot live in peace and quietness in my own house'. A fracas ensued during which Looney hit his wife with a sugar hatchet before repairing to the pub. Later that evening, extremely drunk and convinced that his wife's affections were disproportionately bestowed on another, he discharged a loaded musket at his rival. Looney, former master of a Bristol privateer, was found guilty, hanged, dissected, and anatomized.[66]

Higher up the social scale, some officers' wives embraced the additional responsibility of running a household on their own. Others were fearful. In 1747, Frances Boscawen assured her husband, Edward, that his young family was thriving under her watchful care and that he had no cause to worry while at sea.[67] In contrast, Betsy Freemantle was distinctly nervous when her husband, Thomas, took up a new commission in 1803 leaving her with five young children and the estate to manage.[68] She rose to the occasion, dividing her time between rural Buckinghamshire and London society. Some wives were not so capable. Admiral Cuthbert Collingwood was disappointed in his wife's excessive spending, but as he was not home at all for the last six years of his life he understood that she sought pleasure in entertainments and small luxuries.[69]

Surviving letters between maritime couples show that prolonged warfare and separation brought distress and hardship. This is particularly true during the long French Wars, when there were long periods between shore leave. Husbands tried to fulfil fatherly obligations, sending directions and advice about the education of children but of necessity often left decisions to wives on the spot. Sadly, wives were also left to make excuses for the poor correspondence record of children who did not know what to put in a letter that would interest their fathers, often complete strangers.[70]

For centuries, seafaring has been associated with prostitution in seaports. *The Black Book of the Admiralty*, compiled in the early fifteenth century, admonished the medieval mariner to avoid taverns and loose women, and to respect the virtuous. In fifteenth-century England, the port towns of Sandwich and Southampton, and the London borough of Southwark had licensed brothels. These conurbations had large sailor populations and there was a sense that wives and daughters would be at risk if sailors' sexual needs were not catered for. By the mid-sixteenth century, there was a more repressive attitude toward sexual morality and the legal brothels were closed down.[71] As Britain's maritime trade and navy grew, so did the number of prostitutes in port towns. Eighteenth-century Portsmouth was reputed to be able to provide about 1,000 prostitutes whenever the fleet returned. During the height of the wars against Napoleon, there was a shortage of trained seamen and captains were unwilling to grant them shore leave in case they deserted. Instead prostitutes and wives were rowed out to the fleet. Bacchanalian scenes ensued on the lower deck.[72]

Transportation and prostitution

Women's experience of the sea extended to transportation to the colonies as criminals. First-hand accounts of their experiences throw light on prostitution in ports. After the outbreak of the American Revolutionary War (1775–83), it became impossible to transport convicted offenders to the British colonies in America, as had been the norm. Convicts were later transported to Australia instead. In 1789, the *Lady Juliana* left Plymouth with 226 women and girls aboard, mostly sentenced for petty theft and prostitution. The conversation of one young prostitute, as reported by a seaman serving on the convict ship, helps us to understand the circumstances that might make a short stay on the lower decks of a warship more attractive than life ashore. When he asked her if she minded being banished from her native land, she retorted:

> How much more preferable is our present situation to what it has been since we commenced our vicious habits? We have good victuals and a warm bed. We are not ill treated, or at the mercy of every drunken ruffian, as we were before. When we rose in the morning, we know not where we would lay our heads in the evening, or if we would break our fast in the course of the day. Banishment is a blessing to us. Have we not been banished for a long time, and yet in our native land, the most dreadful of all situations? We dared not go to our relations, whom we had disgraced. Other people shut their doors in our faces. We were as if a plague were upon us, hated and shunned.[73]

As seamen criss-crossed the globe, their expectations of finding prostitutes in every port affected their relationships with women across the world. In the second half of the eighteenth century, it may have coloured the dealings of Western Europeans with women on the Pacific islands, although even at the time there was unease about the justice of representing Pacific women as uniformly open to prostitution.[74] Even the partial evidence that survives indicates that it is a mistake to generalize about female islanders' relationships with the crews of expeditions sent to explore the Pacific. While some formed voluntary liaisons, maintaining their dignity, a measure of control over the situation, and even becoming sincerely attached to seamen, others were exploited by islanders, who took a share of the goods they bartered for sex. Women might be forced to travel with European crews, only to be abandoned in a crisis, or when they had lost their attraction. Relations between women and European seamen in the Pacific were complex: 'The transition from sex-as-intercultural exchange to sex-as-barter to "prostitution" was probably more "entangled" than a discrete sequence'.[75] Some indigenous women were victimized, but others won respect as sexual traders and mediators between ship and shore. And if sailors were accustomed to using women for pleasure, they would also have known examples of strong women who could be trusted with business.

Provision for the elderly and destitute

Such was the importance of the navy and sea trade to Britain by the end of the seventeenth century, that some provision was made for those who had grown old or become disabled at sea. In 1692, Queen Mary II revived her father, James II's idea

of building a naval hospital at Greenwich. The first Pensioners (as the inmates were called), entered the unfinished Hospital in 1705. Within its walls there was provision for only a handful of naval wives or widows, employed as nurses to care for the sick and to feed men too disabled to manage that themselves. As a result, numerous wives of Greenwich Pensioners came to live nearby, where they took in washing or did other menial work to survive.[76] Many women of the time would have found themselves caring for mutilated or debilitated seamen in their own homes. One poignant example is Ann Flinders. Her husband, Matthew, was sent to survey the coast of Australia in 1801 just a few months after their marriage. She waited nine years for him because the French made him a prisoner of war on his voyage home, only to find him prematurely aged on return and chronically ill. He died within four years.[77]

The wives of superannuated men who had been masters or pilots in the merchant service might be fortunate enough to secure a place with their husbands at one of Trinity House's three London almshouses, built in the mid-seventeenth century: two in Deptford, one in Whitechapel. Rooms were basic but well maintained, although at the end of the seventeenth century, Ned Ward, the London satirist, denigrated the newer of the two Deptford almshouses as a 'Pinch-Gut College'.[78] Candidates for admission had to be in reduced circumstances and unable to maintain themselves by their own labour. After 1792 they also had to be at least 60 years old. The needy could petition for a place but only a recommendation secured one, with the Elder Brethren of Trinity House usually taking it in turns to make these representations. Men received a monthly allowance of 20 shillings and wives admitted with their husbands received 16 shillings, but only after they had turned 60.[79] Husbands and wives were able to live together in Trinity almshouses (in a workhouse they would be separated). Inmates might also marry and move in together, which freed up rooms. Rarely did anyone leave before death unless they became chronically unwell or mentally unstable. There were no facilities to deal with such cases. For example, Anne Kinselagh, declared insane, was sent to a mad house on 6 October 1791. Mary Hardisty, merely 'disordered in mind', was removed to Wapping Workhouse on 1 December 1792. A week later Joanna Posgate, 'infirm and helpless', was ordered to reside with her daughter. Very occasionally, individuals were dismissed for misconduct, so the regime was a controlling one, though Trinity's Council may have regulated behaviour to ensure a harmonious community.[80]

In eighteenth-century Britain, many poor maritime women became all too familiar with the workhouse. In maritime parishes, the workhouse fulfilled a function that differed in some respects from that of workhouses elsewhere. As men were often at sea, workhouses routinely formed part of the support structure for seamen's wives. If their credit failed because husbands were slow to return or died abroad, they and their children might go there as a last resort. Sometimes, only the children might be admitted, allowing the mother to work. Or a family might be allowed the provisions of the house as 'out-relief', as was Ann Ransom in 1791, about to lie in, with three children already and her husband at sea.[81] Predictably, in wartime, instances of seamen's families needing relief rose smartly as men were either pressed or willingly joined the navy. Some men enlisted in order to evade family responsibilities, never intending to return. Wartime steadily placed additional burdens on those paying the poor rate. In

1796, the Greenwich workhouse committee ruled that the wives of seafaring men should no longer have a cash allowance, presumably because it was too great a drain on resources.[82] Yet sometimes the workhouse helped women with the cost of taking their family to other ports if their husband's ship had docked there: in 1773 Mary Giffin was allowed 5s 3d to help her get to Portsmouth with her children.[83]

Occasionally, seamen unable to be at home to supervise errant wives actually chose to pay for their families to be maintained in the workhouse. In September 1777, William Smith, a seaman on His Majesty's Yacht *Royal Charlotte*, informed the committee of the Greenwich workhouse that his wife 'was such a Sottish Drunken Woman that she was incapable of taking care of herself or her Children' and begged that the workhouse would keep them. He made over his entire pay to the workhouse for their upkeep.[84] Similar arrangements could be put in place when infirm and aged seamen retired. The Pensioners in Greenwich Hospital were expected to contribute toward the maintenance of their wives in the workhouse if those wives were infirm and needed care. They had to transfer a portion of their monthly allowance or their tobacco money to the parish.[85]

Even in peacetime, the workhouse might be a means for poor women to get their boys equipped to go to sea. Another resource was the Marine Society, set up by Jonas Hanway in 1756 to send poor boys into the navy. The workhouse also served to keep troublesome young people off the streets but there was a limit to what it could do. In July 1788, the Greenwich workhouse took in Cornelius Henning, an unruly boy whose mother could no longer manage him. A fortnight later he escaped over the wall. Though severely flogged on return, he continued 'refractory' until September when he was finally sent back to his mother in the clothes he wore into the workhouse, deemed incapable of reform.[86]

Given the resourcefulness of women in maritime communities, there were always capable women involved in maritime businesses. In early modern Portugal, records show that women operated as wine merchants and were involved in such long-distance trades as the importation of textiles and iron products from northern Europe.[87] In eighteenth- and nineteenth-century Britain, women were also ship owners, although usually these women were from smaller maritime communities and the lower-middle class.[88] Many women also ran smaller ancillary trades such as ship chandlers, slop-selling (dealing in ready-made clothes for sailors), and public houses or inns catering for sailors.

Women in British seaports from the later seventeenth century developed complex financial networks organized around 'sailor's tickets'. These were promissory notes generated by the navy. Men were given tickets instead of wages when their ship was paid off that could be redeemed at the navy office. Men who needed cash urgently sold their tickets below value, often to women who took on the responsibility of dealing with the navy bureaucracy. Widows might also sell the wages due to them for a lower amount if in need of ready money.[89] Some women were also able to make a living from representing men, as well as other women, who were having trouble getting paid. This was because in English seaport towns it became common for men to assign their wives or female relations the power of attorney while at sea so that the women could legally deal with their financial and business affairs in their absence.[90]

Women in maritime communities from the early modern period onwards, were also involved in a more shadowy economy. In England and Wales before 1620, they played a major part in the support network for pirates operating in local waters. Afterwards, large-scale, coastal piracy seems to have been overcome and pirates looked to new bases overseas. Women ran borrowing networks, managed pawnshops, received and dealt in stolen goods, and catered to a range of seamen's needs on shore. They were often implicated in smuggling and, particularly in the seventeenth century, helped men to pilfer goods from shipping moored in the Thames.[91]

As consumers, women provided a large market for naval commemoratives. These became popular during the War of Jenkins' Ear (1739–48), after Admiral Edward Vernon's capture in 1739 of the Spanish stronghold, Porto Bello, on the Isthmus of Panama. In this supportive role, afterwards women contributed to perceptions of the social and political importance of the navy. Women found that jewellery, commemorative fans, ribbons, and patch boxes could all be used to convey their patriotism and, depending on circumstances, their opinions about national affairs. Figurines, plaques featuring profiles of naval heroes, tea pots, mugs, purses, and trinkets were produced in quantity, for both the top and bottom ends of the market. In this way, women helped to make the naval heroes of later eighteenth-century wars household names.[92] Some commemorative items were acquired as souvenirs of nationally important events. Others were treasured for their personal significance – usually those incorporating portraits or the hair of a loved one. Some were purchased or commissioned with the intention of making a public statement, for example drawing attention to the family's connection to a naval victory, and so helped to give women a public voice.[93]

Men's involvement with the sea – in navies, as pirates and explorers, or in dockyards – has been well studied, partly because surviving records are more extensive and so open to analysis over time. Women's involvement is necessarily sometimes indirect, but wide-ranging and just as fascinating. The young woman disguising herself as a sailor in 1791, with hopes perhaps of reaching India or any of the ports en route, was just one facet of women's long association with the sea.

Notes

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11 *Public Advertiser*, 16 Feb. 1780, p. 2.
12 Berckman, *The Hidden Navy*, pp. 31–2.
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14 R. Adkins and L. Adkins, *Jack Tar: Life in Nelson's Navy*, London: Little, Brown, p. 271.
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16 Quoted in W. B. Commander and R. N. Rowbotham, 'Soldiers and Seamen's Wives and Children in H. M. Ships', *Mariner's Mirror* 47, 1961, pp. 45–6; TNA ADM 171/1 ff 131v-2.
17 TNA ADM 106/1154/245.
18 TNA ADM 106/1208/310.
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16

Early modern English piracy and privateering

Elaine Murphy

In the final scenes of Thomas Heywood's tragi-comedy *Fortune by Land and Sea* (*c.*1607–9), two pirates awaiting execution, Purser and Clinton – based on the exploits of Clinton Atkinson and Thomas Walton – hark back to their 'golden days' at sea. Purser asks 'was't not better when we raign'd as lords, nay, Kings at Sea, the Ocean was our realm'.[1] Written during James I's reign, this play evoked the glory days of piracy and privateering under Elizabeth I. Piracy as popular entertainment is clearly not a new phenomenon. Since the early 2000s, especially after the first *Pirates of the Caribbean* (2003) movie, academic and popular interest in the field has exploded.[2] The best of this scholarship opens up new research avenues and situates piracy and privateering within wider concerns about the early modern world. This work moves beyond well-known periods such as Elizabeth's 'Sea Dogs' or the so-called Golden Age in the Caribbean, Americas, and Indian Ocean to lesser known aspects of piracy and privateering.[3] This chapter examines three elements that are key to understanding the nature and inherent complexities of piracy and privateering from the sixteenth to eighteenth centuries. Since distinguishing between pirates and privateers was rarely clear-cut, I assess ways of defining and understanding these activities and the individuals that undertook them. Following on from this, the chapter evaluates the role of the state in utilizing and suppressing pirates and privateers. Finally, I explore why men, and occasionally women, chose such a risky career. What factors persuaded or compelled them to sign up to a dangerous pirating or privateering venture?

Defining piracy and privateering

In its simplest form, piracy is defined as 'The action of committing robbery, kidnap, or violence at sea or from the sea without lawful authority'.[4] Early modern jurists defined those who committed piracy as 'common Enemies to all Mankind, having no Legal Authority for what they do'.[5] Monarchs such as James I unequivocally declared that 'all such Pyrates and Rovers upon the Seas to be out of his protection, and therefore to be lawfully pursued and punished to the uttermost extremitie'.[6]

Victims of attacks at sea and government officials clearly identified and labelled those who committed these outrages as pirates. In 1716, for example, Lieutenant Governor Spotswood complained about 'a nest of pirates' in Providence.[7] This unambiguous language and classification of piracy masks a more complex and fluid situation that attracts considerable historical scholarship. The first of these complexities is that the concept of pirates as '*hostis humani generis*' (enemy of mankind) did not hold true for many people. Pirates received widespread acceptance and support from maritime communities that allowed them to survive and thrive. Government officials often tacitly condoned pirates and piracy. James I's officials flaunted his authority, released condemned pirates, and profited from their illegal seizures. Leading courtiers such as Robert Cecil, Earl of Salisbury, and Robert Rich, Earl of Warwick, invested in and 'winked at' their activities.[8] From the 1660s to the 1720s, pirates like Benjamin Hornigold, Henry Avery, and others found ready markets in American and Caribbean colonies for the plundered loot they brought to sell. Colonial governors and colonists in New York, Boston, Philadelphia, and Providence tolerated pirates and privateers as they profited from the commerce or lacked the will or resources to eradicate the problem.[9] The popularity of works of fiction, drama, ballads, and histories such as Captain Johnson's *General History of the Pyrates* (1724) also challenges this idea of the perception of pirates as the enemy of all mankind.[10] Relatively few women went to sea on pirate ships but in numerous port towns, their activities as aiders and abettors of piracy demonstrate the ways in which local communities supported piracy and thwarted attempts by the authorities to stamp it out.[11] Edward Edmonde's mother, wife, and sister-in-law hampered a number of attempts by admiralty officials to arrest him on suspicion of piracy in 1604.[12] Collusion by local populaces and government officials enabled piracy and privateering to flourish.

The issue of privateering presents a number of ambiguities when trying to understand how private enterprise at sea operated. A privateer, unlike a pirate, held a commission from a government, which allowed them to seize enemy shipping and goods. The term 'privateer' came into usage in the mid-seventeenth century, but it is commonly applied to privately owned and operated men-of-war in the sixteenth and seventeenth centuries.[13] For many historians 'privateer' is a useful shorthand for describing private warships who put to sea with a licence from the state or monarch.[14] Others such as N. A. M. Rodger argue that using the term 'privateer' for these private men-of-war is anachronistic and encourages a 'muddle' about how we understand piracy.[15]

Privateers operated under the authority of a letter of reprisal, also called letters of marque. In times of war, the letter of reprisal allowed ship-owners and merchants to seek redress if a foreign power seized their goods or vessel. In times of peace, the state revoked these commissions, with the English government withdrawing them in 1604 and 1605 after the Treaty of London, for instance.[16] Regulations for issuing letters of reprisal against the Spanish in 1585 stated that English merchants seeking commissions needed to prove their losses. In November of that year, John Foxall, a London merchant, provided evidence for the seizure of merchandise worth £7,800 belonging to him at Cadiz. He received a licence to 'to arme forthe some shippe for reprisall against the subjectes of the said King of Spaine'.[17] In 1643, John Harris petitioned the

admiralty in London for a letter of marque to set out the *Alexander* to gain reparations for his losses of £2,000 from the Irish rebels who robbed his family in Kerry when they rose up against Charles I in October 1641.[18] Over time, the reprisal element in these commissions declined. By the Civil Wars of the 1640s, ship-owners sought letters to seize enemy shipping if an opportunity arose. Solomon Clarke, the master of the *Solomon* of London bound for Ireland, applied for a letter of marque in case he encountered any hostile vessels on the voyage. Others petitioned for licences to build or buy warships for their 'nimbleness and strength' in order to set out solely to attack enemy shipping.[19] By the later seventeenth and eighteenth centuries, these changes became more formalized as the admiralty authorized two classes of privateer. Ship-owners sought commissions for private men-of-war, such as the purpose-built *Mars* privateer in 1780, which went out solely to capture enemy shipping. Some merchant ships also received licences so they could legally take any hostile shipping they encountered on a commercial voyage.[20] The Declaration of Paris in 1856 abolished the use of privateers in naval warfare.[21]

In reality, distinguishing between pirates and privateers was rarely clear-cut. As Miles Ogborn argues, 'piracy is in the eye of the beholder' and double standards existed.[22] On the one hand, Elizabeth I ruthlessly suppressed pirates who attacked shipping on the English coast in the 1560s and 1570s. At the same time, the queen and her officials tolerated and profited from Sir Francis Drake's marauding against Spain even though war had not been declared. They justified these activities by blaming the Spanish who, it was argued, 'brought these evils on themselves by their injustice towards the English'.[23] Unsurprisingly the Spanish did not share this viewpoint and regarded Drake and his compatriots as 'English pirates'.[24] The possession of a letter of marque did not necessarily confer privateering status on the holder, as the state often refused to recognize the commission. James I regarded those who took letters of marque from foreign princes as pirates.[25] During the Civil Wars and Nine Years' War, captains who sailed under licences authorized by the Stuart monarchs often found themselves branded as pirates.[26] In 1692, the admiralty prosecuted a number of men as pirates even though they 'shew a Commission signed James Rex'.[27]

The fact that privateers sometimes veered into outright piracy blurred the distinction between the activities even further. Ship-owners and captains eager to capitalize on wartime opportunities set out without official authorization or attacked neutral merchantmen. During the 1580s and 1590s, ships with English commissions regularly assaulted French, Dutch, Danish, Scottish, and Norwegian vessels.[28] In 1587, Frederick II, King of Denmark, wrote to Elizabeth I that a pirate with 'the royal insignia of her Majesty painted on the poop' seized various Danish ships.[29] The queen asked the king to understand 'how hard it is to restrain men of war from outrages by sea and land, in times of hostility between princes and civil wars'.[30] This blurring between legitimate and illegal activity at sea continued in the later seventeenth century as weak government control and conniving by colonial officials led many privateers to overstep the boundaries of their letters of marque. Henry Morgan's claims that he acted within the remit of his licence did not prevent his arrest and transportation to London on suspicion of piracy in 1672. William Kidd received commissions to eradicate pirates in the Indian Ocean, but he and his crew turned to piracy on reaching

Madagascar.[31] Privateers in the eighteenth century continued the tradition of intercepting neutral shipping despite government efforts to limit these predations. During the Seven Years' War, 'reckless arrests' by British privateers in the Channel enflamed tensions with the Dutch Republic and Denmark.[32] Piracy and privateering in the early modern maritime world existed on many, and at times confusing, levels. The difficult relationship between pirates and privateers and the early modern state adds further complexity to our understanding of private warfare at sea.

Piracy and the early modern state

Piracy and privateering played a key role in the development of English, later British, imperial and colonial ambitions and expansion from the late sixteenth century onwards. Private enterprise became embedded in overseas expeditions and colonialization schemes ranging from Drake's raids and circumnavigation to Woodes Rogers' round-the-world voyage from 1708 to 1711. So long as pirates and privateers remained useful in fostering commercial or imperial advantages, the government in London saw little incentive to stamp out the problem.[33] Britain did not possess a monopoly on the use of private enterprise at sea. Other European powers turned to privateers to bolster their own naval efforts. The Spanish authorized Flemish frigates based in Dunkirk and Ostend to attack Dutch shipping in the seventeenth century. Rebel forces and princes also claimed the right to issue letters of marque to their supporters such as the Huguenots in France in the 1560s, the Dutch 'Sea-Beggars' in the 1560s and 1570s and the Irish confederates in the 1640s.[34]

Licensing private men-of-war offered many attractions for early modern states and became the 'characteristic form of maritime warfare' in the period.[35] Vessels could set out quickly and cheaply to harass enemy shipping and generate revenue from prizes. In the First Anglo-Dutch War (1652–4), for example, English privateers seized 1,250 Dutch vessels.[36] They bolstered the Crown's naval forces during wartime by providing convoys or patrols when naval ships were otherwise engaged. Privateers also allowed the state to pursue strategic aims, often against Spain, while offering plausible deniability. Drake's circumnavigation (1577–80) offers the perfect example of the appeal of private enterprise to Elizabeth I. It represented an opportunity to strike at Spanish power and capture significant prizes at minimum cost and risk to the queen.[37] The value of privateers to the British state became less clear-cut in the late seventeenth and eighteenth centuries. Privateers drew large numbers of skilled seamen away from the Royal Navy at times when the navy desperately needed manpower. Temporary suspensions of letters of marque, such as in 1666, helped to sustain the fleet in an emergency.[38] Nevertheless, between 1702 and 1815 approximately 10,500 privately owned vessels received licences to prey on enemy shipping.[39] A nostalgic attachment to privateering that drew on the apparent 'glory days' of Elizabeth's 'Sea Dogs', combined with the ability of investors to convince the government and public of their usefulness ensured that they remained a feature of warfare.

Once pirates and privateers lost their utility to the state, often by becoming too much of a nuisance to trade or disrupting diplomatic relations with other powers, the government in London sought to eliminate the problem.[40] Eradicating piracy

required considerable resources, and it was neither quick nor simple to achieve. It required careful use of the judicial system, deploying the Royal Navy, and winning over public opinion. Monarchs issued proclamations against piracy and closed legal loopholes, such as those that allowed sailors to accept commissions from foreign powers. In order for a tough legal framework to work, strong enforcement was required. This process usually began with the removal of ineffective or corrupt officials who sympathized with pirates. James I dismissed Sir Richard Hawkins as vice-admiral in Plymouth, for instance, due to numerous complaints about his involvement in piracy.[41] Richard Coote, Earl of Bellomont, replaced the flagrantly corrupt Benjamin Fletcher as governor of New York in 1698.[42] Over time, the actions of pirates alienated the colonial populations who previously protected them and profited from their endeavours. After 1699, damage to mercantile interests and shifting political winds led to a decline in support for pirates in the colonies.[43] New laws, such as the 'Act for the More Effectual Suppression of Piracy' in 1700, also aided officials since it allowed them to prosecute suspected pirates in admiralty courts in the colonies.[44] Large 'show trials' and executions of leading pirates followed. Stede Bonnet and 33 of his men were tried and executed in Charleston in South Carolina in 1718.[45] Two years later, John Rackam and most of his crew met a similar fate in Jamaica.[46] Executions of notorious pirates, such as John Gow and William Kidd, attracted large crowds and their corpses hung in gibbets for years on the foreshore of the Thames as a warning and deterrent to other seafaring men.[47] The ritual of public execution combined with the display of the bodies of executed pirates demonstrated and reinforced the authority of the state and its monopoly on violence.[48] Whether or not they had the desired effect of persuading men and women not to turn pirate is a separate matter.

In conjunction with tougher enforcement, the government granted pardons to those who gave up their illegal trade and offered rewards to apprehend those who refused to surrender. James I issued a general pardon in 1611 and 12 pirate crews surrendered in the following year.[49] Between 400 and 500 pirates 'surrendred to his Majesty's Pardon' in 1717.[50] Many who accepted clemency in 1611, such as William Baughe, and in 1717, such as John Rackam and Edward Teach, quickly returned to a life of crime at sea, as they possessed few other employment options.[51] The effectiveness of a capable governor utilizing both incentives and harsh punishments is visible in the appointment of Rogers, a former privateer, as governor of Nassau in 1718. His arrival with four Royal Navy ships marked a turning point in the eradication of piracy in the Bahamas. Rogers even authorized a former pirate, Benjamin Hornigold, to hunt down those who refused to surrender.[52] The experience and knowledge of reformed pirates made them useful to the government and some prospered as naval officers and colonial officials. Henry Mainwaring and Morgan received knighthoods and high office for their willingness to act against their former confederates.[53] Mainwaring's *Discourse on Piracy* (1618) offered guidance to James I on the best methods to deal with pirates. The atrocities Morgan committed against the Spanish and his imprisonment in the Tower of London did not stop Charles II from knighting him and appointing him as Lieutenant Governor of Jamaica. Morgan did not mend his ways and continued to be implicated in illicit dealings at sea.[54]

The courts and colonial governors only had limited tools at their disposal to combat pirates. Hunting down pirates required a strong naval presence. A lack of men and supplies, coupled with unsuitable vessels, problematic officers, and the difficult nature of the task made it challenging for naval vessels to effectively patrol against pirates.[55] In 1632, after a North African pirate raid on Baltimore, government officials blamed Captain Francis Hooke for the navy's failure to prevent the assault. Hooke, on the other hand, pointed out the near impossibility of thwarting surprise attacks of this kind.[56] By the early 1700s, the navy struggled to cope with the scale of pirate activity in North America and the Caribbean. Marcus Rediker estimated that in the years 1716 to 1726 (part of the so-called 'Golden Age of Piracy') approximately 4,000 men served on pirate vessels.[57] By comparison, the Royal Navy employed roughly 13,000 in each year of this period on all its stations. The large, cumbersome nature of the navy's men-of-war also made them unsuitable for chasing nimble and faster pirate ships. Admiral Vernon described these pursuits as setting 'a Cow after a Hare'.[58] Gradually the navy adapted and deployed the necessary shipping to harry and capture pirate vessels. In the 1640s, these adaptions included the development of a frigate-building programme to counter the threat posed by fast, well-armed 'Dunkirk frigates' based in confederate ports in Ireland.[59] Manning small vessels, capable of operating close to shore, helped to run down and overpower a number of pirate crews. Commanding two small sloops, Lieutenant Robert Maynard on the *Pearl* overcame Edward Teach in an inlet in North Carolina in November 1718.[60] The relationship between the government and private naval enterprise remained far from straightforward, however. From the sixteenth to mid-eighteenth centuries, a considerable shift in attitudes toward piracy and privateering took place. As imperial and colonial control and authority expanded, toleration for pirates and unrestricted privateering declined.

Why piracy?

Piracy and privateering were high-risk activities. Seafarers encountered numerous dangers in their careers. Those who went on pirating or privateering voyages faced even greater risks of death from enemy action, accidents at sea, disease, or execution if captured. Captain Bartholomew Roberts reputedly stated that 'A merry Life and a short one, shall be my Motto'.[61] Pirates tended to die young. Mary Read, one of the women pirates in Rackam's crew, succumbed to a gaol fever in Jamaica 1721 aged around 26. Roberts lived up to his own prophecy. He turned pirate in February 1720 and died in a skirmish with the Royal Navy two years later.[62] An ill-conceived raid on the Spanish in the River Plate in 1763 left 17 men from the *Ambuscade* privateer dead, and a further 20 with significant injuries.[63] High mortality rates did not stop men from signing up. Only 20 per cent of those who sailed with William Dampier's expedition in 1703 returned home. George Shelvocke's 1719 privateering mission to the South Seas lost all but 15 per cent of the crew. By comparison, the death rate on Royal Navy ships in this period averaged 3 per cent.[64] What, then, persuaded men and a small number of women to gamble with their lives by sailing on a pirate or privateer?

Sailors who went to sea as pirates or privateers left relatively little evidence about their motivations. The flexible nature of seafaring careers, with seamen moving between legal, quasi-legal, and illegal employment as the opportunity arose, makes assessing what drove men into piracy or privateering harder to understand. Accounts that survive, such as trial records, testimonies of condemned pirates, and popular stories, should be treated with caution. A 1609 pamphlet suggested John Ward turned to a life of crime at sea because 'his parentage was but meane, his estate lowe, and his hope lesse' and this led him to his 'wicked resolution'.[65] Other sources suggest that Ward possessed considerable maritime experience and served in the navy and on privateers before turning to piracy.[66] The difficulties of assessing the impulses that drove men to join a pirate or privateer are exacerbated by the fact that records rarely considered the factors that brought the crews to serve on them. In July 1649, for example, Daniel Van Vooren, late of Dunkirk and captain of the *St John of Waterford* in the service of the king, gave detailed evidence to the admiralty court concerning the prizes he had seized, and how he had disposed of them. Neither he nor other members of his crew gave any information on what persuaded them to move from Flanders to serve the royalist cause. Similarly, William Smart who sailed on the *Discovery*, a parliamentarian private man-of-war in the 1640s, never mentioned in any of his depositions to the court how he came to be a surgeon on the frigate.[67]

Economic factors served as the main driving force behind why most men and women chose to become involved in the business of piracy and privateering.[68] Supplying pirate vessels and receiving stolen goods made financial sense for women in many coastal communities. Margaret Dyvers purchased goods looted from Flemish ships in 1547, which she sold on at local markets.[69] On occasion, trading with pirates proved to be dangerous for women. Edward Teach treated colonial planters with courtesy but reportedly took 'Liberties' with their wives and daughters, which out of fear they could not prevent.[70] Coote warned in 1699 that the 'vast riches of the Red Sea and Madagascar are such a lure to seamen that there's almost no withholding them from turning pirates'.[71] After seizing control of the *Charles*, Avery informed the captain that 'I am bound to Madagascar, with a Design of making my own Fortune'.[72] Downturns, often following the end of a war, which resulted in fewer employment opportunities for seamen, drove some to piracy.[73] A. O. Exquemelin described how Morgan found no legitimate work on his arrival in Jamaica and being 'destitute of Employ' signed onto a pirate crew.[74] Investors in sea ventures hoped to reap substantial rewards from the vessels they intercepted, while many mariners hoped to strike it rich from their share of prize money.

The triumphs of Elizabethan privateers over the Spanish led Heywood in the *Fair Maid of the West* (*c.*1596–1603, first published 1631) to write that the streets of Plymouth did 'Glister with gold'.[75] Pirates and privateers seized some very lucrative prizes that made the fortunes of those involved. In 1592, a combined force of state-owned warships and privateers set out by George Clifford, Earl of Cumberland, intercepted the Portuguese carrack *Madre de Dios* carrying treasure worth close to £500,000. The sailors pillaged the bulk of the cargo so that by the time it reached Dartmouth only £150,000 remained. Elizabeth, as a backer of the expedition, retained most of this.[76] Later raids on the Spanish, such as those undertaken by Rogers, also

succeeded financially. Prizes he brought home sold for £147,975 12s 4d.[77] In 1688, Morgan's raid on Portobello netted 200,000 pieces of eight. When he departed Panama in February 1672, Morgan brought '175 Beasts of Carriage, laden with Silver, Gold, and other precious things' as well as 600 hostages to ransom and slaves.[78] Avery achieved his greatest success as a pirate in 1694 when he intercepted a treasure ship belonging to the Great Mughal. Estimates put the value of this 'infinite Treasure' at between £150,000 and £180,000.[79] These figures demonstrate that some pirate and privateering operations turned substantial profits. Not every campaign succeeded, however, and the question of how much individual investors and seamen made needs to be investigated more carefully.

The principle of 'no prey, no pay', where sailors on a pirate or privateering vessel worked solely for a share of any profit, meant mariners took a financial gamble when they joined.[80] Some pirates and privateers made their fortunes from their illegal and quasi-legal activities at sea. Peter Easton, a pirate admiral operating from Ireland in the reign of James I, retired to Savoy with 100,000 crowns.[81] Robert Daborne's play *A Christian Turn'd Turke* (1612) presented a fictionalized account of John Ward's pirate life. In the play, Ward met a horrible death with the warning that '*Ward* sold his country, turn'd Turke, and died a slave'. Ward actually retired to Tunis with his fortune where he lived in 'a fair palace, beautified with rich marble'.[82] Some of the crews of prominent pirates such as Avery, Thomas Tew, John Taylor, and Christopher Condent managed to retire with their booty. Not everyone succeeded in integrating back into society. The authorities caught up with some of Avery's men, and reputedly, unscrupulous Bristol merchants cheated Avery himself of his wealth.[83] Other less well-known pirates succeeded financially. In 1603, Captain Thomas Tompkins received £2,600 as his share of a Venetian prize.[84] Both the financial backers of privateering voyages and the men who risked their lives on these cruises could do very well if they succeeded in securing valuable prizes. In 1778, the owners of the *Mentor* privateer cleared £54,118 10s as their share, after the deduction of costs, from the *Carnatic* prize. The crew divided £18,039 10s between them with the captain's share worth £1,744 and a full share worth £109 for seamen.[85] The sailors in the *Duke* and *Prince Frederick* each earned over £400 in their six months at sea in 1745.[86] For some mariners, service in a pirate or privateer enabled them to strike it rich. However, sailors who joined a private man-of-war were far from assured that their efforts would be rewarded financially.

Not all privateering and pirate voyages delivered the hoped-for profit. The seamen who captured *Our Lady of the Conception* valued at £3,500 only received £10 each.[87] Some captains profited at their crew's expense. Easton cheated and impoverished his crew when he retired.[88] Despite the vast wealth Morgan seized at Panama, each man only received £20 since so many individuals participated in the raid.[89] If the admiralty ordered the restoration of a prize taken from a neutral power such as the 'Hamburger' worth £180 detained by the *William Bonaventure* in 1589, then the mariners received nothing for their efforts.[90] Outfitting expenses, government charges, and agency fees absorbed a large percentage of the value of prizes and greatly reduced the share due to mariners. Cumberland's share of the *Madre de Dios* in 1592 amounted to £36,000, which might or might not have covered his outlay. His later privateering investments

also struggled to make a profit.[91] Disputes in the admiralty court, which often dragged on for years, also made turning a profit difficult for shareholders in privateers. The *Discovery*, set out by a syndicate of leading London parliamentarians in 1644, became embroiled in court cases until the 1650s, as the owners fell out amid accusations of underhand dealings with the ship.[92] Exorbitant costs of £49,584 12s deducted from the prizes on Rogers' voyage meant a crew share only equated to £42 6s. A junior officer on the voyage like Alexander Selkirk received £145 15s after deductions, and Rogers earned £1,530 in his role as commander. The investors saw a better return on their money and profited from some of the high fees charged to the expedition. For three years at sea on a dangerous voyage, these wages did not represent a high return for the men who risked their lives. Tim Beattie calculates that an ordinary seaman would have earned £66 10s on a similar merchant voyage, and Rogers noted that he only earned a third more than he might have on a less hazardous Newfoundland sailing.[93] The difficulties of making a substantial profit from private enterprise are apparent elsewhere in Europe. From the 1620s through to the 1640s, the Armada of Flanders inflicted substantial damage to Dutch maritime trade, but the high costs of the operations meant that 'relatively few fortunes' were made by the men who fought in the Spanish cause.[94]

Serving on a privateer for a prize share rather than pay was clearly a gamble that many experienced seamen understandably preferred to avoid. David J. Starkey estimates that it represented a 'lost opportunity cost' of 22s 6d per month, since an able seaman could earn this amount per month after deductions in the Royal Navy.[95] Recruiting sufficient skilled sailors to operate privateering vessels could prove difficult, especially if it became known that ships already at sea found few enemy merchantmen to intercept. In times of war, governments often ordered merchantmen not to sail because of the threat posed by enemy privateers. In the Third Anglo-Dutch War (1672–4), a Dutch embargo on merchant vessels leaving port meant that British privateers found few prize opportunities.[96] To attract recruits some privateers offered sailors a guaranteed wage rather than just a share of any profit. In 1780, for instance, the *Mars* privateer promised each able seaman a wage of 40s per month as well as four prize shares.[97] On other ships, a mixed economy of mariners serving for shares or wages existed. Jacob Askew and Thomas Banfield joined the *Discovery* purely for wages in the 1640s.[98] Stories of those who struck it rich, and the memory of past glories, encouraged some investors and seamen to stake their fortunes and lives on the chance of a windfall profit from privateering. Most seamen and merchants preferred trade or naval service and, as R. A. Stradling argues, regardless of which country they came from 'privateering remained a second best option'.[99]

Men were also motivated to try their hands in pirates and privateers by patriotism, a sense of adventure, or dissatisfaction with their employment. The motivations of the two most famous female pirates of the early modern period, Anne Bonny and Mary Read, are far from clear-cut. Johnson's narrative of their lives offered a complex back-story for each woman that strongly suggested desires for adventure and to live a less ordinary life played a part in their turning to piracy.[100] Read went to sea after she 'took a Resolution of seeking her Fortune' and Bonny abandoned her husband to elope with Rackam.[101] Hostility toward Spain drove men to serve as pirates and

privateers under Elizabeth I and James I.[102] Advertisements for mariners to join privateers in the eighteenth century often stressed the prospect of striking at Britain's enemies in conjunction with financial gains. The notice for the *Mars* in 1780 called on all to sign up who 'delight in the Music of Great-Guns, and distressing the Enemies of Great Britain'.[103] An advertisement for the *Grand Buck* privateer in 1756 sought men who wished to 'fight the French and make their fortunes'.[104] Support for the Jacobite cause might have motivated some pirates and the names of vessels such as Bonnet's *Royal James* might indicate loyalty to that cause. Equally, as Arne Bialuschewski points out, 'pirates were opportunists' who took advantage of political upheavals, arguing that it is misleading to read too much into how they named their ships.[105]

Resentment against the harsh conditions and poor pay sailors suffered at sea drove some men to turn pirate. Some mutinied and seized control of the ship, like the dissatisfied sailors of the *Flying Fame* who conspired to 'run away with the said vessell, and goe a pirateing'.[106] Officers occasionally led mutinies of this sort. A lack of pay caused Avery to lead 65 men to seize the *Charles* in 1695, for instance.[107] Atrocious working conditions on slave ships on the African coast persuaded some men to turn to piracy.[108] Rediker's analysis of recruitment to pirate crews from 1716 to 1722 indicates that most mariners volunteered from captured merchantmen.[109] The lawless and violent nature of pirate life appealed to some men and women. The early modern maritime world was violent, and mariners understood the need to be ruthless in defending themselves or capturing enemy shipping. Some, such as George Cusack, revelled in the more profane elements of pirate life.[110] Witnesses who testified against Anne Bonny and Mary Read at their trial described the two women as some of the most forward and active members of Rackam's band, with Thomas Dillon describing them as 'both very profligate, cursing and swearing much, and both very ready and willing to do any Thing on Board'.[111] Other sailors, including William White, took up piracy on a whim, possibly while drunk. Before his execution in 1724, White lamented that 'But my Drunkenness has had a great Hand in bringing my Ruin upon me. I was drunk when I was enticed aboard the Pyrate'.[112] A liking for drink, along with other failings such as Sabbath-breaking, blasphemy, and 'running after Lewd Women', featured in accounts of condemned pirates recorded by clergymen.[113] The strong religious and moral message in these explanations served as a warning to others. Ministers such as Cotton Mather, or the pirates themselves, might have chosen to mediate and fashion their experiences in this way as the end approached. Some pirates made an outward show of godliness after their arrest, such as Roberts' men who took to singing psalms. In general, pirates were not noted for strong religious inclinations.[114] As a result, accounts of apparent godliness need to be treated with care.

The allure of a pirate life with equitable treatment for all, plentiful food and drink, fair shares of prize money, and a say in the course of the voyage won over many men like Roberts. The *General History* noted that he changed his principles 'as many besides him have done'.[115] Popular contemporary accounts of pirate life such as Exquemelin's *Bucaniers of America* (1684) and Johnson's *General History of the Pyrates* detailed the attractions of serving on a pirate vessel. The buccaneers who served with Morgan, for example, received as much meat as each man 'can eat; without either weight, or measure' and operated a compensation scheme that paid out generously to

men wounded in action.[116] John Philips and his crew swore articles upon a hatchet as they did not have a Bible to 'settle their little Commonwealth' that included the payment of 800 pieces of eight for the loss of a limb in battle.[117] Others claimed that they did not willingly partake in piracy. A shortage of crew meant that pirates sometimes forced prisoners from captured merchantmen to join them. In April 1718, James Feff impressed four men into his sloop.[118] Peter Dearlove claimed Captain John Breholt compelled him to sail as part of his crew to go pirating in Madagascar as he needed a shipwright.[119] Rediker highlights the ambiguities about the nature of this coercion and that some 'forced' men actually willingly became pirates when the opportunity arose.[120] The courts clearly regarded some of these claims as dubious. William Davis, a Welshman tried as a member of Roberts' crew, argued that the pirates compelled his service 'on Account of his understanding the Pilotage and Navigation'. The court found his excuses of 'Force and Constraint' to be frivolous as witnesses testified that Roberts did not force any men to stay and others escaped from the pirates with ease.[121] At their trial in 1717, seven members of Samuel Bellamy's crew testified that they served against their will on the *Whydah* Galley. The court only believed and acquitted one, Thomas South, who gave evidence that Bellamy threatened to maroon him on a 'desolate island' if he refused to join.[122] On balance, most men turned to piracy of their own accord.

Conclusion

Pirates, and privateers to a lesser extent, continue to fascinate and entertain, largely thanks to the sanitizing effect of popular culture. Piracy and privateering are regarded as family entertainment, with the less palatable realities of pirate life being neglected or played for laughs. The romanticization and rehabilitation of the lives and exploits of a group of often brutal and ruthless seafarers oversimplifies the early modern maritime world in which they lived and died. This chapter has explored some of these complexities, in order to understand better the nature of piracy and privateering, the role the state played in supporting and suppressing it, and the reasons that men, and occasionally women, ended up in such dangerous employment. For as much as the pirates Clinton and Purser nostalgically looked back to their golden days roving the seas, the reality for them and many other mariners who set out on such voyages was an unknown or unfortunate end.

Notes

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Law and the sea

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The sea has always been a legally problematic space. It lies between established territories, beyond the watchful eyes of rulers, and is ill-suited to the imposition of fixed boundaries; it is a place where jurisdiction is difficult to define and enforce. Sometimes it has been thought of as inherently lawless, or subject to a separate and distinct 'law of the sea'. In fact, neither is entirely true; rather, rival powers have staked competing claims over the sea or areas of it, while seafarers have selectively endorsed, mediated, or challenged these claims.[1] During the early modern period in particular, as seaborne activity intensified and maritime empires expanded globally, these questions of jurisdiction became highly charged, with a series of disputes between rulers, seafarers, lawyers, and theorists playing out on ships, in print, and in throne rooms and courtrooms. While there was no universal 'law of the sea', these debates (which essentially concerned the question of whose law and authority should preside at sea), were crucial to the emergence of international law, and continue to influence it today.

This process is best documented for Europe because, as Elizabeth Mancke writes, 'expanding European powers defined the world's oceans, and not just territorial waters, as political space over which they attempted to exert their jurisdiction'. She adds, crucially, that 'the nature of that jurisdiction was tenuous, ill defined, and under frequent negotiation'.[2] This negotiation, which involved African, American, and Asian rulers and their own claims to maritime sovereignty, is a vital part of the story. Though European governments asserted wide powers at sea and the ultimate outcome was a system of international and maritime law dominated by European empires, this result was not inevitable. It occurred slowly, and only in the nineteenth century were some Europeans able to impose their claims with any consistent success. Even then, they faced considerable resistance.

In this chapter, I examine the development of maritime law from the late medieval period to the beginning of the nineteenth century. First, I discuss codes and practices of law in medieval Europe, and I then consider how these developed in the sixteenth and seventeenth centuries, when European rulers sought to exert greater authority at sea. As Mancke noted, this occurred both for territorial waters and more widely, and the third part of the chapter looks first at maritime jurisdiction in the Atlantic and

Indian Oceans prior to European expansion, before turning to the claims that European governments began to articulate as a result of this expansion. Finally, I explore the legal arguments and developments of the seventeenth and eighteenth centuries, especially concerning piracy, which eventually transformed maritime law.

Lex mercatoria and *lex maritima* in medieval Europe

A particular controversy among lawyers and legal historians has dominated much discussion of medieval maritime law: whether there existed, during this period, a transnational and universal 'law merchant' and corresponding 'law maritime'. Some legal scholars have perceived this body of law, and especially *lex mercatoria*, as distinct, emerging spontaneously from commercial custom (rather than legislated by any government), and uniform across all of Europe.[3] In this interpretation, 'The primary aim of the Law Merchant was to construct law out of merchant practice and to render it both comprehensible and acceptable to those who were most impacted by it, merchants themselves'.[4] Similarly, 'general maritime law is composed of […] maritime customs, codes, conventions, and practices [with] no particular national boundary […] *lex maritima* was quite uniform throughout Western Europe'.[5] Some historians have readily accepted this idea when writing on both the medieval and early modern eras.[6]

There have also been critics of this understanding of *lex mercatoria*, not least because some of its supporters have had an ulterior motive: to argue in favour of transnational and customary law in the present day, especially in areas beyond the traditional jurisdictions of state governments, such as the internet.[7] The counter-argument maintains that, although laws drew upon merchant customs, these customs were both local and divergent; moreover, while medieval merchants participated in forming and enforcing law, 'they rarely, if ever, did it totally independently of local political power'.[8] The situation, Emily Kadens argues, was not one of *lex mercatoria* but 'rather *iura mercatorum*, the laws of merchants: bundles of public privileges and private practices, public statutes and private customs […] a hybrid creation dependent upon a scaffolding of legislation and intimately tied to local municipal and guild law'.[9] Medieval lawyers and merchants certainly spoke of a *lex mercatoria*, but there is no evidence of a single and universally applicable legal code or court system actually operating in practice.[10]

Maritime law might be a different matter because a series of written codes existed and were widely employed, developing in two traditions – one in the Mediterranean, the other in northern Europe. In the Mediterranean, the earliest significant legal code was the Rhodian sea law, probably first written between the seventh and ninth centuries and subsequently adopted into Roman law, although its origins and nature have been the subject of some debate.[11] This code was followed later by the *Consolat de Mar*, first published in Catalan in 1494, but probably in use earlier by urban officials generally known as Sea Consuls.[12] There were in fact various other Mediterranean codes developed by ports such as Amalfi, Trani, Messina, Valencia, and Trapani, some of them also referred to as *Consolati*, but the Catalan compilation became the most influential.[13] Probably produced during the fourteenth century, it acquired the

name *Lo Llibre de Consolat de Mar* in a manuscript of 1435, and contained regulations on electing Sea Consuls and by-laws on seafaring, trade, privateering, and maritime insurance.[14]

In northern Europe, the most important code was the *rôles d'Oléron*, a thirteenth-century compilation of judgments from the seafaring community of the Île d'Oléron off the west coast of France.[15] This code

> provides a set of rules that define the rights and obligations of the parties to the maritime adventure [i.e. the merchants, shipmaster, and crew] during the outward voyage of a ship that would have loaded a cargo of wine at La Rochelle or Bordeaux and sailed north to Brittany, Normandy, England, Scotland or Flanders.[16]

Despite its connection to a specific trade route, copies of the *rôles* proliferated: they were entered into the Black Book of the English admiralty, and translated into Flemish, French dialects, and Scots, though with alterations in some versions.[17] A second northern maritime code became known as the Laws of Wisby, a town on the island of Gotland in the Baltic, but this text in fact combined a fourteenth-century Dutch *ordonnantie* (regulating shipping in the Zuiderzee and possibly originating in Amsterdam) with a Flemish translation of the *rôles* and some Lübeck law.[18] The erroneous title 'water recht van Wisbij' was appended by the 1500s, and manuscript and printed copies of this text continued to appear thereafter.[19]

The wide circulation of and similarities between these codes suggest the existence and acceptance of a universal *lex maritima*, but, as with the *lex mercatoria*, we must be wary of such assumptions. Edda Frankot's detailed research on medieval northern Europe throws serious doubt upon the existence of a general law of the sea. There were major discrepancies between each of the written law codes, and no one code was available everywhere in Europe.[20] The *rôles* were indeed accepted in England, France, and Spain by the middle of the fourteenth century, while the Wisby compilation influenced Dutch, Hanse, and Scandinavian law. However, these codes were approved by local rulers, rather than holding any inherent legal authority of their own, and they became part of the larger body of municipal law in each place.[21] The printed version of the *Consolat* added an appendix of royal proclamations by Peter III of Aragon, as well as the ordinances of Barcelona's city council.[22] Though references to the *rôles* appear in some Scottish courts, they too were combined with Scottish legislation and consideration of the 'use and prettick' of mariners.[23] The English admiralty court also observed some principles of the *rôles* when passing judgment, but modified others.[24] Even where certain authorities did issue widely applicable regulations, such as the statutes of the Hanse towns, they were not gathered together in an official or systematic body of law.[25] Though Lübeck, seat of the *Hansetag* from the early fifteenth century, sought to establish a general sea law in response to problems with piracy, the effort was unsuccessful because not all the Hanse towns adopted the new rules.[26]

The practice of local courts also varied, and their judgments did not always follow the written laws or accord with those of other courts, while skippers' guilds played a judicial role in several ports.[27] Moreover, within a number of European realms there were tensions between different authorities. In France, many legal powers belonged

to harbour officials, or to landlords whose *seigneurie* included the coastline, although the French monarchy sought increasingly to subject them to the *amirauté de France*.[28] A similar trend occurred in fourteenth-century England, when the king's admirals were granted the authority to hold maritime courts, but towns' complaints about encroachments into their franchises, and protests from aggrieved litigants who felt the admirals' decisions were biased, led to statutes in the 1390s that officially limited admiralty jurisdiction.[29] In the Burgundian Netherlands, an office of admiral was also established, initially in Flanders during the fourteenth century. The Duke of Burgundy's efforts to extend this official's power to other provinces in the fifteenth century met with resistance in Holland and Zeeland, even after an admiralty of the Netherlands, with its own court and 'full jurisdiction in maritime affairs', was established at Veere in 1488.[30] These tensions emphasize the fragmentary nature of maritime law in medieval Europe, but simultaneously reveal the increasing interest of central governments in controlling maritime law, which, together with the concept of a universal law of the sea, became even more important in the early modern period.

Maritime laws in early modern Europe

Friction between local legal autonomy and the growth of centralized power, and the complex interaction between written codes and court practice, continued to characterize the sixteenth century and afterwards. For example, beginning in the 1530s, Charles V and Philip II, as overlords of the Netherlands, issued a series of *plakkaten* governing maritime law in those provinces. However, this legislation often confirmed pre-existing practice: the most important proclamation, in 1563, republished both earlier *plakkaten* and the so-called Laws of Wisby.[31] These measures failed to end jurisdictional disputes and, despite the monarchs' efforts, the idea of a centralized admiralty was eventually abandoned.[32] The *plakkaten* were not revoked after the Dutch revolt began in the 1570s but, in the federal republic that emerged, each maritime city, especially the major ports of Amsterdam, Rotterdam, and Middelburg, also issued their own regulations and organized their own courts.[33] Amsterdam established *commissarissen voor zeezaken* (commissioners for maritime affairs) in 1641, and Rotterdam followed suit in 1655, with further reforms in 1721.[34] These and other Dutch cities continued to order their own affairs for most of the eighteenth century. Elsewhere, Frederick II of Denmark enforced a maritime code in 1561, while a series of Hanseatic *Schifferordnungen* were issued in 1530, 1572, and 1591, again drawing on earlier statutes, though this did not lead to uniformity between the cities' courts.[35]

In France, the control of maritime law remained a source of conflict between the royal government and coastal regions. In the 1550s, the Crown issued several edicts relating to maritime affairs, and claimed the right to nominate officers for local admiralty courts; in 1563, 'specialized, corporate commercial tribunals' were also established.[36] Two decades later, sweeping powers over fortifications, finances, fleets, and maritime justice were granted to the office of the admiral, but this met with resistance in provinces like Brittany and Normandy.[37] Cardinal Richelieu faced the same problems when he tried to concentrate naval and maritime authority during the 1620s, in his role as *grand-maître de la navigation*.[38] The wreck of two richly

laden Portuguese ships on the Guyenne coast in 1627 prompted a particularly thorny tussle over salvage between the Crown, local parties including the duc d'Épernon, and representatives of the Spanish government (Portugal was under Spanish rule at the time). This incident highlighted 'the hybrid nature of the regulations over ship wreckages, which existed at the crossroads of medieval collections of maritime law, French regional customary law, and a more recent body of French royal decrees and ordinances'.[39] Although Richelieu did achieve some success, such as imposing admiralty courts on Brittany, it took him until 1640 to do so, and the system did not long outlive him.[40] It was only in the 1670s and 1680s, with major reforms by Louis XIV's minister Jean Colbert, that maritime and naval authority were systematized in France, and even then these largely reflected a mixture of earlier legislation.[41] Colbert's *ordonnance de la marine* is the most famous of maritime law codes issued by European monarchs in these years, but it was not the only one: Charles XI of Sweden promulgated such a code in 1667, and Christian V of Denmark included maritime regulations in the national laws he issued in 1683.[42]

In the Mediterranean, too, individual governments dictated maritime law. The Ottoman Empire, a growing sea power, imposed its control on trade within its maritime territories. Joshua White has demonstrated that litigants made use of a number of Ottoman courts for seaborne affairs, including the local courts of Galata and Candia (Crete), as well as petitioning the *kazasker* or military judge, a member of the Imperial Council.[43] The same was true of the Ottomans' determined foes, the Knights of St John, who they forced to move from Rhodes to Malta. There the Knights established courts to adjudicate on privateering and trade: first the *Tribuni degli Armamenti* in 1605 and, almost a century later, a tribunal called the *Consolato del Mare*.[44] The dukes of Tuscany, who sought to develop Livorno as a shipping centre, allowed the Captain's (later Governor's) Court of the city to take on jurisdiction over maritime affairs, although this caused some argument with the already-established Sea Consuls of Pisa.[45]

Particular issues arose in this region during the seventeenth century, as northern European shipping became ever more important, and local powers therefore had to handle cases dealing with northern seafarers, particularly in the *Giudici del Forestier* of Venice and the *Conservatori del Mare* of Genoa. In 1646, Venice decreed that foreign sailors should only use Venetian courts to enforce contracts that had been agreed under their own laws, but this failed to stem the rising tide of such litigation through the later seventeenth century. In 1682, the Senate authorized a new collection of all Venetian laws concerning sailors' employment, but they also repeatedly appealed to foreign consuls and governments for elucidation of their national laws, highlighting, once again, the absence of a universal *lex maritima*.[46]

England was especially problematic for the Venetians because its sailors were highly litigious, but it still lacked a unified body of maritime law like Colbert's 1681 *ordonnance* into the eighteenth century.[47] This was partially a result of England's own legal politics. Judges of the common law courts objected to the jurisdictional ambitions of the High Court of Admiralty and other civil law institutions, leading to a series of disputations in print and in person between the admiralty lawyers and their common law opponents.[48] The eventual outcome was a victory for the common lawyers: by the end of the seventeenth century, the admiralty conceded cognizance

on a range of commercial matters, though continuing to judge cases relating to some maritime issues, including prize law, which acquired its own separate court.[49] As well as the common law and admiralty courts, however, other maritime jurisdictions were active in early modern Britain. The lord warden of the Cinque Ports seems to have maintained some of his legal role, at least until the early seventeenth century, and while England and Scotland shared a monarch after 1603, the hereditary lord high admiral of Scotland continued to have his own court until the political union of the kingdoms in 1707.[50] Ireland also had its own admiralty court, established in the 1570s, although it handled little business before the late eighteenth century.[51]

Despite this institutional diversity, English admiralty judges and lawyers responded to the challenge of the common lawyers and justified the need for their own expertise by appealing to the old idea of a single and coherent 'law of the sea'. The notes of Sir Julius Caesar, admiralty judge in the late sixteenth and early seventeenth centuries, indicate that counsels in his court referenced both European legal authorities and English statutes in their pleadings; his notes may themselves have represented an attempt to compile 'a collection of *decisiones* according to the continental model'.[52] Gerard Malynes, an English merchant who in 1622 published a volume entitled *Consuetudo, vel Lex Mercatoria* (*Custom, or the Law Merchant*), wrote of 'a Customary Law, approved by the authoritie of all Kingdomes and Commonweales, and not a Law established by the Soveraigntie of any Prince'.[53] Civil lawyers and merchants in the later seventeenth century continued to depict the *lex mercatoria* as 'a legal system that had been and remained in force in all countries and at all times, regardless of the will of any national legislator', and admiralty judges made similar statements about maritime law.[54]

Whatever its relationship to actual court practice, the idea of *lex mercatoria* and *lex maritima* remained compelling, and not just among lawyers in England, although Francesca Trivellato has pointed out that the term *lex mercatoria* was used infrequently in continental Europe.[55] Many courts continued to draw upon medieval written codes including the *Consolat* in Livorno, Malta, and Marseille, and the *rôles* in England.[56] Indeed, a significant trend in this period was the publication of compilations that both advertised the existence of, and sought to summarize, a supposed 'law of the sea'. In so doing they almost began to fabricate one, and the volume of these texts, and their frequent reprinting of and borrowing from one another, suggests a thriving interest in the topic.[57] A number of European scholars produced tracts explaining Roman maritime law, which was still in force in many countries.[58] Editions of the Rhodian law, the *Consolat*, and the Hanseatic laws were all printed in the sixteenth and seventeenth centuries.[59] An anonymous Dutch compilation of maritime laws first appeared in 1594, containing principally the Wisby code and the *plakkaten*; it was regularly reprinted well into the eighteenth century.[60] Several Scottish lawyers also wrote about their national maritime law and one of them, William Welwod, then expanded his *Sea-Law of Scotland* into *An Abridgement of All Sea-Lawes*, the first general synthesis of the separate codes.[61] Welwod's *Abridgement* was quite concise, and a more complete collection appeared in Étienne Cleirac's *Us et Coustumes de la Mer* in 1647, inspired by the affair of the Guyenne shipwrecks (in which Cleirac acted as Richelieu's representative).[62] This volume 'included every major European medieval compilation'

except the *Consolat*, as well as both French and foreign statutes, upon which Cleirac offered detailed if sometimes confused commentary.[63] In 1661, an expanded version was published, and it was reprinted four times over the course of the next century and translated into English, showing the enduring appeal of this text.[64] Other syntheses, both in Latin and vernacular languages, long continued to appear with reprinting, translation, and reproduction of material being commonplace.[65]

While the practice of maritime law and its exact status within municipal systems remained heterogeneous across early modern Europe, the idea of a universal maritime law retained its purchase, and this relates to the emerging idea of a 'law of nations'. As Shavana Musa has written, this concept has 'a complex semantic history', but it was an idea that lawyers and politicians increasingly accepted, and maritime law featured heavily in it.[66] Cleirac, for example, categorized maritime customs as part of the law of nations.[67] Ironically, this development of international law had a distinctly nationalistic streak: there were arguments, for example, over whether a French or English monarch had first authorized the *rôles d'Oléron*, or whether the *rôles* or the Wisby code was older and thus a more prestigious text.[68] Similarly, disputes about the nature of maritime sovereignty simultaneously contested specific aspects of the 'law of nations' while forming a constitutive part of it, and these disputes intensified in response to European imperial expansion.

Closed and open seas: imperial expansion and maritime law

Little evidence survives for the legal frameworks that regulated maritime activities in the Indian and Pacific Oceans, and along the coasts of Africa and the Americas, before the early modern period. Yet such frameworks certainly existed, because there had been extensive seafaring in these areas for centuries. The Indian Ocean, especially, was an arena of seaborne trade, and there were numerous important entrepôts, including Aden, Kilwa, and Hormuz, and several cities along the Malabar Coast.[69] It seems that, as in medieval Europe, these ports were legally autonomous, although there were also some centralizing tendencies. Melaka adopted a written law code in the thirteenth century that dealt with many of the same issues as the medieval European codes, and the sultans of Melaka later 'sought to regularize trade'.[70] The port regulations of Aden under the Ayyubid dynasty 'speak of a certain bureaucratic orderliness'.[71] Many of these regulations guaranteed equal treatment for all traders, although there has been some debate about whether the Indian Ocean was essentially peaceful before the arrival of Europeans, given that seaborne raiding in these waters in earlier centuries was both well documented and encouraged by some rulers.[72] China represents a unique situation, as the empire claimed authority over territorial waters and, briefly in the early fifteenth century, seemed about to establish a long-distance imperial network. However, the Ming emperors subsequently prohibited maritime commerce, which led instead to 'flourishing clandestine trade and large-scale piracy'.[73]

Evidence is even scarcer for Africa and the Americas, but there was certainly substantial coastal voyaging, and local rulers exercised some recognized legal authority over it.[74] For Caribbean leaders, for example, ownership of a *piragua* or canoe was a marker of power because it provided command over military force and 'ownership

conferred extra shares of trading surplus and captives'.[75] In Africa, rulers continued to claim extensive powers long after the arrival of Europeans: in 1525, the king of Kongo seized a French ship for trading illegally along his coast, and he was not the only one to do so.[76] On the coast of Senegambia during the sixteenth and seventeenth centuries, rulers including the teeñ of Baol and the damel of Cayor, as well as the *alkati* (governor) of each coastal town, levied customs duties.[77] Lut-Sukaabe Faal, who ruled both Baol and Cayor in the years 1695–1720, prevented any European nation from establishing a monopoly along his coasts. As Ousmane Traoré has argued, 'Senegambian conceptions of royal power had social, political and economic aspects that concentrated on the regulation of trade as well as maritime and inland waterways'.[78] Similarly, Europeans in the Indian Ocean recognized and accepted indigenous jurisdictions in the early modern period. The Dutch only received passes to trade in Japan after careful diplomacy with the shogun, while the *Raad van Justitie* of the Dutch East India Company (*Vereenigde Oost-Indische Compagnie*, or VOC) recognized the judgments of Indian courts in Bengal, Surat, and Coromandel.[79] A central part of Hugo Grotius' defence of the VOC's actions against the Portuguese – to which I will turn shortly – was a Dutch alliance with the king of Johor, whose sovereign rights, Grotius contended, included the authority to wage war at sea.[80]

Despite these elements of continuity, European maritime activity from the late fifteenth century onwards had a transformative impact upon maritime legal regimes across the globe. The Spanish and Portuguese, the first to establish large commercial and imperial networks, claimed sovereignty over the sea in new ways, based partially on the right of 'discovery' and partially on authorization by the pope.[81] In the Indian Ocean, the Portuguese insisted that all vessels had to purchase a *cartaz* or pass, without which ships were considered a legitimate target for seizure.[82] Some Indian rulers, such as the Mughal emperors Akbar and Jahangir, accepted this system; others resisted, including the port of Aceh, which became 'the focus of an entire maritime system, rival to that of the Portuguese'.[83] On the Malabar Coast, the Zamorin of Calicut initially fought against the Portuguese, but allied with them in 1583. When Kunjali Marakkar, who had previously served the Zamorin as admiral, proclaimed himself 'Lord of the Indian Seas' and continued to resist the Portuguese, it was the Zamorin's forces who defeated him.[84] Lakshmi Subramaniam has argued that the actions of Kunjali, and other similar leaders such as the Angrias of Kolaba, the Malvans of Sindhudrug, and the Desais of Savantwadi, show how Indian rulers began to adopt the same approach to maritime sovereignty and '*cartaz*-based politics' that the Portuguese had introduced.[85] However, Sebastian Prange has pointed out that the origin of the Anglicized 'Zamorin' (*samudri raya*) also meant 'Lord of the Seas', and that *cartaz*-like systems existed in earlier centuries (albeit on a smaller scale), suggesting that these politics were not totally new, even if they were profoundly altered by the arrival of the Portuguese.[86]

Over the course of the sixteenth century, European competitors also began to challenge Spanish and Portuguese assertions of hegemony. In the Atlantic, where first French and then Dutch and English ships began to voyage during the sixteenth century, the Spanish met all foreign interlopers with brutally hostile policies: after a Spanish force seized several Dutch ships in 1605, they executed most of their captives

without trial.[87] Still, the Spanish could not prevent African rulers or even their own colonists in the Americas from trading with other nations, although they did not surrender their jurisdictional claims until late in the seventeenth century.[88] From around the start of that century, Dutch and English voyages to the Indian Ocean also became more common, and there they entered into conflict with the Portuguese and all who carried a *cartaz*, sometimes joining in alliance with Indian rulers such as the Susuhunan of Mataram and the sultan of Makassar. The main challengers to Spanish and Portuguese dominance were trading companies like the VOC and English East India Company (EIC), to which northern European governments granted extensive legal powers, including the authority to make war.[89]

While relying upon negotiation with local rulers, such as the Mughal emperors, who sometimes sought to utilize European forces for their own purposes, the companies also developed their own legal systems and jurisdictional claims.[90] The VOC sought to impose their own *cartaz* system and, in the later seventeenth century, the EIC fought with the Angrias and Marathas for maritime control.[91] By that time, the EIC in Bombay had also established civil and admiralty courts; in 1678 a High Court was set up at Madras for both civil and criminal cases. Significantly, in the early years of this court two Indian judges were present to advise on local law, and later, after this practice was dropped, Brahman specialists were still consulted and cases were referred to Indian arbitration.[92] As well as recognizing local authorities, in both India and the Americas these companies often competed for jurisdiction with other nations and with other companies or communities of the same nationality, echoing the fragmented and competitive situation in early modern Europe.[93]

The VOC's war with the Portuguese Empire sparked off one of the most significant legal debates of the period.[94] In 1603, the Dutch Captain, Jacob van Heemskerck, seized the Portuguese ship *Santa Catarina* in the straits of Singapore, provoking a furious response from the Spanish-Portuguese government.[95] The VOC engaged the influential jurist Grotius to represent them in court; unsurprisingly, the Amsterdam admiralty ruled in the VOC's favour, but this was only the beginning.[96] Grotius also composed a weighty treatise in the VOC's defence, *De Jure Praedae* (*On the Law of Prize*), which argued, among other things, that the sea could not be possessed, and therefore no one ruler could exercise sole sovereignty over it. The Portuguese attempt to do so represented an injury against the Dutch and all other nations, Grotius claimed, and Heemskerck's actions were therefore a legally justified retaliation to this injury, as well as being authorized by an alliance with the king of Johor.[97] *De Jure Praedae* was not published until the nineteenth century, but a modified chapter of it was printed anonymously in 1609 as *Mare Liberum* (*The Free Sea*).[98]

This text provoked a series of responses arguing that the sea could be possessed and, more to the point, that certain monarchs controlled specific parts of it.[99] Serafim de Freitas wrote a defence of Portugal's position in 1625, but the most sustained challenge to Grotius' ideas came from Britain, first from Welwod in 1613, and then, most famously, by John Selden in *Mare Clausum* (*The Closed Sea*), written in 1619 and published in 1635.[100] Both English and Scottish monarchs had long asserted a degree of maritime sovereignty, which was threatened by Grotius' arguments, but Anglo-Dutch rivalry over commerce and North Sea fisheries also prompted these

responses.[101] Dutch writers, such as Theodore Graswinkel, defended Grotius, and the print debate rumbled on throughout the Anglo-Dutch wars between the 1650s and 1670s, and later.[102] Nevertheless, even British writers eventually moderated the more expansive claims to maritime dominance. A principle primarily championed by Cornelis van Bijnkershoek, that sovereignty extended only as far as it was enforceable (at the time, as far as a cannon-shot could reach from shore), was generally adopted.[103]

Although these disputes affected government policies around Europe, they were not rigid positions, and there was surprising flexibility at times. In arguably the most extreme example, Grotius, leading a Dutch delegation during negotiations with the English over trade in the Indian Ocean in 1613, argued in favour of a Dutch trade monopoly, while the English diplomats cited *Mare Liberum* against its author.[104] Grotius' arguments in favour of the 'freedom of the sea' nevertheless became more widely accepted, especially during the eighteenth century, although some monarchs continued to articulate claims to maritime sovereignty much later.[105] This does not mean that rulers surrendered their authority over maritime activity: during this period, many governments increasingly demanded jurisdiction over their seafaring subjects regardless of their whereabouts, although in many places the local authorities resisted this intrusion for as long as they could.[106] Instead, Grotius' writings contributed to the idea of a 'law of nations' to which European governments subscribed, and through which they continued to pursue their imperial ambitions. One of the most significant dimensions of this was in the developing law of piracy.

Emperors and pirates

Controlling violence at sea has been a perpetual concern of lawmakers. As with other aspects of maritime law, this is best documented in relation to Europe, and although other regions, such as the Caribbean and the Indian Ocean, witnessed maritime violence and developed legal systems relating to it, here too the impact of early modern European empires was profound. This played out in the emerging concept of a 'pirate', a maritime criminal who plunders illegally and indiscriminately. The term has its origins in the ancient Greek '*peirato*', although in the classical and medieval periods this term and its Latin and vernacular descendants and cognates often just described maritime raiders; 'pirate' acquired firmly negative legal and moral connotations in late medieval and early modern Europe.[107] Indeed, though historians have stressed the ambiguous nature of early modern piracy, in legal terms the core principle was relatively clear, articulated both in municipal laws and by theorists, such as Alberico Gentili in the late sixteenth century, Grotius some decades afterwards, Charles Molloy and Leoline Jenkins in the later seventeenth century, and van Bijnkershoek in the early eighteenth century.[108] Violent plundering at sea by those who were not authorized by a sovereign was piracy. In England, piracy was a felony from the fourteenth century onwards, and in 1536, a statute established a special tribunal of the admiralty court to prosecute it, followed later in the century by further measures to encourage prosecution.[109] Similarly, the States General, provincial authorities, and admiralties of the Dutch republic repeatedly condemned '*zeeroverij*' in the seventeenth century.[110]

Ambiguity therefore existed, at least in legal terms, not over what a pirate was, but rather over *who* was a pirate. In the medieval period, European rulers authorized their subjects to carry out seaborne violence either against their enemies during times of war, or as an act of 'reprisal' or retaliation against a maritime aggressor when other legal recourse had failed. Later these two types of warfare blurred, but still required a commission from a government, and such commissions were readily available. Sailors who were intent on plunder rarely sailed without such a document, sometimes adopting the authorization of another sovereign (or several) besides their own.[111] 'It was only in exceptional moments', Lauren Benton has pointed out, 'that mariners purposefully assumed the status of outlaws'.[112] Disputes, therefore, centred on the legitimacy of sovereigns and their commissions; predictably, most governments considered their own authorizations to be legitimate or took a lenient line with their own subjects, but regarded others as pirates.[113] Some groups were even considered inherently 'piratical', and the most significant of these for early modern European rulers were the North African corsairs, who were authorized by the Ottoman regencies of Algiers and Tunis, or the sultan of Morocco, but were 'rendered "piratical" by simply withholding recognition of [their] governmental position'.[114] However, even this attitude changed in the late seventeenth century as European states concluded treaties that recognized the regencies' sovereignty.[115] If the legal principle was clear, its application was variable.

The debates over maritime sovereignty and legitimacy discussed above related to, and were inspired by, questions of piracy and imperial expansion. The French, Dutch, and English in particular relied upon private enterprise, both by independent actors and trading companies (as we have seen), and sometimes in alliance with local forces, such as the VOC's mixture of co-operation and conflict with the smugglers and raiders of the Chinese coast.[116] This approach provoked accusations of piracy from the Spanish and Portuguese, as part of their claims to total maritime dominion; the Dutch, English, and French replied that it was the Spanish and Portuguese who were in fact pirates, against whom the newer empires retaliated.[117] State governments, company directors, and colonial officials continued to support and sponsor maritime raiders in the sixteenth and seventeenth centuries, particularly in the Caribbean, where they became known as 'buccaneers'.[118] The principle developed of 'no peace beyond the line', a convention that violence in the Atlantic or Indian Oceans was not an act of war, as it was in Europe.[119]

That is not to say that there were no legal restrictions on seaborne violence, even 'beyond the line'. Many states developed theoretically strict rules regarding plunder and prizes, which followed the general pattern of maritime law in that they shared some similarities across countries and were indebted to earlier codes like the *Consolat*, but were locally specific and periodically revised or altered by municipal authorities.[120] Authorized 'privateers' (a term that was coined in the late seventeenth century) were supposed to seize only enemy ships, and prize cases had to be adjudicated by admiralty courts, offering aggrieved merchants and shippers an opportunity to seek the restitution of their goods if these had been wrongfully seized, and giving rulers some measure of control.[121] Negotiations over rules concerning prize, and contentious issues such as the status of neutral vessels, 'contributed heavily into translating the theoretical law of nations into practice'.[122]

There were clearly specific interests at play, however, and most governments favoured their own subjects in these cases, not least because they stood to gain a cut of the profits. In the sixteenth century, the English monarchy was notoriously lax in disciplining its private maritime forces, and Virginia Lunsford has shown that the Dutch authorities were regularly lenient toward those accused of, and even those convicted of, *zeeroverij*.[123] Moreover, as Benton has argued, seafarers themselves played an important role in developing these legal systems, acting as 'lawyers' who 'cultivated a certain expertise in representing their commissions as legitimate … [and] engaged in frequent legal posturing'.[124] Evidently not all of them were successful at 'posturing', because some seafarers were prosecuted and executed as pirates, while others elected to act wholly outside the law.[125] Nevertheless, it is important to recognize that for much of the early modern period seafarers' choices and actions also shaped these laws, and so too did the role of local authorities who claimed jurisdiction. For example, the first lawsuit judged in the fledgling English colony of Maryland was an accusation of piracy (although this was more about territorial rivalry with neighbouring Virginia than it was about seaborne plunder).[126]

Yet the balance of power shifted more decisively toward state governments, as they built up the naval resources to police the sea and as the role of other agents, such as trading companies, eventually declined, and this too was an intrinsic part of imperial expansion.[127] During the late seventeenth century, even as the activities of privateers and buccaneers peaked, the attitudes of metropolitan governments and merchant elites changed, spurred by a greater interest in controlling both commerce and maritime warfare.[128] In tracking this change, scholars have focused particularly on the British imperial outposts of the Caribbean and North America, where 'Concerted efforts to root out the multinational sea-robbers […] began in earnest in the 1680s', although previously there had been colonial reluctance to participate.[129] At about the same time French colonial governors in the Caribbean were similarly tasked with prosecuting buccaneers, though for them too 'the local situation and a lack of judicial tools made this task impossible'.[130] By the end of the seventeenth century, Britain had imposed new vice-admiralty courts and new anti-piracy laws upon its colonies, and French regulations also tightened.[131]

As a response to this changing legal situation, some buccaneers became outright pirates, although others acquired new commissions, including from indigenous rulers in Central America.[132] Many abandoned the Caribbean and moved their base of operations to Madagascar, where they allied with Malagasy rulers and preyed upon passing shipping for several decades.[133] Complaints by the Mughal emperor, as well as concern for their own trading interests, compelled the EIC to take stronger anti-piracy measures; they sent a squadron to Madagascar, as did French colonists in the neighbouring Mascarenes.[134] Although not immediately or entirely successful, the combined measures in the Atlantic and Indian Oceans resulted in well-publicized pirate trials around the turn of the eighteenth century, and in subsequent decades the British navy continued to suppress pirates in the Atlantic.[135]

In the Indian Ocean, moreover, the legal concept of piracy increasingly played another purpose: to condemn and eradicate indigenous maritime forces. For nearly four decades from 1718 onwards, the EIC fought a war against the Maratha

Confederacy, led by Kanhoji Angre.[136] In the eighteenth and early nineteenth centuries, the Bombay Marine intensified this activity, completing the destruction of Kanhoji's successors among the Angria, attacking Malagasy communities who were raiding the Comoro Islands and East Africa, and sending expeditions to the Qassimi 'Pirate Coast' in the Persian Gulf and to the Gulf of Kutch in Gujarat.[137] The British, Simon Layton argues, 'were able to construe their own seaborne violence as a force for modernity, at the same time as they consigned those who challenged their legitimacy to a bygone era'. In so doing, they pursued 'an emerging imperialism of *free seas*' in which the empire claimed the authority to define and protect this freedom, and to punish those who contravened it.[138] The concept of piracy, and the imperial campaigns to eradicate it, were therefore not only part of ongoing debates around maritime law and sovereignty, but also contributed forcefully to 'the universalizing of European ideas of international law', as Michael Kempe suggests.[139] The rising power of the United States, for example, adopted major elements of British prize law and the same imperial-legal approach to 'piracy'.[140]

These developments were accompanied by continued discussion about the scope and nature of maritime law. During the course of the nineteenth century, three miles was proposed as a more fixed alternative to the 'gunshot limit' for a state's maritime sovereignty, but not all governments accepted this.[141] At the same time lawyers and scholars continued to publish collections and syntheses of the medieval law codes (which were treated almost as canonical), and older books were still reprinted, while others attempted to summarize more recent developments in law.[142] These publications, as in former centuries, indicate the locally specific nature of maritime law: British writers, for example, increasingly focused on parliamentary statutes rather than on the medieval codes.[143] Similarly, an attempt to create an international prize court in the early twentieth century failed, and municipal courts continued to fulfil that function.[144] Yet the nineteenth-century French lawyer Jean-Marie Pardessus, author of a collection on maritime law that is still the most substantial and extensive ever published, wrote that 'uniformity is, I would dare to say, its essence […] this law, immutable through social upheavals, has come to us after thirty centuries as it was in the early days when navigation established relationships between peoples'.[145] The myth of a universal maritime law had lost none of its potency.

Conclusion

The legal developments outlined here continued to have an impact in the twentieth century and afterwards. From the 1950s onwards, the United Nations held a series of meetings that resulted in the 1982 Convention on the Law of the Sea, finally creating a codified and international maritime law.[146] The creation of this international law highlights its fundamental absence in previous centuries: despite the persistent claims of some writers, from the medieval era to the present day, maritime law was a complicated and messy jigsaw of competing jurisdictions. Individual sovereigns – even individual ports – produced their own regulations and held their own courts, while the seafarers who moved between these jurisdictions contributed, in their own way, to the continuous genesis of maritime law. Benton's description of ships as 'islands of

law … [and] representatives of municipal legal authorities – vectors of law thrusting into ocean space' captures the dynamics of this situation particularly well.[147] Rather paradoxically, the intersections and collisions between these vectors contributed fundamentally to both the recurrent idea of a singular and universal law of the sea and to the 'law of nations', as well as being a definitive feature of the growth of European empires.

Yet the United Nations Convention is closer to its antecedents than it appears at first glance, in two senses. First of all, a number of scholars have highlighted how much this system owes to early modern writers and to Grotius in particular, as it endorsed the 'freedom of the seas' while recognizing limited territorial waters.[148] Second, and more importantly, the Convention shows how particular interests continued to define maritime law. Though the twentieth century witnessed some remarkable optimism, with the United Nations' efforts and advancing technology regarded as harbingers of a new 'inclusive authority' at sea, it took three decades to negotiate the Convention and even longer to ratify and enforce it, with the US never officially ratifying it.[149] Throughout this process, smaller nations, especially those beyond Europe, resisted the universal 'freedom of the seas' sought by the major maritime powers, while discussion over the meaning of 'piracy' was similarly fraught, as there was and is 'no public international law defining "piracy"'.[150] Nor have these particular interests disappeared since 1982, as political and technological developments have left the Convention outdated, and disputes over maritime jurisdiction and sovereignty look set to continue.[151] The surge in piracy off Somalia's coast from around 2006 onwards reignited debates about international maritime law, and although privateers were abolished in most countries in the nineteenth century, non-state maritime violence persists in the form of private security firms.[152] More recently, in July 2017, the British government announced that it intends to withdraw from international agreements in order to enforce greater control over its territorial waters.[153] The sea remains a legally problematic space.

Notes

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18

'Men whose vocation calls us to dangers substantial'[1]

Health care in the early English East India Company, 1601–11

Cheryl Fury[2]

Early modern seafaring was a dangerous occupation: with the uptick in long-distance oceanic travel during the Elizabethan era (1558–1603), there was a consequent increase in morbidity and mortality. Whether seamen were engaged in naval campaigns or merchant voyages, their health was at high risk by any form of maritime employment that kept them at sea for long periods of time: crews diminished by sickness and injuries struggled to accomplish the intended objectives of their voyages. Yet, as challenging and enduring as these problems were, there were 'lessons learnt' from this period of intense maritime activity. The English East India Company (EIC), a mercantile venture formed in 1600, was one of the chief beneficiaries of these lessons. The Company attempted to harness existing knowledge and improve upon it in order to achieve its commercial goals. Some historians have assumed that the high mortality rate on its ships was the result of the Company's 'legendarily meager' treatment of its men.[3] However, the Company knew its fortunes were dependent on having enough men to sail the lucrative cargoes home. As will be demonstrated, the EIC was a solicitous employer and laboured to develop effective and varied health care measures, although it struggled against an overwhelming foe.

The problems

The two to three year voyage to the East Indies and back was a gruelling one in terms of the physical and mental toll it took on the participants. Figures for the first voyage (1601–03) indicate the mortality rate in the small fleet was around 60 per cent.[4] By the time Henry Middleton's second fleet (1604–06) limped to the fledgling English factory in Bantam, Indonesia, there were only 50 of the roughly 500 men who

were fit for purpose in the four ships and 'those that came thither in health, many never went out (for England)'.[5] Diminishing complements made the labour-intensive business of sailing a seventeenth-century ship extremely difficult, especially on the return voyage. The Company fretted about the cargo and ships for want of men to bring them home.[6] On the second voyage, foreign sailors had to be hired to bolster numbers.[7] The Company's ship, *Union*, sank when her skeleton crew lost control of the vessel off the coast of Brittany in 1611 during the fourth voyage.[8]

Sickness was widespread, especially on the outward leg of the voyage from England. It was not only the months at sea and poor diet that proved harmful to so many: the East Indies' climate was taxing as well. Whether on land or at sea, Englishmen feared their European and Asian trade rivals would attack them. Those left at Bantam to establish an English presence were terrified their fledgling base would be set on fire by their adversaries, especially the Javans and the 'damned Chyneses'.[9]

Because mortality was around 50 per cent at Bantam,[10] the Company had to create a long list of merchant factors who would in turn take charge in the event of the death of their superiors.[11] In late 1604, merchant factor Edmund Scott wrote 'Bantam is not a place to recover men that are sicke, but rather to kill men that come thither in health'.[12]

Diseases

Even the most gifted English medical professionals and experienced seafarers were mystified by how to battle the punishing climate, foreign ailments, and vitamin deficiency. Although Dr James Lind's analysis refers to the Seven Year's War (1756–63), it holds true for the early modern period: '[T]he number of seamen in time of war who died by shipwreck, capture, famine, fire or sword are but inconsiderable in respect of such as are destroyed by the ship diseases and the usual maladies of intemperate climates'.[13]

On the early EIC voyages, most shipboard deaths were from scurvy, flux (dysentery), or calenture (malaria, yellow fever). Scurvy, caused by a deficiency of vitamin C, was one of the greatest killers of early modern seafarers. Contemporaries did not understand the concept of a balanced diet but a few observant seafarers were making the connection between seamen's customary diet (which was so dependent on salted provisions), long-distance voyages, and illness.[14]

Sir Richard Hawkins was an innovator like his father, Elizabethan naval reformer, Sir John Hawkins. The younger Hawkins set down various recommendations in his *Observations* in 1593. Regarding scurvy, he commented that 'divers men speake diversly' about its causes. Sir Richard noted that the 'seething of the meate in salt water, helpeth to cause this infirmitie, which in long Voyages can hardly be avoided'. He advised everything from physical exercise to ensuring the men and their vessel be cleaned regularly. Hawkins also advocated shunning salted provisions whenever possible, and recommended that men should be put ashore to refresh themselves: 'for the sea is naturall for fishes, and the land for men. And the oftener a man can have his people to land, not hindering his voyage, the better it is'. Most remarkably, he claimed

'that which I have seene most fruitfull for this sicknesse, is sower oranges and lemmons'.[15] As we shall see, the leaders of EIC voyages would implement a number of proposals that echo those in Hawkins' *Observations*.

Accidents

Although seamen were more likely to capitulate to disease, accidents were also common: ships were dangerous working environments.[16] In the pages of the Company's archived journals, there are accounts of men falling from heights, being swept overboard, and, in one case, being attacked by an alligator.[17] On more than one voyage, men met their end by mishandling gunpowder or firearms.[18] Storms were a perpetual threat: participants regularly recount terrifying encounters with the elements in which they credit 'the miraculous worke of god' for deliverance.[19] Ships were routinely damaged and, in extreme cases, wrecked. The Company tried in vain to ascertain what became of its ship, the *Susan*, and her crew after they disappeared during the second voyage. The Company issued several directives to its employees going to the East Indies to inquire about their fate.[20] During the third voyage, two EIC ships almost struck each other and there would not have been 'a man lefte alive to lament our miserye nor reporte what had become of us'.[21] Both the *Ascension* and the *Union* were lost in separate incidents during the disastrous fourth voyage. Human error could well have been the cause of the *Ascension*'s sinking. Ships were often lost on the homeward journey when sickness and mortality weakened and depleted crews.[22] The Company's journals detail a number of injuries and deaths due to accidents and shipboard conditions, as well as attacks from hostile Europeans and Asians: yet such problems only claimed a small percentage of the total number of men unable to perform their duties.[23]

The East India Company and healthcare

Given that its workforce faced a multitude of health risks, the Company began forging what we might anachronistically call a 'health and wellness programme' from its first voyage. The medieval Laws of Oléron provided a basic 'blueprint' for English maritime health care: employers were to pay for the care of their sick and injured employees ashore.[24] Although there is very little information, it is likely that females of very modest means were hired to care for them in their homes or in public houses, as was the case for thousands of naval seafarers later in the century.[25] Doubtless, this posed logistical and financial difficulties for ship owners and masters. When they could not be put ashore, the diseased and wounded merchant mariners were tended on shipboard by their crewmates or by barber-surgeons, if a ship was privileged to have medical personnel aboard.[26]

Evidence is sparse, but my previous research suggests that at least some of the merchant marine did follow this model.[27] Although the Elizabethan naval fleets carried surgeons to provide care afloat, when campaigns concluded, the sick and injured were generally discharged to their sorry fate.[28] A lucky few naval veterans received begging licences and in the closing years of the war, the Crown dispensed a small number of

pensions. The maritime community, therefore, seems to have used the Laws of Oléron as a model: employers owed some form of medical care to their seafaring employees.

When impressment did not nullify their ability to choose their voyages, seamen used their customary employment freedom to make their own contracts. An important component of this was to assess risks versus remuneration: shipboard conditions and health concerns loomed large in this consideration. Seamen had a high threshold for peril, or as one EIC participant wrote, 'wee beinge men whose vocation call[s] us to many dangers substantial'.[29] Even so, such men had limits. The EIC needed its employees in health and garnered the 'best practices' of the day in an attempt to do this. No doubt, this was a significant factor in recruiting men for this long, tedious, and dangerous journey.[30] The fact that a number of the skilled men who had the most lucrative career prospects were willing to sail on subsequent EIC voyages speaks volumes about how they regarded their treatment and conditions.[31]

Professional medical care on shipboard

Whether in naval or mercantile fleets, it was increasingly likely ships carried one or more surgeons on large-scale undertakings.[32] Surgeons became more common on shipboard during the Elizabethan period, and by the early seventeenth century, it was said that seamen 'will do nothing without a chirugeon, for that it puts them out of heart' and 'is a great discouragement to our men'.[33] Recognizing how much the devastating health problems had affected previous commercial missions, the Company employed surgeons from its first voyage (1601–03).[34]

However well intentioned or trained these men were by the standards of their day, they were not up to the task of shipboard health care in tropical climates. Surgeons were most efficacious when it came to treating battle wounds and administering the external treatments for which they were trained. EIC crews did not shrink from a fight at sea or on land and they were very willing to subdue 'prizes' when the possibility presented itself.[35] Treating battle wounds, however, was only a very small part of caring for those 'unfit for purpose' on Company ships.

Despite the fact that the Company mandated that 'Continuall & true Journalls be kept' with an account of 'everythinge that passeth',[36] there are few entries about how the shipboard surgeons plied their craft. However, incompetent surgeons did invite complaints. Reverend Richard Surfleet claimed to be both a physician and a chaplain and was hired to serve on the second voyage. Doubtless, the Company was attracted by the idea of paying one employee to fill two positions. When the men passed the Equator in May 1604, many fell sick of scurvy, bloody flux, and fever, 'our phisition (Surfleet) shipt for that purpose being as unwilling as ignorant in any thing that might helpe them – a great oversight in the Company, and no doubt wilbe better lookt to hereafter'.[37] Conversely, able surgeons commanded respect and affection. In June 1608, for example, Master Surgeon Balstowe, an 'honest and sufficient man', died during the voyage, 'to our great greiffe'.[38]

EIC surgeons were often numbered among the casualties:[39] these landsmen were probably more vulnerable to the challenges of shipboard living and long-distance travel than the hardened seafarers were. Although there was no criticism about

surgeon Christopher Newchurch's competence, his suicide attempt during the first voyage might have been linked to a period of high mortality in the fleet, and in his ship in particular. Whatever the source of his distress, Newchurch was removed from his post and served out the rest of the voyage as an ordinary seaman.[40]

There were negative comments in the Company's correspondence for 1614–15 about boys being thrust into the surgeon's place: this is probably a result of so many ship's surgeons expiring during the voyages, or in Newchurch's case, being demoted, only to be replaced by their less experienced mates or young apprentices.[41] There were also complaints about the contents of some of the surgeons' medical chests – diverse drugs that had gone bad and unguents 'made of kitchen stuff'. In an effort to remedy these problems, the Company appointed John Woodall, a military surgeon, as the first Surgeon-General of the EIC in 1613. Woodall designed the EIC's regulations for its surgeons and dictated what should be included in their medical chests.[42] The Company also commissioned him to write a treatise to assist its medical men: the first edition of *The Surgeon's Mate* was published in 1617.[43] Although the Company tried to aid its surgeons, the odds were stacked fatally against them.

The men seemed grateful for the surgeons' attentions and they had considerably lower expectations of their health care providers than we do today. Well aware of the scope of the medical challenges, they put more faith in God than their surgeons. During the second voyage, Edmund Scott wrote that:

> after our men were a little recovered of the scurvie, the flixe tooke them. So that we continued still verie weake in men; insomuch that it was unpossible, in mans judgement, that ever wee should bee able to accomplish our business in that manner as (God be thanked) it is; Who surely heard the prayers of some, both in England and also amongst us, and looking downe in mercie upon our weakenesse, did raise us up againe.[44]

Nursing care

Because many maritime ventures did not hire a surgeon, seafarers were accustomed to managing shipboard medical treatment themselves. Whether or not there was a surgeon on the ship, crewmembers took care of the sick and injured.[45] The articles of the Company of Merchant Adventurers (1553) stated plainly 'the sicke, diseased, weake, and visited person within boord, to be tendred, relieved, comforted, and holpen in the time of his infirmitie, and every maner of person, without respect, to beare anothers burden'.[46] As was the case with the English community on land, the practice of medicine went well beyond professional healers.[47]

On land or shipboard, visiting and nursing the sick and dying was a social and religious duty; illness was very much a communal experience.[48] One interesting difference between nursing care among the land and sea communities is that nursing was typically a female preserve ashore, and out of necessity, done by men in the all-male shipboard community. Presumably, seafarers must have done a reasonable job, as there were no complaints in the accounts of the early EIC voyages. In fact, dying men habitually made bequests in their shipboard wills to crewmates who had nursed

them.[49] It is impossible to say if these bequests were made to repay a financial debt for care or if they were donations made out of gratitude. There are probably countless other recipients of bequests in wills who are not identified as caregivers by the testators. Twenty shillings (roughly a month's wages for common seafarers)[50] was a typical bequest, although testators gave clothes and other items as well.

In the cluster of 12 wills for the second voyage where testators identify shipmates who cared for them,[51] all the named caregivers were different, with the exception of Robert Jackson who was given bequests by two crewmates. Francis Kindes of the *Ascension* gave all his goods to Robert Jackson, who he claimed was his friend, 'inconsideration of the paines which he had taken with him in his sicknes'.[52] Edward Chewne also gives Jackson all his possessions, 'in consideracion of all the paynes […] taken with him in his sicknes'.[53] If Jackson survived the voyage, he would have reaped a substantial financial reward from nursing Kindes and Chewne. If Jackson or other crewmates had been designated caregivers to tend all those who were indisposed, presumably their names would appear more frequently in shipboard wills. In this cluster of wills, only one dying man made a bequest to the ship's surgeon.[54] This is typical of seamen's shipboard wills of the period: caregivers are named and given bequests far more often than ship's surgeons. This is most likely a reflection of the fact that the nurses spent more time as the primary caregivers than surgeons did.

Diet

Seamen's diet caused them no end of health problems. Before its departure from England, the first EIC fleet was furnished for almost two years with bread, beef, pork, fish, peas, beans, rice, cheese, butter, beer, cider, wine, and aquavite, as well as honey, spices, oil, and vinegar.[55] Noticeably absent from seafarers' standard diet was fresh fruit and vegetables. The staples of the 'maritime menu' were salted meat and fish, biscuit, cheese, and beer.[56] Although in this period there was no understanding of vitamins or the importance of a balanced diet, it was becoming clear that weeks and months of salted sea fare had a negative impact on seamen's health. Stuart Captain Nathaniel Boteler wrote that 'our much and indeed excessive feeding upon these salt meats at sea cannot but procure much unhealthiness and infection'.[57] Without supplemental provisions of healthier, fresher food, the men developed scurvy and various vitamin deficiencies, usually one to two months into a voyage.[58] As a result, the Company was making strides to procure a more nourishing diet for its employees. John Hearne and William Finch of the *Red Dragon* stated this connection explicitly during the third major voyage (1607–10) in their shared journal: fresh victuals are 'the chief preservative of mens healths'.[59] The Company cautioned the officers of that voyage 'that a special care be had, to releeve the sicke wth such fresh meates & other Comfortable thinges, where with we haue furnished each ship for that purpose'.[60] Although it was generally recognized in the maritime community that salted provisions were too hard for the sick to digest,[61] the EIC was attempting to furnish all the men with a diet that was both restorative and would prevent illness.

The Company expected that the fleet would acquire victuals along the route, although provisioning could be a precarious business so far from home. General James

Lancaster traded with 'the people of the country' on the first voyage and officers were ordered to keep journals to note places where fresh food and water could be found or purchased. Subsequent commanders and officers followed suit. Surviving journals indicate the men enjoyed fresh fish of all sorts, goats, oxen, hens and fowls, mutton, rice, lemons, limes, oranges, watermelons, prunes, radishes, plantains, peaches, coconuts, and on at least one occasion, dolphin pie.[62] They also recorded places where Company ships should avoid when provisioning.[63] Finding sources of fresh water could be problematic: in 1603 Edmund Scott wrote of 'bad dyat and drinking of that bad water' made his group so 'low with loosenes of body […] that we thought wee should all have died'.[64]

By far the most important innovation in shipboard diet was the Company's adoption of anti-scorbutics. James Lancaster survived a voyage to the East Indies in 1591 and anticipated that scurvy would claim many of his men on the EIC's maiden voyage in 1601. The men on Lancaster's ship were given 'three spoonfuls [of lemon juice] every morning, fasting; not suffering them to eate anything after it till noone'. It was thought that the juice would be more effective if the men avoided salted meat: 'By this meanes the general cured many of his men and preserved the rest'.[65] Until Lancaster's supply of lemon juice ran out, his crew remained healthy while many in the rest of the fleet suffered the ravages of vitamin C deficiency.

In December 1601, Lancaster sent men ashore at St Mary's Island (off Madagascar) 'where wee had some store of limons and oranges, which were precious for our diseased men, to purge their bodies of the scurvy'.[66] Lancaster has been credited with using citrus fruit as a preventative measure and as a cure,[67] and possibly conducting the first scurvy trials at sea.[68] Lancaster did not discover the cure for scurvy: this veteran seaman adopted a beneficial treatment known to some experienced mariners, but not in widespread usage.

Lancaster established an extremely important precedent for succeeding voyages:[69] thousands of limes and lemons were purchased, and administered in water to the men. When the fleet on the third voyage visited Sierra Leone, they juiced a hundred thousand lemons and limes during the five weeks they were there.[70] Unfortunately, for generations of seafarers, the far less effective, but cheaper, West Indian lime was seen as an interchangeable alternative to the expensive Mediterranean lemon.[71]

Refreshing

From its inception, the Company and its officers appreciated that men needed to spend time ashore.[72] The leaders of each voyage were constantly on the lookout for places of 'good refreshment' to 'rayse upp our sick men'.[73] Lancaster's men found that Table Bay offered 'so royall refreshing' that most of their men recovered their health'[74] They were also impressed with Priaman[75] which 'is very wholesome and healthfull'.

There were, however, often divergences between the Company's suggested itinerary and timelines and actualities in the fleet. For their part, seafarers had no problem exercising their agency 'on site' when those in authority attempted to push them beyond their considerable limits. With many ill with scurvy during the second voyage, some of the seamen 'cried out most lamentably' and 'made a petition to the Generall

[Henry Middleton], most humbly entreating him, for Gods sake, to save their lives and put in for Saldania; otherwayes they were but dead men'.[76] The crew of the third voyage also insisted that General Keeling stop for fresh food and refreshment:

> they did wth one accorde come to our gennerall and intreated him, as hee did respect the lyves of so many poore men wch had bene 8 months and upwards wthout ffresh victuals […] For they did ffynde their bodies very much weakened […] they were constrained to come unto him to desire him that hee would consider their estate […] ffor […] wthout them hee could not performe his voyadge.[77]

In both instances, the men persuaded their superiors to change their minds and put into port. The men had a clear sense of the value of their labour in relation to the Company's commercial goals, as they articulated to Keeling.

By the third voyage, the men had developed expectations based on the precedent and practices of previous voyages: 'and our men ever having expectation in this place to have refreshment'.[78] This may explain one of the Company's early directives, threatening to punish those men who impeded the progress of the voyage by straggling ashore looking for fresh fruit and other foodstuffs. The Company advised participants to 'use a discreete meanes in eating of fruits, or fresh victuals' lest the men 'surfitt & ffall into diseases, whereof we have had too much experience'.[79] Although seafarers were reputed to be wedded to their salty, weevil-infested sea rations,[80] these men were gorging themselves on fresh food. It is difficult to know whether they were doing so because they found their regular rations so monotonous and rancid by this point in the journey, or if they appreciated how vital fresh provisions were to their health. Possibly both are true. As Hair and Alsop have pointed out, 'we would be wrong to assume that – short of mutiny – Tudor sailors were merely placid recipients of whatever levels of dietary and health care their superiors chose to provide'.[81] EIC seamen had formed a notion and articulated it to their leaders that they had a 'right to refreshment', which included fresh food. They were willing to petition and protest to ensure they were given their due because they appreciated the benefits to those already ill and to those trying to remain healthy.

There were many experienced seafarers in the ranks of the Company's officers: they recognized the need for responsiveness in the face of protests over health concerns. However, in one instance, John Lufkin, master of the EIC pinnace *Good Hope*, failed to acquiesce to his crew's repeated requests for provisions and refreshment in 1609.[82] One of the men took a mallet and 'strooke his braines out', claiming to act for the collective: 'it was better for one to dye then all'.[83] This was a rare instance when a mutinous crew in Tudor-Stuart times crossed the line from verbal protest and work stoppage into murder, but it demonstrates how seriously the men took the practice of going ashore.[84]

There was a geographical basis to these disturbances: the men pressured their commanders to go ashore on three of the first four voyages as they were sailing around the southern tip of Africa. They complained about the prevalence of sickness and the need for fresh food. This remained a highly contested matter in the early decades of the EIC.[85]

Care ashore

There is not much information about what arrangements were made during this period for the sick and injured on any type of English voyage. Although many seem to have been taken care of on cramped ships, the ideal was to put the sick and injured ashore, as per the Laws of Oléron. The Company appears to have followed these practices whenever possible. There are several references to the sick lying ashore when the fleet was in the East Indies: 'Our sicke and weake men in bothe shippes were sent ashore to those houses and meanes made ffit ffor them ffor recovering strength'. Houses were built for the sick ashore in 1608 and 'Convenyent thinges settupp for them to lye upon'.[86] The Company also recommended using old sails to make tents for the refreshing of sick men.[87] The English, wary of being attacked by rivals, guarded their ill and injured: 'our gennerall, beeinge carefull of the safetie of his sick and impotent men wch lay ashore',[88] and, on another occasion, 'wee all returned aborde gevinge thancks unto God ffor the protection of our sick men ashoare, whome hee had so gratiously preserved ffrom the ffury of this heathenish nation'.[89]

No doubt the ailing men were more comfortable ashore, whether in tents or houses, than in a cramped ship. Most importantly, once ashore it was easier for caregivers to procure fresh water and food. Time ashore invariably bolstered much of the workforce sufficiently to continue the voyage. EIC voyages had a decided pattern of illness weakening the crews, a period of 'refreshing' ashore that led to partial recovery of most of the company, and then recurrence of illness and malnutrition until the next period on land. Without time ashore, high morbidity and mortality 'would enforce us to be so cast down, as that it might work the utter overthrow of the voyadge'.[90]

On at least one occasion the EIC offered assistance for its sick men once they were back in England, although it is unclear how long they assumed that responsibility. In 1606, the Company ordered employees to Plymouth to tend to the men of the *Red Dragon* and *Ascension* after they returned from the East on the second voyage. EIC representatives were ordered 'wthall expedicion to repaire to the said porte' and to 'doe your best endevour' to provide for those who had arrived. They were to identify those who could not endure the passage to London because of sickness (presumably to arrange care ashore there) and to provide 'all thinges wch shall be necessarie for the rest of the men'.[91]

Toward a holistic health and wellness policy

In their efforts to conquer health problems that seemed to be insurmountable, the Company in London and the participants on the voyage groped in the dark for any solutions that might improve conditions and preserve their workforce. Their remedies were wide-ranging – everything from the state of the men's souls to what went in their bellies: 'Jacobean mariners understood the disease as a holistic malady with multiple palliatives'.[92]

In addition to those measures discussed already, the Company tried various other ways to keep men in health. In the instructions for each voyage, crews were ordered

that ships should be kept 'cleane & sweete, wch is a notable preservacion of health'. As mentioned in respect to scurvy, Richard Hawkins maintained that 'the best prevention for this disease […] is to keepe cleane the Shippe'.[93] By the third voyage, the Company looked to the Dutch, its trade rivals in the East Indies, as role models: 'wherein the dutchmen doe farr exceede us in cleanliness to their greate Comendacions & disgrace to our People'.[94]

There was also a growing awareness of the importance of personal hygiene and keeping the men properly clothed. Contemporaries believed that seamen's lack of clothing invited sickness. Richard Hawkins observed that it was 'a common calamitie amongst the ordinary sort of Mariners, to spend their thrift on the shore, and to bring to Sea no more Cloaths then they haue backes'.[95] Boteler complained, 'these lads are generally known to make more of their bellies than their backs'.[96] Walter Raleigh estimated that a suit of apparel would be worn to shreds within six months at sea – a fraction of the length of an EIC voyage.[97] Richard Hawkins claimed that wearing scant, wet, and salt-encrusted clothing was bound to upset the humours. Both he and John Hawkins provided clothing for their men and by the early seventeenth century, merchant companies were more aware of such problems.[98] The EIC followed suit, so to speak. On the third voyage, Keeling noticed that many of the men were 'very slenderly cladd' while they were enroute to 'a kould clymaate':

> having a regard unto their healths and to the welfare of ye voyadge, hee did proffer unto them to open a bale of broad cloth to make them clothes against they should come into the could, and that they should pay but the cost in England […] wch they did very thankfully accept.[99]

During the third voyage, the Company's considerable efforts to maintain morale and health included watching and performing drama, possibly William Shakespeare's *Hamlet* and *Richard II* – in what would have been the first productions of these plays outside of Europe.[100] Keeling believed these performances helped 'keepe my people from idleness and unlawful games, or sleep'. Echoing Richard Hawkins' advice that activity could ward off sickness, Keeling hoped such entertainments would be a tonic against scurvy.[101]

There was also a vital 'literary intervention' on the third voyage: as the men were murmuring against continuing the journey, the General read from Richard Hakluyt's work promoting English commercial expansion overseas. Keeling's timely reading of Hakluyt's *The Principal Navigations* convinced the men to press on to Sierra Leone. Many had been determined to go for home if 'that Book had not given light'. This skilful intercession allegedly saved the Company £20,000.[102]

In a religious age, it was natural that spirituality formed a critical component of the Company's health and wellness programme. Religious observance was a standard part of most shipboard routines. The maritime community had a long tradition of lay worship because chaplains on lone vessels were a rarity – although they were more common as part of naval or merchant fleets.[103] The Company appreciated from the outset that the voyage to the East was extremely taxing, and

religion could provide solace and unity.[104] To this end, EIC fleets carried a preacher on board from the first voyage.[105]

The Company believed that its success was linked to the men's personal discipline and devotion to the Almighty. It was the Company's 'expresse order' that 'all opportunities (be) taken for thadmonishing of your people both to the service of God wthout wch noe enterprize cann be prosperous and to the Civill & orderlie carrying of themselves in the voyadge'.[106] Religion was employed as means of social reformation and order. The Company's directives included each ship's company attending prayers in the morning and evening, as it thought religious worship was the principal means 'wch draweth all Christains to conformitie and submission' and so that 'god whom yee serve shall the better blesse you in all yo[ur] affaires'.[107]

There is not a great deal of detail in the records about the nature of the religious services. We know the men held Sunday services and sang Psalms at the changing of the watch.[108] During an audience with the king of Achin in Sumatra, Lancaster and the men on the first voyage sang a Psalm, telling the king that they sang Psalms daily. There was a special emphasis on having services before the fleet departed on a major leg of their journey. For example, the men took communion and listened to a sermon before the first fleet departed for home and before the third fleet departed England.

Chaplains were very useful to dispense spiritual council and perform religious rituals that fostered unity during traumatic times. After he was condemned to die for sodomizing a ship's boy during the fourth voyage, Nicholas White prepared himself for his execution 'very dilligentlie all the daie and night' with the help of the preacher.[109] The chaplain delivered a sermon that called all aboard to a conversion of the heart, and sought to ready the condemned to leave this world. Before White's hanging, the crew engaged in 'prayer and godlie exhortacions'.[110]

It is important to note that religious observances continued even after the death of the fleet's clergyman or, in the case of the third voyage, when the preacher the Company hired failed to take up his post.[111] Funerals were conducted with or without the chaplain. On the first voyage, a Jewish convert was christened after the chaplain's death.[112] It seems that officers acted as worship leaders, preachers, and godfathers. Their wills demonstrate that some of the men (probably literate officers) owned service and sermon books, Bibles, and religious tracts.[113]

Religious belief probably ran the gamut from the fervent and orthodox to those who were observant because it was an ingrained part of their daily rituals at sea. Extant journals, letters, and last testaments reveal that many of these men were very attached to England's form of Protestantism. Given that they were abroad for years and in intimate proximity to death, the Company required religious practices to provide solace and connection to home. In the words of one participant on the third voyage:

> Whereas nowe yt is doubtefull whether we shall prooceede in our voyage, our men falling every day almost downe of the scurvy […] But god ys all sufficiente, whoe I hope will in due time helpe us. And though he kill me, yet I hope still to trust in him.[114]

Conclusion

The Company had many formidable foes that threatened its commercial success. One of the biggest threats to its profits was the remarkable diminution of its workforce during each voyage. Those in London and the officers on shipboard were committed to maximizing Company revenues, which was intimately tied to the men's health.

The Company's notion of how to battle sickness was very much a 'work in progress'. The use of anti-scorbutics is an apt example. Lancaster borrowed from the 'cutting-edge' medicine of his day, doling out a few teaspoons of lemon juice to the men on his flagship during the first voyage. In subsequent voyages, the men juiced thousands of lemons and limes to ward off scurvy.[115] The participants of each voyage were observing and experimenting to see where improvements could be made: 'wee ffound by experience in gevinge them ffresh victuals when wee grew neer the equinoctial' was 'the chief preservative of mens healths'.[116]

Richmond Barbour writes that 'terrible mortality' on these voyages 'compelled them to develop corporate protocols of writing, reading, and archiving' because 'Knowledge acquired at lethal cost to those who earned it required preservation'.[117] Some of their directives were based on their own experiences in the East, but it is clear that the Company's health care was rooted in the wisdom gathered during the Elizabethan maritime expansion. There is no concrete evidence that well-placed individuals in the Company read Richard Hawkins' *Observations* (1593), but many of the EIC's practices follow his recommendations. Whereas Hawkins advocated physical activity, time spent on land, and eating citrus fruit, EIC crews were put ashore to gather fresh food and for exercise: 'we filled 8 biskett bags wth lymes, and having recreated our selves with walking […] retourned aborde'.[118] Hawkins, and his father John Hawkins, an important influence on the development of the Elizabethan navy, also had much to say about the importance of clothing and cleanliness on board. The Company embraced these views as well. Given that the participants were familiar with Hakluyt's *The Principal Navigations*, it is not a stretch to think some officers had read Hawkins' text. It is probable the Company and its officers sought out relevant texts and expert opinions about preserving the workforce and Hawkins did have dealings with the Company.[119]

The Company went some way to fighting the multitude of health problems inherent in this type of journey. We certainly cannot say that the EIC overcame these challenges but it went to great lengths to do so.[120] From examining the voyages of its first decade, it is evident that the Company put a premium on not only following – but if possible, surpassing – the guidelines of the Laws of Oléron and the traditional obligations and approaches to maritime health care. Its flexible and fluid policies allowed enough men to survive – on most voyages – to sail the lucrative cargoes home.[121]

In terms of health care, seamen must have rated the EIC's measures favourably or the Company would have struggled to hire men for each voyage. On the contrary, the skilled officers (who are easier to track in the records because of their prominence) frequently sailed again after surviving the gruelling journey.[122] Such men were the elite of the maritime community and would have had various employment opportunities, and yet they took part in later EIC voyages.

The regular members of the crew repeatedly demonstrate their agency: no issue touched them as closely as their health. The men had certain expectations that they zealously guarded, such as being put ashore for refreshment. This precedent was established on the first voyage and different crews petitioned their superiors to be put ashore during the next three voyages. Seamen knew that they were necessary cogs in the EIC commercial machinery and they did not shy away from pointing this out when it advanced their cause. Their officers were receptive to their pleas about their health – with the notable exception of the doomed master of the *Good Hope*.

Although few have voices in the official records, seamen must have considered their health care to be suitable, and that remuneration was commensurate with the nature of the voyage. The Company tried to keep them fit and care for them when they fell ill or were injured. When we do have a rare opportunity to 'hear' from the men themselves about their care, they were fulsome in their praise. In his will of 1604, Evan Riggby, who sailed on the *Red Dragon* on the second voyage, requested 'my wife and sonn to pray with me for the Generall the Mr and Captayne Davie Middleton for by theire meanes I have not wanted for any thinge that might recouer my healthe'.[123] One of the participants of the third voyage lauded

> Our General [Keeling] whose care and wisdom in these Longe and tedious passage hath bene great, and I maye bouldly saye, that no men in England in his place and charge could performed it better then he hath don, both for the spedinge of the voyage, and care of his men.[124]

Even with its efforts to care for its men, the challenges remained daunting and voyages continued to take a severe toll on personnel. In 1615, one critic attacked the Company for its loss of lives and vessels, claiming their ships were like 'coffins full of live bodies'.[125] However, we should not assume that this meant that the Company was negligent in its care of its men. The Company and its participants did seek cutting-edge and wide-ranging solutions within the scope of early modern health care. While acknowledging the horrific human costs of English commercial expansion, we must consider seriously the claim that the EIC used 'all that the wit of man, helpt by continuall experience […] to keepe them in good health, besides good Preachers, and the best Commanders'.[126]

Notes

1 BL, L/MAR/A/III/29v; '*Red Dragon* Journal of Hearne and Finch', in R. Barbour, *Third Voyage Journals: Writing and Performance in the London East India Company, 1607–1610*, New York: Palgrave Macmillan, 2009, p. 231.

2 I am indebted to the Institute of Historical Research for its support of portions of this research during my time as Visiting Fellow (2014–15).

3 M. Rediker, *Between the Devil and the Deep Blue Sea*, Cambridge: Cambridge University Press, 1987, p. 40; G. M. Longfield-Jones, 'John Woodall, Surgeon General of the East India Company, Part 1', *Journal of Medical Biography* 3/1, 1995, pp. 3, 13, 14; P. Sharpe, 'Gender at Sea: Women and the East India Company in Seventeenth-Century London', in P. Lane, N. Raven, and K. D. M. Snell (eds), *Women, Work and Wages in England, 1600–1850*, Woodbridge: Boydell Press, 2004, p. 52.

4 C. Fury, 'The First English East India Company Voyage, 1601–1603: The Human Dimension', *International Journal of Maritime History* 24/2, 2012, p. 81; C. Fury, 'Good Wills Hunting: Tracking Down the Men of the First East India Company Voyage, 1601–3', *International Journal of Maritime History* 27/3, 2015, p. 512.
5 *The Voyage of Sir Henry Middleton to the Moluccas 1604–1606*, ed. W. Foster, 2nd series No. LXXXVIII, London: Hakluyt Society, 1943, p. 147; D. K. Bassett, *The Factory of the English East India Company at Bantam*, PhD diss., University of London, p. 9.
6 B/2/84.
7 Foster, *The Voyage of Sir Henry Middleton*, p. xxix.
8 *Letters Received by the East India Company from its Servants in the East vol. I 1602–1613*, London: Sampson Low, Marston and Co., 1896, pp. xxx–xxxi.
9 E. Scott, 'An Exact Discourse of the Subtilties, Fashions, Pollicies, Religion, and Ceremonies of the East Indians, as Well Chyneses as Javans, There Abyding and Dweling Together with the Manner of Trading with Those People, as Well by Us English as by the Hollanders; as Also What Hath Happened to the English Nation at Bantam in the East Indies since the 2[0] of February 1602 [1603] until the 6 of October 1605 Whereunto Is Added a Briefe Description of Java Major', in W. Foster (ed.), *The Voyage of Sir Henry Middleton to the Moluccas 1604–1606*, 2nd series No. LXXXVIII, London: Hakluyt Society, 1943, p. 115.
10 'The Last East-Indian Voyage Containing Much Varitie of the State of the Severall Kingdoms where they have Traded', in W. Foster (ed.), *The Voyage of Sir Henry Middleton to the Moluccas, 1604–1606*, p. 60; Bassett, *The Factory of the English East India Company*, p. 19.
11 BL, B/2/1v.
12 Scott, 'An Exact Discourse', p. 147; Barbour, *The Third Voyage Journals*, p. 18.
13 C. Lloyd (ed.), *The Health of Seamen*, London: Navy Records Society, 1965, p. 3. To provide perspective on Lind's comments, 133,708 men died from disease and desertion in the Seven Years War, compared to 1,512 killed in action.
14 For a discussion of the debates about the causes and potential cures of scurvy, see J. Lamb, *Scurvy: The Disease of Discovery*, Princeton, NJ: Princeton University Press, 2016, pp. 22–63.
15 R. Hawkins, *Observations of Sir Richard Hawkins*, J. A. Williamson (ed.) London, 1622, reprint 1933, pp. 40–2. Hawkins was one of the first Englishmen to write about the cure for scurvy but others discovered citrus fruit as an anti-scorbutic beforehand. The earliest reference to oranges on-board an English vessel can be found in a seaman's will from 1566. Hair, '"Full Fathom Five": Deaths of Elizabethan Seamen', unpublished paper, p. 47. In 1582, a crew sailing to Sierra Leone rinsed their mouths with lemon juice to ward off scurvy. There are earlier references to other European seafarers using anti-scorbutics. Vasco da Gama's men ate citrus fruit to relieve their scurvy on a voyage to Asia in 1497; Jacques Cartier's men were cured of their scurvy by a native remedy of coniferous needles and bark in 1536 in Canada. The Dutch East India Company was using lemon juice, horseradish, and scurvy grass in the late sixteenth century. Hawkins might have acquired this knowledge as a prisoner-of-war in Spain. It is possible Lancaster learned of Hawkins' recommendations through Sir Hugh Platt. J. H. Baron, 'Scurvy Before and After James Lind: A Reassessment', *Nutrition Reviews* 67/6, 2009, p. 316.
16 C. Fury, *Tides in the Affairs of Men: The Social History of Elizabethan Seamen*, Westport, CT: Greenwood Press, 2002, pp. 166–9.
17 'A True and Large Discourse of the Voyage of the Whole Fleete of Ships Forth the 20 April 1601 by the Governours and Assistants of the East Indian Marchants in London to the East Indies; Wherein is Set Downe the Order and Manner of Their Trafficke, the Description of the Countries, the Nature of the People and Their Language, and the Names of all the Dead in the Voyage', in W. Foster (ed.), *The Voyages of Sir James Lancaster*, Cambridge: Hakluyt Society, 1941, p. 125; Barbour, *The Third Voyage Journal*, pp. 13, 18, 128, 156, 200; 'The First Voyage Made to East-India by James Lancaster (now Knight) for the Merchants of London, anno 1600 [i.e. 1601], with Foure Talle Shippes, to wit, the Dragon, the Hector, the Ascension, and Susan and a Victualler called the Guest', in

W. Foster (ed.), *The Voyages of Sir James Lancaster to Brazil and the East Indies 1591–1603*, London: Hakluyt, 1940, pp. 85–6, 119.

18 'A True and Large Discourse', p. 126; Barbour, *The Third Voyage Journals*, p. 18.

19 BL, E/3/1 f. 10.

20 Foster, *The Voyage of Sir Henry Middleton*, xxx; after the second voyage, officers on subsequent voyages were to 'make diligent inquiry' about the *Susan* or if any English ship had been cast away over the previous years. The Company hoped to recover survivors and remaining goods. BL, B/2/52v.

21 Barbour, *The Third Voyage Journals*, p. 105. See also W. Foster (ed.), *The Journal of John Jourdain 1608–1611*, Cambridge: Hakluyt Society, 1905, pp. 118–19.

22 *Letters Received by the East India Company*, xxx–xxxi; BL, Sloane Ms, 858/30; A. Farrington, *Catalogue of East India Company Ships' Journals and Logs 1600–1834*, London: British Library Board, 1999, pp. 32, 633, 667.

23 For examples, see Foster, *The Journal of John Jourdain*, pp. 35, 42; Scott, 'An Exact Discourse', p. 115.

24 TNA HCA, 50/1/6, 50/1/192–3.

25 M. Neufeld, 'The Framework of Casualty Care during the Anglo-Dutch Wars', *War in History* 19/4, pp. 427–44; M. Neufeld and B. Wickham, 'The State, the People and the Care of Sick and Injured Sailors in Late Stuart England', *Social History of Medicine* 28/1, pp. 45–63.

26 Barber-surgeons learned their craft through apprenticeship, which differed from the university-educated physicians. Strictly speaking, surgeons' trade focused only on external ailments but, in practice, sea surgeons had to act as apothecaries and physicians as well. R. S. Roberts, 'The Personnel and Practice of Medicine in Tudor and Stuart England, Part II', *Medical History* 6/4, 1962, pp. 217–19.

27 See Fury, *Tides*, pp. 174–82.

28 The Crown was frequently remiss in its obligations to its veterans during the Anglo-Spanish war (1585–1604). Late in Elizabeth's reign, the Crown introduced pensions for those naval veterans unable to work. Although such pensions were rare, the real significance lay in the Crown's recognition that it owed its maimed and ill men compensation for their service, in contrast to the 'caring state' of the eighteenth century. See G. L. Hudson, 'The Relief of English Disabled Ex-Sailors, c. 1590–1680', in C. Fury (ed.) *The Social History of English Seamen, 1485–1649*, Woodbridge: Boydell Press, 2012, pp. 229–52; G. L. Hudson, 'Ex-Servicemen, War Widows and the English County Pension Scheme, 1593–1679', D. Phil. diss., Oxford University, pp. 59–64; G. L. Hudson, 'The Origins of State Benefits for Ex-Servicemen in Elizabethan England', unpublished paper, pp. 1–17; G. L. Hudson, 'Negotiating for Relief: Strategies Used by Victims of War in Early Seventeenth Century England', unpublished paper, pp. 1–30; Fury, *Tides*, pp. 178–84; C. L. Nielsen, 'The Chelsea Out-Pensioners: Image and Reality in Eighteenth Century and Early Nineteenth Century Social Care', PhD diss., Newcastle University, 2014, pp. 51–91, 169–70, 202; E. Charters, 'The Caring Fiscal-Military State during the Seven Years War, 1756–1763', *The Historical Journal* 52/4, 2009, pp. 921–41.

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66 See Fury, 'The First English East India Company Voyage'; 'The First Voyage Made to East-India', pp. 79, 83; 'A True and Large Discourse', p. 122.
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69 The commission of Henry Middleton, General of the second voyage, issued by the Company urged him to follow Lancaster's example from the first voyage. BL, B/2/20–26.
70 Barbour, *The Third Voyage Journals*, p. 15.
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19

English trading companies and the sea, 1550–1650

'Beyond the seas merchant like'

Edmond J. Smith

When distributing its acts and ordinances in 1617, the Eastland Company, formed almost 40 years before to regulate English traders in the Baltic, carefully defined its membership criteria by specifying 'that none be admitted unless he were a merchant'. It was not enough for an aspiring member simply to have undertaken an apprenticeship or to hold familial links with the corporation – new members had to prove they had been 'beyond the seas merchant like'. Indeed, it was only by presenting demonstrable evidence of having actually 'traded merchandises by crossing the seas' that a merchant could join the corporation.[1] Through passing beyond England's shores and living in a foreign community overseas, young traders were deemed to have earned the necessary expertise to be part of the corporate body. As this suggests, in spite of holding a charter that specified privileges for trading in 'Poland, Sweden, Norway', the sea defined the character of the corporation, and the experience of travelling on the sea to lands beyond the sea separated its members from other Englishmen.[2] In early modern England, being a merchant was intrinsically linked to notions of travel and movement, of crossing boundaries, and of setting forth from the British Isles to trade with lands that bordered seas that stretched uninterrupted to Cadiz, Constantinople, or Canton.

This chapter will examine how trading companies operated as maritime organizations and will question how being seaborne organizations and communities affected the ways corporations, their members, and their employees understood and sought to navigate the world. In the first section, the importance of maritime activity for trading companies is examined. The formulation of trading companies as purveyors of seaborne trade is discussed through an assessment of the privileges granted in their charters and their relationship to the shipbuilding and naval supply industry in England. In doing so, it presents an assessment of these organizations that highlights both the ways their merchant members understood the connectivity of international

markets through maritime trade and their experience of ensuring necessary supplies for undertaking trade by drawing on this same interconnectedness for building and repairing ships. The second part of the chapter considers the ways trading companies used their great privileges as maritime organizations to establish, or attempt to establish, their control over maritime regions. Focusing specifically on the Muscovy Company's militarization of the North Atlantic fisheries and the East India Company's use of naval force around the Indian Ocean, it will show how trading companies sought to appropriate state-like powers to deploy military force in regions where states could impose the least control – at sea.

For English merchants, their unique experience, interest, and expertise as travellers beyond the sea was presented as justification for restricting participation in the form of institution that would come to dominate England's overseas activities – the corporation.[3] From the 1550s, British trading companies were at the forefront of attempts to connect Britain's consumers and manufacturers with far-flung places. Sovereignty was delegated to these institutions in return for their active participation in the spaces between Britain and markets across the world. Although usually based in English port towns and administrating trading posts on foreign shores, the ability of these corporate bodies to bridge the world's oceans made their success possible. In doing so, they operated in maritime environments where overlapping jurisdictions, customs, currencies, and peoples were common and adopting flexible trading practices was essential for a company's success. For example, regions such as the Mediterranean, Indian Ocean, and Baltic Sea bordered a plethora of states but were often treated as single entities in the charters of trading corporations. As Maria Fusaro has suggested, these connected spaces provide an array of avenues for engaging with broader global narratives through a maritime lens.[4] In the early modern period, 'maritime travel became the medium which allowed the emergence of networks of global communication and exchange' and it influenced the people, states, and economies connected through it.[5] As organizations with dual interests at home and abroad, trading companies took on seemingly disparate responsibilities that included acting as regulator, diplomat, explorer, colonizer, and merchant.

It was as actors within this globally connected environment that trading companies emerged as maritime organizations, operating in the fluid spaces between empires. As this suggests, English traders and trading companies participated in relationships, commercial or otherwise, in which they were rarely the dominant party. European trading companies undertook their activities alongside and in competition with Asian, African, and American merchants – traders who operated within their own pre-existing institutional structures and frameworks – who made European domination of commerce impossible.[6] Corporations were therefore operating within spaces of encounter and negotiation – in many cases only on the very edges of trading networks that were otherwise dominated by private traders and non-corporate actors.[7] Even in circumstances where they could dominate a local market, corporations were necessarily engaged with networks of traders, producers, and consumers who were not regulated by their corporate controls.[8] Indeed, it was these uncontrolled networks that allowed later entrants – such as the Scandinavian trading companies in China – to gain access to an already crowded market.[9] In these environments, employees of

corporations living within 'European' settlements or alongside non-European peoples, it was essential that they undertook trade in a way that facilitated their integration into local markets and their establishment of relationships with traders and producers of goods.[10] Both in cities at home and overseas, English merchants participated in social environments that were, to some degree, cosmopolitan or at least collaborative in nature, where the economic and cultural underpinnings of commercial success rested on cross-cultural exchanges.[11] Once overseas, English merchants depended on integrating into local trading networks, a process that brought them into contact with local and regional traders as well as international trading diaspora.[12] That is not to say, of course, that England's merchants participated in, or created, a globalized economy.[13] Instead, it is more useful to understand how individuals across the community of traders in England came to envisage themselves as participants in a series of exchanges that criss-crossed the globe – and were brought about through maritime connectivity.[14] In this way, English merchants, as part of corporations or acting as private traders, were able to operate as part of a widespread diasporic community, connected through common behavioural standards and customs but disconnected from the state or any singular, centralizing authority.[15] The role of trading companies was to provide structure and support for these traders, taking on responsibilities in governance that, at one time or another, regulated everything from their members' speech to making declarations of war.

In order to effectively operate in this way, many English trading companies 'were endowed with many of the characteristics of a state, including the capacity to wage war in furtherance of their interests', a privilege that was utilized more often than not through the application of maritime violence.[16] Indeed, trading corporations – especially in an English and Dutch context – have been presented by numerous historians as institutions central to the rise and development of European empires in the early modern era.[17] From this perspective, the unique institutional structure that corporations provided are presented as a key means through which European people and states were able to take advantage of trading and colonizing opportunities across the world.[18] Of special importance was the suitability of corporations for spreading risk for individuals, reducing the need for state support, and providing a framework to monopolize national engagement with a specific market.[19] Organizations like these, and their European competitors, have been the subject of considerable study – especially in regards to their impact on international trade and as foundations for European empires.[20] As Janice Thomson has argued, 'mercantile companies were state-created institutions that used violence in the pursuit of economic gain and political power for both state and nonstate actors', and that through corporations 'rulers were able to exploit nonstate coercive capabilities in conquering or colonising larger areas of the globe'.[21] Through these means, corporate actors were able to use their maritime authority and power to dominate maritime regions – often a prerequisite for territorial conquest on land.[22] In this way, trading companies took organizational forms in which 'the use of violence was subordinated to the rational pursuit of profit'.[23] As maritime organizations, trading companies obtained privileges that allowed them to operate at sea in ways that would have been impossible for organizations acting within the borders of the English state.

The power deployed by these corporations at sea changed the way they sought to engage with international competitors and political authorities overseas. Whether for commercial or violent activity – sometimes undertaken by the same ships on a single voyage – the ability to deploy extensive naval forces became increasingly important for countries across northern Europe as they sought entry into and competed for valuable overseas markets.[24] Yet, for states in the sixteenth and early seventeenth centuries, the cost of employing such shipping was exorbitant, further encouraging merchants, particularly through trading companies and joint-stock funding mechanisms, to develop naval forces under private rather than state control.[25] Through these means, the vast majority of ships built in Britain during this period were constructed in private shipyards – both vessels intended for carrying goods across the Channel and those raiding Spanish possessions in the Caribbean.[26] First through these organizations, and later through the state's navy, sea power became a key strategy for maintaining Britain's trans-oceanic mercantile access and control as well as imposing authority over distant colonies.[27] For trading companies, their reliance on the sea for profits and purpose led them, not surprisingly, to oversee the deployment of vast fleets of ships from England's ports – bringing English merchants and goods into contact with people and markets across the world.

Trading companies and the sea

As the example of the Eastland Company's membership suggested at the start of the chapter, the sea was far more than simply an empty space between disparate ports – it was a means of constructing social identities.[28] Through their passage from England to foreign shores, merchants crossed a barrier that was not simply geographic but also cultural, religious, and political. The experience of travelling 'beyond the seas' and integrating into economic networks in other parts of the world meant that merchants were differentiated from traders and retailers whose activities were restricted to domestic markets. Not surprisingly, as these merchants came together to establish corporations to oversee and regulate English trade with overseas markets, they maintained a perspective that understood the importance of the sea as a natural environment for traders and as a means of defining the specific privileges of the new organizations.

Trading companies such as the Eastland Company, Levant Company, and East India Company (EIC) all obtained rights and privileges to undertake activities that were not permitted to private merchants.[29] Corporations were able to regulate the activities of members, export and import specific goods, develop their own laws and orders for employees to follow overseas, and, most famously, monopolize English access to overseas markets.[30] Through the charters of these organizations, we can see how their authority was defined, in many cases, through geographies and activities that were distinctly maritime in nature. For example, the Levant Company's charter granted 'the only liberty, use and privilege of trading and trafficking and using feat of merchandise by and through the Levant Seas otherwise called the Mediterranean Seas'. It could be joined only by individuals experienced 'in the said trade beyond the seas within the dominions of the Grand Signor or Seignory or State of Venice'.[31]

Although the Ottoman and Venetian states were specified destinations, it was neither the goods from these regions nor, necessarily, access to them that the charter specified, but the conduct of trade via a maritime route through the 'Mediterranean Seas'. Although this was not a universal feature of corporate charters, English merchants were, inevitably, maritime actors when accessing any foreign market, and many of the new corporations of the Elizabethan and Stuart periods were granted wide-ranging privileges covering vast swathes of land and sea.[32]

One consequence of identifying corporate privileges through the maritime practices of their members was that it was possible for different organizations to claim unique rights to operate in the same part of the world. By restricting the scope of its charter to the Mediterranean Sea route, the Levant Company was left in a difficult situation when challenged by other English companies who used alternative means to reach the same markets. Aware of possible competition from the newly founded EIC, the Levant Company was careful to obtain a new charter that extended their privileges to regions 'lately discovered' by their employees – namely Persia.[33] Yet, by sending factors to Persia via the Mediterranean, passing through the Ottoman Empire, the Levant Company impinged upon the claims of the East India and Muscovy companies, who each held charters with privileged access to Persian markets via alternative maritime routes, via the Persian Gulf and Caspian Sea, respectively.[34] Over the course of the 1610s, each company would seek to gain advantage over the others by obtaining further privileges, not from the English Crown, but from the Persian Shah Abbas I.[35] The EIC was most successful in enforcing its claims, in part because its maritime link to Persia via the Indian Ocean was least dependent on the willingness of other territorial powers to allow access to Persian markets. The Levant and Muscovy companies depended on Ottoman and Russian support, respectively.[36] In this situation, the maritime focus of England's trading companies was a cause for competition between them as definitions regarding geographic reach that related to oceanic transport proved incompatible with participation in interconnected, global marketplaces.[37]

Even for companies established to undertake colonial activities, the influence of maritime experience and conceptions of overseas regions could have a considerable impact on how their privileges were presented.[38] For example, the Newfoundland Company was granted rights in its 1610 charter 'to inhabit and establish a colony or colonies in the southern and eastern parts of the country and isle or islands commonly called Newfound Land'. These lands included the coastal region most familiar to English fishermen from their voyages to the region, and described as 'destitute and so desolate of inhabitants'. Rather than physical landmarks – the interior of the region had hardly been explored – the Company was given dominion over the coast within Trinity Bay and the Bay of Placentia 'together with the seas and islands lying within ten leagues of any part of the sea coast'. Indeed, the purpose of the colony was also described as maritime in nature and was intended 'to secure and make safe the said trade of fishing' in the region.[39] Here, in the colonially focused Newfoundland Company, in spite of it making territorial claims in North America, we find corporation once again understood and conceived of within a maritime perspective of international commerce and empire.[40]

Through their charters and activities, England's early modern trading companies were influenced by the maritime structure of their members' interactions with the world.[41] In turn, by presenting themselves as maritime organizations, highlighting their unique experience of trading 'beyond the seas' to justify privileges that maintained their corporate organization, English merchants were also tying themselves to the idea that they were benefitting the commonwealth as supporters of not only overseas trade but also shipping, the sailing community, and the navy. In order to undertake their trades, it was important for merchants, and the companies that represented them, to have access to the resources necessary for their maritime activities. The scale of these activities can be seen, for example, in a 1609 list compiled by Trinity House (Table 19.1) that detailed how mercantile activities employed thousands of mariners and hundreds of ships.[42] Not surprisingly, the merchants who used these vessels and relied on this labour understood shipping as an essential part of their own livelihoods and dedicated considerable time to ensuring their future supply of shipping would not be hindered. Indeed, it was through these organizations, that English merchants were able to spread the cost of shipping, reducing costs for protection, transportation, and aggression across activities ranging from fishing in the North Atlantic to trading in Japan.[43] Through these activities, England's trading companies were not only using the sea as a means of carrying goods and connecting distant markets, they were changing the nature of English experiences and engagements with maritime regions across the world.

One of the strengths of trading corporations, and of less formalized partnerships, was the ability to pool resources to fund longer voyages, hire more mariners, and acquire specialist shipping suitable for maritime conditions across the world.[45] Requirements for merchant shipping ranged from smaller 5-ton to 100-ton vessels that plied routes across the Channel and to Spain and Portugal, to larger, ocean-going ships of 200 tons or above that were suitable for activities in the contested spaces of the Mediterranean, Caribbean, and wider Atlantic world. For voyages to Asia, the EIC

Table 19.1 Trinity House's list of current English shipping overseas, 1609[44]

Region	*Number of ships*	*Number of mariners*
East Indies	4 great ships	'many mariners'
Eastern Mediterranean	50 great ships	2,500
Spain	100	2,000
Bordeaux	80	2,000
Caen, Normandy, Brittany	40	600
Germany, Hamburg, Stade	40	800
Baltic	40	800
Muscovy	12	900
North Africa	10	200
Low Countries	7	200
North Sea	120	700

required larger ships still, often specially made to meet the challenges of trans-oceanic navigation, that ranged upwards toward the 1,400-ton *Trades Increase*.[46] Trading companies, as well as independent merchants, were making ever-greater demands on England's naval supplies as well as on international markets to provide them with essential materials.[47]

In order to meet these demands, trading companies were also responsible as key suppliers for vital materials for shipbuilding like timber, tar, pitch, and hemp. Traders to the Baltic, Scandinavia, and Muscovy, cooperating under the auspices of the Muscovy Company from 1555 and Eastland Company from 1579, obtained these items in exchange for woollen cloth, animal skins, lead, tin, cotton, coal, leather, ordinance, and saffron.[48] Private traders too, such as a group of merchants from Newcastle who in 1622 obtained royal support to send their own ships to the Baltic independently of the Eastland Company, were attracted to the region by the high demand for shipping supplies in England.[49] This same demand was also encouraging for proponents of colonial activities across the Atlantic world – in Ireland, Virginia, and New England – where shipbuilding materials were believed to be in plentiful supply. English colonies in these regions were tied to the sea, both as a means of transport and communication with the metropole, but also as an important source of economic activity. Detailed reports regarding the suitability of Virginia for colonization, for example, were clear in suggesting the plantation would 'furnish and provide this Kingdom with all such necessities' required for shipbuilding.[50] One author, Robert Johnson, paid particular attention to the viability of the new colony as a source of shipbuilding supplies, suggesting that those available in Virginia 'can hardly now be obtained from any other part of the world'. He was adamant that these supplies would 'yield gold or silver in any our bordering nations' and that Dutch and English shipbuilders were spending 'about three hundred thousand pounds sterling every year' on similar products. Not only would Virginian timber meet domestic needs, it would be bountiful enough to export to 'Hamburg, Holland, or other places' for 'fifty per cent better cheap than from Prussia or Polonia, from whence they are only now to be had'.[51] From Johnson's perspective, the North American colony would not only help supply merchants with much needed shipping, but also contribute to a redrawing of the international landscape for naval supplies.

In addition to supplying commodities necessary for ship building, trading corporations also sought to increase the supply of fully built and equipped ships, or, at the very least, the facilities for repairing vessels.[52] The most prominent actor in this area was the EIC, whose reliance on independent shipbuilders was quickly deemed inappropriate.[53] By 1603, the decision had been made that the Company should develop its own shipbuilding facilities.[54] The docks at Blackwall stemmed from the Company's decision to launch a single large ship in 1607, expanding throughout the 1610s and 1620s and becoming a vast complex with a huge workforce that had constructed over 70 ships by 1640 (see Table 19.2).[55] Later, with the decline of English trading companies in the North Atlantic as major commercial enterprises, private traders in England as well as international competitors, especially the Dutch, stepped in to provide shipping for carrying goods back and forth between developing English colonies and Europe.[56]

Table 19.2 Size of EIC ships built at their docks[57]

Size of ship in tons	*Number constructed*
1,000+	4
800–1,000	6
700–800	9
600–700	4
500–600	10
400–500	8
300–400	8
200–300	8
Pinnaces	16

Under the auspices of merchants and corporations, England's stock of shipping increased in the early modern period, although it struggled to keep pace with its closest competitors.[58] Viewed through the lens of merchants and trading companies, the challenges of naval supply in early modern England reveal an integrated perspective of trade and colonization.[59] Whether considering the use of Virginian timber for shipbuilding that might have carried goods to markets as varied as the Moluccas or Muscovy, or the use of hemp from Poland to rig ships that travelled to Guinea or Greenland, the connectedness of early modern trade and empire becomes clear. Furthermore, this connectivity of maritime supply and maritime trade serves to highlight the maritime qualities of early modern trading companies and their merchant members.

'The rule of the sea'

In addition to providing companies with the means to transport goods and people across the world, the maritime environment also enabled corporate actors a space to operate within that was beyond the reach of sovereign states. In the second part of this chapter, two examples where English corporations utilized their position as oceanic entities are examined: the Muscovy Company's 'occupation' of the North Atlantic and the EIC's application of naval power during commercial and diplomatic engagements with the Ottoman, Mughal, and Safavid empires. In each case, trading companies can be understood as entities operating within an environment where English conceptions of empire were developing rapidly, in terms of using discovery and access to claim authority in distant maritime regions, and as challenges to the limits of sovereignty held by the English state, foreign powers, and corporate bodies.[60]

In the case of the Muscovy Company, the sea was understood, or at least presented, by the Company as a territory that could be claimed and controlled like any other.[61] Having sent ships across the northern Atlantic region since the inception of the Company in 1555, the merchants who led the corporation saw no reason why exploration, trade, colonization, and fishing were not all perfectly acceptable avenues

for a trading company to seek profit. The sea was, after all, a domain that was integral to what it meant to be a merchant and the privileges of the organization. In the 1610s, the Company sought to supplement their struggling trade into Russia – a region wracked by political disturbances and war – by expanding its whaling activities in the North Atlantic. In 1612, the Muscovy Company was reported to have found 700 whales in the northern seas, killing 17 and returning to England with a rich stock.[62] The next year, the Company had elected to defend the Greenland fisheries by force from Dutch, French, and Spanish ships.[63] In 1615, the trading company's fleet numbered 14 ships and was deployed aggressively in the region – three were sunk during encounters with the Dutch.[64] In 1617, the Company 'furnished sixteen good ships in warlike manner well provided' and 'at their own charge maintain his majesty's right against the French, Spaniards, Hollanders and all other nations whatsoever'.[65] The decision to use military force to occupy the northern Atlantic fisheries was a risky move on the part of the trading company, both in terms of the great charge of maintaining warships in the region and the attempt to claim the legal right to impose their rule over the seas in the face of English and international competition.

To maintain their profitable activities in the region and justify this new militarization of their fleet, the Company sought to establish legal claims to monopolize control of the region's rich fisheries and was willing to invest in its own, heavily armed navy to drive off English and Dutch competitors. The Company presented an argument, described in detail by Sir Julius Caesar, which rested on the principle that they held a territorial claim over both lands and seas that employees of the Company had discovered. They maintained that fishing and whaling around Greenland had been 'first begun and continued by the singular industry and charge of the Company of Muscovy Merchants of London'.[66] Specifically, the Company highlighted how members had 'endeavoured to discover the unknown part of those northern seas and by sending forth of ships and pinnaces from year to year', and had travelled to 'the east and west coast of Nova Zembla'. They also described how members had 'at other times run along the coast of Groenland, discovered Cherry Island, and the part north and north-west from the Cape of Norway'. Through these voyages, the Company argued, 'by their incessant industry, labour and travail, and a continual freighting through those seas, at their expensive charge' they had 'discovered a land called Greenland, where finding great plenty of whales they applied themselves to the fishing of the whale'.[67] From the Company's perspective, funding voyages of exploration and maintaining trade with lands across the North Atlantic was enough to support claims over both lands and seas frequented by its ships.

On the other side of the world, in the far warmer climes of the Indian Ocean, Red Sea, and Persian Gulf, the merchants of the EIC were similarly coming to terms with the potential diplomatic and commercial implications of their entry into these regions' maritime ecosystems.[68] Although the EIC's ships were larger and more heavily armed than the ones used by English merchants trading to European ports or even in the Atlantic and Mediterranean, their main purpose was to transport goods safely alongside the factors who would sell them.[69] That being said, the potential military application of the Company's vessels was recognized by the corporation and, perhaps more importantly, by Mughal, Ottoman, and Safavid actors in Asia. While the

Muscovy Company sought to use its naval forces as a means of laying claim to vast swathes of oceanic territory, the EIC understood its maritime strength as a means of more effectively competing with other Europeans to gain access to the rich maritime trade of the region's powerful states. Indeed, it was as a powerful maritime institution that the EIC was able to present itself as a potential partner, or at least important resource, to local rulers.[70]

The EIC's relations with the Ottoman Empire in the Red Sea did not get off to a good start. In spite of long-standing English engagement with the empire's Mediterranean ports, which many of its investors and employees had experienced personally through the Levant Company, the decision was taken to attack ships carrying Portuguese passes and block entry to the Red Sea to all shipping. By seizing control of this maritime space, the English Company sought to undermine Portuguese trade in the region, but the effort raised tensions between the corporation and the Ottoman and Mughal empires, whose subjects' ships bore the brunt of the damage. Retaliation was swift, as the Ottoman Aga in Mocha began seizing English goods at the Red Sea port. In an attempt to obtain their release, the EIC's commander, Thomas Middleton, sought to use a display of naval power to obtain their release – the Aga was unimpressed. The Ottoman administrator pointed out that while the Company 'had the rule of the sea, so likewise he had the government of the land'.[71] In spite of English attempts to impose themselves as rulers of the sea as a means of undermining perceived Portuguese dominance of the region's trade, the necessity of maintaining positive commercial relations with occupants of its coastlines meant such efforts were far from effective. Indeed, it was by passing beyond the seas, in the manner of a merchant, that the EIC could be most effective in cementing its commercial position and even developing schemes to work with local rulers to undermine Portuguese competition in the region.

The EIC's precarious position as a maritime, mercantile organization also influenced relations with the Mughal government in northern India.[72] In 1612, the EIC sought to re-establish and advance English trade at Surat, a growing port and commercial centre, by obtaining permission to establish a permanent English factory in the town. From the Mughal perspective, the English merchants represented a maritime community that could supplement their income from trade in the region, but also one that was strictly restricted – in terms of its reach and authority – to the waters beyond the state's coastline. For example, the Mughal administrator in Debull rejected Portuguese pleas to refuse access to English shipping on the basis that both the Portuguese and English dealt with shipping abroad and should thus be treated the same.[73] In seeking to dominate oceanic trading from Surat, the EIC was buoyed by news that Mughal relations with the Portuguese, who the English understood to be their main competitors, were in rapid decline.

Amid English negotiations with the Mughal state, the importance of naval power as a means of demonstrating the value of the EIC was highlighted during a major encounter between the Company's and the Portuguese fleets. On 25 November, the merchants Thomas Aldworth, William Biddulph, and Nicholas Withington received news in Surat that there were '4 galleons ready to depart from Goa on purpose to take or to fire our ships'. The rumour proved true, and five days later the 'the galleons with

6 frigates to each of them towing, came near our ships, who also weighed anchor, and met them in sight of us and many other people standing on the shore to look at them'.[74] The episode proved fortuitous for the EIC, and in the ensuing conflict the Company's fleet ran 'three of their four ships on ground on the sands thwart of the Bar of Surat', in sight of Mughal dignitaries and the local population.[75] By demonstrating their naval superiority over the Portuguese, the English positioned themselves as traders not only capable of increasing trading profits but also as a possible counterbalance to Portuguese naval strength.

In January 1613, Thomas Kerridge, a merchant who had spent time at the Mughal court, informed the EIC that 'the Governor of Ahmadabad came to Surat to buy of our commodities for the king, with order that the English should be used with all kindness and permitted to trade in any nature they should require'. This included the right to settle factories. This order was confirmed shortly later in a *firman* 'written directly to the English in the Persian tongue'.[76] Kerridge believed that this agreement, as well as further concession at the port of Dabull, were a direct consequence of the English naval victory the previous year and noted how 'Portuguese power is decreased and they disesteemed since their fight with our ships'. In the future, Kerridge suggested, local support would only increase as English naval force and trade would 'bring them like profit' and 'doubtless they would expel the Portuguese' once the EIC had proved themselves competent long-term partners.[77] The EIC's naval strength, as this episode suggests, was not a suitable means of imposing the English merchant's demands on rulers in the Indian Ocean world, but it was a viable means of demonstrating the Company's suitability as a maritime partner of the major political and economic powers in the region.

Shifting to the Persian Gulf, the EIC's engagement with the Safavid state rested, in part, on the perceived strength of the English traders as a maritime power. Throughout the 1610s, the EIC had sent numerous merchants into the region, establishing a successful but relatively small commercial presence. This limited presence expanded quickly and dramatically in 1622 when an agreement was made between the EIC and Persia to launch an attack on the Portuguese-held town of Ormuz. Reports reached the English in 1621 regarding Portuguese efforts to restrict English access to the Persian Gulf as part of a broader strategy 'for the rooting out of the English out of India'.[78] In turn, the EIC ordered its own fleet to engage with Portuguese ships that had been harassing trade in the Indian Ocean. Proposed as a means of dispersing the Portuguese fleet and re-establishing commercial links into the Persian Gulf, the commanders of the fleet re-evaluated after receiving news that 'the Persian had lain siege [to a Portuguese fortress at Ormuz] unto some seven or eight months, and lost some eight or nine thousand men in siege of it'. Whereas previously the EIC had been supplicants with little to offer for greater commercial access, the commanders reported that now their Persian counterpart 'required our aid in these wars' and recognized how the Company's naval strength could shift the balance of power in the conflict. The Persian commander reminded the English that the diplomatic landscape had shifted, 'telling us it was our enemy as well as his' and offered 'great privileges for the future good of our Masters'. Quickly, an agreement was reached for 'the castle of Ormuz to be delivered to the possession of the English' and the English offered naval

support to the Persian forces who soon gained possession of the town.[79] Although the agreement with Persia regarding shared custody of Ormuz soon fell apart, this episode once again suggests how trading companies could utilize their capacities for maritime violence during negotiations for trading privileges. It was through their relationship to the sea, where institutional capacities enabled merchants to command forces normally reserved for sovereign states, that trading companies undertook activities that blurred the lines between commercial activity and imperial practice.

Conclusion

Whether the Muscovy Company's or the EIC's command of powerful naval forces, or the Levant Company's or Eastland Company's ability to impose regulations on merchants overseas, English trading companies benefitted greatly from their corporate privileges. Through this means, these corporations came to dominate large parts of England's maritime commerce, especially for the longest distance trades to Russia, the Mediterranean, and Asia. In doing so, these organizations reinforced connections between their members and the sea, using maritime travel as a means of justifying controls on who could undertake specific trades, where they were allowed to travel, and even how they were expected to act once there. Proponents of the corporate model justified this by highlighting the ways that the delegation of powers to these organizations benefitted the English state and commonwealth – through increasing trade, ensuring good behaviour of merchants overseas, undertaking diplomatic activities, or boosting England's naval supply.

Corporations did not have it all their own way. In 1615, Robert Kayll's *The Trades Increase* laid out in detail how he believed such companies were contributing to a dangerous decline in the stock of ships and mariners in England. Fuelled by the news that the EIC had recently lost a 1,100-ton ship, the *Trades Increase*, during a voyage to Asia, Kayll argued that in spite of building more great ships that any other organization, these were either away in Asia or laid up at the docks in London. Furthermore, building these ships had led to 'our woods extraordinarily cut down, in regard of the greatness of the shipping, which does as it were devour our timber', and consequent difficulties for further shipbuilding. The trade had decimated the maritime community as well – Kayll estimated 2,000 mariners had died on voyages to Asia. In order 'to redeem us out of this disaster' and 'repair our navy, breed sea men abundantly, enrich the subject, advance the King's custom, and assure the kingdom', the author proposed a simple solution: disband the EIC and invest England's wealth, manpower, and shipping in fishing.[80] Kayll's attack, although ultimately fruitless, highlighted many of the ways England's trading companies' maritime identity and focus could be a double-edged sword. By stressing their separation from the English domestic environment, placing the sea as a border between themselves and the normal activities of citizens, trading companies could be undermined. In the second half of the seventeenth century, as the English state came to stake an ever-greater claim over the activities of Englishmen overseas and sought to regain delegated maritime powers and strength, trading companies began to lose many of the bargaining chips that had allowed them, for so long, to operate in the maritime spaces that merchants had sought to claim as their own.

Notes

1 Company of the Merchant Adventurers of York Archive [CMAY], Acts and Ordinances of Eastland Merchants, f. iii. Requirements for time spent overseas was reduced to two years in 1617. CMAY, Acts and Ordinances of Eastland Merchants, f. 5–7, 18 March 1617.

2 CMAY, 1/5/3/5/1. Letter from Thomas Pullison and Thomas Russell to the Mayor and Aldermen of the City of York, 2 September 1579.

3 For a recent survey of English corporations' engagement in overseas activity, see W. Pettigrew and D. Veevers (eds), *The Corporation as a Protagonist in Global History, 1550–1750*, Leiden: Brill, 2018.

4 M. Fusaro, 'Maritime History as Global History? The Methodological Challenges and a Further Research Agenda', in M. Fusaro and A. Polónia (eds), *Maritime History as Global History*, Liverpool: Liverpool University Press, 2010, pp. 267–82.

5 Fusaro, 'Maritime History', pp. 274–5.

6 S. Chaudhury and M. Morineau (eds), *Merchants, Companies and Trade: Europe and Asia in the Early Modern Era*, Cambridge: Cambridge University Press, 1999, pp. 1–9.

7 A. Brock, 'Asian Influences on the Commercial Strategies of the English East India Company', in W. Pettigrew and M. Gopalan (eds), *The East India Company, 1600–1857*, Delhi: Palgrave, 2016, pp. 44–59; A. Clulow, *The Company and the Shogun: The Dutch Encounter with Tokugawa Japan*, New York: Columbia University Press, 2013; C. Antunes and J.V. Roitman, 'A War of Words: Sephardi Merchants, (Inter)national Incidents, and Litigation in the Dutch Republic, 1580–1640', *Jewish Culture and History* 13, 2015, pp. 1–23. For this phenomenon in the Atlantic World, see D. Hancock, *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735–1785*, Cambridge: Cambridge University Press, 1995. On Eurasian trade, see S. Dale, *Indian Merchants and Eurasian Trade, 1600–1750*, Cambridge: Cambridge University Press, 1994.

8 B. King and M. N. Pearson, *The Age of Partnership: Europeans in Asia before Dominion*, Honolulu: Hawai'i University Press, 1979; S. Subrahmanyam (ed.), *Merchant Networks in the Early Modern World*, Aldershot: Routledge, 1996.

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27 Later, 'protection costs' would be supplemented by state-held naval power. See F. Lane, '"National Wealth and Protection Costs" and "The Economic Meaning of War and Protection"', in *Venice and History: The Collected Papers of Frederic C. Lane*, Baltimore, MD: Johns Hopkins University Press, 1966, pp. 373–82 and pp. 383–98. See also N. A. M. Rodger, 'From the "Military Revolution" to the "Fiscal-Naval State"', *Journal of Maritime Research* 13/2, 2011, pp. 119–28.

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29 For an overview of the relationship between the English state and trading companies, see M. N. Pearson, 'Merchants and States', in J. D. Tracy, *Political Economy*, pp. 87–94.

30 For an analysis of how companies undertook the governance of employees, see E. J. Smith, 'Governance', in W. Pettigrew and D. Veevers (eds), *Corporation as a Protagonist*, pp. 164–82.

31 C. T. Carr (ed.), *Selected Charters of Trading Companies, AD. 1530–1707*, London: Selden Society, 1913, pp. 32–6.
32 The EIC certainly obtained the largest privileges geographically (everything reached by sea between the Cape of Good Hope and the Straits of Magellan) but other companies were granted much greater control over overseas territories. In America, it was typical for a company to receive a grant that covered a certain stretch of coast that stretched inward indefinitely, essentially as far as the Pacific coast of North America.
33 These details are taken from a copy of the charter obtained by Bristol's Merchant Ventures, who felt threatened by the Levant Company's increased powers. Bristol Archives, SMV/6/1/5/6, f. 6. Levant Company Charter, 1601.
34 TNA, SP 14/72, f. 209. Letter from John Chamberlain to Dudley Carleton, 29 April 1613.
35 BL, IOR/E/3/2, ff. 155–6. Letter from John Crowther to the East India Company, 26 December 1614.
36 The EIC was encouraged, in particular, by rumours that Abbas I was seeking to make a partnership with a European maritime power to export silk and circumnavigate the traditional route through the Ottoman Empire. BL, IOR/E/3/5, f. 10. Letter from Edward Connock to the East India Company, 2 April 1617. The EIC was similarly well positioned to counter the threat of interlopers, at least in the early decades of the seventeenth century. The greater threat to their monopoly came from company employees who sought to trade privately in contravention of the corporations' laws and regulations. See E. Erikson, *Between Monopoly and Free Trade: The English East India Company*, Princeton, NJ: Princeton University Press, 2014.
37 International competition and domestic interlopers both provided challenges for English and European trading companies. See C. Antunes and A. Polónia (eds), *Beyond Empires: Global, Self-Organising, Cross-Imperial Networks, 1500–1800*, Leiden: Brill, 2015; C. Antunes and J. L. L. Gommans (eds), *Exploring the Dutch Empire: Agents, Networks and Institutions, 1600–2000*, London: Bloomsbury, 2015.
38 The presentation of colonies as part of an integrated Atlantic maritime space in part reflects this. See, for example, A. J. Horning, *Ireland in the Virginia Sea: Colonialism in the British Atlantic*, Chapel Hill: University of North Carolina Press, 2013.
39 Carr, *Selected Charters*, pp. 51–6.
40 However, it is worth noting that French firms (not trading companies in the traditional sense but large family businesses such as the Gaigneurs') were employing shipping, deploying people, and exchanging commodities on a scale that provided considerable competition to their English counterparts. See, J. F. Bosher, 'The Gaigneur Clan in the Seventeenth-Century Canada Trade', in O. U. Janzen (ed.), *Merchant Organisation and Maritime Trade in the North Atlantic, 1660–1815*, Liverpool: Liverpool University Press, 1998, pp. 15–51.
41 Trading companies contained many members who participated in multiple corporate organizations simultaneously, allowing considerable movement of ideas and experience between institutions. See, E. Smith, 'The Global Interests of London's Commercial Community, 1599–1625: Investment in the East India Company', *The Economic History Review* 71/4, 2018, pp. 1118–46.
42 BL, Lansdowne MS 142, f. 304. The placement of English shipping, 1609.
43 For the relationship between shipping, economic growth, and trade see R. W. Unger (ed.), *Shipping and Economic Growth, 1350–1850*, Leiden: Brill, 2011.
44 BL, Lansdowne Ms 142, f. 304. The placement of English shipping, 1609. The details of shipping for coastal trade have been removed from this table.
45 This contributed to reducing transaction costs for international trade, see D. North, 'Institutions, Transaction Costs, and the Rise of Merchant Empires', in J. D. Tracy (ed.), *Political Economy*, pp. 22–40. The EIC's charter, for example, justified the organization's joint-stock model in part as a means of increasing England's shipping. BL, IOR/A/2, 'Charter for the East India Company, 1600'.
46 K. N. Chaudhuri, *The English East India Company: The Study of an Early Joint-stock Company, 1600–1640*, London: Frank Cass and Co., 1965, p. 95; BL, IOR/B/5, 30 January 1615.

47 A similar trend was apparent in the United Provinces, where the Dutch East India Company was developing its naval capacity at a pace that far outstripped its English counterparts. By 1625, it employed around 3,200 people on its ships. J. de Vries and A. Van der Woude, *The First Modern Economy: Success, Failure, and Perseverance of the Dutch Economy, 1500–1815*, Cambridge: Cambridge University Press, 1997, p. 462.

48 For the Muscovy Company, see T. S. Willan, *The Early History of the Russia Company, 1553–1603*, Manchester: Manchester University Press, 1956. The organization of the Eastland Company was described during a dispute with the Merchant Adventurers trading company, CMAY, 1/5/3/5/1. Thomas Pullison and Thomas Russell to the Merchant Adventurers of York, 2 September 1579. For more information, see R. W. K. Hinton, *The Eastland Company and the Common Weal*, Cambridge: Cambridge University Press, 1959.

49 Kent History and Library Centre [KHLC], U269/1/OE239a, m. 5682. Petition from the Eastland Company, 1622.

50 Virginia Company, *A True and Sincere Declaration of the Purpose and Ends of the Plantation Begun in Virginia*, London, 1610, pp. 2–4.

51 R. Johnson, *Nova Britannia*, London, 1609, p. C3.

52 Here, too, the English lagged behind their Dutch competitors, and the close relationship between the Dutch state and its East India Company resulted in the development of a vast naval and military complex. See P. Brandon, *War, Capital and the Dutch State (1588–1795)*, Leiden: Brill, 2015; J. P. Puype, *The Arsenal of the World: The Dutch Arms Trade in the Seventeenth Century*, Amsterdam: Batavian Lion International, 1996.

53 For a detailed examination of the EIC's docks and the Company's relationship with the maritime communities in Stepney and Wapping, see W. A. Pettigrew and E. Smith, 'Corporate Management, Labor Relations, and Community Building at the East India Company's Blackwall Dockyard, 1600–57', *The Journal of Social History*, 2018. DOI: 10.1093/jsh/shy083.

54 H. Stevens (ed.), *Dawn of British Trade to the East Indies: As Recorded in the Court Minutes of the East India Company, 1599–1603*, London: Henry Stevens and Son, 1886, pp. 6, 8, 27, 92.

55 BL, IOR/B/2, 24 August 1607; IOR/B/5, 29 April 1614; IOR/B/6, 30 July 1619; IOR/B/8, 19 September 1621; IOR/B/9, 2 September 1624 and 6 November 1624. Yet, in spite of these efforts, the EIC declined as a producer or employer of maritime resource. By comparison, between 1600 and 1635 the Dutch maritime labour market increased in size, almost doubling the number of people employed on Dutch ships from around 30,000 to close to 60,000 mariners. Much of this increase was fuelled by the massive growth of the VOC's operations in Asia that went from employing fewer than 5,000 mariners in 1607 to around 17,000 in 1635. The Dutch West India Company (WIC) similarly drew on the international labour market to employ around 14,000 men during the company's most active period. See J. van Lottum and J. Lucassen, 'Six Cross-Sections of the Dutch Maritime Labour Market: A Preliminary Reconstruction and its Implications (1610–1850)', in R. Gorski (ed.), *Maritime Labour: Contributions to the History of Work at Sea, 1500–2000*, Amsterdam: Aksant, 2007, pp. 27, 31. Indeed, the EIC's shipping was modest in comparison to that of other merchants operating in the region. By around 1600, the Chinese Yüehkang trading network was serving all the major ports of southern China through the employment of almost 200 junks, which carried goods from across maritime Asia. See T. Tungho, 'Chinese Overseas Trade in the late Ming Period', in *Proceedings, International Association of Historians of Asia, Second Biennial Conference*, Taipei: Taiwan Provincial Museum, 1962, pp. 429–57. In just one example from this region, the Chinese 'pirate' and 'sea lord' Zheng Zhilong would come to command a fleet of hundreds of ships that was capable of defeating both Asian and European fleets in the 1630s. See D. D. Ho, 'The Burning Shore: Fujian and the Coastal Depopulation, 1661–1683', in T. Andrade and X. Hang (eds), *Sea Rovers, Silver, and Samurai: Maritime East Asia in Global History, 1550–1700*, Honolulu: Hawai'i University Press, 2016, pp. 262–4.

56 See, for example, V. Enthoven and W. Klooster, 'The Rise and Fall of the Virginia-Dutch Connection in the Seventeenth Century', in D. Bradburn and J. Coombes (eds),

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60 D. H. Sacks, 'The True Temper of Empire: Dominion, Friendship and Exchange in the English Atlantic, c. 1575–1625', *Renaissance Studies* 26/4, 2012, p. 531.

61 The Muscovy Company, like other English corporations, made these claims in an international legal context that was keenly debating the efficacy of 'free' or 'closed' maritime spaces. See, for example, M. Brito Viera, 'Mare Liberum vs. Mare Clausum: Grotius, Freitas, and Selden's Debate on Dominion over the Seas', *Journal of the History of Ideas* 64/3, 2003, pp. 361–77.

62 TNA, SP 14/70, f. 49. Letter from the Earl of Northampton to James I, 2 August 1612.

63 TNA, SP 14/74, f. 171. Letter from John Chamberlain to Dudley Carleton, 27 October 1613.

64 TNA, SP 91/2, f. 9. Proposal from the Muscovy Company, 22 April 1615.

65 BL, Lansdowne MS 142, ff. 389–90. Petition from the Muscovy Company, 22 January 1617.

66 BL, Add MS 14027, f. 172. Sir Julius Caesar's answer to the complaint of the Low Countries touching the fishing of whales upon the coast of Greenland, 13 January 1614. The Muscovy Company's claim was presented in detail, see TNA, SP 14/76, f. 100a. The Muscovy Company's *True Declaration of the Discovery of the Many Lands, Islands, Seas, Ports, Havens & Creeks lying in the North-west, North, and North-east of the World*, 28 March 1614.

67 BL, Lansdowne MS 142, ff. 389–90. Petition from the Muscovy Company, 22 January 1617.

68 The EIC was part of a process of interaction by European trading companies that made a substantial impact on local, regional, and international markets in Asia. See N. Steensgaard, *The Asian Trade Revolution of the Seventeenth Century: The East India Companies and the Decline of the Caravan Trade*, Chicago, IL: The University of Chicago Press, 1974.

69 From an international perspective, the English presence was still minor. In addition to their comparatively small production of maritime resources detailed above, between the East India and Levant companies, English merchants exported around half a million rixdollars to Asia in 1650, while the VOC carried almost twice as much bullion into these markets. See L. Blussé, 'No Boats to China: The Dutch East India Company and the Changing Pattern of the China Sea Trade, 1635–1690', *Modern Asian Studies* 30/1, 1996, p. 53. As Jaap Bruijn has put it, 'the Dutch East India Company (VOC) maintained a vast network of shipping connections' that transported goods back and forth between Europe and Asia as well as acting as a carrier within the inter-Asian trade. Between 1602 and 1795, the company oversaw 4,730 outbound and 3,358 homeward voyages. See J. R. Bruijn, 'Between Batavia and the Cape: Shipping Patterns of the Dutch East India Company', *Journal of Southeast Asian Studies* 11/2, 1980, p. 251.

70 The relationship between EIC naval power and diplomacy in the Indian Ocean has been examined in E. Smith, 'Naval Violence and Trading Privileges in Early Seventeenth-Century Asia', *International Journal of Maritime History* 25/2, 2013, pp. 147–58.

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72 For an examination of the Mughal response to increasing maritime trade, see J. Lally, 'Maritime Expansion and (De)globalisation? An Examination of the Land and Sea Trade in Seventeenth-century Mughal India', in M. Fusaro and A. Polónia (eds), *Maritime History as Global History*, pp. 73–94.

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77 BL, IOR/E/3/1, f. 176. Letter from Thomas Kerridge to the East India Company, January 1613.
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20

Transatlantic tubers

New World potatoes in early modern English literature

Edward McLean Test

After Christopher Columbus 'discovered' the New World in 1492, European sailing ships brought the Western and Eastern hemispheres together in new ways, creating a network of trading nodes across the globe. The meeting of the New and Old Worlds was a confluence of exciting and often overwhelming associations, burgeoning with new interstices of materials, knowledge, and trade. As the natural resources of the New World (tobacco, codfish, lumber, gold, etc.) took hold of Europe, so too did the development of capitalistic production. As Immanuel Wallerstein and Aníbal Quijano suggest in their analysis of the development of capitalism: 'The Americas were not incorporated into an already existing capitalist world-economy. There could not have been a capitalist world-economy without the Americas'.[1] In the sixteenth century, European countries exploring the New World concentrated heavily on the commodities that came from the Americas: commodities that could be produced, transported, marketed, and sold throughout the world. During this time of global expansionism, the English mercantilists Thomas Mun, Edward Misselden, and Gerard de Malynes promoted trade as the source of wealth; the possession of land in the New World was not just about conquest, but also about access to natural resources. Significantly, Thomas Mun writes, 'We get more by the Indian wares than the Indians themselves'.[2] Whether it was gold from Peru, spices from India, or tubers from South America, merchants hungered to trade in the materials that crossed the oceans, and writers mythologized those new materials in poems and plays.

New World plants were one of the central actors in this formative moment in global history. The agriculture of indigenous peoples shaped European society, and subsequently English literature, in new and startling ways. Indeed, the study of botany in Europe began *after* vessels returned with numerous new plants from the New World; the first modern medical garden was founded in Padua in 1545. After Columbus, an *indigenization* of Europe ensued, which assured that the colonizer and the colonized mutually constituted the early modern world. This study views the Americas – and

specifically the potato – as an active and crucial participant. The sixteenth-century potato was not the ubiquitous spud it is today. The sweet potato (*Ipomoea batatas*) was a rare culinary delight, often candied, while Europeans initially eschewed the common potato (*Solanum tuberosum*). The toxicity of the latter's leaves, stem, and flowers (they belong to the family of nightshades) could be deadly, so it was avoided as a culinary item for decades despite the tuber having no dangerous toxins. By the late seventeenth century, however, both types of potatoes were widely consumed.

The potato struck William Shakespeare's fancy in *Troilus and Cressida* (1602) when the rather lewd Thersites comments to a jealous Troilus while the two of them spy on Cressida with her rival lover in the Greek encampment: 'How the devil Luxury, with his fat rump and/potato-finger, tickles these together! Fry, lechery, fry!'[3] In 1623, the same year that Shakespeare's First Folio was published, Henry Cokeram produced a new edition of the *English Dictionarie*, where the headword 'luxury' was glossed as meaning 'lecherie, riotousnesse'.[4] Going back to old English, Geoffrey Chaucer treats the deadly sin of lechery in *The Parson's Tale* as *De Luxuria*. Luxury, as Shakespeare knew it, was interchangeable with lechery. These definitions help explain the lasciviousness in the above quotation by Shakespeare, where the bawdy Thersites speaks of 'fat rumps' while he spies on Cressida with her rival lover. But, why 'potato-finger'?

In today's culture, a potato is hardly associated with sexual virility; yet, in the sixteenth and seventeenth centuries, the tuber was considered to be a powerful aphrodisiac. In 1577, William Harrison notes in *The Description of England*, 'the potato and such venerous roots are brought out of Spaine, Portingale and the Indies to furnish up our bankets'; likewise, in 1596, Thomas Dawson refers to such potato dishes as being made to 'excite Venus'; and John Gerard (who poses with a potato flower on the title page of his Herbal; see Figure 20.1) writes in 1597 that potatoes are good for 'vehemently procuring bodily lust'.[5] Indeed, throughout the seventeenth century, poets and playwrights frequently allude to the sexual qualities of the potato with phrasing such as 'my former Punck the Potato-woman', 'will your Ladiship have a Potato-pie, tis a good stirring dish', and 'their Lecheries lend; Potato, Skirret, and Eringo'.[6] The elongated sweet potato and somewhat phallic shape of other potatoes cannot account for this lusty attribute alone. Prior to sailors and merchants bringing potatoes from the New World, England already had other phallic-shaped vegetables, such as carrots and cucumbers, which never took on such a profound sexual aura. Shakespeare is one of many early modern writers to use the word 'potato' in such a bawdy fashion. Why did the New World potato elicit sexual lust in the sixteenth and seventeenth centuries? Why did early modern writers, such as Sir Walter Ralegh, William Shakespeare, John Fletcher, and Philip Massinger, so notably refer to potatoes in relation to sexual pursuits?

The aphrodisiacal attributes of the potato derive from the tuber's origin in the Americas, a source that was well established in early modern texts. This transatlantic origin reflects how important the cultivated plants of Native Americans became to the diet, myths, and urban legends of European society. In this manner, the sexuality associated with the potato took 'root' as a participant in the development of the early modern world – a material thing with agency, we might say. 'The single most important new development in the history of early modern things', writes Paula Findlen, 'concerns the geography of objects and its implications for seeing the

Figure 20.1 John Gerard, *The Herball, or, Generall historie of plantes*. London: Printed by Adam Islip, Joice Norton, and Richard Whitakers, 1636. Frontispiece.

Courtesy of the Missouri Botanical Garden, Peter H. Raven Library.

history of material culture as an essential component of global history'.[7] As Findlen suggests, material things from the Americas – tobacco, gold, silver, cochineal, codfish, and potatoes – shaped global history as much as the intrepid New World explorers discovering, colonizing, and exploiting the lands.[8] 'The thing has a history', writes Elizabeth Grosz; 'it is not simply a passive inertia against which we measure our own activity. It has a "life" of its own'.[9] The fact that plants 'live' is beyond question, but discovering *how* they live drives this investigation.

The seafarers and explorers who visited those far-off lands wrote about the New World and its inhabitants in overtly feminine and sexualized language. Columbus, for instance, commented that the Earth was not round, as previous cartographers suggested, but shaped like a breast or pear, and America was the nipple.[10] In this sense, New World potatoes come quite literally from a procreating Mother Earth: fertile, abundant, and seductive. Even the name 'America' is the feminization of the explorer Amerigo Vespucci's first name. Tellingly, Vespucci relates explicit sexuality in his letters, such as 'the women being very libidinous make the penis of their husbands swell to such a size as to appear deformed', perhaps resembling a gnarled and bulbous tuber.[11] Englishmen perform a kind of foreplay by stepping 'their glad feet on smooth Guiana's breast' in George Chapman's *De Guiana, Carmen Epicum*; and Ralegh's *The Discoverie of Guiana* (1595) describes 'a countrey that hath yet her maidenhead', which awaits penetration by male sea voyagers.[12] The feminization and sensational sexualizing of the New World and its female inhabitants became a constant in the literature of exploration; as Louis Montrose contends, Virginia 'reconstitutes the land as a feminine place unknown to man' and Mary C. Fuller writes, 'Ralegh's feminization of Guiana […] construes discovery and conquest as a form of sexual violence'.[13] Identifying the origins of the sexualized potato in the feminized spaces of the New World reveals how non-human bodies such as the potato are more than just objects; rather, they are lively and self-organizing 'actants', as Jane Bennett argues in *Vibrant Matter*. Bennett writes 'edible matter is an actant operating inside and alongside humankind, exerting influence on moods, dispositions, and decisions'.[14] Europeans might have succeeded in colonizing the New World, but potatoes succeeded in colonizing the stomachs and libidos of the Old World.

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The chroniclers of New World exploration act as mediators, providing a voyeuristic and tantalizing glimpse of the Native Americans for armchair adventurers in Europe. One of the more popular travel writing translations in England was of the Italian chronicler of the New World, Pietro Martire d'Anghiera, whose work was translated by Richard Eden in 1555, and later in 1577 by Richard Jugge. In this passage from the 1555 edition, d'Anghiera provides a rather libidinous account of Columbus' second voyage during a visit to the court of Anacauchoa:

> There mette them a company of xxx. women, beinge al the kynges wyues and concubines, bearinge in theyr handes branches of date trees, singinge and dauncinge: They were all naked, sauynge that theyr pryuie partes were couered with breeches of gossampine cotton. But the virgins, hauynge theyr heare hangynge

> downe abowte their shulders, tyed abowte the foreheade with a fyllet, were vtterly naked. They affirm that theyr faces, brestes, pappes, handes, and other parts of theyr bodyes, were excedynge smoothe, and well proportioned: but sumwhat inclyning to a louely brown. They supposed that they had seene those most beawtyfull *Dryades*, or the natyue nymphes or fayres of the fontaynes whereof the antiquites speake so muche.[15]

D'Anghiera describes the naked bodies of the native women in an enticing manner and, more importantly, compares them to nymphs and fairies of antiquity and folklore. In European texts, there is something recognizably mythical about indigenous peoples of the Americas. The women are like wood nymphs ('*Dryades*'), and fairies ('fayres') frolicking in some mystical forest fountain, pricking the hearts and minds of male European explorers with Eros and sexual fantasy. As Anne McClintock puts it in *Imperial Leather*, 'the Americas had become what can be called a porno-tropics for the European imagination – a fantastic magic lantern of the mind onto which Europe projected its forbidden sexual desires and fears'.[16] It was a titillating read at home for armchair travellers, or as Stephen Greenblatt writes, 'A screen onto which Europeans projected their darkest and yet most compelling fantasies'.[17] This transatlantic world – propelled by maritime trade in new materials and captured by writers in new myths – delivered the aphrodisiacal tuber to the shores of England and into English literature.

The potato notably appears in Fletcher and Massinger's *The Sea Voyage* (1622). The play reveals many of the same colonial impulses as Shakespeare's *The Tempest*, to which it is often, and rightly, compared.[18] Like Shakespeare's *The Tempest*, this play involves extreme deprivation, shipwreck on an unnamed island, a sister losing her brother, characters referred to as monsters, and a Gonzalo-like commonwealth (albeit run by Amazonian-like women). While Shakespeare alludes to the racial inequities of servitude in the colonies through the characters of Caliban and Ariel, Fletcher and Massinger point to the more straightforward struggles of filling one's belly and satiating one's sexual appetite. The female characters in the *The Sea Voyage* are first described as sensual 'fairies':

> *Albert*: They are come. Stand ready, and look nobly,
> And with all humble reverence receive 'em,
> Our lives depend upon their gentle pities,
> And death waits on their anger. [*Takes Aminta aside*.]
> *Morillat*: Sure they are fairies.
> *Tibalt*: Be they devils, devils of flesh and blood,
> After so long a Lent and tedious voyage,
> To me they are angels.
> *Franville*: O for some eringoes!
> *Lamure*: Potatoes, or cantharides.
> *Tibalt*: Peace, you rogues
> that buy abilities of your 'pothecaries!
> Had I but took the diet of green cheese,
> And onions for a month, I could do wonders.[19]

These sea-travelling gallants and merchants are 'modelled on the younger sons of minor gentry', Anthony Parr observes, 'who hoped to find in the colonies the wealth and status denied them at home'.[20] The feckless castaways are not in their element, and the gentleman above are startled and confused by the sight of women, as if they are not real. Not only do they associate the female islanders with 'fairies', as d'Anghiera, but also they immediately wish for aphrodisiacs: 'eringoes' are the candied root of the sea holly; 'cantharides' is more contemporarily known as the Spanish fly.

Along with the potato, these apothecary drugs supposedly induce sexual desire and prowess in the person who ingests them. These 'things' make things happen to humans. 'Eating', writes Jane Bennett, 'constitutes a series of mutual transformations between human and nonhuman materials'.[21] Although the potato is not a conscious actant and has no verifiable aphrodisiacal properties, the tuber clearly transformed, and continues to transform humans. In the passage above, the character of Tibalt (the more temperate and sensible of the shipwrecked sailors) tosses aside the various strange and foreign aphrodisiacs (perhaps carried by the surgeon who accompanies them), opting for a local diet of more simple sexual invigorators of 'onions' and 'green cheese'.[22] The first encounter with the women of the isle does not induce fear or curiosity (they immediately dispel with the idea that they might be devils), but instead provokes a desire to have sex. Notably, the same arousal never occurs around their captain Albert's captive French virgin, Aminta, who had sailed with them prior to being marooned on the island. By the third act, the marooned group is starving and whittling away, but find themselves saved by a group of Amazons who provide food, and afterwards a promise of sex.

Fletcher and Massinger's French sailors suffer the lure of female islanders, like the sailors of Ulysses seduced by Circe, or the sailors who discover women on the Isle of Love far east by the Malay islands in Camões' *Os Lusiadas*. In early modern English literature, however, temperance and abstention are the more common approach of English men toward exotic females. Take the character of Acrasia, for instance, in the Bower of Bliss episode from Book II of Edmund Spenser's *Faerie Queene* (1590). Greenblatt argues in *Renaissance Self-Fashioning* that Spenser's Acrasia represents a seductive Native American woman. Spenser's libidinous Acrasia and her New World Bower of Bliss must be destroyed, as Greenblatt notes: 'a whole civilization was caught in a net and, like Acrasia, bound in chains of adamant; their gods were melted down, their palaces and temples razed, their groves felled'.[23] While the English promoted sexual temperance, their colonizing behaviours were anything but temperate, no matter how hard they tried to hide it rhetorically.

In *The Discoverie of Guiana*, Ralegh uses the potato as a way of distinguishing English planters from the Spanish conquistadors, noting that one of the greatest distinctions between the Spanish and English narratives about the New World is the English rebuke of the Spanish treatment of native women. The famous English editor of England's overseas exploration narratives, Richard Hakluyt, described Ralegh's feelings this way: nothing could tear Ralegh away from 'the sweet embraces of Virginia, that fairest of nymphs – though to many insufficiently known – whom

our most generous sovereign [Queen Elizabeth] had given you to be your bride'.[24] The nymphs of Virginia are not children of Queen Elizabeth, and certainly not hers to give away in marriage, yet this is what the colonial propaganda would have the people believe. As Montrose has argued, the sexualized landscape invites a form of sexual conquest, but notably 'Hakluyt's suggestion was more chaste', Daniel Carey notes, 'containing the story within a narrative of marriage, while making coy insinuations about hidden beauties'.[25] The English considered themselves kind planters (as compared to Spanish conquistadors), an idea borne out in the plantations – linguistically benign, but physically destructive of the land and the natives (and Africans). Whether explorers were conquistadors or planters, the bottom line was the same: the virgin land was available for the taking.[26]

The propaganda of the benign conqueror is particularly evident in Ralegh's *The Discovery of Guiana*, as exhibited by an edited version of the manuscript housed in Lambeth Palace (MS 250). Ralegh's original manuscript contains many passages describing the womanizing behaviours of the lusty English with the Native American women. The published text, which Joyce Lorimer has deftly analysed and edited, contains various marked-up edits by Sir Robert Cecil, which eliminate these references, and in some instances, confer some of the Englishmen's lewd behaviours on the Spanish. Lorimer notes that Cecil marked for excision a lengthy passage

> about Ralegh's roistering description of Guiana as a place where those willing to join the adventure could 'find store of pott companions,' drink pineapple wine, 'fytter for Princes, then for *borachos*,' buy themselves as many women as they wanted and smoke tobacco 'tyll they become bacon'.[27]

This passage did not appear in the published text. The language throughout the published version reveals the reserve of the English versus the lustiness of the Spaniards, particularly in a passage containing the potato, where the Spanish:

> tooke from them both their wiues, and daughters daily, and vsed them for satisfying their owne lusts […] But I protest before the maiestie of the liuing God, that I neither know nor beleeue, that any of our companie one or other, by violence or otherwise, euer knew any of their women, and yet we saw many hundreds, and had many in our power, and of those very yoong, and excellently fauored which came among vs without deceit, starke naked […] I suffred not anie man to take from anie of the nations so much as a *Piña*, or a *Potato* roote, without giuing them contentment, nor any man so much as to offer to touch any of their wiues or daughters: which course, so contrarie to the *Spaynards*.[28]

The passage above reveals colonial appetites: two edible plants from the New World, the piña (pineapple) and potato are linked with the practice of 'taking' women as sexual partners in the New World. England's martial men wanted to emulate the Spanish conquest; they defined 'the character of its overseas expansion', Richard

Helgerson writes, 'in terms of its relation to Spain', yet they controlled their ardent desires.[29] Ralegh's *The Discovery of Guiana* reveals just how duplicitous and intemperate the English were in their colonial discourse. Ralegh and his men reportedly abstain from any carnal pleasures with the Amerindians, which Montrose observes, 'provides proof of the ascendancy of (what Sir Philip Sidney would call) their erected wits over their infected wills'.[30] Yet Ralegh writes of the land in explicitly sexual language: Guiana is a virgin land that 'hath yet her maidenhead', as if it were awaiting male violation. Ralegh says he will free the Indians of their Spanish tyrants, but through giving them another master – the English. Indeed, according to Ralegh, the Indians already 'pledged' their allegiance to Queen Elizabeth by wearing necklaces with shiny coin pendants bearing 'her majesties picture […] with promise that they would become her servants thenceforth'.[31] Ralegh writes that he will not take so much as a *piña* or *potato*, yet he describes the other various 'commodities' of Guiana he hopes to market for profit with painstaking accuracy. Such duplicity is what Michel de Certeau, in *The Writing of History* calls, 'writing that conquers'. Inverting the common trope of European desire for the Americas, Ralegh's rhetoric serves to convince Elizabethan courtiers and merchantmen that it is the Amerindians who do the desiring. It is *they* who desire the English to conquer and colonize their countries; it is *they* who desire the English to liberate them from the Spanish.

Ralegh forcibly pronounces the innocence of the English by stating that they would not take anything from the land without first 'giving them contentment'; that is, a fair exchange as opposed to sexual satisfaction (although the sexual innuendo may be a holdover from lax editing). The passage is reminiscent of Columbus who first penned such rhetorical equivocation. Columbus writes in his first letter that he gave the natives worthless glass baubles and wiry trinkets, 'taking nothing in return'.[32] We know now, of course, that the Spanish, English, French, and Dutch did take something in return: *all* their land. By the time Ralegh wrote *The Discovery of Guiana* in 1595, the 'potato roote' was already well entrenched as an aphrodisiac and readers would have understood the sexual overtones of the passage.

The sexualized potato is one object that can contribute to the critical conversation about the location of Fletcher and Massinger's island. Some critics, like Gordon McMullan, have mapped the island to the Americas and the operations of the Virginia Company, while others, such as Gitanjali Shahani, look to the trading operations of the East India Company; notably, Jean Feerick, points to an intentional muddiness about the island's location.[33] Rather than directly proposing the location of the island, this essay contributes to the discussion of gender as it relates to English myths about the New World landscape, its inhabitants, and the transatlantic objects, such as the potato.

Over the years, the sexual myth of the potato swung pendulum-like between food and aphrodisiac: in the early sixteenth century the Spanish chroniclers wrote about a nondescript foodstuff; the aphrodisiacal qualities began to spread when the potato took root in European soil in the 1570s; by the mid-seventeenth century the tuber returns to a simple foodstuff, primarily for the poor. According to Francisco Lopez de Gomara's *Historia de las Indias* (1553), Columbus returned from the Caribbean in

1504 with 'batatas', or sweet potatoes, which he shared with Queen Isabella.[34] The earliest mention of the 'batata' (1516) appears in d'Anghiera's *Decades of the New World*: 'They dygge also owte of the ground certeyne rootes growing of theim selues, whiche they caule Botatas'.[35] The earliest most replete description occurs in Juan de Castellanos' record of an expedition in South America in 1536. Here, he compares the potato (though yet unnamed) to European truffles.

> [T]he houses were all stocked with maize, beans, and truffles, spherical roots which are sown and produce a stem with its branches and leaves, and some flowers, although a few, of a soft purple colour; and to the root of this same plant, which is about three palms high, they are attached under the earth, and are the size of an egg more or less, some round and some elongated; they are white and purple and yellow, floury roots of good flavor, a delicacy to the Indians and dainty dish even for the Spaniards.[36]

The first naming of the potato occurs in a passage notable for the utilitarian use of the common spud-like tuber in the Peruvian Andes, when Pedro Cieza de León writes in 1553,

> one is called potato, and is a kind of earth nut, which, after it has been boiled, is as tender as a cooked chestnut, but has no more skin than a truffle, and it grows under the earth in the same way.[37]

He further notes that many Spaniards got rich in New Spain simply by selling the potatoes to the mineworkers, 'where food for the thousands of workers was always in high demand'.[38] The earliest account of the potato as food crop was in Europe in the 1570s, where the account books of the Hospital de la Sangre at Seville show that they bought 19 pounds of 'patatas' in 1573, and by 1576 'patatas' regularly appear as part of their normal housekeeping records.[39] While Sir Francis Drake and Ralegh previously received credit for introducing the potato to Europe in the 1580s, the above account from a hospital in Seville clearly demonstrates that New World potatoes were growing in the gardens of mainland Europe (the Canary Islands register potato crops in the 1560s) at least by the 1570s, if not earlier.[40]

Like many similarly cultivated plants from the New World, the sweet potato and the more common 'spud' were frequently confused and the common name was used interchangeably; variations included batata, patata, potato, potado, potades, and potaton. The sweet potato was more expensive and consumed largely by wealthy aristocrats, considered more of a delicacy and only grown in southern warm climates. In England, the first textual mention of the 'venerous root' (likely a sweet potato) occurs in the same decade as the Spanish hospital documents.[41] These potatoes might have been imported for aristocratic banquets, but more likely the esculent was already growing in English fields, which suggests that they were the common spud as opposed to the rarer import. In what has become known as the Drake Manuscript, published around 1586, there are two drawings of yellow and purple potatoes (folio 10v, 23v, see Figure 20.2 for an example), or *patates* as they are labelled.

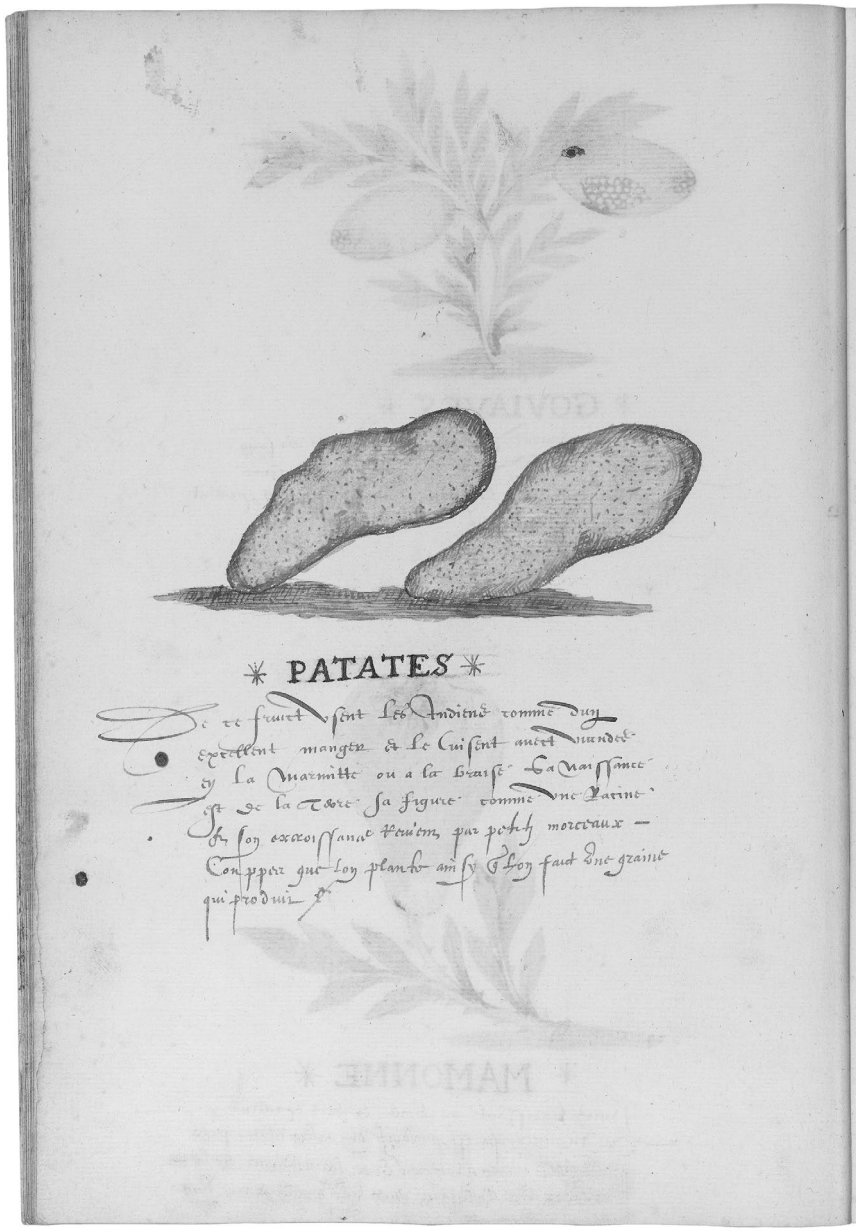


Figure 20.2 MA 3900 Histoire naturelle des Indes: manuscript, ca. 1586, fol. 10 verso Patates.

The Morgan Library & Museum. MA 3900. Bequest of Clara S. Peck, 1983.

The text below the drawing notes on folio 10v

> The Indians use this fruit as excellent nourishment and cook it with meat in a pot or braise it; it originates in the earth; is shaped like a root, and one can multiply it by cutting small pieces which one plants like a seed which grows.

The French adapted the word *patata* from the Spanish word *batata* (sweet potato).

In England, the more formative description of the potato and its lusty properties appears in John Gerard's *Herball* of 1597 (see Figure 20.3):

> This plant, which is called of some *Sifarum Peruvianum*, is generally of us called Potatus, or Potatoes .... There is not any that hath written of this plant, or saide any thing of the flowers, therefore, I refer the description therof unto those that shall hereafter have further knowledge of the same. Yet I have had in my garden divers roots .... (that I bought at the Exchange in London) where they flourished until winter, at which time they perished and rotted .... They are used to be eaten roasted in the ashes. Some, when they be so roasted, infuse them and sop them in wine: and others, to give them the greater grace in eating, do boil them with prunes .... Howsoever they be dressed, they comfort, nourish, and strengthen the bodie, procure bodily lust, and that with great greediness.[42]

Gerard poses on the frontispiece holding a potato flower (see Figure 20.1 above). Gerard left no clues as to why he wanted his portrait accompanied with a potato flower, but one can speculate that the vigour and virility associated with the 'venerous tuber' played a role in the decision – a sort of advertisement, if you will, for his manliness and virility.

In the same year, Shakespeare likely penned *The Merry Wives of Windsor* (1597), in which the infamous character of Falstaff enters the stage foolishly dressed as a deer with horns atop his head. Immediately upon seeing the object of his amorous desires, Mistress Ford, he exclaims:

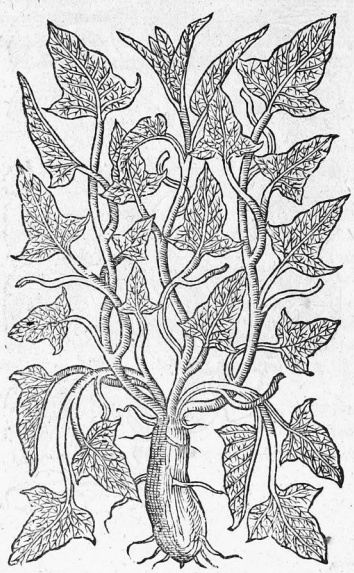
> My doe with the black scut! Let the sky rain potatoes; let it thunder to the tune of 'Green Sleeves'; hail kissing-comfits, and snow eringoes. Let there come a tempest of provocation, I will shelter me here.[43]

The sexual innuendos abound in this passage. A 'scut' refers to female genitalia as well as the tail of a deer or rabbit; 'Green Sleeves' is a popular tune about an unfaithful woman (which Mistress Ford would become if Falstaff had his way); 'kissing-comfits' were sweetmeats used as breath fresheners; and as mentioned earlier, 'eryngoes' are the candied root of the sea holly plant and considered an aphrodisiac. The potato is in sexually tempestuous company. The erectile function of eating potatoes, which the character Lamure clearly desires when he calls for '*Potatoes*' in *The Sea Voyage*, also occurs in Beaumont and Fletcher's *The Elder Brother* (written in 1617–19):

> A Banquet! – Well! Potatoes and eringoes
> And, I take it, cantharides! Excellent!

Of Potatoes. Chap.334.

Sisarum Peruuianum, siue Batata Hispanorum.
Potatus or Potatoes.



The description.

THis plant which is called of some *Sisarum Peruuianum*, or Skyrrits of Peru, is generally of vs called Potatus or Potatoes. It hath long rough flexible branches trailing vpon the ground, like vnto Pompions; whereupon are set rough hairie leaues, very like vnto those of the wilde Cucumber. There is not any that hath written of this plant, or saide any thing of the flowers, therefore I refer the description thereof vnto those that shall heereafter haue further knowledge of the same: yet haue I had in my garden diuers roots that haue florished vnto the first approch of winter, & haue growen vnto a great length of branches, but they brought not foorth any flowers at all; whether bicause the winter caused them to perish before their time of flowring, or that they be of nature barren of flowers, I am not certaine. The rootes are many, thicke, and knobbie, like vnto the rootes of Peionies, or rather of the white Asphodill, ioined togither at the top into one head, in manner of the Skyrrit, which being diuided into diuers parts and planted, do make a great increase, especially if the greatest rootes be cut into diuers gobbets, and planted in good and fertill ground.

The place.

The Potatoes grow in India, Barbarie, Spaine, and other hotte regions, of which I planted diuers rootes (that I bought at the exchange in London) in my garden, where they flourished vntill winter, at which time they perished and rotted.

The time.

It flourisheth vnto the end of September: at the first approch of great frosts, the leaues togither with the rootes and stalkes do perish.

The names.

Clusius calleth it *Battata, Camotes, Amotes,* and *Ignanes*: in English Potatoes, Potatus, and Potades.

The nature.

The leaues of Potatoes are hot and drie, as may euidently appeere by the taste. The rootes are of a temperate qualitie.

The vertues.

A The Potatoe rootes are among the Spaniards, Italians, Indians, and many other nations common and ordinarie meate, which no doubt are of mightie nourishing parts, and do strengthen and comfort nature, whose nutriment is as it were a meane betweene flesh and fruit, though somewhat windie; but being rosted in the embers, they do lose much of their windinesse, especially being eaten sopped in wine.

B Of these rootes may be made conserues, no lesse toothsome, wholesome, and daintie, than of the flesh of Quinces. And likewise these comfortable and delicate meates, called in shops *Morselli, Placentulæ* and diuers other such like.

C These rootes may serue as a ground or foundation, whereon the cunning confectioner or Sugar baker may worke and frame many comfortable delicate conserues, and restoratiue sweete meates.

They

Figure 20.3 John Gerard, *The Herball, or, Generall histoire of plantes*. Imprinted at London by Iohn Norton, 1597. Pages 780–1.

Courtesy of the Missouri Botanical Garden, Peter H. Raven Library.

They are vſed to be eaten roſted in the aſhes; ſome when they be ſo roſted, infuſe them, and ſop them in wine: and others to giue them the greater grace in eating, do boile them with prunes, and ſo eate them. And likewiſe others dreſſe them (being firſt roſted) with oile, vineger and ſalt, euery man according to his owne taſte and liking: notwithſtanding howſoeuer they be dreſſed, they comfort, nouriſh, and ſtrengthen the bodie, procure bodily luſt, and that with greedineſſe.

Of Potatoes of Virginia. Chap. 335.

Batata Virginiana ſue Virginianorum, & Pappus.

Potatoes of Virginia.

✣ *The deſcription.*

VIrginia Potatoes hath many hollowe flexible branches, trailing vppon the grounde, three ſquare, vneuen, knotted or kneed in ſundry places at certaine diſtances; from the which knots commeth foorth one great leaſe made of diuers leaues, ſome ſmaller, & others greater, ſet togither vpon a fat middle rib by couples; of a ſwart greene colour tending to rednes. The whole leaſe reſembling thoſe of the Parſnep, in taſte at the firſt like graſſe, but afterward ſharp & nipping the toong: from the boſome of which leaues come foorth long rounde ſlender footſtalks, whereon do grow very faire and pleaſant flowers, made of one entire whole leaſe, which is folded or plaited in ſuch ſtrange ſort, that it ſeemeth to be a flower made of ſixe ſundrie ſmall leaues, which cannot eaſily be perceiued, except the ſame be pulled open. The colour whereof it is hard to expreſſe. The whole flower is of a light purple color, ſtripped down the middle of euery folde or welt, with a light ſhew of yellownes, as though purple and yellow were mixed togither: in the middle of the flower thruſteth foorth a thicke fat pointell, yellow as golde, with a ſmall ſharpe greene pricke or point in the middeſt thereof. The fruite ſucceedeth the flowers, round as a ball, of the bignes of a little bulleſſe or wilde Plum, greene at the firſt, and blacke when it is ripe; wherein is contained ſmall white ſeede, leſſer than thoſe of Muſtarde. The roote is thicke, fat, and tuberous; not much differing either in ſhape, colour or taſte from the common Potatoes, ſauing that the rootes hereof are not ſo great nor long; ſome of them round as a ball, ſome ouall or egge faſhion, ſome longer, and others ſhorter: which knobbie rootes are faſtened vnto the ſtalkes with an infinite number of threddie ſtrings.

✣ *The place.*

It groweth naturally in America where it was firſt diſcouered, as reporteth *C. Cluſius*, ſince which time I haue receiued rootes hereof from Virginia, otherwiſe called Norembega, which growe and proſper in my garden, as in their owne natiue countrie.

✣ *The*

Figure 20.3 (*Continued*)

A priapism follows; and as I'll handle it
It shall, old lecherous goat in authority.[44]

For Fletcher, it seems, banquets without potatoes simply are not a satisfying or full meal, especially when sexual exploits are in the air.

The Sea Voyage is probably the most sustained early modern drama about hunger and sexuality in the New World, combining the two appetites continuously throughout the play. The play does not have the complexity of plot of *The Tempest*, but it has a tightly woven story line that undertakes aspects of maritime exploration that Shakespeare's play does not. Foremost are the islanders, Portuguese women shipwrecked and marooned on the island who have access to food and have learned the habits of Amazons for survival, as the character Rosellia, 'Governess of the Amazonian Portugals', relates:

Did fortune guide –
Or rather destiny – our bark, to which
We could appoint no port, to this blest place,
Inhabited heretofore by warlike women
That kept men in subjection? Did we then,
By their example, after we had lost
All we could love in man, here plant ourselves
With execrable oaths never to look
On man, but as a Monster?[45]

The Portuguese women marooned on this happy isle, adapted the ways of warlike women (Amazons) to survive without men. Shakespeare's sole living female islander in *The Tempest*, Miranda, is notably weak by comparison and submits to the whims of her father, Prospero. In the end, Miranda is married off like so many seemingly powerful female Shakespearean characters (such as Beatrice and Portia). Fletcher and Massinger, to the contrary, portray several European women as sexually powerful faux Amazonians who wield control over male sensual and literal appetites (although by the end patriarchal norms return). Indeed, the men spend most of the play seeking either sex, food, or mercy from the Amazonian women. All three of these elements culminate in the final act of the play.

Unlike *The Tempest*, the starvation of the marooned characters in *The Sea Voyage* immediately reaches life-threatening proportions, which accurately echoes many of the travel narratives of the period, particularly those of the English in Virginia where survival is the utmost concern. As Allison Brown and Jason Denman note, there are 'specific verbal parallels with early accounts of Jamestown indicate that Fletcher and Massinger probably had access to written accounts of the so-called "Starving Time" (1608–10) that were unpublished at the time of the play's initial performances'.[46] Ironically, in *The Sea Voyage* it is because the French pirates who find themselves shipwrecked on the island covet gold rather than food that leads to their demise. On the island, the French pirates encounter two starving Portuguese gentlemen, Sebastian and Nicusa, who were shipwrecked previously, and came ashore with a great treasure

of gold and jewels. (Sebastian, we learn later, is the husband of Rosellia.) Noting that the French ship is still seaworthy, the Portuguese bait the French with their heaps of treasure and escape to sea on their ship. The Captain's sensible mistress, Aminta, admonishes the greedy French pirates: 'She's under sail, and floating./See where she flies – see, to your shames, you wretches,/Those poor starved things that showed you Gold'; and by the end of Act I, the French curse the gold and jewels, as the Boatswain notes: 'This gold,/This damned enticing Gold!'[47]

Similarly, attending more to New World riches than finding and harvesting food caused Captain John Smith in Jamestown, Virginia, in *The Generall Historie of Virginia* (1624) to warn his fellow colonists of imitating 'The *Spaniard* [who] never more greedily desired gold then he victuall'.[48] Indeed, Smith would further chastise colonists for seeking wealth through planting tobacco as opposed to food: 'Besides they endeuoured so much for the planting Tobacco for present gaine, that they neglected many things might more haue preuailed for their good, which caused amongst them much weaknesse and mortality'.[49] Tobacco was a sort of vegetable gold, becoming the most profitable crop in the English colonies; the power of greed was so strong, and the colonists sufficiently weak, that financial gain outstripped nutritional needs. Fletcher and Massinger clearly echo the harsh realities of English colonization. Like the Amazonian women who eventually supply victuals to the starving shipwrecked pirates in *The Sea Voyage*, the English colonizers in Jamestown relied on Native Americans to supply them with food. When in foreign lands, act with temperance, Fletcher and Massinger's play advises.

Despite the debilitating lack of food, in Act III the French Captain, Albert, swims across a treacherous strait to the island inhabited by the Amazonian women. While the Governess of the Amazons, Rosellia, is initially reticent to entertain or assist any men, the youngest of the women, Clarinda, falls in love with Albert and persuades Rosellia to aid his men with food and shelter, somewhat like the famous Pocahontas–John Rolfe story from Virginia.[50] The Amazons further concur that if they are to survive as a people, they must populate the island with more women. This, of course, can only be achieved by copulating with the men. Queen Rosellia decides that they will keep the men around for a month, pairing off a woman with a man, in hopes that many will get pregnant. Meanwhile, the Frenchmen remaining on the other island are famished, contemplating eating the soles of their shoes and finally degenerating to thoughts of cannibalism; proposing to eat the one woman, Aminta, first. She pleads with the sailors: 'Are ye not Christians?' To which usurer merchant, Lamure, replies with a bawdy joke, 'Why, do not Christians eat Women?'.[51] Lamure's astounding response, echoing the sexual reference of each man desiring to eat first the female 'hinder parts',[52] suggests the story of cannibalism among colonists that Brown and Denman identify in Smith's other narrative about Virginia, *A True Relation*:

> So great was our famine, that a Salvage we slew, and buried, the poorer sort tooke him up againe and eat him, and so did divers one another boyled and stewed with roots and herbs: And one amongst the rest did kill his wife, powdered her, and had eaten part of her before it was knowne, for which hee was executed, as

> hee well deserved; now whether shee was better roasted, boyled or carbonado'd, I know not, but of such a dish as powdered wife I never heard of.[53]

Sensible Tibalt, the trustworthy friend of Captain Albert, hears Aminta's cries and rushes in to stop the heinous act. At this moment, Albert returns with food and the Amazon women, whetting the Frenchmen's appetite for something else they hunger: sex. While hunger for gold in the play leads to starvation, a threat of cannibalism is ultimately thwarted by a promise of sex.

Potatoes first appear in the text at this crucial moment, bringing together the satisfaction of two appetites (food and sex) in one item. At the time of *The Sea Voyage*'s production (1622), potatoes were growing in English gardens. For instance, 'sixty pounds of potatoes were purchased at 10d per lb.' on July 16, 1607, for King James, 'presumably from the market gardeners, who were beginning to establish themselves in the nearby suburbs'.[54] In 1629, the famed herbalist, John Parkinson, describes various methods for preparing potatoes to eat, but it was still likely a rare food substance except as a delicacy.[55] By 1662, however, John Beale notes that 'the Virginian Potado is become plebeian in Shropshire', and by 1688 the ubiquitous tuber is a staple in Ireland: 'Potatoes are muched used in Ireland, as in America, as Bread, and are themselves also an unusual food [these] may be propagated with advantage to poor people, a little ground yielding a very great quantity'.[56] In the passage above where Lamure desires 'potatoes, or cantharides', it is clear that the tuber is desired to invigorate male sexual virility, as opposed to filling the belly. However, after a long period without food, the shipwrecked and destitute adventurers would certainly welcome a roasted potato for its food value too. *The Sea Voyage* is theatrically unique in its symbolic representation of the potato as both foodstuff and aphrodisiac.

The Amazons quickly disarm the men before beginning the process of the men choosing a companion, causing Tibalt to comment: 'I have had many a combat with a tall wench,/But never was disarmed before'.[57] Men always get into trouble when they hang up their swords and shields, and the same occurs here. The setting once again recalls Spenser's *Faerie Queene* where Acrasia in the Native American Bower of Bliss seduces her European lover, Verdant, who has likewise hung his shield and sword aside to enjoy the 'flowes in pleasures, and vaine pleasing toyes,/Mingled emongst loose Ladies'.[58] The 'allegorical' gardens of paradise in Book II of the *Faerie Queene* – the Fortunate Isles and the Bower of Bliss, while carrying on the tradition of Tasso and Ariosto, are also echoed in *The Sea Voyage* when Raymond refers to the 'Happy Isles'. In Act V, Raymond reveals how the French pirates had previously treated Rosellia's people, 'When first they forced the industrious Portugals/From their Plantations in the happy islands',[59] leading Claire Jowitt to contend that 'the play participates in the history of French piracy against Portuguese territorial possessions'.[60] Similarly, this canto from the *Faerie Queene* opens, like *The Sea Voyage*, with a warning against the intemperate greed for gold, as Sir Guyon sails past the 'Gulfe of Greedinesse', where there are many shipwrecks on the '*Rocke of vile Reproch*'. There is a clear allusion to the fabled wrecks of Spanish galleons laden with the gold mined by greedy Spaniards: 'They passing by, a goodly Ship did see,/Laden from far with precious merchandize

[…]/Her selfe had runne into that hazardize'.[61] The temperance shown by Spenser in the *Faerie Queene* is surely evident in Fletcher and Massinger's drama, but unlike Acrasia, who is soundly admonished for her wanton ways by the English knight, Sir Guyon, the French pirates eagerly embrace the Amazonian women, wishing they had potatoes to whet their appetites and invoke fornication. Unfortunately for the Frenchmen, a chivalrous decision to offer the Amazon women the jewels the Portuguese had left behind results in Rosellia recognizing the bounty as having come from her husband, Sebastian. She immediately believes they killed Sebastian for the treasure and imprisons all the Frenchmen with the intent of getting her revenge through another pagan ritual associated with New World cultures: a sacrificial killing.

Before the sacrifice, a great feast is spread out before the prisoners, who the Amazons release so that they can be observed. While all the prisoners speculate about whether eating the food will poison them, or disrespect and anger the host of the meal, the Master makes a second reference to potatoes:

> *Master*: [Aside] This has been his temper ever. – See, provoking dishes: candied eringoes And potatoes.
>
> *Tibalt*: I'll not touch 'em, I will drink, But not a bit on a march. I'll be a Eunuch Rather.[62]

Tibalt feigns abstinence here, having previously declared that he will stuff his belly regardless of the consequences; he will not be deprived of food even if he is soon deprived of his life. The food and 'horrid musick' is 'Fit for a bloody Feast',[63] suggesting that the Europeans may not only be sacrificed, but also cannibalized and consumed by the faux Amazons. The Amazons, through the fear of sacrifice, have taught some of the sailors the virtue of temperance. Michel Foucault in *Discipline and Punish* and René Girard in *Violence and the Sacred* have done much to enlarge the understanding of the history and significance of human punishment, sacrifice, and violence. In *Violence and the Sacred*, Girard writes that the sacrificial victim in any society is 'a substitute for all the members of the community, offered up by the members themselves. The sacrifice serves to protect the entire community from its own violence', and 'to reinforce the social fabric'.[64] In Foucault's words, punishment is an act 'by which a momentarily injured sovereignty is reconstituted'.[65] In this sense, the Amazon women are not simply setting out to right the perceived wrongs committed by the Frenchmen, but they also seek to restore their social world back to its original order. The situation looks dire for the Frenchmen when suddenly Raymond, Aminta's long lost brother, appears with the two Portuguese noblemen, Sebastian and Nicusa, husbands to the Amazonian women. Lost families are reunited, apologies accepted, misgivings understood, and the play ends by making 'deadly enemies, faithful friends'.

The Sea Voyage – with its gold, Amazons, cannibalism, starvation, and sacrifice – is clearly based upon the common tropes and written chronicles about overseas exploration in the New World. The potato is one of many New World 'things', such as tobacco, corn, and gold, that visibly and physically alter European society. The

aphrodisiacal agency of potatoes to provoke lust is not the agency one associates with consciousness, but it is a material agency that makes things happen – at the very least, in a staged play. As Alfred Gell, one of the first scholars to discuss the agency of things writes, 'Social agency can be exercised relative to "things" and social agency can be exercised by "things"'.[66] In this manner, *The Sea Voyage* goes beyond merely representing a New World tuber on the stage; rather, Fletcher and Massinger's drama illustrates how the potato creates new associations among humans, and how non-human objects employ just as much agency as the humans who interact with them. Past scholarship never doubted the aphrodisiacal qualities of New World potatoes in early modern English literature. What scholars never sought to explain is *why* potatoes were considered aphrodisiacs. The fact that potatoes 'live' (like any plant) is beyond question, but discovering *how* they live – especially when transplanted or consumed – truly reveals the history and life of the venerous tuber.

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51 J. Fletcher and P. Massinger, *The Sea Voyage*, 3. 3., p. 141.
52 J. Fletcher and P. Massinger, *The Sea Voyage*, 3. 3., p. 133.
53 Smith, *Generall Historie*, vol. 2, pp. 204–5.
54 Salaman, *The History*, p. 441.
55 For this timeline of potatoes being used as a food in England, see Salaman, *The History*, p. 106.
56 Salaman, *The History*, pp. 433, 450.
57 J. Fletcher and P. Massinger, *The Sea Voyage*, 3. 3., pp. 255–6.
58 E. Spenser, *The Faerie Queene*, edited by A. C. Hamilton, New York: Pearson, 1999, II. 5. 28.8–9.
59 J. Fletcher and P. Massinger, *The Sea Voyage*, 5. 2., p. 878.
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Part IV

Cultural seas

21

Mutable, associative, and ugly

Oceanic feelings in Middle English literature and medieval natural science

Matthew Boyd Goldie

Diverse kinds of writings address the sea in the late Middle Ages. Commercial, legal, and related documents reveal how people thought of the sea, travelled on it, items associated with shipping and its practices, and so on. Some works about the ocean turn to past sources instead of present events and reiterate or adapt Greek and Roman authors, the Bible and its commentaries and interpretations, and more. There are also chronicle accounts that include substantial amounts of information about travel and other topics, including warfare at sea, some of which rely on ancient authorities and others of which are based on more recent events. Medieval missionaries and pilgrims describe their encounters with the ocean and smaller bodies of water. In addition, late medieval natural philosophy frequently considered the sea. The scientific writings of the Venerable Bede, Isidore of Seville, Robert Grosseteste, the encyclopaedist Bartholomaeus Anglicus, the historian Gerald of Wales, and others engage with the ocean in multiple complex ways. Part of the intention of this chapter is to provide a sense of the array of writings on the ocean in the late Middle Ages, but it also aims to draw attention to scholastic science's important ways of thinking about the ocean.[1]

Medieval literature provides another particularly rich source of ideas about the sea. In this chapter, I examine various kinds of fourteenth- and fifteenth-century English literature on the subject of the sea alongside scientific works. Britain, an archipelago of islands, was not of course the only European entity to consider the ocean in its different discourses, but it loomed large in the minds of its writers in works from highly wrought court poetry to less explicitly literary writings. Of particular interest is Geoffrey Chaucer, a portion of whose life and works might fairly be called oceanic. King Edward III appointed Chaucer controller of the customs tax on the realm's lucrative exports, including wool, a position Chaucer held for 12 years from 1374 until 1386, and he was soon assigned to other customs positions. He voyaged overseas to Spain, France, and Italy several times in his life.[2] In terms of his works, he is best

known today for his *Canterbury Tales*, an accumulation of diverse genres and story types, but he wrote many other kinds of poems, from the long romance of *Troilus and Criseyde* to dream visions and short lyrics, and he wrote and translated prose. In these texts, he writes about the sea's commercial, legal, strategic, and other characteristics, and with some frequency he refers to scientific philosophy and its ideas about the sea. He also translated works into English that include maritime observations, such as Boethius' *Consolation of Philosophy*, a major source of medieval knowledge of various kinds (especially the role of fortune in the cosmos), and he composed a description of the workings of an astrolabe for his ten-year-old son Lewis, a treatise that also contains material on the ocean. Whether or not Chaucer and other Middle English writers explicitly have recourse to scientific authorities, together these two bodies of work reveal some of the diverse ways of thinking about the ocean in this time period, despite the fact that the literary, scientific, martial, and economic writings about the ocean differ in style, tone, and subject matter. One difference, for instance, is that literature regularly employs the sea as a metaphor, taking up its characteristics and transferring them to human psychological states, men's and women's moral quandaries, characters' impressions of the world around them, and so on. This might be a difference in degree rather than kind, however, since all oceanic discourses at some point have recourse to metaphorical language.

In order to provide focus to the diverse material on the sea in late medieval England, this chapter's principal topics are the passions attributed to the ocean and the feelings to which the sea gives rise. The works, from the literary to the scientific, often pay attention to a range of affects. By the term *affect*, I refer to what is now commonly called *affect theory*, which seeks to understand the characteristics of emotions, sensations, sentiments, and so on in different time periods. The study of affect analyses emotions in terms of which ones were considered significant to a society's and to individuals' definitions of themselves and which not, which feelings were considered actual emotions, and which ones deemed something else such as thoughts, and so on. The preferred term *affect* in the history of emotions moves the focus away from simply noting the feelings of historical figures and literary characters, and toward the ability of internal or internal-external states to transform people, situations, and communities due to their historical, interactive, and dynamic properties. Medievalists have developed some of the key ideas about affect. Barbara Rosenwein's work is central in this respect. Her books and articles – sometimes on medieval culture and sometimes on other time periods – seek to 'problematize the feelings of the past, addressing their distinctive characteristics'.[3] Writers on medieval culture continue to make good use of Rosenwein's and others' ideas. One recent anthology, *Feeling Things: Objects and Emotions Through History* brings affect theory together with the study of material culture in order to examine emotions associated with objects, 'both […] the tactility of the object – its shape, form, substance, and size – and […] the reciprocal ways in which contact with an object conditions feelings in human subjects'.[4] The current chapter has a similar aim in its examination of the ocean in relation to affect. Whether described in concrete and scientific ways or in literary and metaphorical ones, the sea is described in affective terms and frequently causes emotions; conversely, emotions are often articulated in oceanic terms.

One key characteristic of oceanic feelings in late medieval discussions relates to the sea's mutability. It is perhaps not surprising that medieval authors depict the sea as stormy and volatile, calm and tranquil, and everything in between, but the sea's fundamental inconsistency is one of its defining qualities in the Middle Ages. Writers note that the sea expands and contracts with the tides, and its boundaries are further complicated because it transitions into bays, inlets, rivers, and smaller bodies of water. Indeed, late medieval scientists were interested in how the sea transmuted into other substances such as the air because the universe was believed to be made up of four elements – earth, water, fire, and air – each with its own properties and qualities, and each interacted with the others and with additional entities such as the humours. The sea is therefore not only changeable, but is defined by being an associative entity, extending to other bodies of water, to landmasses large and small, to the elements, and impinging on humans and their activities, vessels, and concerns.

The mutable and associative qualities of the sea are central to the feelings attributed to it and to which it gives rise. Those feelings are themselves changeable as one might expect; they typically depend on immediate situations and events, and they frequently extend or transition into other emotional states. The sea's affects transform the bodies – human and otherwise – with which it associates into similarly mutable beings that can change in strong, distinct, and unmistakable ways. The sea's affects and the affects it causes in other bodies can also be ambiguous, complex, abstruse, and themselves associative, often mutating into other less clear emotions. This affective range of the ocean, from powerful and unequivocal to indeterminate and discomforting, organizes the following discussion. I first note instances in the various kinds of discourses about the sea that depict these emotionally stronger tempestuous feelings, and I then address the more oblique and less intelligible affects.

The sea in British literature of the thirteenth to fifteenth centuries can be isolating, as tempests overwhelm and drown characters, and the sea leads to, or is accompanied by, melancholy. In a sense, the ocean can evoke 'repulsive' emotions as Alain Corbin has said of the seashore in the eighteenth and early nineteenth century.[5] It is sometimes connected with romantic love, but a love that can be futile. On the other hand, the emotional connotations of the sea can also be dramatically positive. Love can thrill like the sea. The ocean can give rise to feelings of calm and benignity associated with not having to worry about anything. These strongly negative and positive emotions are feelings that are intelligible and recognizable according to what William Reddy, one of the first writers on affect theory, has called 'emotional regimes'. Reddy describes these structures of feeling as '[t]he set of normative emotions and the official rituals, practices, and emotives that express and inculcate them; a necessary underpinning of any stable political regime'.[6] He further defines an 'emotive' as like a linguistic performative in that an emotional instantiation is not an inert result but can bring about change in the world.[7] The sea's powerful emotions tend to align with established late medieval understandings of fear, sadness, melancholy, love, desire, and tranquillity. Narrators, characters, and writers of non-literary material make observations about the ocean that fit within conventions of courtly love, with how people from the different estates were thought to behave and should behave, accepted ideas about the natural qualities and behaviours of things, for instance.

As Reddy, Rosenwein, and others also point out, a society has multiple 'emotional regimes' and 'emotional communities', and the feelings of those associated with some groups can differ from the dominant, generally acknowledged, and condoned affective utterances.[8] Reddy says that emotives can be recognized and reinforced by a prevailing political or social entity and 'seized […] in the service of various high-level goals', but they can also 'have repercussions on the very goals they are intended to serve', and they 'may be more or less successful' in creating change.[9] Some of the most interesting emotives that might not align with dominant and recognized late medieval cultural norms are what Sianne Ngai has called 'ugly feelings'. Ngai's book on the subject of 'ugly feelings' studies 'affective gaps and illegibilities, dysphoric feelings, and other sites of emotional negativity'. Her focus lies in '[m]oods like irritation and anxiety […] defined by a flatness or ongoingness' and 'less dramatic feelings like envy and paranoia', which can also 'have a remarkable capacity for duration'.[10] As opposed to the dominant and habitually reinforced emotions, 'ugly feelings' are not easily identifiable yet, according to Ngai, they may reveal more about what is happening emotionally and culturally within a society, especially underrepresented parts of it. The second section of this chapter, therefore, turns to focus on writings in which the sea possesses and gives rise to ambiguous feelings that are not as negatively or positively powerful, or expressive of traditional emotions, but instead shows feelings that are more 'ugly'. In terms of the ocean, these are not the passion and ravishing feelings of great desire, nor even feelings of the repulsive, despairing, and drowning kinds, but instead show emotional valences that are multiple, mixed, and not so clear. In both the natural science of the time, and in literary works by Chaucer and others, the sea can appear as mildly untrustworthy and a sign of human tendencies toward foolishness. It can be unsettling, associated with worry of a mildly irking sort, and it can even have a kind of 'flatness' allied with a lack of care; in the aquatic terms used, a person or situation can merely 'drift', 'glide', and 'flote'/'flete'. The ocean comes to signify a lack of emotional and epistemological clarity.

The tempestuous sea

The cosmos in the Middle Ages was comprised of objects that connected to each other through all scales from the large, such as the air or sky, to the minute, such as insects and jewels. The sea was believed to be a particularly volatile element among these objects, as it partakes of the qualities of water, is vast with many local variations, and is also changeable because of its susceptibility to other forces. Medieval science addressed the sea within the cosmos in encyclopaedias, geographical writings, and more specialized studies of phenomena such as tides. In all of them, the sea features as a dynamic body that encircles the earth but also has local characteristics. As an introduction to the range of ways the sea was apprehended, and its mutability and associative nature, one of the major sources for later medieval knowledge about the world, Isidore of Seville's early seventh-century *Etymologiae*, is especially important. The *Etymologies* is an encyclopaedic compilation of classical and early medieval learning along with Isidore's sometimes fanciful histories of words. Many later writers drew on its authoritative lore for ideas about the universe, the earth, the trivium and quadrivium,

the seven liberal arts, and so on. Book VIII, *De mundo et partibus*, begins by naming the sea as one of the principal parts of the universe along with the heavens, air, and earth, and, like the other elements, 'it is in eternal motion'.[11] The sea, along with the land, gives rise to rain clouds, and winds disturb it.[12] Isidore soon after begins his chapter on the sea by drawing attention to its 'congregate' qualities, describing it as 'a general gathering of waters'. He speculates that it is called '*mare*' because of its bitterness ('*amarus*') and '*aqua*' because it is flat ('*aequaliter*'). Its size does not vary, he says, because it is so immense that rivers adding to it do not change its volume in a noticeable way. Its associative qualities include its bitterness absorbing fresh water from rivers, the clouds in turn taking in some of its water like the wind, which also 'carries away part of the sea', and caverns through which the ocean's water flows back to the source of the rivers. He also says that it 'has no specific color' because 'it changes with the quality of the winds. Sometimes it is golden, sometimes muddy, and sometimes black'.[13] He continues by lingering on the fact that the sea has a multitude of names because it borrows from the lands near it. It is called 'Gallic, Germanic, Scythian, Caspian, Hyrcanian, Atlantic', and more, raising the question of whether the ocean is one entity or multiple ones.[14] Subsequent chapters describe the Mediterranean and its parts, and the Red Sea, before continuing with a description of tides and straits.

Where Isidore is neutral in a sense about the sea's mutable and associative nature, commercial writings sometimes depict the sea in emotionally and morally negative terms. The ocean is depicted as potentially – and often – perilous to trade, and the fiscal opportunities it affords can endanger the soul. In some ways representative of this tradition is a fifteenth-century English rutter, likely the earliest of its kind to survive in Europe, which is a set of navigational directions probably based on one or more seaman's records aboard a vessel. The rutter contains plain navigational information about the coasts of England, Ireland, and the continent, detailing features such as landmarks, wind directions, and sea floor qualities. The whole intent of its instructional lists for a boat pilot, and potentially other readers, is to assist in safe travel around England, and to Europe and back.[15]

Middle English writers of literature also depict ships and sea commerce in some detail and, like the rutter, they frequently draw attention to its dangerous qualities, but they can be more emotive. One of Chaucer's many references to sea trade occurs within the 'Canon's Yeoman's Tale' in the *Canterbury Tales*, his story of deceptive learned men who trick others and who are themselves undone by the appearance of transmuting metal into gold. Some of the people one of his canons dupe appear to be merchants, or people who are familiar with the challenges merchants face. One of them says that 'A marchant, pardee [by God], may nat ay [always] endure,/ Trusteth me wel, in his prosperitee./Somtyme his good is drowned in the see,/And somtyme comth it sauf unto the londe'.[16] Chaucer also depicts the Shipman in the General Prologue of the *Canterbury Tales* as someone adept at navigating the tricky tides, currents, anchorages, inlets, and 'daungers' of the sea, but perhaps the greatest threat comes from the Shipman himself.[17] He is well armed on the pilgrimage, he regularly steals wine from the merchants who hire him, he has killed many at sea so that 'By water he sente hem hoom to every lond', and he does not care at all about having a moral conscience.[18]

Boece, Chaucer's translation of Boethius' *Consolation of Philosophy*, contains scientific descriptions of the sea that emphasize its changeability in strongly emotive terms. *Boece* describes the stars as holding above the waves and drowning their flames by being 'iplowngid' (plunged) in the sea.[19] The sea's 'rage' and 'manaces' are in part attributed to its varying temperatures, 'commoevynge [exciting] or chasynge upward hete fro the botme'.[20] The sea's fundamental nature is that it is sometimes calm 'with smothe watir' and sometimes 'horrible with wawes [waves] and with tempestes'.[21] One strait in the Aegean Sea is described as 'boylynge' because the sea 'ebbeth and floweth, and somtyme the streem is on o [one] side, and somtyme on the tothir'.[22] Elsewhere, 'Ofte the see is cleer and calm without moevynge flodes, and ofte the horrible wynd Aquylon [the North wind] moeveth boylynge tempestes, and overwhelveth [agitates] the see'.[23] Tempests are prominent in the *Boece* and in Chaucer's other writings and other authors, and they evoke similarly formidable feelings. A natural phenomenon and a metaphor, in the *Boece* the wind 'beten the strondes of the see' into 'quakynge floodes'.[24] Elsewhere in the same work, the 'see of fortune' torments people, and the dreamer implores the 'governour' of it all to 'restreyne the ravysschynge flodes', with 'ravysschynge' possessing an interesting range of meanings, including the modern-day sense 'ravishing' but also stealing, abduction, and rape.[25] Melancholy had a dominant position in medieval discourses along with the other humours, and the sea is often associated with melancholy in the *Boece* via metaphors of drowning. The narrator at the start is weeping in bed at his misfortunes with the muses about him, and Lady Philosophy observes how he is 'dreynt' (drowned) 'in overthrowynge depnesse'.[26] Lady Philosophy comforts the dreamer in the *Boece*, drying his tears with the folds of her gown because his eyes 'weren fulle of the wawes of my wepynges'.[27] She seems well suited to understand and counsel him since even she 'in the byttere see of this lif, be fordryven with tempestes blowynge aboute'.[28]

Most memorable among powerful metaphors of the sea is the aural one in another work by Chaucer, the *House of Fame*. The dream vision poem describes the House of Fame, within which all the speech on earth is repeated and multiplied, truth and falsity conflated. It is said to sound like the 'betynge of the see […] ayen [against] the roches holowe [notched],/Whan tempest doth the shippes swalowe'. The noise can be heard a mile away.[29] Chaucer's translation of Boethius further adapts the natural and scientific aspect of the sea into a metaphor when it says that neither the 'rage ne the manaces of the see […] ne schal not moeve' the measured and humble man.[30] This ethical quality extends to a condemnation of trade because in the first Age of Man, humans never participated in merchants' activities:

> no gest ne straunger ne karf yit the heye see with oores or with schipes; ne thei ne hadden seyn yit none newe stroondes to leden marchandise into diverse contrees. Tho [Then] weren the cruele claryouns ful hust [hushed] and ful stille.[31]

Chaucer's lyric poem 'The Former Age' expresses similar sentiments when it says there were no ships at the start of time for merchants to fetch 'outlandish ware'.[32]

The *House of Fame*'s allusions to vessels in trouble and shipwrecks appear in many other Middle English works, and ships are customarily allied with perils that can have

devastating effects on people and objects. The grisly aspects are rendered physically and emotionally. The alliterative poem 'Patience' by the same poet as *Sir Gawain and the Green Knight* contains a high degree of technological detail about ships when it renders the story of Jonah and the whale. At one point, Jonah boards a ship, and the poem delineates the tackle, sails, windlass, bow line, 'gyde-ropes', and more.[33] Later, when the ship encounters a great storm, the same level of specificity arises as the crew throws items overboard and desperately bails water to try to save the vessel. The anonymous poem known as 'The Pilgrims Sea-Voyage' from the late fifteenth or early sixteenth century depicts similar desperation when it describes pilgrims sailing from Sandwich, Winchelsea, Bristol, or other locations in England to Santiago de Compostela in Spain. It details the crew hauling up and furling sails, the pilgrims meanwhile fearful: 'Theyr hertes begyn to fayle'.[34] The ship under way, the boatswain starts to tend to the passengers, commanding the cook to prepare beer and a meal, and the steward to serve it. The pilgrims however are suffering too much and 'have no lust to ete'.[35] They keep 'theyr bowlys fast theym by'.[36] Some ask for hot malmsey to restore their health while others eschew their boiled or roasted dinner and eat only 'saltyd tost'.[37] The owner commands makeshift cabins be built for their cover, but some passengers do not even get a sack of straw for sleeping, instead having to make do in their clothes. An individual speaker appears in the last verse of the nine stanza poem to say he or she would be as happy to be in a wood 'Without mete or drynk' as on the boat,[38] especially because he or she has to sleep near the bilge-pump: 'A man were as good to be dede/As smell therof the stynk!'[39] Chaucer's earliest poem, *The Book of the Duchess*, also a dream vision, recounts how King Ceyx and the others aboard a ship are drowned because of a tempest so that, bleakly, 'never was founde […]/Bord ne man, ne nothing elles'.[40] The terror of shipwrecks is also evoked in surprising locations as in the mock-heroic 'Nun's Priest's Tale' about Chauntecleer, Pertelote, and the fox. Chauntecleer tells the story of two men who plan to voyage over the sea but who are delayed because the wind is 'contrarie'.[41] They have to wait until it changes, at which point one of the men dreams that a voice warns him against sailing. His friend however ignores the warning, and while at sea, his ship's bottom is 'rente,/And ship and man under the water wente/In sighte of othere shippes it bisyde,/That with hem seyled at the same tyde'.[42]

Chaucer's most sustained oceanic treatment is the 'Man of Law's Tale', a story that conflates a saint's life with a romance about a Roman emperor's daughter, Constance. Based on a French source, it was a very popular story in the late Middle Ages, told and retold in a variety of places. The tale evokes divine protection while Constance exists on the ocean. The sea's real and dramatic dangers account for a great deal of its strong pathos, but the powerful feelings the sea causes in the narrative do not so much work, in Reddy's terms, as emotives that transform her or other characters around her, as they work to alter the direction of the narrative. The oceanic vastness and the sea's chaotic nature serve together as a kind of randomizing device in the 'Man of Law's Tale' because the sea redirects the story toward chance and fate. First, the ocean in the tale, as in other Middle English works, is an isolating factor; Constance's boat is all alone on the sea. At two main moments in the tale, she is forced into a rudderless boat, within which she survives for several years at sea, sometimes with her infant

son. The Prologue evokes a 'bareyne yle stondynge in the see'.[43] When Constance is first exiled, she is put in a rudderless vessel in Syria, sails 'Yeres and dayes' through the Great Sea (the Mediterranean) and out the Strait of Morocco (as it was often then called).[44] Chaucer's narrator asks who saved her during all this time, who 'kepte hire fro the drenchyng [drowning] in the see', who withheld the 'foure spirites of tempest', and who fed her? In each case, he summons up biblical precedent to account for her assistance.[45] The answer is given that the Saviour's care keeps her from 'harm' when she 'in the salte see/Was put allone and dampned for to dye'.[46] At another point in the narrative, God keeps her from 'shame/In salte see' when she is threatened with rape as, landing once on a shore, he drowns her attacker.[47]

Commercial, martial, and fearful aspects of the sea combine in several Middle English works. The anonymous fifteenth-century poem *The Libelle of Englyshe Polycye* joins the emotionally wrought aspect of the ocean as an isolating element with an explicitly defensive posture involving 'the narowe see' that separates England from its enemies and competitors in trade, particularly Spain and Flanders.[48] The ocean makes up half of England's important attributes: 'Kyng, shype and swerde and pouer of the see'.[49] The poem details the necessity of merchants from Flanders to pass through the strait between Dover and Calais (an English possession at the time) in order to reach Spain and vice versa, and points out the significance of trade in English wool and tin for both countries before going on to describe the importance of the ocean for England in relation to Portugal, Normandy, Scotland, Prussia, the Genoese, Venice, Florence, Brabant, and elsewhere. The narrator of the poem appeals to his audience's patriotic feelings when he asks what good it is if others have more liberty in 'our sea' than 'we' have in theirs. Some 150 years before Shakespeare's John of Gaunt describes the sea as a wall or moat, the *Libelle* pictures it positively as follows:

> Kepe than the see abought [about] in speciall,
> Whiche of England is the rounde wall,
> As thoughe England were lykened to a cite
> And the wall environ [all around] were the see.
> Kepe than the see, that is the wall of Englond,
> And than is Englond kepte by Goddes sonde [dispensation].[50]

Like the 'Man of Law's Tale', the ocean's isolating characteristics are a sign of God's providence; they are rendered positively if only England's people would 'keep' the sea. The voice of the poem is urgent in its appeal. The same political and fiscal urgency appears in places in Chaucer's other works. The Merchant in the General Prologue, for instance, uses the same language as the *Libelle* when he says he wants the sea between ports in Holland and in Suffolk 'kept for any thyng' safe from piracy and for trade.[51]

Warfare at sea is also of an extreme, dramatic nature in that it brings the horrors associated with sea travel together with the slaughter of medieval battle. Chaucer briefly mentions that the knight in the *Canterbury Tales* has fought in many wars, some causing death, and Chaucer includes the fact that he was involved in one on the 'Grete See'.[52] His most sustained description of a sea battle in the 'Legend of

Cleopatra' dwells on the specific ways men can put each other to death. A dream vision and a collection of tales, the *Legend of Good Women* includes the 'Legend of Cleopatra', which narrates the story of the great love she shared with Anthony. The narrator of the legend says he will not repeat the events in the lives of Cleopatra and Anthony, nor the wedding celebrations between them, saying metaphorically that 'men may overlade a ship or barge',[53] but the tale then goes on to detail at length the great sea battle of Actium. It is typical of a medieval work to describe ancient events in present terms, so when Octavian's naval forces encounter those of Anthony and Cleopatra, the audience gets realistic descriptions of contemporary sea warfare. Each force tries to attack their enemies with the sun at its back, each fires large guns, each employs 'the grapenel' to draw opponents to its side and 'sherynge-hokes' to cut rigging 'lyke a sithe [scythe]'.[54] As the fighting gets into close quarters, the narrative becomes more intense as men battle each other as they would on land, which was common in medieval sea warfare.[55] Men use poleaxes on each other, one tries to take cover behind the mast but is forced out, and his opponent 'dryveth hym overbord'.[56] They use peas to make decks slippery, quicklime to blind and sting their enemies, and they slash with 'strokes […] as thikke as hayl'.[57] While the battle is ferocious, its savagery is important as a symbol for Anthony and Cleopatra's desire to remain together. When they are forced into defeat and Cleopatra's vessel is parted from Anthony's, in Chaucer's version, Anthony immediately 'for dispeyr out of his wit he sterte [went]/And rof [stabbed] hymself anon thourghout the herte'.[58] Cleopatra, directly upon return to Egypt, flings herself into a pit of serpents. While the tale is graphic about the sea battle, its drama is directed toward the effects it has on the couple's passionate relationship.

It is important, however, not to overemphasize the negative effects associated with the sea when, because of its changeable nature, it also could be calm and its effects beneficial to those who come in contact with it. It often has positive attributes in the *Boece* where it could be 'horrible with wawes and with tempestes', even 'boylynge' ones, but it can also appear as gentle, 'cleer and calm without moevynge flodes', making people glad when it is like that.[59] In that work, even its storms can be advantageous because they 'torneth upward sandes' to reveal 'richesses'.[60] Ultimately, Chaucer's translation of the Boethius says that 'stable feyth' can hold the world's 'chaungynges' and 'contrarious qualites of elementz'. This includes the sea that, although 'gredy to flowen', 'constreyneth with a certein eende his [its] floodes, so that it is nat leveful [permitted] to strecche his brode termes [boundaries] or bowndes uppon the erthes (that is to seyn, to coveren al the erthe)'. The ultimate cause of 'al this accordaunce [and] ordenaunce of thynges is' that everything is 'bounde with love, that governeth erthe and see'.[61]

Indeed, the sea could give rise to both negative and positive feelings in the same work. In the *Alliterative Morte Arthure*, a poem by an anonymous contemporary of Chaucer's, it is as though the sea's mutability is also transferred to the changeability of its emotional effects. It includes an extended description of preparing to sail over the sea from Sandwich to Brittany in terms that echo the realistic descriptions found in chronicles on sea battles and navigational texts such as the rutter and the poem the *Libelle*. It details the stocking of ships, horses being secured with trusses and other

ropes, sails, portholes, anchors, and the practices involved when sailing, including the use of a compass. Arthur's great army sets out at night on the ocean but, out of 'drede' of sailing at night, they slow down.[62] Meanwhile, Arthur is secure in a richly decorated cabin, and he goes to sleep 'with the swogh [swaying] of the se' to dream an allegorical vision, but even though his royal cabin offers a brief respite from the fear of sailing at night, his dream begins with a 'dragon, dredful to behold,/Come drivand [driving] over the deep to drenchen his pople'.[63]

Chaucer's translation of the *Romaunt of the Rose* also describes the sea as changeable, a peril and also a benefit. Its mutability is that it is 'never […] so stille/That with a litel wynde' it will not 'Overwhelme and turne also' as though it had gone mad with waves.[64] The narrator of the *Romaunt* depicts love as frequently paradoxical and like the sea, both 'A swete perell in to droun' and two lines later 'A wikked wawe [wave], awey to were [wear]'. Charybdis in the translation is equally paradoxical: 'perilous,/Disagreable [unpleasant] and gracious'.[65] Chaucer is apt to exploit these senses of the ocean as having mixed emotional effects and qualities. His book-length romance *Troilus and Criseyde*, which centres on the poignantly ironic contradictions of love, evokes the sea at the beginning of the poem when we learn that Troilus' love for Criseyde makes his heart fear so much that it sails 'streight unto the deth'.[66] These and other references to the ocean and love in the poem accord with conventional descriptions of love's power to incite hope and despair so much so that the whole world seems to embody the bifurcated nature of love. The poem also draws on the philosophical discussions of the nature of the world such as in the *Boece* in attributing to love the power to 'govern' earth and sea.[67] The famous emotionally fraught *Canticus Troili* of Book III, in which Troilus sings of the ironies of love, shows love as able to bind together nature's opposing forces, including the elements. Among them is the ocean 'that gredy is to flowen', which love 'Constreyneth' its 'flodes that so fiersly they ne growen/To drenchen erthe and al for evere mo'.[68] The song is one of the finest expressions of courtly love, and it is not outside of convention in the finely calibrated tragedy that is *Troilus and Criseyde* when Troilus' second song near the end of the poem shows the obverse side of love, again using oceanic references. Troilus equates his heart to a boat that has no guiding star since he has lost Criseyde and, like the *Romaunt of the Rose*, his complaint evokes Charybdis. Troilus, bereft of light, 'evere derk in torment, nyght by nyght,/Toward my deth with wynd in steere [astern] I saille; […] if that I faille/The gydyng of thi bemes bright an houre,/My ship and me Caribdis wol deuoure'.[69] Even the narrator of *Troilus* is affected at points in the poem by the despair of its hero, opening Book Two for instance by calling on the elements to help the narrative get better: 'Owt of thise blake wawes for to saylle,/O wynd, o wynd, the weder gynneth clere [begins to clear]'. He likens his project to a boat that has such heavy work because of his weak knowledge or skill, and because Troilus' 'disespeir' is its sea and 'tempestous matere', so that the narrator is scarcely able to 'steere' the poem's course.[70]

The ocean can, therefore, be emotionally positive as well as negative; sometimes it appears in images as simple as the sun warming the sea or lovers waiting for the sun to go down into it so that the light will darken. But it could also be quite strange. One of the oddest and more extended poetic descriptions in Middle English literature of a

large body of water occurs in the romance *Kyng Alisaunder* from about 1400. A marine interlude in the poem serves as a turning point in the narrative recounting Alexander's various activities. The episode combines the world of marvels with a certain practicality, even a scientific curiosity, on the part of its hero. Alexander's natural philosophy transforms his initial horror at the cannibalistic practices of the tribes of Gog, Magog, and Taracounte to a satisfactory solution. Alexander, aghast at what these creatures eat, prays in 'Sarsynes wyse' to learn how he might defeat them.[71] He subsequently travels to a location between Egypt and India, and he encounters a people who live on an island in a large body of water that is submerged at high tide, called 'Meopante'.[72] The people there have gates made of willows and tree bark that they close when the water comes, and they construct their houses from 'butumay' (bitumen), a clay so strong that no water can penetrate it and 'jrne [iron] ne steel ne metal to-dryve'.[73] Alexander lives there for half a year, viewing the fishes' hiding places and the habitation of aquatic monsters, which chase each other for food. He learns the underwater origins of the winds, the extent of 'þe marches of þe cee, jwys [in truth],/From helle al to Paradys', and he uses several thousand ships to gather the clay.[74] He returns to the cannibal tribes and uses the bitumen to enclose a sea called Calpias (perhaps the Caspian) so that the creatures of Taracounte cannot sail out and rob others. Employing pillars of steel a hundred feet long and the bitumen from Meopante, he stops up a crucial strait. The tribes cannot escape because the only way out is over mountains that reach to the sky; they await Doomsday when they will return.

To conclude this discussion of the tempestuous affects of the sea, it should be noted that Chaucer could also parody the dramatic emotions associated with the ocean or that were commonly articulated in oceanic terms in his day. Troilus' and others' intense melancholy or euphoric happiness had, by Chaucer's day, already become something of a cliché, an 'emotional regime' so recognizable that Chaucer and his audiences were willing to see it parodied. Even though the comic beast fable, the 'Nun's Priest's Tale', recounts the sorry story of the man who does not heed his friend's advice and is drowned at sea, the exemplum is in the mouth of the overly defensive rooster Chauntecleer who might be using the story in part to avoid the herbs that his wife Pertelote has recommended to him. The mock-heroics and mock-scientific discussion the two birds have continue after their disagreement when Pertelote and Chauntecleer's other wives 'bathe' in the dust about him. Chauntecleer sings 'murier than the mermayde in the see', Chaucer then referencing the authority on mermaids, Physiologus. The high philosophy is in stark contrast to the rooster's 'singing'.[75] Soon the fox will appear, so Chauntecleer's song is also ironically apt because it will almost lead him to destruction. Chauntecleer is too affective, too intent on his masculine prowess, to notice the impending danger.

Adrift

The sea's 'ugly feelings' and the less strong, more ambiguous emotions to which it gives rise are prevalent in scientific and literary writings of the period. These maritime phenomena are not so much tempests but instead involve a different set of dynamics, for example, of oceanic surfaces and depths, which suggest obfuscation and

hidden forces. Some emotions shade between clearly significant and uglier ones. The emotive force of these odd affects that are more difficult to place can be transformative of characters and ways of thinking about the world as much as the more powerful ones, but they are not always consistent. Tides, for instance, have mutable and associative qualities that are particularly strong. Tides appealed to medieval philosophers and others because they present a remarkable – if somewhat paradoxical – example of perpetual change. The moon and the sun in the sky affect the sea, and local features of the lands and relations between them further complicate its movements, obscuring the systematicity. The moon and sun also have causal relations to nearly every other element in the cosmos, continuity among them occurring all the way to human bodies and psyches. Bede, writing in the first quarter of the eighth century, describes the effects of the moon on tides in his work on temporality, *The Reckoning of Time*, in which 'more marvellous than anything else is the great fellowship that exists between the ocean and the course of the Moon'.[76] It has been said that Bede is intent on explaining the divine regularity of the universe, so it is all the more remarkable that he sees local variation in tides in his native Britain. His theory is that 'though the tides are driven by the Moon, whose sway is exercised over all the Earth, their ultimate expression is eccentrically local'.[77] Some variations are due to interactions with the wind, but others are simply because of location.

Gerald of Wales' twelfth-century *Topographia Hibernica* also concentrates on tides, describing them as active, varied, and connected to human emotions. He describes the Irish Sea as 'being agitated by opposing currents' and 'almost always troubled'.[78] He goes on to note the particular characteristics of tides in a variety of locations, characteristics that, like Bede, seem as though they might be based on observations or accounts of actual tidal phenomena. An explicit connection between the tides and human emotions is made in his description of Ireland because of the common effect of the moon. Gerald writes:

> Indeed, the moon is the entire source and cause of motion in liquids, so that it not only regulates the waters of the ocean, but, in animal life, influences the marrow in the bones, the brains in the head, and the juices of trees and plants.[79]

Just as the tides can be affected by other planets and local variation, so too can everything in the world be continuous with the forces driving them.

Tides in Robert Grosseteste's thirteenth-century *Questio de fluxu et refluxu maris* are even more complicated, especially in terms of their associative qualities: they have their general cause on Earth, and the specific cause is that each of the four elements shares in the processes of rarefication and condensation. Water and air are more susceptible to these processes than the others. Grosseteste, like his predecessors, concentrates on the moon and, to a lesser extent, the sun, as the principal causes of tidal change, but he is novel in that he posits that it is actually the moon's rays that bring about rarefication and condensation. His explanation indicates some of the complexities in accounting for the tides and their activities, as well as showing the ways they can affect other things, including people. The moon 'exercises the greatest control over moist and cold bodies. Thus certain people are called lunatics because, when the

moon wanes, they suffer a diminution of the cerebrum, since the cerebrum is a cold and moist substance'.[80] The moon's light stirs up vapours in the water and, because it is salt and therefore has 'heaviness and viscosity', traps the vapours and causes 'swelling'.[81] There are then eight specific reasons why the tides increase and decrease, and there are three kinds of seas – those that have tides, those that do not, and those that have small ones – so the reader can begin to see that all these cosmological forces can cause many different kinds of effects all the way to the cerebrum not only in cases of madness but also in less clear psychological and emotive effects. Grosseteste's and others' scientific ideas about tides appear in diverse kinds of works. Chaucer's *Tretise on the Astrolabe* contains multiple calculations for when there will be a flood tide or ebb tide, whether a tide will be high or low, and so on.[82]

Bartholomaeus Anglicus' *De proprietatibus rerum* contains information about tides, and it is worth lingering on this work because it was possibly the most popular late medieval encylopaedia, it was a book that was important for many authors, and its science reveals a lot about the more equivocal, problematic feelings about the ocean. Bartholomaeus, a Franciscan, composed *On the Properties of Things* in 1240 (probably in Paris), drawing from over 100 sources. His explicit intent is to provide information about things including God, angels, humans, and all the things of the universe to a person who does have the common knowledge or easy access to it in books.[83] John Trevisa translated the work into English at the end of the fourteenth century, and it was first printed in England in the late fifteenth century. It is used and cited in chronicle histories, biblical commentaries, penitential works, sermons, bestiaries, travel writings, and poetry, including Chaucer's. Bartholomaeus addresses water and the sea in Book 13. *De proprietatibus rerum* on water is largely based on earlier sources, especially Isidore of Seville, although Bartholomaeus greatly expands on Isidore. Bartholomaeus does not follow Grosseteste's description of the action of light on the sea, instead describing how light reflects off water, how its rays are refracted within it, and how it magnifies items.[84] He goes on to describe different kinds of waters (wells, rivers, lakes, and fishponds), famous biblical and classical bodies of water, etymologies, and so on. The sea is so changeable, associative, and positive and negative in terms of effects to the point that it becomes 'ugly'. Its characteristics and its effects, including 'emotive' ones, often fall outside of clearly definable and valued effects.

The contradictory nature of sea is the first characteristic Bartholomaeus describes. The sea 'resteþ nevere of mevynge til þe overe [upper] syde þerof be even'.[85] This image can be read as an idea akin to balance – the possibility of equilibrium – but it also suggests the expanse and sheer volume of the sea. Where Ngai's 'ugly' feelings have, as she says, 'duration', here the sea has spatial extent instead of a temporal one, and the emotives hint at something more unsettling than balanced. The sea 'ben alweie mevynge and may noght reste for he fa[i]leþ atte fulle oþer meveþ and shedith himself aboute' (for it fails entirely or moves and sheds itself about).[86] Trevisa's translation of Bartholomaeus' oceanic terminology is interesting because his translations into English capture the way he is trying to think about the ocean and to work with words that he knows his vernacular audiences will understand. One word he uses to describe oceanic changeability is its 'walowynge'.[87] 'Walowynge' of the sea is due to the wind and because it is always moving in itself. These qualities,

he points out, 'smyteþ togeders and shoveþ and putteth everyche oþere now upward, now donward'.[88] The reason why it 'saveþ his [its] owne substaunce fro peril of corrupcioun' is because it is 'mevable withoute reste'. Even though its substance may not be exactly 'corrupted', the sea is nevertheless mixed and its parameters unclear in that it is always 'rennynge' and not containable by itself.[89]

Trevisa also uses particular terminology to describe the sea's associative characteristics in that it is 'fonginge' (taking, susceptible) and 'commynycable'.[90] The water takes on the qualities of the earth through which it passes, sometimes salty or sweet, clear or turbid, thick or thin 'For watir hath no determinate qualite, noyþer colour noiþer savour, and þat for he shulde be able to fonge [take] eseliche alle colours and savours'.[91] Later Bartholomaeus begins a chapter on the abyss believed to be below the earth's surface, a place for waters to gather together before reemerging. He says '*Abissus* is depnesse of water unsey' (unseen) and, because an abyss is so primal and the first thing to be made from nothing, it is the 'fonger', the receiver 'of shappes and formes and þat by moste ordinate ȝifte of God [by means of the most properly directed gift of God]'. Abysses intrigue Bartholomaeus because of Genesis; he cites Saint Augustine in these passages who claimed that they were the first matter without form and shape.[92] The abyss, Trevisa's translation continues, is called 'watir, for it is fletynge [flowing] and rennynge and also for it fongeþ [takes] al manere fourmes and shappes'. The abyss is so deep that it can always accept any amount of water and, he adds, it is 'commynycable'. He does not explain this term, but the connotation from these and other passages seems to be that it 'communes' with other waters elsewhere and with other entities, such as lands, in diverse locations. He concludes on the abyss by saying 'it was called water for ablenesse to take upon it forme and shape, for by that ablenesse it might take all manner forme and shape and qualitie'.[93] Water's distinguishing feature of 'ablenesse', a responsiveness to other things and forces, is also one of the principal characteristics of the ocean.[94] The sea's 'walowynge' causes itself to foam, thus becoming another substance, it mingles gravel into itself, it 'shoveþ' fish, and it is moved by the winds, and it in turn also moves and even 'bredeþ' winds.[95]

The sea is neither positive nor negative as a whole in Trevisa's Bartholomaeus. The sea's 'walowynge' may 'shoveþ fysshes', but it also is ameliorative in this effect; it 'amendiþ ham [the fish] and makith ham bettir'.[96] The moon and the tides, and the dog-star Canicula (Sirius) affect the sea, which in turn cleans itself, and is generative, producing more animals and fish than the land as well as, paradoxically since it is itself soft, bringing forth hard things, both alive and dead, such as shellfish and precious stones. It helps with sicknesses, can change its bitterness to sweetness when it passes through its underground caverns, and it nourishes its animals. The ocean may cast up mists and clouds that 'maketh dymnes and derkenesse', but it also 'bateþ [abates] þe hete' of the sun. It is so changeable that it has 'no colour of his owne'; it can be yellowish, white and clear, or black.[97] It likewise has mixed effects on ships, some bad and some potentially beneficial. For example, it 'bereþ up shippes and puttep ham to clyffes and brymmes' (seashores), but it also 'bereth hem [them] with him [it] and holdep ham streyte'.[98] He notes oceanic perils but, while some are due to its waves, it can be dangerous mainly because of other elements that affect it or are near it. Winds make it larger, the shore and rocks can imperil ships, and mists can make navigation

difficult. Ships can be endangered, but the peril can also be, he points out, because they are 'feeble' in themselves or because pilots are not proficient.[99] Indeed, Bartholomaeus invariably insists on carefully detailing both the sea's negative qualities and more positive ones. This mixed quality extends to the very definition of the sea itself because, although it might be called different names, it is 'al one see', an ocean that can always bring people who are separated back together again. It 'helpeþ in nede, and is socour in periles, and spede and shortnesse of waies, and profit and wynnynge of travaillynge [travelling, working] men'.[100]

Trevisa's translation repeats and sums up many of the qualities in the chapter on the synonym *pelagus*:

> *Pelagus* is þe brede [breadth] of þe see withoute clyf [shore] and withoute haven […] And þat haþ moste depnesse and unstablenesse and contynuel mevynge, and gendreth and feedith whales and oþir diverse wondirful fisshes, and bre[d] eth many vapoures and fumosites [fumes], and haþ þerof þiknesse and myste, and takeþ many diveristees of colours by dyversitees of wyndes, and gadreþ above a fome of [because of] smytynge and betynge of wawes, and crieþ and maketh grete noyse. And a criynge see and an unpeisible is perilouse.[101]

Literary writings make similar observations about the sea, including the fact that it is impossible if not foolish to make general statements about it because it is not one entity. The *Boece* for instance, suggests that it is imprudent to 'despise the see' and its 'manasynge with flodes'.[102] In the 'Miller's Tale', Nicholas happily and intentionally manipulates John's poor scientific knowledge about the sea and scripture when he tells him the world, including his young wife, Alison, is about to be drowned in a second flood. It is a sign of John's ignorance and blind faith that his imagination leads him to envisage 'Noees flood come walwynge as the see/To drenchen Alison, his hony deere'.[103] The sea can quite innocently take the sun's rays into its depths when it sets, but quite often its depths are less benign and more indistinct. It can hold marvels and wealth in its depths, but even though Chaucer's Boethius says that Homer might sing about the clearness and brightness of the sun, even its brightness cannot 'breken or percen the inward entrayles of the erthe or elles of the see'.[104]

In some literary works, the sea gives rise to milder senses of worry and even a lack of concern. In a few, melancholy shades into a less strong and shorter lived emotion of fruitless desire. Such is Antiochus' attempts to 'restrayne' the sea in the 'Monk's Tale'.[105] The sea is even more ambiguous and subtle in the 'Parson's Tale'. It might be a great tempest, but Chaucer says that when it comes to sin, a wave might engulf a ship, but the same damage can be caused by 'smale drops of water, that entren thurgh a litel crevace'.[106] Consider also Chaucer's other frequently cited descriptions of the sea's effects in the 'Franklin's Tale', the story of the lady Dorigen, her husband Arveragus, and the young squire Aurelius. Arveragus, who first gains Dorigen's pity through his worthiness and obedience to her, travels over from Brittany to England for adventure. In the two years he is away, Aurelius declares his love for Dorigen. Dorigen's rash promise to grant Aurelius her love involves the sea and its shore so that the emotives circulating among the three characters are tied to the ocean's threat but also its 'unstablenesse'.

Readers notice the link between feelings and ocean in Dorigen's strong complaints at the beginning of the tale when Arveragus has left. She spends time looking out to the ocean, searching for a ship or barge that might be carrying her husband back to her. At other times, she casts her eye down to the 'grisly rokkes blake' and 'into the see', despairing over the dangers they might present to his voyage.[107] She considers the rocks 'rather a foul confusion/Of werk than any fair creacion/Of swich a parfit wys [perfect manner of] God and a stable'.[108] When she makes the promise to be Aurelius' love, she says she will do so only if he removes all the rocks, which sends him into despair that seems to have no resolution. So far the tale accords with the stronger courtly emotions of pity, faithfulness, love both husbandly and passionate, of being forlorn, and of dangerous melancholy. But it is the sea's changeableness that ultimately enables Aurelius to answer her promise. The ocean's inconstancy impinges on Dorigen's constancy to her husband, distorting it. Aurelius learns, by means of his brother's scientific arts and the unusual and ancient learning of a certain magician, the time period in which the tide will obscure the rocks. The conclusion of this work is that 'It semed that alle the rokkes were aweye'.[109] In fact, Aurelius has been right to pray to the moon for help because, as he describes Lucina, she 'of the see is chief goddesse and queene'.[110] Dorigen's first reaction to beholding the rocks' absence is to wish to commit suicide, but the story eventually provides a series of exchanges among the men so that she is freed from her promise with her husband.

Oceanic metaphors in literature include a speaker not caring whether he (traditionally male) floats or not, a metaphor which is interesting to trace. Floating can occasionally be quite positive, as when Troilus and Criseyde, finally together, float 'in blisse' or when Troilus feels the same floating upon learning he will see his love again.[111] It is a sign of love but also of internal conflict and uncertainty in the *canticus Troili* in which he likens himself to being tossed 'to and fro': 'Al sterelees withinne a boot am I/Amydde the see, bitwixen wyndes two,/That in contrarie stonden evere mo [more]'.[112] He does not know what ails him. In Chaucer's complaint, *Anelida and Arcite*, false Arcite is said not to know nor care whether Anelida 'flete or synke'.[113] In the author's other complex allegory, the *Parliament of Fowls*, the narrator is so 'astonyeth' by love – 'The dredful joye alwey that slit so yerne [slides away so quickly]' – that he also does not care whether he floats or sinks.[114]

In sum, although connections between the scientific analyses of the sea and literary descriptions are not always explicit, the sea is clearly affective in both discourses. In scientific discourse, it interacts with other objects large and small such as the moon, shores, vessels, and marine creatures. Its very substance is characterized by continual internal change and transformation, and it is associative in that it gives rise to other things such as mists and winds, and is in turn altered by other entities. In Middle English literature, this mutable openness often serves as a metaphor for strongly passionate emotions such as melancholy and futile desire, but it also characterizes uglier feelings of potentially dissimulating kinds. Perhaps the most radical of all instances of this kind is when the sea calls epistemological distinctions into question. We are left, for example, with a moment in the 'Man of Law's Tale' when, after sailing through the Strait of Morocco, Constance washes up on the shore of North England in 'oure occian'.[115] Despite this sense of familiarity, upon reaching the beach, she seems to

be 'so mazed in the see/That she forgat hir mynde'.[116] The sea – 'walowynge' and 'commynycable' – here causes amnesia and temporarily erases a speaker's identity so that Constance cannot remember who she is or how she got there. Indeed, the sea has made it so that 'what she was she wolde no man seye'.[117] The phrase suggests that Constance might be withholding her identity (she will not tell anyone who she is), but it also implies that the sea leads to questions about not only who someone is but also what something is.

Notes

1 Medieval scientific analysis of the ocean is often overlooked, many significant histories claiming that the Middle Ages did not think of the sea scientifically, and that the sea and shores were not studied scientifically until the eighteenth century or even later. See, for example, A. Corbin, *The Lure of the Sea: The Discovery of the Seaside in the Western World, 1750–1840*, Berkeley, CA: University of California Press, 1994; M. S. Reidy, *Tides of History: Ocean Science and Her Majesty's Navy*, Chicago, IL: University of Chicago Press, 2009; and J. R. Gillis, *The Human Shore: Seacoasts in History*, Chicago, IL: University of Chicago Press, 2012.

2 Chaucer's career is described in *The Riverside Chaucer*, ed. L. D. Benson, Boston, MA: Houghton Mifflin, 1986, pp. xi–xxii. This edition is the source of all subsequent Chaucer references. For a recent biography that offers an overview of his career, see P. Strohm, *The Poet's Tale: Chaucer and the Year that Made The Canterbury Tales*, London: Profile Book, 2014, pp. 90–136.

3 B. H. Rosenwein, 'Problems and Methods in the History of Emotions', *Passions in Context: Journal of the History and Philosophy of the Emotions*, 1, 2010, p. 10. For other overviews of the field, see S. McNamer, 'Feeling', in *Middle English*, Oxford Handbooks Online, Oxford: Oxford University Press, 2007, and H. Crocker, 'Medieval Affects Now', *Exemplaria*, 29/1, 2017, pp. 82–98.

4 S. Downes, S. Holloway, and S. Randles, *Feeling Things: Objects and Emotions through History*, Oxford: University Press, 2018, p. 2.

5 Corbin, *The Lure of the Sea*, p. 9.

6 W. M. Reddy, *The Navigation of Feeling: A Framework for the History of Emotions*, Cambridge: Cambridge University Press, 2001, p. 129.

7 Reddy, *Navigation of Feeling*, p. 105.

8 B. H. Rosenwein coins the term 'emotional community' in *Emotional Communities in the Early Middle Ages*, Ithaca, NY: Cornell University Press, 2007.

9 Reddy, *Navigation of Feeling*, p. 105.

10 S. Ngai, *Ugly Feelings*, Cambridge, MA: Harvard University Press, 2007, pp. 1, 6–7.

11 *The Etymologies of Isidore of Seville*, ed. and trans. S. A. Barney, W. J. Lewis, J. A. Beach, and O. Berghof, Cambridge: Cambridge University Press, 2006, 8.1.

12 *Etymologies*, 8.10, 8.11.

13 *Etymologies*, 8.14.

14 *Etymologies*, 8.15.

15 On the rutter, see my study, 'An Early English Rutter: The Sea and Spatial Hermeneutics in the Fourteenth and Fifteenth Centuries', *Speculum: A Journal of Medieval Studies* 90/3, 2015, pp. 701–27.

16 *Canterbury Tales*, VIII.947–50.

17 *Canterbury Tales*, I.402.

18 *Canterbury Tales*, I.400.

19 *Boece*, 1.m2.20–1, 4.m5.6–7, 4.m6.11–5.

20 *Boece,* 1.m4.5–7.

21 *Boece*, 2.p2.43–6.

22 *Boece*, 2.m1.3–6.
23 *Boece*, 2.m3.13–6.
24 *Boece*, 1.m7.2–9, 4.m5.24–5.
25 'ravishen', *Middle English Dictionary*, ed. H. Kurath, S. M. Kuhn, and R. E. Lewis, Ann Arbor, MI: University of Michigan Press, 1956–2001, http://quod.lib.umich.edu/m/med/.
26 *Boece*, 1.m2.1–2.
27 *Boece*, Bo 1.p2.29; 1.m5.55–6.
28 *Boece*, 1.p3.64–6.
29 *House of Fame*, 2.1034–8.
30 *Boece*, 1.m4.5–7.
31 *Boece*, 2.m5.18–24.
32 'The Former Age', p. 22.
33 'Patience', in *The Works of the Gawain Poet: Sir Gawain and the Green Knight, Pearl, Patience, Cleanness*, ed. A. Putter and M. Stokes, London: Penguin, 2015, p. 115.
34 'The Pilgrims Sea-Voyage and Sea-Sickness', in *The Stacions of Rome and the Pilgrims Sea-Voyage with Clene Maydenhod*, ed. F. J. Furnivall, EETS, o.s. 25. London: N. Trübner, 1867, p. 8.
35 'Pilgrims Sea-Voyage', p. 27.
36 'Pilgrims Sea-Voyage', p. 46.
37 'Pilgrims Sea-Voyage', p. 49.
38 'Pilgrims Sea-Voyage', p. 68.
39 'Pilgrims Sea-Voyage', pp. 71–2.
40 *The Book of the Duchess*, pp. 73–4. The *Book* goes on to describe how his queen, Alcione, cannot sleep, so she prays to Juno, who sends to Morpheus and his son to fetch the body of Ceyx and bring it back to Alcione to prove he is dead, at which point she dies. In the *Canterbury Tales*, the sinister character of Saturn claims drowning in the sea for himself in the 'Knight's Tale' (I.2456).
41 *Canterbury Tales*, VII.3069.
42 *Canterbury Tales*, VII.3101–4.
43 *Canterbury Tales*, II.68.
44 *Canterbury Tales*, II.463.
45 *Canterbury Tales*, I.485, II.491.
46 *Canterbury Tales*, II.479, II.1109–10.
47 *Canterbury Tales*, II.829–30. Other references to isolation due to the ocean occur in Chaucer's works, as when Ariadne is left 'in an yle amyd the wilde se' in the *Legend of Good Women* (F.2163).
48 *The Libelle of Englyshe Polycye: A Poem on the Use of Sea Power*, ed. G. Warner, Oxford: Clarendon, 1926, Prologue. On the *Libelle*, see S. I. Sobecki, *The Sea and Medieval English Literature*, Cambridge: D. S. Brewer, 2008, pp. 145–60.
49 *Libelle of Englyshe Polycye*, 35.
50 *Libelle of Englyshe Polycye*, 1092–7.
51 *Canterbury Tales*, I.276.
52 *Canterbury Tales*, I.59.
53 *Legend of Good Women*, F.621.
54 *Legend of Good Women*, F.641, F.646.
55 See, for example, S. Rose, *England's Medieval Navy 1066–1509: Ships, Men, and Warfare*, Barnsley: Seaforth, 2013, pp. 115–40.
56 *Legend of Good Women*, F.644.
57 *Legend of Good Women*, F.655.
58 *Legend of Good Women*, F.660–1.
59 *Boece*, 2.p2.43–5, 2.m3.13–5, 2.p5.60.
60 *Boece*, 2.m2.3–4.
61 *Boece*, 2.m8.1–15.
62 *Alliterative Morte Arthure*, *King Arthur's Death: The Middle English Stanzaic Morte Arthur and Alliterative Morte Arthure*, ed. L. D. Benson and E. E. Foster, TEAMS, Kalamazoo, MI:

Medieval Institute, 1994, http://d.lib.rochester.edu/teams/publication/benson-and-foster-king-arthurs-death, I.754.
63 *Alliterative Morte Arthure*, I.759–61.
64 *Romaunt of the Rose*, B.3773–6.
65 *Romaunt of the Rose*, B.4710, B.4712–4.
66 *Troilus and Criseyde*, I.606.
67 *Troilus and Criseyde*, III.1744.
68 *Troilus and Criseyde*, III.1758–61.
69 *Troilus and Criseyde*, V.640–4.
70 *Troilus and Criseyde*, 2.1–6.
71 *Kyng Alisaunder*, ed. G. V. Smithers, vol. 1, Early English Text Society, o.s. 227, London: Oxford University Press, 1952, 1559.
72 *Kyng Alisaunder*, 6186. It is unclear whether the body of water is actually the sea or a lake.
73 *Kyng Alisaunder*, 6205, 6207. See also 6166–7.
74 *Kyng Alisaunder*, 6198–9.
75 *Canterbury Tales*, VII.3267–72.
76 Bede, *The Reckoning of Time*, ed. and trans. F. Wallis, Liverpool: Liverpool University Press, 1999, p. 29.
77 Wallis, Commentary, in Bede, *Reckoning*, p. 311.
78 *The Topography of Ireland and the History of the Conquest of Ireland*, trans. T. Forester, *The Historical Works of Giraldus Cambrensis*, ed. T. Wright, London: George Bell, 1894, p. 59.
79 *Topography of Ireland*, p. 60.
80 'The Text of Robert Grosseteste's *Questio de fluxu et refluxu maris*', ed. and trans. Richard C. Dales, *Isis* 57/4, 1966, p. 470.
81 *Questio de fluxu et refluxu maris*, p. 471.
82 *Tretise on the Astrolabe*, 2.46.
83 Information about Bartholomaeus' life and *De proprietatibus rerum* can be found in many works, including M. C. Seymour, et al., *Bartholomaeus Anglicus and His Encyclopedia*, Aldershot: Variorum, 1992, and E. Keen, *The Journey of a Book: Bartholomew the Englishman and the Properties of Things*, Canberra, ACT: ANU E Press, 2007.
84 Bartholomaeus Anglicus, *On the Properties of Things: John Trevisa's Translation of Bartholomaeus Anglicus De proprietatibus rerum: A Critical Text*, ed. M. C. Seymour, Oxford: Clarendon, 1975, volume 1, p. 647/16–24. I follow Seymour in giving the page number followed by line numbers on the page.
85 *On the Properties of Things*, p. 646/8.
86 *On the Properties of Things*, p. 663/7–9.
87 *On the Properties of Things*, p. 662/24.
88 *On the Properties of Things*, p. 662/30–1.
89 *On the Properties of Things*, p. 669/22–3, p. 669/26.
90 *On the Properties of Things*, p. 659/11, p. 665/26.
91 *On the Properties of Things*, p. 647/7–9.
92 Augustine, *Confessions*, vol. 2, trans. C. J. B. Hammond, Cambridge, MA: Harvard University Press, 2016, 12.3.
93 *On the Properties of Things*, pp. 664/22–665/26.
94 *On the Properties of Things*, p. 665/19.
95 *On the Properties of Things*, pp. 662/24–663/4.
96 *On the Properties of Things*, p. 662/34.
97 *On the Properties of Things*, p. 670/3–4.
98 *On the Properties of Things*, p. 663/5–6.
99 *On the Properties of Things*, p. 672/3.
100 *On the Properties of Things*, p. 666/16–24.
101 *On the Properties of Things*, p. 674/19–24.
102 *Boece*, 2.m6.16, 2.m4.4–5.
103 *Canterbury Tales*, I.3616–7.

104 *Boece*, 3.m8.9–18, 5.m2.1–6.
105 *Canterbury Tales*, VII.2587.
106 *Canterbury Tales*, X.362.
107 *Canterbury Tales*, V.859, V.863.
108 *Canterbury Tales*, V.869–71.
109 *Canterbury Tales*, V.1296.
110 *Canterbury Tales*, V.1046.
111 *Troilus and Criseyde*, III.1221, III.1671.
112 *Troilus and Criseyde*, 1.415–8.
113 *Anelida and Arcite*, 182.
114 *Parliament of Fowls*, 7. The same phrase of disregard appears in Chaucer's 'Complaint Unto Pity', 110.
115 *Canterbury Tales*, II.505.
116 *Canterbury Tales*, II.526–7.
117 *Canterbury Tales*, II.524.

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22

Enter Jack Tar

The blue-water mariner in early modern world literature

Dan Brayton

In European culture, argues the philosopher Hans Blumenberg, the trajectory of human life is persistently compared with a sea voyage. 'Humans live their lives and build their institutions on dry land', Blumenburg notes in his study *Shipwreck with Spectator*. 'Nevertheless', he continues, 'they seek to grasp the movement of their existence above all through the metaphorics of the sea voyage'.[1] Yet how have those human lives spent predominantly on salt water been represented in cultural history? From the ancient Mesopotamian hero Gilgamesh to Noah, Jonah, Jason, Odysseus (that green-eyed quester forever thwarted by *Pontus*), and Aeneas, cultural heroes have quested across the waters. Yet ancient and classical mariners were part-time sailors, forced to navigate under dire constraint or as part of a one-time mission to slay a foe or retrieve a precious object. Such legendary and literary mariners clung to the coastlines, rowing through the Mediterranean calms and only hoisting sail in a favourable following wind.[2] There is not a blue-water mariner among them, for the simple reason that, until the early modern period, Europeans had not devised the means to transit the oceans. With the exception of the Norse, who mastered the North Atlantic sub-Artic gyre by 1000 CE and populated Iceland, southern Greenland, and parts of Newfoundland, European navigation remained resolutely coastal in scope until the fifteenth century. The Norse were themselves seasonal and occasional mariners, fitting their extraordinary nautical exploits into lives taken up with farming, fishing, and – for several centuries – looting and pillaging. It is not their story that I mean to tell here. My subject is the oceangoing or blue-water mariner of early modernity, commonly known as Jack Tar, a sobriquet that gained currency toward the end of the seventeenth century and thereafter stuck like tar on canvas for more than two centuries.[3]

Oceangoing mariners, whose lives were spent on literal rather than metaphorical sea voyages, cluster at the margins of European cultural history in a sort of cultural intertidal zone by hegemonic groups – the Tudor-Stuart aristocracy, the Georgian

and Victorian bourgeoisie – preoccupied with their own central role in the politics of the nation state. An everyman with folkloric roots, the oceangoing mariner would become, by the seventeenth century, a familiar albeit peculiar and threatening figure in the ports of western Europe and, later, the globe, frequenting the decks and pages of early modern seagoing vessels and texts in various guises. In English, this character type came eventually to be called Jack Tar, a diminutive that marked him as a type rather than an individual.[4] The parodic family name derives from the material most closely associated with the mariner's trade when sailors spent much of their time at sea tarring the standing and running rigging of sailing vessels, which was composed of perishable materials – linen, wool, hemp, canvas – and softwood spars that would quickly rot when exposed. Mariners' clothing and bodies were habitually covered with the redolent substance, detectable by its distinctive odour. Until quite recently mariners' garb – hats, trousers, and foul weather coats – was composed of textiles that were tarred for preservation and waterproofing, as were sails and awnings.[5] By the late seventeenth century, the olfactory association of mariners with tarpaulins garnered them the nickname that would last even beyond the demise of working sail. Universally described as *tarry*, marked by a humble yet indelible tactile and olfactory presence that is at once cultural and material, familiar and foreign, early modern sailors became *tars*.[6]

In much the same way as John Bull later became a familiar cartoon caricature of the generic Englishman in eighteenth-century broadsides and newspapers, Jack Tar came to denominate the English blue-water mariner (and, for some time, American mariners as well). Yet his origins lie at the intersection of print culture and transatlantic navigation, somewhere between the late fifteenth century and the first usage of the nickname to signify an oceangoing mariner. *The Oxford English Dictionary* cites the date for the first use of Jack Tar as 'a common appellation for a sailor' as 1659. As early as the mid-sixteenth century, the Jack denoted 'a man of the common people; a lad, a fellow, chap; *esp*. a low-bred or ill-mannered fellow, a knave'.[7] Two centuries earlier, Langland and Gower both employed 'Jack' to refer to 'any representative of the common people'.[8] The class connotations of the nickname are invariably humble in nature. For this reason, the early modern origins of Jack Tar as a generic term for sailors are of particular interest, for the name signifies, more than a style or subculture, a blue-water ontology both familiar and exotic. What interests me about the development of this character type in European literature and culture are two moments of historical emergence, the first when the oceangoing mariner first appears in works of imaginative literature, the second when he becomes a recognizable stereotype (and, hence, a stock character). This trajectory correlates with appearance, in print culture, of a trans-oceanic imaginary.

Early modern literary texts haphazardly track the historical itineraries of extravagant voyagers who inhabited early modern oceanic and textual spaces. The blue-water mariner traverses oceans and national boundaries, languages and literary genres, moving across, between, and even *beyond* textual and territorial borders, peopling diverse art forms in various guises. My purpose in pursuing this intertextual and international figure is to map some of the overlooked relationships between early

modern oceanic voyagers, the emergent maritime powers of England, Portugal, and the Netherlands, and literary production. In what follows I offer an abbreviated literary history of the blue-water mariner, a trans-cultural character who appears in early modern Europe wearing a variety of costumes and speaking disparate languages. My goal is to specify, as nearly as possible, the moment and conditions of his irruption onto the stage of European literary history as a distinctive cultural presence in the literatures of several maritime nations.[9] Although this character type goes by a host of different names in different historical periods and literary texts, I shall refer to this figure as both Jack Tar and *Homo pelagicus*, an oceanic man. The mock-binomen gestures to the distinctiveness of the blue-water mariner as a species apart. It is also deployed as a challenge to ready and easy notions of Renaissance Man.[10] In what follows, I excavate the literary genealogy of this character type in the cultural production of early modern seagoing nations, mapping its early development in Portuguese, English, and Dutch literary texts.

The emergence of a global persona

Homo pelagicus appears in European literature shortly after the development of movable type transformed literary culture forever, striding across the English stage in Robert Daborne's 1612 play *A Christian Turned Turk*.

Gismund:	Of what land are you/And whither are you bound?
Davy:	We are of Marcelles, bound for Normandy. Of which are you?
Gismund:	We are of the Sea!
Sailor:	The Devil land you!

In this exchange, familiar to any mariner who has 'spoken' to another ship at sea, Gismund identifies himself not as a subject or citizen but as a member of an oceanic nation for his 'we' denotes a collective identity; yet it also suggests the self-conferral of royal status, a proximity to King Neptune.[11] As Claire Jowitt argues in her recent study of the role of pirates in Tudor and Stuart literary culture, 'for him [Gismund] the pirate vessel represents an alternate political space, and that his allegiances are free from the claims of orthodox national identity'.[12] While it is certainly the case that early modern piracy was a complex and dynamic social phenomenon that tested national affiliation, as dramatized in Daborne's play about the pirate Jack/John Ward, the focus here is the way Gismund claims an extra-national identity defined by oceanic space. His name itself evokes the Latin root for 'world' ('mundus'), and indeed worldliness is one of the markers of the blue-water mariner, whose voyages have kept him away from home for months and years at a time.[13] Gismund stakes a claim to both an ambivalent social position at the border of criminality and patriotism, and he asserts an emergent subjectivity born of ocean voyages and intimacy with strange lands and cultures. In so doing, he points to an oceanic ontology readily assimilated into commonplace notions of cultural alterity: declaring allegiance to the sea was but a step from 'turning Turk', a renunciation of national and religious identities tied to the sea and to the threatening cultures that lay across it.[14]

Gismund's oceanic identity and worldliness resulted in part from the rapidly changing early modern *imago mundi*, which was suddenly very blue, and in part from the transnational nature of print culture. 'I take world literature', writes David Damrosch, 'to encompass all literary works that circulate beyond their culture of origin, either in translation or in their original language […] In its most expansive sense, world literature could include any work that has ever reached beyond its home base'.[15] This encompassing definition is then qualified: a literary 'work only has an effective life as world literature whenever, and wherever it is actively present within a literary system beyond that of its original culture'. The culture of Renaissance humanism surely constituted a literary system within which texts frequently circulated beyond cultural boundaries: sonnets and other lyric forms, so avidly read by Tudor courtiers, were not the only textual elements disseminated by Petrarch; so, too, were neo-Platonic ideas and a particular set of poetic postures, which circulated as surely as sonnets. Textual circulation was not limited to texts, per se, in the form of bound, printed volumes, whether biblical, classical, or incunabular. If world literature is 'a mode of circulation and reading' as Damrosch defines it, whereby texts and textual effects signify in new ways even as they cross national and cultural borders, then surely world literature must also encompass *characters*, those anthropomorphic textual constructs that so often 'circulate beyond their culture of origin', as units of analysis.[16]

As print culture takes hold in the late fifteenth and sixteenth centuries, the stock characters of medieval fabliaux and chivalric romance give way to early modern iterations of classical character types (such as the clever servant). We also witness the emergence of wholly new character types, some of them defined by their association with newfound lands across the oceans and with arduous trans-oceanic sea voyages. The 'discovery of the ocean', as J. H. Parry described the geographic foundations of the Columbian exchange, generated new frontiers for the literary imagination, and new characters.[17] World literature, then, in its nascence, is an early modern phenomenon generated at the conjunction of the printing press, the reading public, and the ship. In the early sixteenth century, precisely what constituted the world was just as conceptually uncertain as the complex of ideas and practices signified by *litteras*. Jack Tar, an international and oftentimes transnational character type circulating and signifying well beyond the 'home base' of the nation state, is born at the moment of cultural negotiation when western European nation states turn to the sea.

It is tempting to claim to locate the earliest incarnation of *Homo pelagicus* in the General Prologue to the *Canterbury Tales*, as a sailor making his literary debut not aboard ship but on horseback while tippling wine from Bordeaux as the Chapman naps. This would be a grave mistake, but not for obvious reasons. Chaucer, who came from a family of wine merchants and knew much about the treacherous waters between Bordeaux and Ipswich, wrote a treatise in 1391 on the astrolabe for his son, demonstrating considerable technological knowledge of it and the compass, two technological devices that would make it possible for generations of mariners to transit the oceans. Yet Chaucer describes his Shipman as a man of coastlines, capes, and 'craft': 'But of his craft to rekene wel his tydes,/His stremes, and his daungers hym besides,/His herberwe, and his moone, his lodemenage,/Ther nas noon swich from Hulle to Carthage' (GP, ll. 401–4).[18] These are the marks of a highly skilled yet primarily coastal

mariner, whose experience of navigation out of sight of land was limited to short transits across the Celtic Sea and the Bay of Biscay. His nautical knowledge consists primarily of pilotage and dead reckoning, for the kinds of knowledge and experience required to 'rekene' currents ('stremes'), tides, navigational hazards, the cycles of the moon, the use of the compass ('lodemenage'), and distances between harbours ('herberwe') belong to mariners engaged for the most part in cabotage (coastal trade). The geography that defines the Shipman, 'Fro Grootlond to the cape of Fynystere,/And every cryke in Britaigne and in Spayne', though international, is a catalogue of capes and landmarks that recapitulates the 'haven-finding art' of medieval coastal pilotage.[19] Thus, the Shipman does not belong to the genus *Homo pelagicus*, even if he is a clear progenitor of later seagoing mariners such as Francis Drake and John Hawkins. When it comes to the genealogy of the blue-water mariner, Chaucer's Shipman is that most English of fishes, a red herring, for he circulates entirely within an old-world geography.[20]

Yet little more than a century after Chaucer's death, the blue-water or world mariner emerges in the wake of the first trans-oceanic voyages by the likes of Christopher Columbus, Vasco da Gama, and Amerigo Vespucci, and thence becomes a cultural presence in several national literatures as print culture spreads across Europe. He first takes the form of individual characters, in fiction and nonfiction, whose oceangoing exploits align him with the political and economic interests of particular nation states – but not always the one where he was born. Thus, the Genovese (or Catalan) Columbus becomes a hero of Spain, as does the Portuguese Ferdinand Magellan. Later, Drake becomes a national hero for guarding the interests – indeed, the very survival – of an upstart island nation suddenly transformed, by means of its sea power, from a politically and economically marginal polity to a major geopolitical power. Yet even as such historical personages make their entrances onto the world-historical stage, writers of imaginative literature begin to imagine fictional characters marked by a new kind of transnational subjectivity.

Thomas More's vagrant philosopher Raphael Hythlodaeus is one such character, born of a political discussion about enclosure and criminality in England that transforms into a narrative of an idealized, fictional foreign nation. Yet Hythlodaeus fails to qualify as an avatar of *Homo pelagicus*, 'for', as Peter Giles explains near the beginning of the *Utopia* (1516), 'he has not sailed as a seaman, but as a traveler, or rather a philosopher'.[21] Hythlodaeus is a global voyager, noteworthy for his knowledge of far-flung lands and peoples, yet his dedication to philosophy and his lack of seamanship render him a type of Renaissance Man, the embodiment of the ideals of humanism, but not a mariner. Hythlodaeus, who personifies the transnational life of the mind that lies at the heart of More's utopian agenda, is marked by his travels with Vespucci, whose travels and writings gave a name to the New World on the far side of the Atlantic. The discovery of the 'Americas', those immense land masses named after the first navigator to realize they were not part of Asia, was rendered conceptually coherent by means of a publishing event: Martin Waldseemüller's 1506 world map with the Americas gave visual form to the vast land masses of North and South America for the first time. The first genuine avatar of Jack Tar is roughly contemporaneous with Hythlodaeus.

Camões' *marinheiros* and the *Volta do Mar*

Before the *Homo pelagicus* type entered the imaginative literature of the British Isles, he already played a central role in Portuguese literature, where he made his debut at least half a century before Daborne's Jack Ward. Home to two major Atlantic seaports, Oporto and Lisbon, with ready access to the so-called prevailing northerly winds so predictable sailors have nicknamed them 'the Portuguese Trades', and blessed with the strong south-running Canary Current, Portugal was ideally situated to become the first European nation state to define itself by global navigation. During the fifteenth century, the Duke of the Algarve, who would become known as Prince Henry the Navigator, provided the financial and intellectual capital that sponsored a series of voyages that would lead not just to the discovery of new lands and varieties of trade, but also for mastering the prevailing winds and currents of the great oceanic gyres. Those who would do so, *os marinheiros*, were oceangoing mariners possessed of specialized geographic and oceanographic knowledge. Atlantic navigation differs fundamentally from navigation in the Mediterranean, for such phenomena as tides and ocean currents (the Canary Current, the Gulf Stream) are nonexistent in the Mediterranean. The sheer length of oceanic transits made life at sea different in kind, for the vast circulatory patterns known as the ocean gyres put new demands on shipmasters and seamen alike.

The navigational feat that would pave the way for the Portuguese to make the perilous trip to the Indies and back was the *Volta do Mar*, a 'turn to the sea', which necessitated sailing far offshore (westward, in the northern hemisphere) in search of favourable winds for the return home. As the historian Alfred Crosby explains:

> Sailors of the Mediterranean Atlantic pinned in the Canaries by the southward rush of air and water had to steer northwest into the open ocean and steadily sail farther and farther away from their last landfall, perhaps without gaining a centimeter toward home for many days, until they finally sailed far enough out of the tropics to tap the prevailing westerlies of the temperate zone. Then they could steer for home. They had to have faith in their knowledge of the wind, turn their back to the land, and become, possibly for weeks, creatures of the pelagic deeps.[22]

The *Volta do Mar* required a leap of faith in a navigator's ability to negotiate the prevailing circulatory pattern of winds and currents in the North Atlantic subtropical gyre. This was a massive, and collective, nautical achievement on the part of the Portuguese, a conceptual triumph built upon feats of nautical endurance, which brought Europeans ever further south, east, and west in the fifteenth century. The *Volta do Mar* was the condition of possibility for the European nautical encounter with the Americas, and it required considerable knowledge of prevailing winds and currents in the North Atlantic. It was a feat that led to the establishment of the trans-oceanic shipping lanes that would become the early modern super-highways where blue-water mariners henceforth plied the waters, and their trade. Without knowledge of the circulatory patterns of the subtropical gyre, a mariner could neither cross an ocean nor

reliably return home. After a century of voyages in search of a route to the Spice Isles around Africa that put Portugal on the geopolitical map, the *marinheiros*, now blue-water or world mariners, had figured out how to set out and return home using the anti-cyclonic forces available to them. No wonder that Columbus (whether Genoese gentile, or Catalan Jew) learned his trade in Lisbon and married a *lisboeta*, for it was Portugal that led the way in early modern trans-oceanic navigation.

Over the course of the fifteenth century, Portuguese navigators and foremast Jacks transitioned from being coastal sailors of the 'Mediterranean Atlantic' into trans-oceanic mariners over the course of a series of blue-water voyages that grew longer and more hazardous with each embarkation.[23] This transition is evident in the rig design of the caravels they employed on their century-long campaign to round the African continent, culminating in da Gama's 1497 doubling the Cape of Storms. The vessel of choice, the *caravela latina*, was a hybrid form, with its flexible, Mediterranean rig dominated by multiple lateen sails, and its seaworthy 'round' hull more suited for Atlantic conditions. The versatility of the lateen sail, with its relatively high aspect ratio, was valuable for coastwise expeditions, but once Bartholomew Diaz and da Gama had established the *Volta*, they developed the *caravela redonda*, which carried square sails on the main and foremasts, a clear indication that the *marinheiros* had learned how to keep the winds mainly at their backs. From then on – the moment when conceptual mastery of the gyres allowed for predominantly downwind sailing – it became possible to sail the immense, cumbersome carracks or naus to Goa and back.[24] *Homo pelagicus* preferred to sail downwind.

It is in sixteenth-century Portuguese literature that *Homo pelagicus* makes his literary debut. One *marinheiro*, named Luís Vaz de Camões, was a poet whose career spanned oceans as well as literary genres. In his lyric poems, Camões describes the often-harrowing experiences of the *Careira da India*, the Indian voyages that garnered immense wealth for Portugal by the early decades of the sixteenth century, spawning the architecture known as Manueline and catapulting Portugal to the first rank of maritime nations. Camões most notably celebrated the historic accomplishment of his sea-borne countrymen in his epic poem of the Portuguese people, *Os Lusíadas*, placing the great navigator da Gama in the role of Odyssean hero. The da Gama of Camões is no Odysseus seeking *nostos*; rather, religiously-inflected nationalistic fervour drives his desire for discovery, combined with a hunger for trade with the Indies. In *Os Lusíadas*, Camões made a major contribution to the literature of overseas travel and shipwreck (*naufragio*). Josiah Blackmore has argued that such narratives

> occupy a privileged position in the textual history of maritime Europe because they inaugurate the genre of prose text known as the shipwreck narrative […], a genre that will flourish in Portugal and will eventually expand northward, reaching the pens of Dutch, English, and French writers.[25]

By imagining a developing blue-water ontology in terms of the life-and-death experiences of seamen engaged in sea voyages of unprecedented geographic and chronological scope, Camões inaugurated a trans-cultural literary reflection on the relationship between human life and the global ocean. Each of the major

maritime powers that would emerge in western Europe contributed to this genre during the next few centuries in an early modern refiguration of the 'nautical metaphorics of existence' that Blumenberg identifies as a trans-historical feature of Western culture.

Yet it is Camões himself, more than his most famous poem, who interests me here. His life encompasses the kind of oceanic and cultural circulation that I have argued define the literary history of the blue-water mariner. The scent of tar is most palpable in Camões' use of the first-person plural, 'we', for the ship's crew. Camões had firsthand knowledge of the major nodal points of the mariners' world, sailing to Ceuta, Goa, and Macao. As one translator notes, 'Camoes was the first great European artist to cross the Equator and face the challenges to language and form in describing the unfamiliar people and places he encountered'.[26] As the first truly trans-equatorial European author, Camões would seem to personify world literature, yet his *oeuvre* and reputation remain, for the most part, bounded by the Portuguese language and national identity. Is it any wonder that Hythlodaeus, the well-travelled philosopher who is not quite a mariner, is described as a Portuguese by birth?

Vondel's tarry guild

In his subsequent incarnations, the early modern blue-water mariner would be equally at home aboard a Dutch *fluyt*, a Portuguese *caravela redonda*, or an English pinnace, defined, increasingly, by a peculiar set of characteristics and skills. By the end of the sixteenth century, the Dutch dominated the international herring fishery and began out-competing the Portuguese along the sea routes to the Indies. In the two centuries after its 1602 charter, the Vereneegde Oost-Indische Company, or VOC (the Dutch East India Company) would send more Europeans abroad than any other organization, and VOC trade would dwarf that of the London East India Company. By the seventeenth century, the Dutch were the global masters of seafaring, rivalling the English for control of sea routes and outdoing their rivals in the tonnage of global freight carried.[27] In 1623, the year of the First Folio, Amsterdam native Joost Von den Vondel (1587–1679), a prolific playwright, penned 'Het Lof der Zeevardt', an ode known in English as 'The Praise of Seafaring'. Vondel's plays have remained in production on the Amsterdam stage continuously for nearly four centuries.[28] Nothing like 'The Praise of Seafaring' exists in early modern English poetry for sheer nautical texture; it is a paean to mariners, viewed through a triumphalist nationalistic lens, which offers a teleological verse history of European seafaring. 'Lof', or praise (cognate with Latin *laudare*), is heaped not on an individual but a 'guild' of mariners more at home at sea than on land. The opening 14 lines paint a lively and colourful portrait of the blue-water mariners who were successfully building the Dutch maritime empire, competing with English ambitions.[29]

All you who grasp the rigging, tarred and pitched,
And like cats amid the cordage climb, bewitched

Al wat bepeckt beteert aengrypen kan, en vatten,
En danssen op de koorde, en klauteren als katten:

Sea-ghosts, you scale steep masts, fly aloft and prance;
Cradle-rocked in Thetis'[30] womb, at sea you dance;
5 Fraternity of fishers, blue-hat guild that flees
The feverish shore and yet breathes free upon the seas:
Grey-pate old salts who'd rather sleep out in all weathers
Than lie ashore, stinking, on beds of feathers:
You skippers who cannot rest for long with landsmen hosts,
10 But weigh your anchors early and steer for far-off coasts,
'Till all aboard be sore with toil, salt, and spume,
Now sailing straight, now seeking more sea room –
Embark with me, my lads, on this my voyage daring,
And join with me in my lofty praise of noble Seafaring.

Zeespoocken, die geswind den steylen mast op vliegt
En zijt in Thetis schoot van kindsbeen opgewiegt,
5 Bolkvanger[31]-dragend gild, en blaeuwe toppershoeden,
Die koortsen haelt op 't land, en lucht schept op de vloeden:
Stuurluyden grijs van kop, die liever rijst, en sinckt
In 't bedde vande Zee, als in de pluymen stinckt:
Ghy Schippers die niet lang aen eenen oord kond rusten,
10 En 't ancker licht, en worpt aen veergheleghen kusten:
En al wat binnens boords, van schuym en pekel soor,
Nu oomeweghen soeckt, nu houd een rechter spoor,
Begunstige onsen tocht; want hy is omgedragen
Verselschapt myne reys, en voorghenomen bevaert,
Di ick gheheyligt heb den lof der nutte Zeevaert.

Particularly striking about these opening lines is their insistence on the collective identity of a class of labourers (sailors) who nonetheless remain anonymous. They are types, not individuals, clearly intended to typify, not individualize, the practitioners of their craft. Of course, the Dutch had their individual maritime heroes, such as Jan Huygen von Lindschoten, but here *Homo pelagicus* is defined in terms of a collective identity. Nowhere in sixteenth- or seventeenth-century English poetry do we find any such composite portrait of the blue-water mariner.[32] The poem offers an aggregate portrait of a work-based subculture, beginning with Vondel's apostrophization of Dutch mariners as a 'blue-hat guild' of 'skippers'. He does so in diction that evokes the docks, wharfs, quays, lighters, schuyts, busses, and fluyts that filled the harbour of his hometown, deploying rhymed couplets, which bespeak a profound familiarity with the appearance, lifestyle, work habits, and preferences of blue-water mariners in the Dutch Golden Age. The opening line appeals to those who can grip or grasp 'things tarred and pitched' ('*bepekt beteert aengrypen kan*'), praising sailors for their physical prowess. They climb aloft in the rigging with such agility that the poet compares them to cats ('*als Katten*'); possessed of an alterity born of years at sea, they are also 'sea-ghosts' ('*zeespocken*'), eerie members of an aquatic republic. Vondel's seamen

are a breed apart, a subculture with specialized skills and a nation of pelagic beings more at home 'rising and sinking' aboard ship than 'lying on feathers stinking' ('*als in de pluymen* ["plumes"] *stinckt*'). In an era when feather beds were luxury items, far preferable to beds of straw that were almost invariably full of bed bugs (known as 'wall lice'), this is a strong statement of preference derived, perhaps, from the emergent association of the Netherlands with the freedom of the seas.

The arguments of Hugo Grotius, who penned his influential argument for the freedom of the seas in *Mare Liberum* in 1609, haunt the 'The Praise of Seafaring', which everywhere insists on the freedom-loving nature of mariners and the universal brotherhood of seafarers. Written to challenge the Portuguese monopoly on trade with the Far East, Grotius' legal broadside was translated by Richard Hakluyt into English shortly before his death in 1616. Yet whereas Grotius grounds his argument in theories of natural law, Vondel constructs a composite portrait of *Homo pelagicus* based on shared expertise. Sailors are free, Vondel insists, because they belong to an ancient fraternity of skilled specialists who possess the knowledge and craft to harness the wind and go where they will. Yet this freedom was equivocal, for Dutch mariners took part in a network of developing capitalist practices that increasingly defined them as interchangeable mobile labour, or 'hands' (as in 'all hands on deck'). If early modern mariners took part, on the one hand, in a sophisticated, emergent set of financial and material practices that propelled citizens of the United Provinces to far-off lands, they were also, on the other hand, cannon fodder for a militarized project of global exploitation.[33] Dutch sailors belonged to a core nation in a developing capitalist world system, and the vessels they sailed were the most complex, expensive devices known to early modern Europeans.

In the words of the maritime historian N.A.M. Rodger, 'to build, arm, and maintain ships, to feed and pay their crews, three things above all were necessary, in the words of a well-known sixteenth-century cliché: money, money, and yet more money', something the Dutch had in abundance and managed as well as their ships.[34] Sailors themselves were in actuality far more expendable than the wooden vessels they directed across the world's oceans, even if they were, as in 'The Praise of Seafaring', renowned for their unique skillset, mindset, and cohesive subculture. They died like flies in the Spice Islands they strove so hard to find, in Ceylon, Batavia, and were themselves all too willing to take the lives of those with whom they traded, as well as of Englishmen at Amboyna. Thus, when Vondel refers to mariners as the members of a guild, he gestures to a social history fraught with anxiety over international trade. By its end, 'Het Lof' amounts to a nationalistic maritime history of the United Provinces.

William Shakespeare's cheeky sailors

By the early seventeenth century, the oceanic voyager – not yet bearing the nickname of Jack Tar – was a frequent guest on the London stage, possessed of a distinctly transnational subjectivity considered transgressive by nature, an equivocal threat to landed polities. Rogue mariners prowl the margins of Shakespeare's dramatic works – in the character of a disguised sea captain unwanted in Illyria (Antonio in *Twelfth Night*), a pirate who dies in prison (Ragozine in *Measure for Measure*), an upstart insubordinate

super-sailor (the Boatswain of *The Tempest*), and as political assassin (the captain in *II Henry VI*), vacillating between criminality and agents of state interests. The Boatswain who shouts down aristocrats on deck in the first scene of *The Tempest* exhibits the transgressive characteristics of the *Homo pelagicus* while not yet bearing his name. In the second half of the seventeenth century, the currency of the nickname Jack Tar increases to the point where, by the early eighteenth century, it denoted a cultural stereotype of the hard-working, hard-drinking English career sailor.

The Boatswain in *The Tempest*, characterized by a professional assertiveness and willingness to put his craft above the demands of aristocrats, is clearly a version of *Homo pelagicus*. His independence and commitment to seamanship, as opposed to the social hierarchy, owes something to the sea dogs who put England on the map as a sea power in the late sixteenth century. The Boatswain is something of a rebel, much like the mariners who capture the Duke of Suffolk after a fight off the coast of Kent in *II Henry VI* and then put him to death offstage. For the beleaguered Suffolk, mariners are unworthy to kiss his boots. 'O that I were a god, to shoot forth thunder', he rages, 'Upon these paltry, servile, abject drudges!/Small things make base men proud; this villain here/Being captain of a pinnace, threatens more/Than Bargulus the strong Illyrian pirate!'[35] De la Pole miscalculates his advantage. The captain of an English pinnace in the 1590s, when the play first went up, might well be a man of the world, or he might be a ruthless, bloodthirsty world-beater like Drake or Hawkins. During the prolonged sea war with Spain under Elizabeth I, the figure of the mariner took centre stage in the geopolitical gamesmanship of western European nations competing for sovereignty of the seas, not just in plays written for the London stage.

We know what the Tudor-Stuart mariner sounded like to at least one contemporary: a bawling, brawling, blasphemous, and back-talking 'dog' of the sea. Yet what, beyond having a 'wide-chopped' face that was 'perfect gallows', did he *look* like?[36] We can behold Jack's tarry predecessors as they appeared on the eve of England's emergence as a naval power on the frontispiece of *The Mariner's Mirrour*, Anthony Ashley's 1588 translation of the Dutch mariner-cartographer Lukacz Janczoon Wagenhaer's influential 1584 compendium of pilot charts *Spieghel der Zeevaerdt* (*The Mirror of Seafaring*). Two mariners, dressed in the costume of their kind, flank the pediment and columns depicted on the title page, each holding a lead line, or plummet, emblematic of the sailor's trade, giving visual form to *Homo pelagicus* as he appeared in the late sixteenth century. They wear baggy leggings, with a black cap (undoubtedly tarred) and hold a sounding line at the ready.[37] They do not wear the tarred canvas characteristic of later generations of mariners, for cotton only came into general use for clothing after it was introduced to the English public by the London East India Company in the 1660s, but linen breeches and blouses.[38] Above these nameless mariners are the intellectuals – cartographers, scholars, and speculators – who set in motion the trans-oceanic voyages that able-bodied seamen were charged with bringing to fruition. If they appear strangely marginal in *The Mariner's Mirrour* frontispiece, it is because, as Richard Helgerson has argued of Elizabethan land surveying, the labour of those with technical expertise, as opposed to high social standing and access to financial resources, remained treated as the work of subordinates subservient to the will of those who sponsored their labour.[39]

What unites the different avatars of *Homo pelagicus* across the early modern period is not merely a set of skills and experiences, but a conceptual relationship to oceanic space and coastal locales unavailable to pre-Columbian mariners. For blue-water mariners have to know something that coastal sailors do not: how to harness the prevailing winds and currents that constitute the great oceanic gyres in order to take maximal advantage of intercontinental sea routes. Without this knowledge, no sailor could engage in trade with India, China, or the Spice Islands, much less hope to return. Detailed knowledge of the prevailing winds, from the Northwest Trades of the Caribbean to the Roaring Forties and Howling Fifties of the high latitudes, accompanied a distinctive cultural geography as well. For Jack Tars, the globe was a world of deep-water ports, channels, and navigational hazards. Jack was as much at home in Valparaiso as in Liverpool, and his cultural hybridity – tattoos derived from Polynesian culture adorning his arms, speech a hodge-podge of technical and outlandish terms – marked him as dangerous.

In the seventeenth century, *Homo pelagicus* took the form of a series of transgressive mariners circulating at the oceanic margins, from Hawkins and Drake to John Smith and Henry Mainwaring; later, he would bear the names of Richard Anson, Woodes Rogers, and William Dampier. These were all mariners who transgressed social categories (pirate or privateer? Captain or rogue?) as readily as they crossed national and cultural boundaries. Some were pirates; others were pirate hunters. Some, like Rogers and Mainwaring, played both roles in history. Drake was a mariner-hero who, having 'singed the Spaniard's beard' by destroying the fleet at Cadiz (taking time to burn the city as well), later went on to defeat the mighty Armada. Yet Drake could not have become a national hero without first having been a first-class mariner himself. Nevertheless, Drake did not himself possess sufficient knowledge of the oceanic gyres to circumnavigate the globe (a feat that Magellan himself, who died in the Philippines, never actually accomplished). For that, he had to kidnap a Portuguese navigator and, perhaps, others as well.[40] Before he becomes defined as belonging to a social class defined by labour, the blue-water mariner evinces an unusual social mobility, or at least an indeterminate status, that imparts a sense of danger everywhere he goes.

From sea dogs to Jack Tars

Jack Tar comes of age over the course of the long seventeenth century. It is no coincidence that the 'golden age' of the oceanic mariner coincides with the zenith of Atlantic piracy. Whether sea dog, rover, or 'Admiral', the blue-water mariner of the Stuart period vacillated in status between national icon and waterborne criminal, garnering unprecedented wealth yet occupying a dangerously liminal space at the margins of national sovereignties. Blue-water mariners possessed a global understanding of seamanship, prevailing winds and currents, navigational hazards, capes, islands, and other landmarks, unavailable to landsmen. After many years plying the sea routes in all weathers, Jack had a distinctive appearance, marked by an alterity born of years spent living and working in harsh conditions at sea and in foreign ports. His was a life of travail that could not fail to effect certain kinds of physical transformation, from a ruddy (or ruined) complexion to thick, tarry hands swung side-to-side for balance.

Characterized by a rolling gait, swinging arms akimbo, a singular garb (tar on his clothing, tar – and sometimes ribbons – in his hair), and a distinctive idiolect shot through with profanity and outlandish borrowings, Jack Tar was widely perceived as an outlandish creature.

By the early eighteenth century, the figure of Jack was a working-class spectre that haunted popular and literary culture, having already established himself on stage and in verse, and commonplace in pamphlets, political art, and song.[41] John Adams accused the rowdies who precipitated the Boston Massacre in a snowball fight of being 'a motely rabble of saucy boys, negros and molattoes, Irish teagues and outlandish jack tars'.[42] Yet at century's end, James Gillray would depict a doughty Jack Tar astride the globe, bloodying an emaciated and pitiable Bonaparte's nose in a cartoon bearing the caption *Fighting for the Dunghill: – or – Jack Tar Settling Buonaparte*, betokening the key role of mariners in maintaining Britain's geopolitical ventures.[43] Had Jack gone global, or did Gillray put his finger on a trait Jack already possessed, perhaps all along? Outlandish and 'saucy' though he seemed to his landed betters, Jack Tar was also a familiar and even to some extent an endearing character, often depicted in political cartoons as a hearty, buffoonish champion of English liberty.

Historians have paid ample attention to this particular avatar of *Homo pelagicus*. He has been analysed as member of the global proletariat, and as fomenter of revolt, both significant roles in the context of the emergence of modern nation states. Maritime historians such as Jesse Lemisch, Marcus Rediker, and Peter Linebaugh have characterized Jack Tar as the member of a distinctive eighteenth-century subculture, a proletarian rover native to international sea routes and rowdy seaports, from Liverpool and New York to San Francisco and Shanghai, inhabiting the margins of the nation state. By 1740 Jack was, in the words of Rediker, a 'man of the world', equally familiar with sea routes and the sea ports that functioned as nodal points on islands and capes that operated as beacons and stopping points for oceangoing mariners on long voyages.[44] For Lemisch, the ordinary seaman was a figure for exploited human capital derived from the period of primitive accumulation, ripe for revolution, and a key player in the drama of early modern maritime labour history.[45] 'Maritime history, as it has been written', Lemisch argued in a seminal article that remains influential, 'has had as little to do with the common seaman as business history has had to do with the laborer'. Lemisch goes on to contrast the history of the quarterdeck with the history of the fo'csle:

> In that *mischianza* of mystique and elitism, 'seaman' has meant Sir Francis Drake, not Jack Tar; the focus has been on trade, exploration, the great navigators, but rarely on the men who sailed the ships. Thus we know very little about Jack.[46]

Perhaps the distinction Lemisch makes between the Elizabethan sea dog, conversant with the court as well as the quarterdeck, and the foremast hands who have remained largely nameless, is too stark, for Drake himself was – to some extent – a tarpaulin officer who rose in the ranks by dint of prowess. He often found himself at sea with mariners who were his social superiors.[47]

Jack Tar was thus a hybrid cultural figure dwelling in the interstices of the modern world system in the process of its creation. 'In an age when most men and women in England and America lived in small, clustered local communities', notes Rediker, 'the early-eighteenth-century sailor inhabited a world huge, boundless, and international. The seaman sailed the seven seas; he explored the edges of the earth'.[48] Such was *Homo pelagicus* by the middle of the eighteenth century, when the political status of seamen vacillated between political threat (Jack the Jacobin) and as a tarry standard-bearer for ideals of English liberty (Jack the ward of England's wooden walls). By this point Jack Tar had become, as well, a *text* of the world, a literary type and cultural caricature available to be employed as textual motif or cultural meme for any number of aesthetic and ideological purposes.[49]

In the Augustine-Age fiction, Jack Tar appears in many literary forms, showing up in a host of novels. He is Henry Clinker in the novel by Tobias Smollett, Captain Singleton in Defoe's novel of that title, and he populates the verses of William Falconer's narrative poem *The Shipwreck* (1762). In Jonathan Swift's *Gulliver's Travels*, he appears as the friendly Portuguese sea captain who helps Gulliver in his time of need, a fitting gesture to Jack's cultural antecedents, particularly in *Os Lusíadas*. The novels of Jane Austen, never far from the seaside, frequently call the blue-water mariner onto the scene. In *Persuasion*, Jack appears in many guises, donning a naval uniform and striding through Bath and London as Captain Frederick Wentworth, scandalizing the gentry with his coarse complexion and blunt manners yet winning the heart of Anne Elliot. Later Frederick Marryat, Robert Louis Stevenson, and Joseph Conrad would appropriate him for adventure fiction in the guise of novelist Marryat's Frank Mildmay and Jack Easy, Stevenson's Long John Silver, and Conrad's sea rovers Tom Lingard and Peyrol.[50] By the nineteenth century, Jack Tar was a ubiquitous figure in sea fiction and in fiction set in port cities such as London, Liverpool, New York, and Boston; he had become a cultural stereotype associated, primarily, with Anglo-American mariners. As Margaret Cohen argues in *The Novel and the Sea*, literary mariners stood apart from their compeers for their mastery of what Cohen terms 'The Mariner's Craft', which comprised the particular skills of the blue-water mariner. These included expertise in navigation, the ability to 'hand, reef, and steer', and familiarity with sea-lanes, navigational hazards, and the myriad other skills of marlinspike seamanship.[51] While ordinary seamen, or foremast Jacks, rarely if ever learned to navigate (while ships' officers had to do so), their existence as sea was based on conceptual as much as on physical skills. 'Together', notes Steve Mentz, 'these elements articulate a cumulative narrative of wandering and survival, which Cohen calls, borrowing the phrase from Thomas Carlyle, "a Romance of the Fact"'.[52] It was, beyond doubt, a Romance of global proportions.

While I do not have the scope here to trace the career of *Homo pelagicus* in American literature, Jack Tar was the preeminent cultural icon of the Young Republic, as Thomas Philbrick argued in his seminal study *James Fenimore Cooper and the Development of American Sea Fiction*.[53] The technological transition from sail-powered ships to vessels powered by steam engines, then diesels and turbines, would put pressure on traditional representations of Jack Tar. For what is a tar without his tar pot or tarpaulins? Yet the demise of Jack Tar in American culture, as Philbrick argued, owes as

much to an emergent narrative of American national identity built on the mythology of the western range as it does to the demise of sail. Jack would be eclipsed by the arrival of the cowboy in the early twentieth century; thereafter the cowboy, not the mariner stands for America's image of itself. Jack Tar finally takes a bow in the early twentieth century when the cowboy, darling of tobacco companies and dime-store novelists, takes centre stage.[54]

Conclusion: citizen of the world-ocean

The birth of *Homo pelagicus*, as I have defined the character type that emerges at the intersection of trans-oceanic navigation and transnational print circulation, can be dated to 1568, the date of publication of *Os Lusíadas*. From this point, the character type passes through a number of scenes in English plays, and a Dutch poem, crossing national boundaries and taking on new guises. This is not a case of direct literary influence. Rather, all three nations responded in literature to the emergence of new ontologies made possible by the rise of trans-oceanic navigation in the late fifteenth century by creating different iterations of a basic character type. I have eschewed the phrase 'stock character' in preference for the more vague formulation of 'character type' because of the type's initial novelty, lingering strangeness, and susceptibility to transformation and variation across cultures and historical periods. Jack Tar is no Pantaloon, no Loathly Lady, no Cunning Servant, nor does he resemble the Knight-errant, for his travels and the nature of his craft remain largely obscure to readers and audiences. Where the denizens of comedy are profoundly familiar – they are ourselves in caricature – he can never be fully domesticated by the social order that finds him fascinating, threatening, and at times comical. One thing is certain about his homeland: it is interstitial, beyond the bounds of the nation state, and aquatic. The blue-water mariner might be a man of the world, as Rediker characterizes him, born of the same conditions and circulating within the same systems that define world literature, but he is not wholly of *this* world, the one built on *terra firma*. He is instead a phantasm or, as Vondel put it, a sea-ghost, which emerges at a historical conjuncture defined by the development of movable type, the subsequent rise of print culture, and the discovery of the global ocean.

Notes

1 H. Blumenberg, *Shipwreck with Spectator: Paradigm of a Metaphor for Existence*, trans. Steven Rendall, Cambridge, MA: MIT Press, 1997.
2 For millennia Mediterranean navigation involved hopping between headlands and harbours with only occasional transits out of sight of land. See L. Brown, *The Story of Maps*, New York: Dover, 1977, pp. 113–49.
3 J. Lemisch, 'Jack Tar in the Streets: Merchant Seamen in the Politics of Revolutionary America', *The William and Mary Quarterly*, 25/3, 1968, pp. 371–407. See also M. Conley, *From Jack Tar to Union Jack: Representing Naval Manhood in the British Empire, 1870–1918*, Manchester, UK: Manchester University Press, 2009.
4 E.g. Jack of 'Jack and the Beanstalk', 'Jack the Giant Killer', etc.
5 In 1624 John Smith recounted, 'Wee did hang an awning (which is an old saile) to […] trees to shadow us from the Sunne'; two years later he used a different term for his sun-shield, 'trar-pawling', OED 'awning'.

6 Stockholm tar has become proverbial as the material totem of the professional mariner. I have sailed with sea captains who carry a hank of marlin, or tarred hemp, as talismans of their own identity.
7 OED, 'Jack'.
8 OED, 'Jack'.
9 Following common usage among professional and amateur mariners, I use 'blue water' to refer to the open ocean, hence transoceanic navigation as opposed to the plying of inshore or coastal waters.
10 The pseudo-Linnaean taxonomic descriptor, *Homo pelagicus*, emphasizes the notion that trans-oceanic sea voyagers were a distinctive cultural taxon that appears because of the European trans-oceanic voyages that historian J. H. Parry termed 'the Discovery of the Sea'. See J. H. Parry, *The Discovery of the Sea*, New York: The Dial Press, 1974. The normative sexism of the term, of course, reflects the patriarchal nature of shipboard life.
11 R. Daborne, *A Christian Turned Turk*, London: William Barrenger, 1612, Scene 2.
12 C. Jowitt, *The Culture of Piracy, 1580–1630: English Literature and Seaborne Crime*, Farnham: Ashgate Publishing, 2010, p. 3.
13 Latin *Mundus*, Spanish *El mundo*, French *Le monde*, etc. All quotations are from D. Vitkus, ed., *Three Turk Plays from Early Modern England*, New York: Columbia University Press, 2000, pp. 149–240.
14 See D. Vitkus, *Turning Turk: English Theater and the Multicultural Mediterranean, 1570–1630*, New York: Palgrave Macmillan, 2003, pp. 107–62.
15 D. Damrosch, *What Is World Literature?* Princeton, NJ and Oxford: Princeton University Press, 2003, p. 4.
16 Damrosch, *What Is World Literature?* p. 5.
17 Parry, *The Discovery of the Sea*.
18 Quotations are from *The Riverside Chaucer*, ed. Larry D. Benson, 3rd edition, Boston, MA: Houghton Mifflin, 1987.
19 Brown, *The Story of Maps*, pp. 113–49.
20 B. Fagan, *Fish on Friday: Feasting, Fasting, and the Discovery of the New World*, New York: Basic Books, 2006.
21 T. More, '*Utopia*', in F. C. White (ed.), *Famous Utopias*, Putney: Hendricks House, Inc., 1981, p. 6.
22 A. Crosby, *Ecological Imperialism: The Biological Expansion of Western Europe, 900–1900*, Cambridge: Cambridge University Press, 1996, p. 113.
23 P. Chaunu, *European Expansion in the Later Middle Ages*, trans. K. Bertram, Amsterdam: North Holland, 1979, p. 106. See also Crosby, *Ecological Imperialism*, pp. 106–38; M. Newitt, *A History of Portuguese Overseas Expansion, 1400–1668*, London: Routledge, 2005; J. Blackmore, *Moorings: Portuguese Expansion and the Writing of Africa*, Minneapolis and London: University of Minnesota Press, 2009.
24 For a concise discussion and superb illustrations of caravels, see B. Landstrom, *Sailing Ships*, New York: Doubleday, 1966. I am grateful to the Portuguese National Maritime Museum, the Museu Naval of Lisbon, for its caravel exhibit, and to the members of the Portuguese sail training association APORVELA for their informative tour of the replica caravel *Vera Cruz*. Their detailed explanations of the relationship between ship design and route planning was essential information.
25 J. Blakemore, *Manifest Perdition: Shipwreck Narrative and the Disruption of Empire*, Minneapolis: University of Minnesota Press, 2002, p. xx.
26 L. White, trans., *The Collected Lyric Poems of Luis de Camões*, Princeton, NJ and Oxford: Princeton University Press, 2008, p. 2.
27 R. Parthesius, *Dutch Ships in Tropical Waters: The Development of the Dutch East India Company (VOC) Shipping Network in Asia, 1595–1660*, Amsterdam: University of Amsterdam Press, 2010.
28 *Joost Von den Vondel: Dutch Playwright in the Golden Age*, ed. by Jan Bloemendal and Frans-Willem Korsten, Leiden: Brill, 2012.

29 My co-translator, J. C. A. Schokkenbroek, is Chief Curator and Head of Academic Programs at the Scheepvartmuseum, Amsterdam, and Professor of Maritime History and Heritage at the Vrei Universiteit, Amsterdam. The present translation is the result of our collaboration, for which I am grateful.
30 This refers to the Ancient Greek goddess Thetis.
31 Bolk refers to a type of fish, the *wijting*, or whiting.
32 J. A. Froude, *English Seamen in the Sixteenth Century: Lectures Delivered at Oxford Easter Terms, 1893–4*, London: Longmans Green and Co., 1917, p. 4.
33 Froude, a Victorian historian, claimed 'English sea power was the legitimate child of the Reformation. It grew […] directly out of the new despised Protestantism', overlooking evidence inconsistent with simplistic assumptions about religious and national identity, such as Vondel's lifelong Catholicism. See Froude, *English Seamen*, p. 4.
34 N. A. M. Rodger, *The Safeguard of the Sea: A Naval History of Britain, 660–1649*, New York: W.W. Norton, 1998, p. 236.
35 W. Shakespeare, *II Henry VI*, in R. Knowles (ed.), Arden 3rd series, London: Bloomsbury, 1999, 4.1, pp. 23–7.
36 W. Shakespeare, *The Tempest*, in A. T. Vaughan and V. M. Vaughan (eds), Arden 3rd series, London: Bloomsbury, 2011, 1.1, pp. 1–150.
37 The lead line was essentially an instrument both for coastal and blue-water navigation for ascertaining the depth of the sea. It not only indicated the disposition of the bottom (shoaling fast, rocky, full of reefs, etc.), but also helped to establish location. A sailor in the main-chains would throw the heavy lead weight, smeared with tallow to sample the sea floor. Bits of shell, sand, or seaweed sticking to the tallow, provided key data for experienced mariners. Combined with dead reckoning and celestial navigation with the back-staff or the astrolabe, a master mariner such as Columbus, Magellan, or Drake could calculate location with reasonable accuracy.
38 See I. Barrow, *The East India Company, 1600–1858: A Short History with Documents*, Indianapolis and Cambridge: Hackett Publishing, 2017.
39 R. Helgerson, *Forms of Nationhood: The Elizabethan Writing of England*, Chicago, IL: University of Chicago Press, 1992.
40 This was da Gama's strategy for crossing the Arabian Sea, in which the prevailing winds were monsoonal and thus substantially different to the gyres he mastered to reach the Cape of Good Hope.
41 The textual genesis of John Bull can be traced precisely to the year 1712, when Dr John Arbuthnot, Jonathan Swift, and Alexander Pope first conjured him in the pamphlet *Law is a Bottomless Pit* and, later in the same year, in *The History of John Bull*. Subsequent writers and artists, from William Hogarth to Thomas Nast and George Bernard Shaw, would appropriate him for different purposes.
42 Quoted in Peter Linebaugh and Marcus Rediker, *The Many-Headed Hydra: Sailors, Slaves, Commoners, and the Hidden History of the Revolutionary Atlantic*, Boston: Beacon Press, 2000, p. 232.
43 J. Davey and R. Johns, *Broadsides: Caricature and the Navy, 1756–1815*, London: Sword and Pen, 2015. Rodger argues that England's commitment to sea power can be discerned by the mid-seventeenth century, by which time 'the myths as much as the realty of the Elizabethan naval war had persuaded Englishmen that their future hopes somehow lay at sea and overseas'. See Rodger, *The Safeguard of the Sea*, p. 434.
44 M. Rediker, *Between the Devil and the Deep Blue Sea: Merchant Seamen, Pirates, and the Anglo-American Maritime World, 1700–1750*, New York: Cambridge University Press, 1987, pp. 10–76.
45 Lemisch, 'Jack Tar', pp. 371–407. Lemisch is sometimes credited with coining the phrase 'history from below'. See M. Rediker, www.redikerwritings/jesselemisch.
46 Lemisch, p. 372.
47 I am indebted to Claire Jowitt for pointing this out to me. See C. Jowitt, 'The Hero and the Sea: Sea Captains and their Discontents', *Revue de la Société d'études anglo-américaines des XVIIe et XVIIIe siècles* 74, 2017, 14 pages http://journals.openedition.org/1718/888.

48 Rediker, *Between the Devil and the Deep Blue Sea*, p. 10.
49 Historian Daniel Vickers challenges the notion of mariners as a distinctive group in D. Vickers, *Farmers and Fishermen: Two Centuries of Work in Essex County, Massachusetts, 1630–1850*, Chapel Hill: University of North Carolina Press, 1994. See also D. Vickers, *Young Men and the Sea: Yankee Seafarers in the Age of* Sail, New Haven, CT: Yale University Press, 2007, where he argues that mariners had brief careers at sea.
50 For a thorough survey, see M. Cohen, *The Novel and the Sea*, Princeton, NJ and Oxford: Princeton University Press, 2010. See also T. Philbrick, *James Fenimore Cooper and the Development of American Sea Fiction*, Cambridge, MA: Harvard University Press, 1961.
51 Cohen, *The Novel and the Sea*, pp. 15–58.
52 S. Mentz, *Shipwreck Modernity: Ecologies of Globalization, 1550–1700*, Minneapolis: University of Minnesota Press, 2015, p. 79.
53 Philbrick, *James Fenimore Cooper*.
54 See Philbrick, *James Fenimore Cooper*, esp. pp. 166–202.

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23

Early modern maritime heroes

Idols of the sea

Claire Jowitt

This chapter focuses on how early modern history and culture explored and debated, and redefined, the role of the maritime hero and what was meant by heroism at sea. Questions about who and what qualified as heroic are particularly central in this period of history since, for Europeans, there was a substantial increase in voyaging and exploration, especially to distant regions. In turn, maritime activities and achievements became key cultural markers of, and justifications for, Europeans' beliefs about the superiority of their value systems, and their physical and mental characteristics.[1] These beliefs have left enduring historical legacies, since the success of European seaborne activities inaugurated what has been popularly termed the 'Age of Empire' whereby Europe's maritime and colonial empires came to dominate geo-politics globally, and underpinned the development of the nineteenth-century theory of 'Great man' history, where the impact of exceptional men (aka 'heroes') continues to dictate cultural narratives.[2] It is beyond the remit of the essay to address in detail or dismantle these historiographical legacies, but it is essential to acknowledge their persistent cultural influence, even as I explore some of the early modern ideologies and values that contributed to that ascendancy.

Notwithstanding the worldwide system of domination generated by early modern European maritime expansion, it is important to recognize that the practice of travel to far-flung locations was actually undertaken by a small percentage of the population, both because of its cost, and because of the strict requirements governing the purposes of voyages.[3] In England in this period, for instance, the Crown permitted travel *only* for education, pilgrimage, commerce, and diplomacy, and a licence was required. Yet, despite these restrictions, from the turn of the seventeenth century onwards, people and goods *were* in motion across lands and seas to distances and on scales hardly imaginable just a century before. There were geo-political factors within Europe that affected the patterns and rates of travel and expansion by individual states or polities at particular times. It was only at the end of the sixteenth century, for instance, that the English seriously attempted for the first time to express ambitions for an empire

to rival the expansionism of the Iberian nations in the New World and of the Ottomans in the East.[4] After Columbus made landfall in the Caribbean in 1492, a series of bulls issued by Pope Alexander VI the following year, and ratified by the Treaty of Tordesillas in 1494, had divided both the known and unknown worlds between Spain and Portugal, thereby excluding other Christian nations from seeking trade and territory in the New World. The Treaty of Saragossa of 1529 added a further line of demarcation in the Pacific, splitting control of lands in this region between Spain and Portugal. As a result, Iberian power and wealth increased both in regions remote from Europe, and in Europe itself, as colonial treasure funded activities domestically and across the continent. Northern European states, including the Dutch, French, and English, who were excluded from colonial and/or imperial expansion, valuable natural resources, and trading opportunities in distant regions, and also felt the impact in Europe of the newfound colonial wealth of the Iberians, responded by plundering their rivals and seeking ways to break the monopoly through actual and textual seafaring activities.[5]

In response to this increase in exploration and voyaging, there was a proliferation of written accounts documenting maritime travel and life at sea, as well as imaginative treatments of maritime themes.[6] Accounts of voyages and exploration inspired and transformed material culture, with descriptions of unfamiliar objects, peoples, ideas and beliefs, commodities, and creatures encountered through voyaging. Ships and fantastic marine creatures, in particular, were popular decorative motifs, featuring on – and as – innumerable and varied objects, ranging from minute and intricate maritime-themed jewellery, through intricate automata ships that trundled across aristocratic dining tables and ornate nefs, to large-scale architectural features such as fountains and functional models.[7] These objects also carried ideological and emotional significance. Ship models were a popular votive in maritime communities, for instance, suspended in churches as a vow to God following sailors' safe return from the sea, and/or signalling the economic importance of maritime industries to the prosperity of the community.[8] Moreover, ships were important intercultural spaces, travelling between the edges or borders of a polity, contact zones of encounter, and facilitating exchange between cultures.[9] Equally, the fantastic or monstrous proportions that characterized early modern depictions of marine creatures can be seen as expressions of cultural hybridity, or as a site where two cultures meet to form a 'third space'.[10]

This chapter seeks to explore how ideas of what constituted heroism both shape and were shaped by this bourgeoning and diverse early modern maritime culture, as European nation states debated the characteristics needed to undertake successfully long-range voyaging, or to forge and maintain colonial territory and imperial networks through maritime activities, and how to assimilate new ideas, people, and phenomena. My discussion assesses maritime heroism in relation to both people and objects produced from a range of European countries and cultures, but due to reasons of space, its chief areas of focus are the English traditions of oceanic heroism. The chapter also brings together 'literary' and 'historical' perspectives since debates about what constituted heroism were staged in a variety of early modern blockbuster plays (such as Christopher Marlowe's *Tamburlaine*, and William Shakespeare's

Macbeth) which, I suggest, inform and were informed by explorers' accounts of their maritime heroism. As Europeans sought to traverse by sea a world that for the first time was conceptualized in global terms, the 'heroism' of both human and non-human voyagers became a key measure of the advancement of an individual polity vis-à-vis this newly expanding worldview, and of their place in a newly globalized world order.

Defining the maritime heroic

In early modern European culture there were a number of influential models of masculinity that were measured against conceptions of what should be included or excluded from the idea of the 'hero'.[11] Bruce R. Smith has argued that the models of masculinity of the 'chivalric knight', the 'merchant prince', the 'saucy Jack', and the 'Herculean hero', competed with each other for cultural prominence, and, at times, they overlapped in qualities.[12] In fact, early modern maritime culture adopted all these models on occasions with, for instance, the 'saucy Jack' evident in the Tudor 'moral interlude' *Hick Scorner* (*c.*1514) where the characters of Freewill and Hick Scorner have been to sea, and indeed Hick Scorner is himself referred to as 'a ship on the sea'.[13] In what is probably the earliest depiction of sailors in English drama, both sailors appear as immoral, carousing, and thoroughly disreputable. Importantly, and in contrast to other contemporary morality plays such as *Wisdom* (*c.*1460), *Mankind* (*c.*1465), and *Youth* (*c.*1513–14), and indeed other characters in this morality play, Hick Scorner does not repent his saucy behaviour. He disappears from the play's action, presumably back to sea to resume the life of violence and sexual depravity he describes with such relish as the keeper of the ship's 'shop of bawdry' of three 'wenches […] full praty'.[14]

However, from the variety of models of masculinity presented in Smith's taxonomy, the types that feature particularly prominently in early modern maritime culture are the 'chivalric knight' and 'merchant prince', reflecting the dominance of these classes of maritime actors at the time, rather than common 'saucy Jack' sailors like Hick Scorner. Luís Vaz de Camões' epic poem *The Luciads* (1572), which celebrates the discovery of a sea route to India by the Portuguese explorer Vasco da Gama (1469–1524), praises the prowess of, in particular, Portugal's elite and chivalric barons and noblemen, for instance. By contrast, Thomas Heywood's generically hybrid play *If You Know Not Me, You Know Nobody, Part II* (1605), which blends chronicle history with city-comedy, depicted the fabulously wealthy 'merchant prince' Sir Thomas Gresham, royal banker and founder of the Royal Exchange in the City of London.[15] Engaged in international commerce on such a vast and lucrative scale, the shipwreck of a vessel and a major business deal gone awry merely prompts Gresham ostentatiously to ingest powdered in wine, a pearl he had bought for the immense sum of £1,500.[16]

There were recognizable distinctions in 'degree' between the 'chivalric knight' and 'merchant prince' groups, which, in turn, shaped their behavioural models and how writers represented them: in simple terms, the mercantile class desired profit and the nobility sought glory. As a result, in accounts of maritime adventure or venture, the groups traditionally behaved differently, with the elite class group more likely to show

prowess through feats of bravery and swashbuckling, and to be lauded and celebrated in early modern maritime culture than their mercantile compatriots. Theodore K. Rabb, for instance, argues that the contrasting tenor between the meeting minutes of the merchant-dominated East India Company and the nobility-dominated Virginia Company is emblematic of this distinction. The former 'pursued its profits singlemindedly' and '[d]iscussions of national prestige were entirely absent', while the considerations of the latter 'was full of the most lofty and ambitious sentiments' as 'England's fame was going to be spread abroad'.[17] Certainly, Gresham's destruction, and then consumption, of the exquisite and prized pearl *because he can*, emphasizes his wealth, but also hints that he might be a *bad* merchant, consuming the profits his 'degree' or station indicated he should pursue single-mindedly. Since early modern medical practice recommended powdered pearl for a variety of conditions that included insanity, Gresham's apparent profligacy might have had a medicinal motive.[18] Nevertheless, the contemporary cultural stigma surrounding insanity indicates that Heywood's play is critical, at least in part, of Gresham and the values of the model of 'heroism' he embodies.[19]

More broadly, as Laura Stevenson recognized, the adoption of chivalric terms by the increasingly powerful mercantile classes as part of their self-definition represents an opportunistic appropriation of the values of the most highly regarded contemporary secular ideology. Describing mercantile behaviour in chivalric terms enabled a group not yet with their own ideological and conceptual framework to borrow from the most prestigious ethos available at the time.[20] Discussing the maritime heroic, Richard Helgerson goes even further, arguing that Richard Hakluyt's collection of exploration and voyaging, *The Principal Navigations* (1589; 2nd three-volume revised edition 1598–1600) offered a particularly significant intervention in early modern maritime culture by forging a new category of hero.[21] *The Principal Navigations* included over 600 accounts of individual voyages in the expanded, second edition, ran to over 1.75 million words, and Hakluyt's project is representative of the range and depth of England's global ambitions in the late sixteenth century.[22] Hakluyt's maritime heroes appear to blend the characteristics of the mercantile and chivalric models, rather than just appropriating the values of the higher status group. The text's merchants appear to perform as valiantly as the gentlemanly elite, but they also act as skilful and diplomatic English ambassadors before foreign princes: warrior-merchants thus successfully mix the best values of mercantile and aristocratic ideologies.

Francis Drake has a particularly prominent role in Hakluyt's collection,[23] and his depiction provides a useful test case for examining arguments concerning *The Principal Navigations*' role in developing the maritime hero. Drake's epic achievement of the first circumnavigation by an Englishman in 1577–80, a navigational success of considerable national prestige as well as a source of substantial income from piracy, gave him a particularly high profile in England and across Europe.[24] Though Drake never wrote an account of his circumnavigation, a handful of versions authored by his crewmembers survive.[25] Both editions of *The Principal Navigations* include an account, *The Famous Voyage of Sir Francis Drake*.[26] Hakluyt's version emphasizes and exaggerates Drake's mercantile sagacity and wealth accumulation at every stage of the journey. For example, in *The Famous Voyage*, Drake achieves a considerable mercantile coup by securing a trade agreement for highly prized spices with the king of Ternate in the

Moluccas. '[T]he King was mooved with great liking towards us […] that hee would yield himselfe, and the right of his Island to bee at the pleasure and commandment of so famous a Prince as we served'.[27] However, William A. Lessa suggests that there was more conflict with King Babullah than Hakluyt's version depicts. Drake had attempted to avoid the 10 per cent export tax the king wanted to impose, and then had to appease him with gifts in order to reestablish trade.[28] East India Company meeting minutes prominently show the role of Drake's treaty in English imperial history by establishing the 'first real toehold for a share in the profits of Eastern trade'.[29] Though other accounts of the same transaction contradict Hakluyt's version of Drake's peaceful mercantile diplomacy in his encounter with Babullah, indicating an altogether tenser atmosphere, they nevertheless support Helgerson's assessment of this new type of maritime hero's combination of elite chivalric with sagacious mercantile behaviour. The narratives Hakluyt included across the collection repeatedly show his protagonists' actions fostering Elizabethan expansionism abroad, defending the nation in times of war, and in general terms providing a model of patriotic manhood for the collection's readers.[30]

However, *contra* Helgerson's analysis, Hakluyt's 'heroes' also behave less than heroically just as often. Both editions of *The Principal Navigations* frequently include accounts of bitter disputes between leading participants for control over the direction of a voyage. Rarely are these arguments resolved amicably: instead, there are numerous descriptions of fierce debates between comrades, and of desertion, mutiny, execution, violence, and even murder. It is therefore essential to query whether, in terms of the development of the role and characteristics of early modern maritime heroes, and the ideological factors that shape these representations, Hakluyt's repeated articulation of violence turned-inward, as men from the same country confront each other rather than national rivals, simultaneously points to the breakdown of the ideal? Whether, in fact, the values the maritime hero embodies are so overextended and, at times, contradictory, that Hakluyt's model of blended mercantile sagacity and chivalric prowess threatens to implode or breakdown? In addition, if so, what are the meanings in terms of ideology and values, which these tensions and pressures on the maritime heroic express?

Returning to the example of the first English circumnavigation, Drake notoriously executed his sometime friend and fellow commander Thomas Doughty for mutiny and treason in 1578. Doughty was a nobleman and was, as the influential courtier Sir Christopher Hatton's private secretary, well connected in court, with Hatton a principal investor in the voyage.[31] Hakluyt had been the first to publish a detailed account of the circumnavigation in the 1589 edition of *The Principal Navigations*, having had to edit and redact his sources quickly, most likely the journal of the chaplain Francis Fletcher, who was hostile to Drake (Fletcher had been 'excommunicated' for criticizing Drake in the wake of Doughty's execution).[32] Indeed, the justice of the execution and Drake's authority to carry it out were widely questioned both at the time of Doughty's trial and on the *Golden Hind*'s return to England, with the execution casting a long shadow over Drake's subsequent career.[33] In terms of the incident's larger significance, the execution of Doughty by Drake is a watershed moment in maritime history: Drake's killing of his one-time friend explicitly imposed the absolute authority of a sole individual as master of the ship.[34]

John Cooke commented in his 'Narrative' of events on the voyage that when the fleet left England 'Francys Drake, John Winter and Thomas Doughtie' were 'eqwall companyons and frindly gentlemen'.[35] Yet by executing Doughty so ruthlessly, Drake, the upwardly mobile 'tarpaulin' officer (i.e. a sea-bred superior officer) categorically established his chain of command over his social superiors, the 'gentlemen' officers (i.e. elite military officers appointed to command).[36] This was a significant shift, revising the established seafaring custom that masters should consult their elite officers at sea. According to medieval maritime law, such as the twelfth-century compilation *Rôles d'Oléron*, masters expected to refer to their companies, with vestiges of the custom surviving in English ships into the sixteenth century.[37] Winter and Doughty, and the other 'gentlemen' officers onboard, expected to be part of Drake's council as a matter of course, rather than treated as his subordinates.[38] Drake's execution of Doughty established a precedent for the idea that the captain is sole master on a voyage, and Cooke's account of Drake's speech concerning leadership in the execution's aftermath reveals Drake's rhetorical skill in manipulating the situation to consolidate his command.

> Here is suche controversye betwene the saylars and the gentlemen, and suche stomackynge betwene the gentlemen and the saylars, that it dothe even make me madd to here it. But, my mastars, I must have it lefte, for I must have the gentleman hayle and draw with the mariner, and the maryner with the gentleman. What, let us show owr selvs all to be of a company.[39]

Couched in terms of plea for unity and cohesion, Drake's speech in fact undermines traditional social hierarchies based on rank, instead placing 'gentleman' and 'mariner' side by side under his leadership. Ideologically, Drake's speech is radical; the maritime hero is no longer simply aristocratic or mercantile, or even, *pace* Stevenson and Helgerson, a hybrid model of mercantile sagacity and chivalric prowess. Instead, in Cooke's version, Drake's personal authority is supreme 'I must' have it so, he says twice as he threatens that resistance to his viewpoint will 'make me madd'. Of course, the sailors and gentlemen onboard have just graphically witnessed in Doughty's execution exactly what happens when this occurs. Stevenson's and Helgerson's progressive models of harmoniously blended mercantile and chivalric values evolving to produce a warrior-merchant or an economically-sagacious-gentleman-swashbuckler, are shattered by Cooke's account of Drake's voicing of his personal will-to-power.

The established, apparently natural connection between maritime command and 'degree' only broke down slowly on English ships,[40] but Drake's profound and drastic action certainly loosened its bonds. In 1609, the experienced Jamestown explorer and colonist Captain John Smith contemplated breaking ties with the Virginia Company's London headquarters when new officers of higher social standing than himself were appointed over him, despite their inexperience, leading to repeated arguments over policy, with Smith desiring instead to be 'for ever abandoned and left to our fortunes'.[41] John Fletcher and Philip Massinger's *The Sea Voyage* (1622) expressed similar meritocratic sentiments. The Master of the ship and the Boatswain appear superior in quality to the gallants and merchants of higher social standing and wealth: the play's

common seamen help to rescue the female shipwreck victim, Aminta, from fetishistic and cannibalistic murder by men of higher degree.[42]

The ideological debate Drake's circumnavigation presents about heroism, maritime leadership, and individual authority is present elsewhere in *The Principal Navigations*. Hakluyt's account of Thomas Cavendish's last voyage expresses a similar debate but does so in somewhat different terms when infighting between maritime commanders is associated with the mission's failure and the protagonists' despair. Cavendish, England's second circumnavigator (1586–8), died in mysterious and disputed circumstances on his own attempted second circumnavigation, which departed from Plymouth in August 1591. *The Principal Navigations* (second edition) included an account by John Jane, an experienced sailor and close associate of the voyage's rear admiral, John Davis, the expert Arctic navigator and explorer, who joined the voyage to facilitate his continuing the search for the Northwest Passage. It was by any standards a tragic and unsuccessful voyage: at least two-thirds of the 350 or so men who departed in Cavendish's fleet in 1591 died.[43] Yet in written accounts and in personal testimony, the principals and their supporters fiercely contested what happened at sea, and why, as well as where the blame lay for the voyage's failure – in Cavendish's case in the form of a last testament and will written shortly before death. On this voyage, the maritime heroic appears under such extreme tension that Hakluyt's ideal model of blended mercantile sagacity and chivalric prowess breaks down into violent arguments between men who were expected to be united in purpose, and results in (or perhaps in fact constitutes) mental illness and physical disorder.

Cavendish's fleet had aimed to reach China and Japan via Cape Horn and its overall ambition was to better the success of his highly profitable earlier circumnavigation, when lack of space for cargo in the fleet's small ships had resulted in leaving behind large portions of the captured treasure.[44] The bigger ships in the 1591 expedition led to a crucial, and fatal, inflexibility, however, since they were too large to enter hostile ports with barred harbours on America's Western and Eastern seaboards. When the fleet dispersed without reaching the Pacific, having failed to pass through the Magellan Strait, and following a bitter dispute between the principal commanders concerning authority over course and direction, Cavendish had only large ships left, the *Galleon Leicester* and the *Roebuck*. Davis made it back to England in the small vessel, the *Desire*, a ship essential to the success of the overall mission, and he suffered for the rest of his career from the charge that he had deliberately deserted Cavendish. 'Davys in the Desier and my Pinnis loste me in the night after which tyme I never hard of theme but as I synce understode Davis his intention was ever to rune awaye', wrote Cavendish in his testament of events.[45] Davis and Jane refuted the allegation, with Jane indicating that Cavendish established no point of rendezvous for the fleet if it became dispersed: 'our captain' says Jane, meaning Davis, 'could never get any direction what course to take in any such extremities, though many times he had entreated for it'.[46]

The argument over direction between Cavendish and Davis focused on whether to continue to attempt to pass from the Atlantic to Pacific Ocean through the Magellan Strait, and it hinged on the protagonists' respective claims to authority based on experience. By only leaving England at the end of August, the fleet had missed the southern summer, the best time to clear the Magellan Strait, and beset by storms, frost,

and high mortality on the biggest ships, Cavendish gave up the attempt, planning instead to take the Good Hope route to the East Indies. Davis, accustomed to Arctic weather, was undeterred by 'great extremities of snow and cold' and wanted to press on since changing course east to reach China would scupper his search for the North-west Passage: 'our captain' says Jane 'because he was a man that had good experience […] told him [Cavendish] that this snow was a matter of no long continuance'.[47] Put another way, the veteran, professional Arctic mariner 'Captain' Davis tells the less-experienced amateur, but superior officer, in rank and 'degree', 'General' Cavendish that conditions at sea were likely to improve. Davis's advice, despite having been requested, Cavendish then ignores 'by the authority of his command', as Davis put it in his 1595 account, suggesting that 'being half-way through the straits of Magellan' 'with a leading wind we might have passed the same'.[48] Of course, since Cavendish had passed through the Strait of Magellan on his earlier circumnavigation, and Davis had never successfully navigated it, Jane's description of Davis as the man with the *only* authority of experience is disingenuous. Implicit in Jane's and Davis' accounts is the struggle for authority between 'tarpaulin' and socially elite officers. Davis' social background is obscure since, connected to the Devon-based maritime Gilbert family, he 'reputedly spent his youth in maritime pursuits, the necessary training for a professional seaman, almost certainly in subordinate and unrecorded capacities on the Gilberts' major voyages', while Cavendish, ten years younger, was richer, of higher 'degree' and much better connected at court.[49] Like Cooke's account of Drake's speech quoted above, Davis here reports Cavendish voicing his sole authority to command, through the crucial action of decision-making concerning the fleet's route. In contrast to the will-to-power of Drake's upward mobility, however, Cavendish bases his authority in part at least on 'degree' rather than ability.

After further arguments, and against Davis' additional advice, Cavendish withdrew his ships north, while Davis remained at Port Desire apparently waiting for Cavendish, perhaps because of a misunderstanding between them or possibly, as Cavendish claimed, from self-interested betrayal, 'onely [Davis'] treacherie hath beene the utter ruine of all'.[50] In fact, contrary to Davis' later testimony and Jane's account, Cavendish may have specified a rendezvous, since a further account of the voyage by Anthony Knyvett recounts: 'till midnight they should keep their course with him [Cavendish], and that when he should show them two lights, then they should cast about and bear in with the shore'.[51] Knyvett was a socially elite officer on the *Galleon Leicester* and was no particular supporter of Cavendish since, due to frostbite in which he lost his toes, Cavendish had wanted to put Knyvett ashore to take his chances in the freezing conditions of the Magellan Strait. Davis was of course aware that Cavendish needed smaller vessels to be able to enter shallow waters to get close enough to land in order to resupply. Without that flexibility, Cavendish's voyage was destined to fail. Evidently, Davis' crew, many of whom had sailed with Cavendish before, also appreciated the significance of the *Desire* for the mission's success: only a little over half of them backed Davis' decision when he asked them for support. Alone in a ship in need of repair and bereft of stores, Davis' outlook on the *Desire* was as poor as Cavendish's with the *Galleon Leicester* and *Roebuck*; nevertheless, Davis made three further efforts to pass the Strait since he thought it was 'the best mean to gain relief', but storms beat him back each time.[52]

The accounts of life onboard both Cavendish's and Davis' ships after they lost contact, describe harrowing privations, disease, mental and physical breakdown. Continual arguments between crewmembers over direction and course, threats, the fear of violence, as well as actual violence, pepper both journeys. It is unknown whether Cavendish died from illness, suicide, or if his crew murdered him, but it is clear that he intended his version of events to mitigate his personal culpability for the voyage's failure. Indeed, the language of his account, with its rambling, unpunctuated, and incomplete sentences, which evaluate propositions rather than record decisions, mirrors the disorder of the situation onboard the ship, and, perhaps, reflects his imbalance of mind.[53] For instance, after repeated bitter arguments, and under a persistent fear of mutiny, when Cavendish fails by 'peaceable meanes to perswade' the crew to attempt the Magellan Strait again, he attacks 'the Chiefest of their faction' who 'proudelie and stubbornelie uttered Theise wordes [of resistance] to my face in presence of all the reste'.

> I toke this boulde Companion by the bosome & with my one handes put a Rope abowt his necke meaneinge resolutelie to strangle him for weapon abowt me me I had none his Companions seinge one of their Chief Champions in this case & perceiveinge me to roundelie to worke with him they all Came to the master & desired him to speake, affirminge they would be Redye to take anye course that I should thincke goode of.[54]

Cavendish's account of the argument indicates that he only ceases strangling the leader of his adversaries when the rest of them capitulate completely to his will, 'they would be Redye to take *any* course that I should thincke goode of'. His ruthless insistence on the public acknowledgement that his word should be law emphasizes his despotism and will-to-power, just as the tyrant Tamburlaine, in a blockbuster two-part play of the same name from just a few years previously (performed *c.*1587, published 1590), justified the arbitrary imposition of his will on the world around him, and all those in it. The tone of Cavendish's account recalls in particular Tamburlaine's assertion of his strength of will, and brutality, in bending others to it after stabbing his son for failing to live up to his expectations of martial prowess.

> Villains, these terrors and these tyrannies […]
> I execute, enjoined me from above,
> To scourge the pride of such as Heaven abhors –
> Nor am I made arch-monarch of the world,
> Crowned and invested by the hand of Jove,
> For deeds of bounty or nobility:
> But since I exercise a greater name,
> The scourge of God and terror of the world,
> I must apply myself to fit those terms,
> In war, in blood, in death, in cruelty,
> And plague such peasants as resist in me
> The power of heaven's eternal majesty.[55]

Cavendish's own account of onboard events emphasizes his personal honour, bravery, and determination in the face of adversity in melodramatic style: 'but in truthe I desired nothing more then to attempte that course rather desireinge to dye in goinge forwarde then baselie in Returneinge backeward againe'.[56] Indeed, his lines are reminiscent in tenor of the will-to-power laid bare in Tamburlaine's famous dying request 'Give me a map, then let me see how much/Is left for me to conquer all the world'. Such sentiments are equally apparent in the bold swashbuckler and notorious mercenary Thomas Stukley's desire to be 'King of a mole-hill' rather 'Than the richest subject of a monarchie' in another contemporaneous adventure play *The Battle of Alcazar* (*c.*1588/9).[57] Cavendish's words, perhaps, also echo in Macbeth's stark realization in Shakespeare's play of 1606 of the horror and hollowness of where his murderous ambition has led him, 'I am in blood stepped in so far, that should I wade no more, returning were as tedious as go o'er', he says as he continues relentlessly on his journey to destruction.[58] It is certainly possible that Cavendish attended performances of *Tamburlaine* in the late 1580s, and even perhaps *The Battle of Acazar*,[59] and remembered their charismatic over-reaching protagonists, perhaps admiring their restless energy, ambition, and ambiguous anti-heroism. Whether, of course, Shakespeare had knowledge of Cavendish's account is even more speculative; but what is beyond doubt is that each real or imagined adventurer's narrative is a story of ambition gone wrong. In all cases, there is a glaring gulf between each individual man's self-belief in terms of his personal heroic qualities and abilities, as well as what he considers these gifts should deliver for him in terms of worldly success and power, with the painful reality and consequences each 'hero' ultimately experiences as a result of his rampant individualism.

Davis' journey too, Jane recounts, was equally hazardous. Some of Davis' crew apparently believed him to be unnatural so that when they plotted mutiny, they thought he required a supernatural force to kill: 'There were markes taken in his caben howe to kill him with muskets through the shippes side, and bullets made of silver for the execution, if their other purposes should faile'.[60] Clearly a belief was in circulation on board that Davis was 'monstrous' so that magical silver bullets were needed to kill him, referring to the folk tradition that only such bullets can harm a werewolf (or other supernatural being) as ordinary bullets would fail.[61] Indeed, Jane's account then links the mutineers' fear-inducing stories about Davis with racially charged Eurocentric beliefs about the monstrosity of native peoples: the mutineers 'vehemently persuading them [the crew] that our captain and master would leave them in the country to be devoured of the Canibals, and that they were merciless and without charity'.[62] Jane's report describes how the mutineers told stories of both their captain and 'Canibals' as aberrantly monstrous and unchristian. Jane's own voice in the narrative, however, repeatedly emphasizes Davis' personal Christian fortitude. In what appears to be a Christian rewriting of Cavendish's will-to-power statement ('desireinge to dye in goinge forwarde then baselie in Returneinge backeward againe'), Jane casts Davis' desire to progress forward as the penitent sinner's subservience to God's sole authority to determine the sinner's course.

> But now being thus intangled by the providence of God for my former offences (no doubt) I desire, that it may please his divine Majestie to show us such

> mercifull favour, that we may rather proceed, then otherwise: or if it be his wil, that our mortall being shal now take an ende, I rather desire that it may bee in proceeding then in returning.[63]

Davis is content for God to decide the voyage's fate. Cavendish's and Davis' matching desires for progress onwards in the accounts of their respective voyages thus represent sharply contrasting ideologies.

Finally, after returning to Port Desire on 27 October 1592, Davis provisioned the ship with approximately 14,000 dried penguins to victual the journey home. However, Davis' most harrowing difficulties were ahead, as described by Jane:

> But after we came neere unto the sun, our dried Penguins began to corrupt, & there bred in them a most lothsome & ugly worme of an inch long. This worme did so mightily increase, and devoure our victuals, that there was in reason no hope how we should avoide famine, but be devoured of these wicked creatures: there was nothing that they did not devoure, only yron excepted: our clothes, bots, shooes, hats, shirts, stockings: and for the ship they did so eat the timbers, as that we greatly feared they would undoe us, by gnawing through the ships side. Great was the care and diligence of our captaine, master, and company to consume these vermine, but the more we laboured to kill them, the more they increased; so that at the last we could not sleepe for them, but they would eate our flesh, and bite like Mosquitos. In this wofull case, after we had passed the Equinoctiall toward the North, our men began to fall sick of such a monstrous disease, as I thinke the like was never heard of: for in their ankles it began to swell; from thence in two daies it would be in their breasts, so that they could not draw their breath, and then fell into their cods; and their cods and yardes did swell most grievously, and most dreadfully to behold, so that they could neither stand, lie, nor goe. Whereupon our men grew mad with griefe. Our captain with extreme anguish of his soule, was in such wofull case, that he desired only a speedie end, and though he were scarce able to speake for sorrow, yet he perswaded them to patience, and to give God thankes, & like dutifull children to accept of his chastisement. For all this divers grew raging mad, & some died in most lothsome & furious paine.[64]

I have quoted at length this extraordinary account of misery, rotting bodies, and ships, as well as mental breakdown, which, as Jonathan Lamb outlines, demonstrate many of the characteristic symptoms of scurvy.[65] Jane's account also appears to be highly symbolic, since the crew's genitals appear particularly affected by disease. Maleness, and masculine identity, are under specific attack and the severity of the crew's symptoms leads to mental breakdown ('men grew mad with griefe'). Moreover, the disease is also shown attacking the fabric of the ship as the effluvia of scorbutic bodies caused its disintegration, with the voracious and forever multiplying 'ugly worme' (its phallic shape is noteworthy) consuming the vessel's timbers, threatening to eat the ship (the ship's name, *Desire*, also has symbolic resonance) from under the crew. Jane's account again emphasizes Davis' Christian fortitude and compassion in both enduring extreme personal pain, and offering comfort and guidance to his suffering crew. Finally, Davis'

vessel, a near ghost-ship, made it back to England in June 1593 with just 14 survivors of the original complement of 75. Davis was subjected to an inquiry ordered by the privy council into his conduct on the evidence of Cavendish's last letter, and defended himself against the charges though, like Drake after the Doughty affair, his reputation suffered in the wake of the attempted circumnavigation.[66]

In these accounts from Hakluyt and elsewhere, supposedly outward-facing early modern English maritime heroic values implode into inward-facing violence. Instead of being the tool of colonial and imperial expansion through the external projection of 'heroic' behaviour, adventurers from the same nation unleash violence on each other in a frenzy of destruction. If the desire to go ever forward on a voyage, as Cavendish's and Davis', and indeed, Tamburlaine's and Macbeth's accounts each insistently demonstrate, is frustrated, then the maritime hero is vulnerable to breakdown, physically and emotionally. The restless energy of maritime heroic values dovetails well with colonial ideology, since continuous expansion and forward movement are the assumptions upon which both are predicated. It is conspicuous that Cavendish and Davis fell out irrevocably when they could not proceed on their agreed onward course, the Magellan Strait, to the Pacific Ocean, and the deviation proved terminal for the mission. Stasis or worse, going backwards, appear the most damaging varieties of tension and pressure that can be placed on the maritime heroic, as they destroy its *raison d'être* and essential central principle of forward movement. Only the Christian maritime hero endures, it seems, who accepts God's authority rather than privileging his own will.

The ship as hero

For my concluding discussion, I turn to a consideration of the ship in order to sketch its cultural utility and contribution to debates about the development of the early modern maritime heroic, and to provide a brief assessment of some of the ideological and emotional functions ships served. In so doing, my larger point is that non-human actors begin in this period increasingly to contribute to conceptions of the maritime heroic, especially as violence between men ostensibly on the same side threatened to undermine completely the cultural and practical utility of the human maritime hero in furthering national interests. Jane's description of the perilous threat to the voyage that the phallic worms' attack on the *Desire* embodied, powerfully underlines the crucial role of ships as a type of maritime hero, as the ship seemed to *suffer* just as much as its crew. Likewise, on its triumphant return to Deptford in 1580, Elizabeth I ordered that Drake's ship, the *Golden Hind*, should be preserved, and it became a tourist attraction and banqueting house for the next 80 years or so, before finally breaking up.[67] Perceived as a national hero, even the ship's fragments received hyperbolic treatment. In 'Ode. Sitting and Drinking in the Chair, made out of the Reliques of Sir Francis Drake's Ship' (1662), for instance, Abraham Cowley imagined himself armchair-travelling around the world, drunkenly, in 'the only Universal Chair' made from the salvaged timbers of the ship that had 'compas'd all the Earth'.[68] Ships – the wood, metal, canvas, and rope that mediated between crew and sea, and undertook the same journey as the sailors – were simultaneously utilitarian objects and became icons in the early modern imaginary.

For the Spanish, Ferdinand Magellan's ship the *Victoria* served a similar heroic function as the *Golden Hind* fulfilled for the English nation. In 1559, a full-size model of the *Victoria* featured prominently in the Funeral Procession of Charles V of Spain. Buried in Spain, Charles' funeral procession took place on the streets of Brussels on 29 and 30 September 1558, since his son Philip II resided in the Spanish Netherlands. The Antwerp printer Cristóbal Plantin published an album of the funeral procession as his first major work, selling it as a 12-metre roll or book in the five languages of the Spanish Empire of Dutch, French, German, Spanish, and Italian. The float of the ship showed female figures of Hope, Faith, and Love as seated figures and flags representing the territories Charles had controlled. Fantastical seahorses, or hippocampus, appeared to pull the ship, and at the rear sea-elefants seemed to draw the Pillars of Hercules, the markers of the extent of the known world, which were inscribed with 'Plus oultre', the insignia and motto of Charles V (see Figure 23.1). The ship's placement beyond the pillars complemented the power and achievements in exploration and colonialism of Charles' Empire on which, it was frequently asserted, the sun never set.[69]

The choice of the 85-ton carrack the *Victoria* for a float in Charles' funeral procession signalled the ship's reputational importance for celebrating the maritime achievements that Spain had realized under Charles' leadership. The *Victoria* was the only ship in Magellan's five-strong fleet to return from circumnavigating the globe between 1519 and 1522. Crewed by 265 men at the start of the voyage, only 18 returned in the spice-laden *Victoria*,

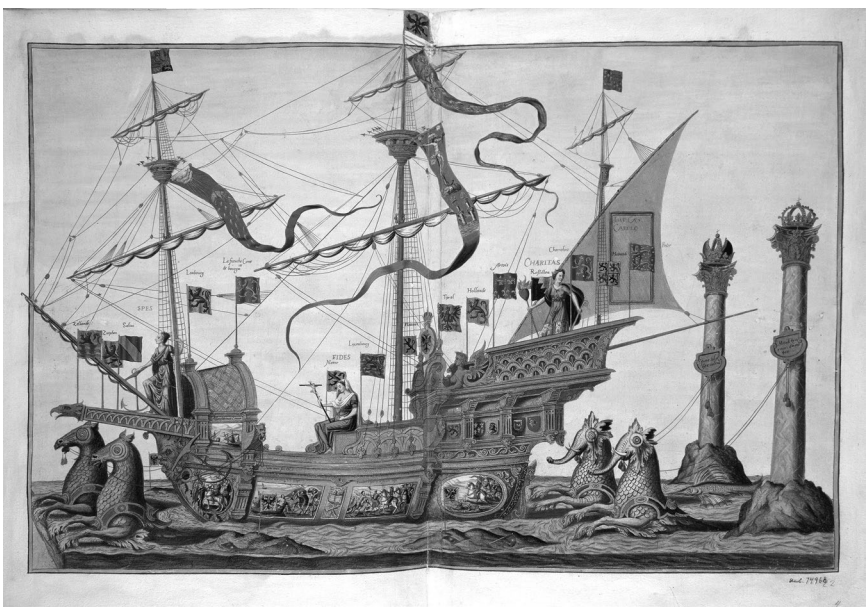

Figure 23.1 Hieronimus Cock (drawing) and Nicolas Hogenberg (engraver), *Funeral Procession in Brussels on the Occasion of the Death of Emperor Charles V*. Sheet 5, Flanders, 1559. The State Hermitage Museum, St. Petersburg.

Photograph © The State Hermitage Museum/photo by Natalia Antonova, Inna Regentova.

now commanded by Juan Sebastián Elcano, since Magellan died in the Philippines killed by the Lapu-Lapu people.[70] The ship, then, was a triumphant survivor and a heroic object, having sailed in total approximately 68,000 kilometres, 35,000 kilometres of which were in areas uncharted by Europeans, beyond the Pillars of Hercules.

By 1570, after a 50-year career as a merchantman, the *Victoria* was lost at sea *en route* from the Antilles to Seville, but the glory of the ship and its status as 'hero' endured.[71] The float of the *Victoria*, for instance, was recycled in 1615 for an especially magnificent *Ommegang*, a mixture of religious parade, courtly celebration, guild procession, and carnival entertainment (see Figures 23.2 and 23.3). Dedicated to Archduchess Isabella and her husband Albert, the Governor of the Spanish Netherlands, Isabella took the role of queen of the Crossbowmen's Guild, with the procession representing the alliance between Habsburg rulers and Brussels civic authorities.[72]

The last car, the tenth in the procession, was the 'ship of Charles V' recycled to contain the Virgin and Child surrounded by a court of ladies, instead of the allegorical figures of Faith, Hope, and Charity. The hippocampi, sea-elefants, and Pillars of Hercules remained in place. In 1615, the Habsburg patriciate and the so-called nations, the nine civic bodies representing the city's 48 craft guilds, once again co-ruled Brussels – the city had been the capital of the Calvinist United Provinces during their revolt from Spanish rule in the sixteenth century. By re-using the model of this illustrious ship, which was associated with the pinnacle of Habsburg maritime achievement, the city's pageant was appropriating past glories for present political purposes. The different women in the re-modelled float united the Catholic religion (the Virgin) with temporal female rule (the courtly group), emphasizing concepts of

Figure 23.2 Denys van Alsloot, *The Ommegang in Brussels on 31 May 1615: The Triumph of Archduchess Isabella (1616).*

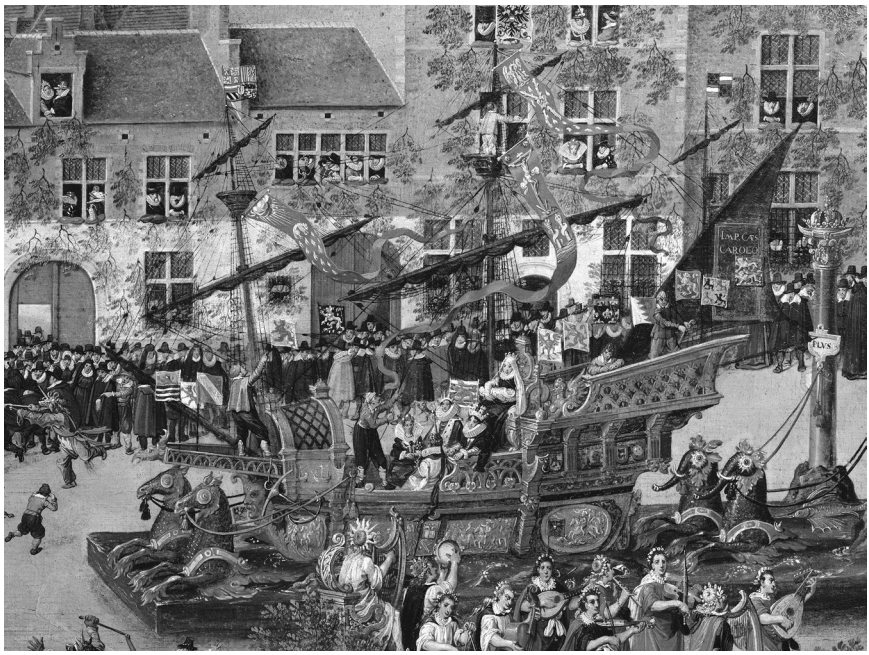

Figure 23.3 Detail from Denys van Alsloot, *The Ommegang in Brussels on 31 May 1615: The Triumph of Archduchess Isabella (1616).*

religious and political harmony, peace, and good government, while establishing an alliance with the current Brussels patriciate.

The utility of the heroic ship in performing cultural work for European nations and polities is also apparent at the other end of the scale in terms of size, with an early modern fashion, even passion, for miniaturized jewellery and small decorative items with marine and maritime themes. Jewels of marine creatures were particularly popular, with strangely shaped baroque pearls and gems ingeniously fashioned into intricate and colourful hippocampi, sea-dragons, dolphins, sea-serpents, and hybrid creatures such as mermaids, mermen, and sirens, all familiar from the classical and medieval bestiary tradition.[73] Such jewels also express the wonder, awe, and excitement of encounter with new animals and ideas, but simultaneously show anxieties about control and mastery, and humans' place in the order of nature.[74] These 'seafever' creatures are, for example, often hybrid or grotesque, or shown with fierce teeth or claws, or, though appearing in miniature form, are intended to be imagined as enormous by the viewer, shown by the inclusion of a tiny human figure or figures to give scale. A number of jewels, for instance, show a human figure riding the animal, attempting to dominate and control the monstrous sea creature beneath her/him. These monstrous and hybrid marine animals fall outside early modern European ontological categories and epistemological structures, but by rendering them as tiny but magnificent jewels, they appear domesticated without losing their alterity.

Nefs (French for 'carrack' or 'ship') were extravagant table ornaments, popular in the courts of medieval and early modern Europe and used as saltcellars or for storing eating utensils or linen, and navicula (Latin for 'small ships') were incense holders.[75] Akin to marine jewels, these maritime objects also performed cultural work in the early modern period. Some nefs, such as the Burghley Nef (1527/28) incorporated rare and exotic marine flora and fauna into their design, such as nautilus shells from the Western Pacific used as their precious metalwork carcasses.[76] Others, such as Hans Schlottheim's 'The Mechanical Galleon' (*c.*1580–90) included timepieces and other mechanisms that enabled movement across a dinner table, music to play, and/or the firing of tiny cannon or other extravagant display.[77] 'The Mechanical Galleon' is an exceptional example of an ingenious and prestigious automaton, designed to announce the start of a banquet by 'sailing' independently across the table, thus impressing and delighting the owner's dinner guests. As European nations competed for imperial and colonial territory, this elite object signalled both the wealth and sophistication of its possessor (it was most probably made for the Holy Roman Emperor Rudolf II), but also his (occasionally her) expansionist temperament.[78]

One, two, and three masted miniature pendant-nefs made of precious stones, gold, and enamel were popular jewels in Spain, Portugal, Venice, Italy, Malta, Crete, and other Mediterranean maritime nations with a large number extant in museum collections, as well as in private hands. Some pendant-nefs paid attention to nautical design, such as the Hunsdon jewel (*c.*1580) shown in Figure 23.4, by family tradition a gift from

Figure 23.4 Hunsdon jewel, pendant in the shape of a ship; wooden hull mounted in enamelled gold, the rigging strung with pearls; Europe, about 1580. Berkeley Castle, Gloucestershire.

Elizabeth I to her cousin Henry Carey, first Baron Hunsdon. The identity of the jewel's maker, or even the country of its origin, are unknown. Yet the inclusion on the hull of a winged figure of Victory, sounding a trumpet, and the presence of a large number of cannon, strike an amphibiously expansionist and celebratory tenor for a jewel thought to date to the year when Drake returned from the circumnavigation, or thereabouts. Just as the *Golden Hind* carried a pinnace for use as a tender ship in the Pacific, here too below the hull a small boat with oars forms a small pendant. The popularity of pendant-nefs in England more generally is apparent in records showing that Elizabeth I received a number of jewelled ships among the New Year gifts presented by courtiers, though the court practice of resetting gems to make new jewellery means that few of the queen's jewels survive.[79] Other nef-pendants were much more symbolic in design, such as the cut-crystal hulled nef shown in Figure 23.5, which may have originated in Venice, where there was a long tradition of crystal cutting.[80] Information on how owners used nef-pendants is also limited, and appears to vary between countries. Though in England, as we have seen, nef-pendants were part of a gift-giving courtly exchange culture, Yvonne Hackenbroch in *Renaissance Jewellery* argues that in Italy for instance, nef-pendants were not considered personal ornaments, since no portrait from the sixteenth or seventeenth century survives that depicts a sitter wearing them.

Figure 23.5 Pendant symbolizing a ship, rock crystal hull mounted in gold with enamel decoration, c.1620–30, Western Europe, possibly Venetian.

She suggests instead that they served different ideological and emotional functions for Italians, used as a votive to hang in churches and shrines in thanks for a traveller's safe return.[81] The contrasting meanings and significances these jewels possess suggest that the ship as hero is capable of operating in different emotional and ideological registers to those we have seen at work in the human male maritime heroic.

Conclusion

As we have seen, in the early modern period, the maritime heroic was both an esteemed and unstable vehicle to address issues of command and authority, and the type of characteristics that were necessary for successful leadership. As European nations competed to establish themselves as key players on a global stage, determining what qualities were required to inform and underpin the maritime heroic became increasingly central, and this is reflected both in real and imaginary accounts of exploration, and in material culture from the period. In English culture, maritime heroism focalizes narratives on an individual's or a ship's abilities to deliver results in the service of national ambitions, bordering on obsession, for territorial expansion and glory.

Simultaneously, however, accounts of human maritime heroism reveal the darker depths of individualism and personal will-to-power, of physical and mental breakdown, as well as the consequences of the kinds of restless, often-uncontrollable energy male maritime 'heroes' concurrently demonstrate. Against this context, the ship itself starts to emerge as a more reliable heroic model. Individuals and objects, humans and non-humans, and their stories, unite in posing, explicitly or implicitly, questions of what sort of maritime nation England, later Britain, could, or should, become, and what types of leader and leadership, as well as what type of vessels, were required for the nation's voyage forward. The ship as hero is, in some ways, proleptic of current posthumanist debates, offering a critical distance on the standard masculinist early modern maritime heroic that enables its re-conception by analysing the toxicity of the extremism and violence central to its human incarnation.[82] The very idea of the ship as hero – with its ability to carry varied emotional and ideological meanings – perhaps, then, offers a counterpoised site from where some of the consequences of 'Great Man' history can fruitfully be explored, and indeed challenged.

Notes

1 See A. Pagden (ed.), *The Idea of Europe: From Antiquity to the European Union*, Cambridge: Cambridge University Press, 2002.

2 See D. Armitage, *The Ideological Origins of the British Empire*, Cambridge: Cambridge University Press, 2000; A. Games, *The Web of Empire: English Cosmopolitans in an Age of Expansion, 1560–1660*, Oxford: Oxford University Press, 2008. On the 'History of the Great men' see T. Carlyle, *On Heroes, Hero-Worship, and the Heroic in History*, London, James Fraser, 1841.

3 See H. Scott, 'Travel and Communications', in H. Scott (ed.), *The Oxford Handbook of Early Modern European History, 1350–1750*, Oxford: Oxford University Press, 2015, pp. 170–2.

4 For discussion see, for example, A. Hadfield, *Literature, Travel and Colonial Writing in the English Renaissance 1545–1625*, Oxford: Oxford University Press, 1998; Games, *The Web of Empire*, pp. 81–116; C. Jowitt, *The Culture of Piracy, 1580–1630: English Literature and Seaborne Crime*, Farnham: Ashgate, 2010.

5 Scholarship on this topic is substantial, but for a useful overview see A. Pagden, *Lords of All the World: Ideologies of Empire in Spain, Britain and France c.1500–c.1800*, New Haven, CT: Yale University Press, 1995.

6 There is a vast range of writing from a variety of genres that engages imaginatively with travel and voyages in this period, and it has generated a vibrant field of criticism from a range of different critical approaches. See, for instance, S. Greenblatt, *Marvelous Possessions: The Wonder of the New World*, Chicago, IL: University of Chicago Press, 1992; N. Matar, *Turks, Moors and Englishmen in the Age of Discovery*, New York: Columbia University Press, 1999; R. Markley, *The Far East and the English Imagination, 1600–1730*, Cambridge: Cambridge University Press, 2006; A. Suranyi, *The Genius of the English Nation: Travel Writing and National Identity in Early Modern England*, Newark: University of Delaware Press, 2008; B. Sebek and S. Deng (eds), *Global Traffic: Discourses and Practices of Trade in English Literature and Culture from 1550 to 1700*, New York: Palgrave Macmillan, 2008. For useful overviews see also J. G. Singh (ed.), *A Companion to the Global Renaissance: English Literature and Culture in the Era of Expansion*, Oxford: Wiley-Blackwell, 2009; N. Das and T. Youngs (eds), *The Cambridge History of Travel Writing*, Cambridge: Cambridge University Press, 2019.

7 See Y. Hackenbroch, *Renaissance Jewellery*, London: Sotheby Parke Bernet, 1979; J. Keating, *Animating Empire: Automata, the Holy Roman Empire, and the Early Modern World*, University Park, PA: Penn State University Press, 2018.

8 See R. M. Nance, *Sailing-ship Models: A Selection from European and American Collections*, London: Halton and Co., 1949; M. Greiling, 'Proud Symbols of the Prospering Rural Seamen': Scottish Church Ship Models and the Shipmaster's Societies of North East Scotland in the late 17th Century', in J. Davey and R. J. Blakemore (eds), *The Maritime World of Early Modern Britain*, Amsterdam: Amsterdam University Press, forthcoming.

9 See M. L. Pratt, *Imperial Eyes: Travel Writing and Transculturation*, London: Routledge, 2008, pp. 7–8.

10 H. Bhabha, *The Location of Culture*, Abingdon: Routledge, 2004, pp. 112–13; R. Young, *Colonial Desire: Hybridity in Theory, Culture, and Race*, London: Routledge, 1995, pp. 5–23.

11 For long durée discussions of the development of the hero, see L. Raglan, *The Hero: A Study in Tradition, Myth and Drama*, Mineola, NY: Dover Publications, reprint 2011; S. Hook, *The Hero in History: A Study in Limitation and Possibility*, New York: The John Day Company, 1943. For a feminist response to 'Great man' history, see J. Fetterley, *The Resisting Reader: A Feminist Approach to American Fiction*, Bloomington, IN: Indiana University Press, 1978.

12 See B. R. Smith, *Shakespeare and Masculinity*, Oxford: Oxford University Press, 2000, pp. 39–66.

13 Anon., *Hickscorner*, in *Everyman and Other Miracle and Morality Plays*, ed. C. Ward, New York: Dover Publications, 1995, p. 69. For a discussion of the importance of 'Jack Tar' type, see Chapter 22 in this collection by D. Brayton, 'Enter Jack Tar: The Blue-Water Mariner in Early Modern World Literature', pp. 514–32.

14 Anon., *Hickscorner*, p. 71. For discussion of the play as political propaganda, see G. Walker, *Plays of Persuasion: Drama and Politics at the Court of Henry VIII*, Cambridge: Cambridge University Press, 1991, pp. 37–59. See also E. Rycroft, 'Morality, Theatricality, and Masculinity in the *Interlude of Youth* and *Hick Scorner*', in T. Betteridge and G. Walker (eds), *The Oxford Handbook of Tudor Drama*, Oxford: Oxford University Press, 2012, pp. 465–81; D. J. Hopkins, *City/Stage/Globe: Performance and Space in Shakespeare's London*, Oxford: Routledge, 2013, pp. 59–62.

15 See J. Guy, *Gresham's Law: The Life and World of Queen Elizabeth's First Banker*, London: Profile Books, 2019.

16 For discussion of the problematic elements in the play's representation of an emergent money economy, see C. W. Crupi, 'Reading Nascent Capitalism in Part II of Thomas Heywood's *If You Know Not Me, You Know Nobody*', *Texas Studies in Literature and Language* 46/3, 2004, pp. 296–323.

17 T. K. Rabb, *Enterprise and Empire: Merchant and Gentry Investment in the Expansion of England, 1575–1630*, Cambridge, MA: Harvard University Press, 1967, pp. 39–40.

18 For an alternate reading of this scene, see Guy, *Gresham's Law*, p. 231.
19 G. F. Kunz and C. H. Stevenson, *The Book of the Pearl: Its History, Art, Science, and Industry*, Mineola, NY: Dover Publications Inc., 2003, p. 313.
20 See L. C. Stevenson, *Praise and Paradox: Merchants and Craftsmen in Elizabethan Popular Literature*, Cambridge: Cambridge University Press, 1984.
21 R. Helgerson, *Forms of Nationhood: The Elizabethan Writing of England*, Chicago, IL: University of Chicago, 1992, pp. 149–92.
22 On Hakluyt's importance for understanding early modern travel and maritime culture more broadly, see D. Carey and C. Jowitt (eds), *Richard Hakluyt and Travel Writing in Early Modern Europe*, Farnham: Ashgate, 2012.
23 On Drake's 'unique visibility' in Hakluyt's collection, see C. MacCrossan, 'The Image of the English Nation in Richard Hakluyt's *Principal Navigations* (1598–1600)', unpublished PhD dissertation, University of Reading, 2009, pp. 161–95, at 168.
24 Estimates of the value of the plunder and other cargo accumulated on the circumnavigation vary in contemporary sources, partly because it was in English interests to disguise from Spain the full amount, in case compensation had to be paid and because much of the treasure was itself contraband. For discussion, see H. Kelsey, *Sir Francis Drake: The Queen's Pirate*, New Haven, CT and London: Yale University Press, 1988, pp. 211–16. On Drake's reputation in the wake of the circumnavigation, see M. Nievergelt, 'Francis Drake: Merchant, Knight and Pilgrim', *Renaissance Studies* 23, 2009, pp. 53–70; for discussion of Drake's representation in Spanish sources, see B. Fuchs, *Mimesis and Empire: The New World, Islam and European Identities*, Cambridge: Cambridge University Press, 2001, pp. 139–66.
25 D. B. Quinn, 'Early Accounts of the Famous Voyage', in N. J. W. Thrower (ed.), *Sir Francis Drake and the Famous Voyage, 1577–1580: Essays Commemorating the Quadricentennial of Drake's Circumnavigation of the Earth*, Berkeley, CA: University of California Press, 1984, pp. 33–48.
26 *The Famous Voyage of Sir Francis Drake into the South sea, and there hence about the whole Globe of the earth, begun in the yeere of our Lord, 1577*, in R. Hakluyt (ed.), *The Principall Navigations, Voiages and Discoveries of the English Nation*, London: George Bishop and Ralph Newberie, 1589, 12 unnumbered pages inserted between pp. 643 and 644. Page numbers for quotations are from the 12-page series. *The Famous Voyage* is also included in Volume 3 of the second edition of R. Hakluyt (ed.), *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation*, London: George Bishop, Ralph Newberie, and Robert Barker, 1599–1600, III, pp. 730–42.
27 *The Famous Voyage*, p. 10. For discussion, see Jowitt, *The Culture of Piracy*, pp. 50–67.
28 W. A. Lessa, 'Drake in the South Seas', in Thrower (ed.), *Sir Francis Drake*, pp. 60–77, at 73.
29 See S. Raman, 'Imaginary Islands: Staging the East', *Renaissance Drama* 26, 1995, pp. 131–61, at p. 132.
30 On Hakluyt's readers, see M. Day, 'Richard Hakluyt's *Principal Navigations* (1598–1600) and the Textuality of Tudor English Nationalism', PhD thesis, University of York, 2003.
31 Kelsey, *Sir Francis Drake*, pp. 75, 82.
32 Kelsey, *Sir Francis Drake*, p. 393. For an account of Hakluyt's struggles to get an account of Drake's circumnavigation into print, and other contemporary reactions to it, see Quinn, 'Early Accounts', pp. 33–48.
33 Kelsey, *Sir Francis Drake*, pp. 80–110; Quinn, 'Early Accounts', pp. 4–5.
34 A. Herman, *Rule the Waves: How the British Navy Shaped the Modern World*, New York: Harper Perennial, 2004.
35 'Narrative of John Cooke', in N. M. Penzer (ed.), *The Word Encompassed and Analogous Contemporary Documents Concerning Sir Francis Drake's Circumnavigation on the Globe*, New York: Cooper Square, 1969, pp. 142–68, at p. 142; Kelsey, *Sir Francis Drake*, p. 98.
36 For a discussion of Drake's class position, see Nievergelt, 'Francis Drake', pp. 59–60; see also M. Netzloff, 'Sir Francis Drake's Ghost: Piracy, Cultural Memory and Spectral Nationhood', in C. Jowitt (ed.), *Pirates? The Politics of Plunder, 1550–1650*, Basingstoke: Palgrave, 2007, pp. 137–50, at pp. 138–9. Drake's father Edmund was ordained, but in the 1540s was

forced to flee Devon for Kent, to escape prosecution for assault and robbery. See Kelsey, *Sir Francis Drake*, 'Appendices', pp. 401–22. Most naval historians locate the power struggle between 'gentlemen' and 'tarpaulin' officers to after the Restoration, though debates about the relationship between 'degree' and maritime leadership took place much earlier. The meaning of 'tar' as a sailor is first recorded in the *Oxford English Dictionary* in 1610 as the derogatory compound noun 'tar-lubber' (*OED*, 'tar, n.1, compounds'), but it was associated with sailing and sailors (caulking to preserve ships from seawater) in Middle English (*Middle English Compendium*, *c.*1250 'ter for water-gong'. See https://quod.lib.umich.edu/m/middle-english-dictionary/dictionary/MED44869/track?counter=3&search_id=162390). See also J. D. Davies, *Gentlemen and Tarpaulins: The Officers and Men of the Restoration Navy*, Oxford: Clarendon Press, 1991.

37 See E. B. I. Frankot, 'Medieval Maritime Law from Oléron to Wisby: Jurisdictions in the Law of the Sea', in J. Pan-Montojo and F. Pedersen (eds), *Communities in European History: Representations, Jurisdictions, Conflicts*, Pisa: Pisa University Press, 2007, pp. 151–72.

38 'When medieval knights embarked, ships' masters did their bidding, and that was another custom of which the vestiges still survived: Sir Hugh Willoughby, for example, was a gentleman and a knight but not a seaman, and the practical seamen were his subordinates'. See S. L. Caine, http://academia.wikia.com/wiki/Journal_of_History_and_Classics:_Doubting_Thomas:_the_Dought(ie)_Affair_in_Fictive_History_and_Historical_Fiction

39 Penzer, *The World Encompassed*, p. 164.

40 For an account of this history, see Davies, *Gentlemen and Tarpaulins*, pp. 34–66.

41 P. Force (ed.), *Lawes Divine, Morall and Martiall*, in *Tracts and Other Papers Relating Principally to the Origin, Settlement and Progress of the Colonies in North America*, 4 vols, Gloucester, MA: Peter Smith, 1963, III, ii, 68 pages.

42 J. Fletcher and P. Massinger, *The Sea Voyage*, in A. Parr (ed.), *Three Renaissance Travel Plays*, Manchester: Manchester University Press, 1995, Act III, ll. 1–175. For a fuller discussion of this play, see Chapter 20 in this volume by E. McLean Test 'Transatlantic Tubers: New World Potatoes in Early Modern English Literature', pp. 469–90.

43 J. Jane, 'The Last Voyage of the Worshipfull M. Thomas Candish', in *The Principal Navigations*, III, pp. 842–5, at p. 842.

44 F. Petty, 'The Prosperous Voyage of M. Thomas Candish Esquire', *The Principal Navigations*, III, pp. 819–22.

45 D. B. Quinn, ed., *The Last Voyage of Thomas Cavendish 1591–1592*, Chicago, IL: The Newberry Library, 1975, p. 68.

46 Jane, 'The Last Voyage', p. 842.

47 Jane, 'The Last Voyage', p. 843.

48 J. Davis, *The Seamans Secrets*, 'Epistle Dedicatorie', London: Thomas Dawson, 1595, A2v. For discussion, see C. Jowitt, 'The Hero and the Sea: Sea Captains and Their Discontents', *Revue de la Société d'études anglo-américaines des XVIIe et XVIIIe siècles* 74, 2017, 14 pages https://journals.openedition.org/1718/888

49 M. Hicks, 'John Davis [Davys]', S. Maxwell, 'Thomas Cavendish', ODNB, www.oxforddnb.com.ueaezproxy.uea.ac.uk:2048/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-4942?rskey=PkVT3w&result=1#odnb-9780198614128-e-4942-div1-d281801e2744

50 R. F. Hitchcock, 'Cavendish's Last Voyage: Purposes Revealed and Concealed', *The Mariner's Mirror* 80/3, 1994, pp. 259–69, at p. 264; see also R. F. Hitchcock, 'Cavendish's Last Voyage: the Charges against Davis', *The Mariner's Mirror* 87/1, 2001, pp. 5–14.

51 Samuel Purchas published Knyvett's account in 1625 as 'The Admirable Adventures and Strange Fortunes of Master Anthony Knivet, which went with Master Thomas Candish in his second voyage to the South Sea. 1591'. See P. Edwards (ed.), *Last Voyages: Cavendish, Hudson, Ralegh*, Oxford: Clarendon, 1988, pp. 80–96, at p. 90. It was placed immediately after Cavendish's, which Purchas titled 'Master Thomas Candish his discourse of his fatal and disastrous voyage towards the South Sea, with his many disadventures in the Magellan Straits and other places; written with his own hand to Sir Tristram Gorges, his executor'.

52 Davis, *The Seamans Secrets*, A2v.
53 See Edwards, *Last Voyages*, p. 31.
54 Quinn, *The Last Voyage*, pp. 113, 115.
55 C. Marlowe, *Tamburlaine the Great*, ed. J. S. Cunningham, Manchester: Manchester University Press, 1981, Part 2, IV, i, ll., 146–58.
56 Quinn, *The Last Voyage*, p. 121.
57 Marlowe, *Tamburlaine*, 2, V, ii, ll., 123–5; G. Peele, *The Battle of Alcazar*, in J. Yoklavich (ed.), *The Dramatic Works of George Peele*, New Haven, CT: Yale University Press, 1961, II, ii, ll., 464–5.
58 W. Shakespeare, *Macbeth*, eds S. Clark and P. Mason, London: Bloomsbury Publishing, 2015, III, iv, ll., 167–70. Despite the similarity in tone and meaning of these characters and lines and Cavendish, it is unknown whether he had attended performances of *Tamburlaine* or *The Battle of Alcazar*. For an early performance history of *Tamburlaine* see Cunningham, 'Introduction', pp. 20–31; see C. Edelman for debates concerning the dating and early performance history of *The Battle of Alcazar*, 'Introduction', *The Stukeley Plays*, Manchester: Manchester University Press, 2005, pp. 16–19, 23–5. The manuscript account was in Hakluyt's possession (presumably after the publication of *The Principal Navigations*) and then passed to Purchas, so it is unknown whether or how far it circulated prior to publication. See Quinn, *The Last Voyage*, p. 1, n2.
59 The first *recorded* performance of *The Battle of Alcazar* is (probably) 20 February 1592 but earlier performances are possible, given the complex textual history and fragmentary records concerning this play. See Edelman, 'Introduction', p. 23.
60 Jane, 'The Last Voyage', p. 844.
61 Jane, 'The Last Voyage', p. 844; *OED*, 1.a. www.oed.com/view/Entry/257576. Drake also accused Doughty of being a conjuror. See Kelsey, *Sir Francis Drake*, p. 104.
62 Jane, 'The Last Voyage', p. 844.
63 Jane, 'The Last Voyage', p. 847.
64 Jane, 'The Last Voyage', p. 852.
65 J. Lamb, *Scurvy: The Disease of Discovery*, Princeton, NJ: Princeton University Press, 2017, pp. 48, 50–1.
66 See Davis, *The Seamans Secrets*, A2v.
67 See T. Milner, *The Gallery of Geography: A Pictorial and Descriptive Tour of the World*, 2 vols, Glasgow: McPhun and Sons, 1872, I, pp. 57–8.
68 Some planks of the ship were used to make pieces of furniture and chairs, and John Davis of Deptford presented a chair to the Bodleian Library. See A. Cowley, 'Ode. Sitting and Drinking in the Chair, made out of the Reliques of Sir Francis Drake's Ship', http://cowley.lib.virginia.edu/works/drakeshipode.htm; see also his 'Drake's Chair Lands in Oxford', http://cowley.lib.virginia.edu/small/drake.htm.
69 See E. Rosenthal, 'Plus Ultra, Non Plus Ultra, and the Columnar Device of Emperor Charles V', *Journal of the Warburg and Courtauld Institutes* 34, 1971, pp. 204–28.
70 For a recent overview of Magellan's voyage, see H. Kelsey, *The First Circumnavigators: Unsung Heroes of the Age of Discovery*, New Haven, CT: Yale University Press, 2016.
71 The Victoria appears drawn, for instance, on A. Ortleius, *Theatrum orbis terrarrum*, Antwerp, 1589 and on the map by L. Hulsius, *Sechste Teheil/Kurtze/Warhafftige Relation und beschreibung der Wunderbarsten vier Schiffarten*, Nuremberg, 1603. For discussion of its use as the Hakluyt Society's logo, see R. Bridges, 'The Legacy of Richard Hakluyt: Reflections on the History of the Hakluyt Society', in Carey and Jowitt, *Richard Hakluyt and Travel Writing*, pp. 309–18.
72 See www.vam.ac.uk/blog/creating-new-europe-1600-1800-galleries/brussels-ommegang-1615-2014
73 Hackenbroch in *Renaissance Jewellery* includes examples from a range of European countries and polities.
74 It is difficult to date or determine the country of origin of many of these 'seafever' jewels, due to lack of surviving records and likelihood of alterations and repairs over time. For

instance, for an assessment of the original design, date of manufacture, country of origin, and provenance of the famous Waddeson Bequest hippocamp jewel, provided by curator Hugh Tait, see http://wb.britishmuseum.org/MCN4110#1453989001

75 See C. Oman, *Medieval Silver Nefs*, London: Her Majesty's Stationery Office, 1963; www.larsdatter.com/nefs.htm

76 http://collections.vam.ac.uk/item/O73113/the-burghley-nef-salt-cellar-unknown/

77 For discussion, see www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=51924&partId=1

78 See Keating, *Animating Empire*, especially pp. 17–58.

79 See the list of gifts in Hackenbroch, *Renaissance Jewellery*, pp. 405–8.

80 See Hackenbroch, *Renaissance Jewellery*, pp. 50–2, 340–3.

81 Hackenbroch, *Renaissance Jewellery*, pp. 50–2.

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24

Sea music and shipboard performance culture

James Seth

In his travel writings when sailing to Palestine on a Venetian galley in 1493, the Dominican friar, Felix Fabri (*c.*1441–1502) describes 'mariners who sing when work is going on' as a 'concert between one who sings out orders and the laborers who sing in response'.[1] This act of call-and-response is also known as 'shantying', an activity that was an integral part of early modern maritime culture. The lead-singer of shanties, known as the 'shantyman', served as a conductor of sorts, leading the musical parts and calling out orders to the other sailors.[2] Fabri's description of the mariners' shanty as a concert emphasizes that maritime culture was, to an extent, one of collaborative performance. To achieve a task, there must be a unity of individual parts, like the harmonies of a chorus. Anchor songs, a variant of the shanty, were sung while sailors pulled on rope, and together they would heave in time with the rhythm of the song. The subject matter of these songs could relate to any number of maritime affairs: the labour of shipboard work, the exploits of a famous explorer or pirate, shipwrecks and tempests, true maids and false maids, and other myths passed down from experienced sailors or sea dogs.

During the early modern period (*c.*1450–1750), shipboard music and performance served three vital purposes for lengthy expeditions: diversion, discipline, and diplomacy. The anchor songs of the fifteenth century helped expedite the daily work aboard ship, while early seventeenth-century merchants often gave more elaborate performances, which served expressly political purposes, such as establishing diplomacy between guest and host. As an old saying reports, 'When the men sing right, the ship goes right'.[3] Sea songs also document oceanic histories and reveal the turbulent lives of early modern seafarers. The first half of this chapter will discuss the types of early modern sea songs and their respective purposes aboard ship, and the latter section will analyse historical performances of music and drama by privateers, merchants, and pirates.

Shanties and anchor songs

The word 'shanty' is likely a corruption of the French imperative, '*chantez*' ('sing'), as the OED notes, and the word has several variations that coincide with '*chantez*', including 'chanty' and 'chantey'.[4] However, Denys Thompson explains the more complex derivation of 'shanty' as a sailor's song:

> The best-known and the most numerous of British work songs are the sea shanties of the merchant ships. One of the collectors, Richard Runciman Terry, derived their name from Antigua. There the shanties of West Indians were movable wooden huts, and when a move was desired they hauled away on wheels pulled by two long ropes; the shantyman mounted the roof, and sung a song with a chorus, which is the exact musical parallel to the sailors' pull-and-haul shanty.[5]

The shanty itself is inextricably – and literally – tied to work, so it is reasonable that the name would also come in part from an object being pulled. As a musical form, the shanty is known for its use of repetition and rhythm, which allow workers to repeat effectively the orders of the shantyman while applying their strength at the same time.[6] There are many variants on shanties based on different tasks. As the name implies, sailors pulling up the anchor would perform an 'anchor song'; a 'bowline shanty' would be sung while pulling the bowline; a 'hauling song' is performed when hauling rope or other heavy cargo, and so on.

The number of shanties printed before 1800 is low, and certainly incomplete, but the surviving early shanties reveal the daily rituals aboard ship and the kinds of orders and phrases sung by shantymen. Many of these shanties do not contain music, though some printings indicate an accompanying tune. Stan Hugill explains that the 'earliest source giving a series of work songs (without tunes) sung at sea' comes from *The Complaynt of Scotland* (1549).[7] This anonymous propaganda book was written during the 'Rough Wooing' between England and Scotland (1543–51), referring to the war that ensued after English attempts to dissolve the alliance between Scotland and France failed, including the Treaty of Greenwich, which aimed, among other things, to secure the future marriage of Edward VI and Mary, Queen of Scots. In addition to Scottish legends, tales, and allegories, the *Complaynt* also contains two anchor songs, a bowline shanty, and three hauling songs for 'hoisting the lower yard'.[8] Part of the simpler hauling song in the *Complaynt* goes:

> Hail all ande ane.
> Hail all and ane.
> Hail hym vp til vs.
> Hail hym vp til vs.
> Hou hou.
> Pulpela pulpela.
> Boulena boulena.
> Darta darta.
> Hard out strif.[9]

The first verse contains the orders given by the shantyman and repeated by the sailors to haul up the anchor: 'Haul all and one. Haul all and one. Haul him to us. Haul him to us'. The latter verse, however, consists of a series of sailor's chants with less discernible meanings and derivations. An early note on these unusual chants in the *Complaynt* suggests that the word 'pulpela' could mean or derive from 'pull'.[10] The same source recommends that 'boulena' could be understood to mean 'the bowlines to be hauled', which would correspond with the last line, 'Hard out strif' (or its variant, 'Hard out steif').[11] If 'hou' is a form of 'how', with 'darta' being a variation of 'dart', or 'hurry', the call-and-response chant could translate to:

How? (How?)
Pull! (Pull!)
Bowline! (Bowline!)
Dart! (Dart!)
Hard out stiff! (Hard out stiff!)

It is equally possible, even with this interpretation, that the sailors' chants are corrupted versions of words mimicking Spanish or Portuguese words. The word 'pulpela', for instance, has an odd similarity to the more contemporary word '*pulpeta*', a Cuban meatloaf dish made from a sausage; therefore, 'pulpela' could have been inspired from Spanish or Portuguese dialect. Just as the word 'shanty' likely came from an amalgamation of the French '*chantez*' and the name for mobile West Indian shacks, it is also possible that the Scottish sailors' shouts are combinations of other words from the language of peoples they encountered.

Since the medieval era, sailors had become familiar with the language and customs of other countries, absorbing them into their own seaboard life. As Maryanne Kowaleski explains, 'The regularity with which medieval seamen crossed borders and encountered people, goods, and ideas from other regions and countries – whether abroad or in their home ports – also familiarized them with the customs and languages of others'.[12] Moreover, labour shortages 'heightened demand for sailors and required shipmasters to recruit widely, including foreigners', Kowalski states.[13] As crews that are more international operated on late medieval ships, seafaring culture became multilingual. It would thus make sense that shouts like 'Boulena!' and 'Darta!' derived from Spanish or Portuguese, since both countries, unmatched in oceanic navigation during the fifteenth and sixteenth centuries, possessed their own shanties, shouts, and sailor songs. These shouts and shanties might have been passed around to other European sailors in the sixteenth century.

In the Portuguese epic poem, *Os Lusíadas* (1572), Luís Vaz de Camões explains that sailors aboard Vasco da Gama's fleet, then en route to India, would perform a chant, or chanting song, when raising their anchors and making sail. The first mention of sea chants appears in Book II, Stanza 18:

As ancoras tenaces vão levando
Com a nautica grita costumada,
Da proa as velas sós ao vento dando,
Inclinam para a barra abalizada.[14]

(The clinging anchors now are forthwith weighed/With the well-known accustomed sailor's shout,/Fore-sails alone are to the wind displayed,/To make the bar, as by the course marked out.) In this passage, Camões presents one of the first mentions of the anchor song. The phrase '*nautica grita costumada*' ('accustomed sailor's shout') refers to the sound of the men's rhythmic chants as they perform their work. Camões includes variations of the phrase, including '*celeuma medonha*' in Canto 2, Stanza 25, which J. J. Aubertin translates as 'alarming sea-shout'.[15] However, '*celeuma*' generally has the same meaning as 'shanty' or 'work song', specific to maritime work. But, is a 'sea-shout' the same thing as a 'shanty' or a 'sea song'? Though the terms are often used interchangeably, giving a 'sea-shout' sounds connotatively less musical and more purposeful than the latter two terms. Though the difference is slight, it matters in the decisions that translators make when interpreting seafarers' actions.

Sea songs, like oral seafaring tales, were mutable and constantly changing. They often drew upon other popular songs, not only in their musical composition but also in the themes, language, and plot. Sometimes, a 'song' originated from a rhythmic chant or a shouted command. The ways that sea songs are translated and retold significantly affects their transmission. For example, there are many irregular translations of Camões's phrase, 'nautica grita costumada', and his corresponding word in Canto 2, Stanza 25: '*celeuma*' ('work song'). The variations chosen by translators offer historiographical insights on how shipboard singing (or chanting, or shouting) has been reinterpreted over the course of history. Hugill, for example, translates '*nautica grita costumada*' to mean 'sing songs and catches to lighten their work'.[16] However, in the translation by J. J. Aubertin, the phrase is rendered as 'accustomed sailor's shout', which presents a different connotation than a 'catch' or a multi-voiced song.

A 'catch' in this context refers to a musical work for three or more voices (similar to a 'round') where singers performed in alternate parts; the second singer begins the first line as the first singer begins the second line, and so forth.[17] Those who begin a catch would be a 'catch-maker', and singers can be part of a 'catch-club', which in this case was the ship itself.[18] Perhaps Hugill used 'catch' not only because of the fact that sailors would chant in succession to complete their tasks, but also because of the word's multiple ties to the maritime world. A 'catch' could also refer to a vessel, a supply of fish, or an anchor.[19] The musical work of a catch also compares favourably to sailor's work. Just as sailors hand off their musical parts to the other, so too do they hand off rope, net, or tool to their shipmate.

Sea ballads

In one of his collected volumes of shanties, Hugill discusses what he deems the 'earliest inkling of sailors singing at work', which comes from a manuscript from the time of Henry VI (1421–71), currently in the library of Trinity College, Cambridge. 'This is a sea ballad – perhaps the oldest in Europe – describing a ship loaded with pilgrims, bound from Sandwyche, Wynchelsee, and Bristow (Bristol) toward the shrine of St. James (Santiago) in Compostella [*sic*], Spain'.[20] Hugill describes the ballad in the following way:

> In quaint Chaucerian English the ballad covers the sailing day, the type of food and sleeping quarters allotted to the pilgrims, their sea-sickness, a description

> of the schipp-hlaford (master) and his men, the orders given when getting their anchors and setting sail, and, for the first time, and mention of the wild yell – the 'hitch' – sailors have used from earliest times when hauling on a rope.[21]

In this early ballad, the writer describes shipboard culture in its most comprehensive way: there are the 'hitches' or 'sea-shouts', as well as descriptions of the ship and the day-to-day goings-on. Other sea songs, like 'The Praise of Sailors' (*c.*1610–46), also explain the workings of the ship, the roles of its players (boatswain, pilot, captain, sailors), and direct the listener/reader to various parts of the ship. 'Praise of Sailors' and the quaint ballad in Trinity College about the pilgrimage to Compostela give the listener a guided tour of a ship. The intended audience of such a ballad, however, is more ambiguous than it is for the shanty. While the pilgrimage ballad performs an act of describing the voyage, it could be intended for landlubbers as well as seafarers, as it presumes the listener does not have a full knowledge of the toils of seafaring.

Sea ballads, generally speaking, differ from the shanty and the anchor song not only in subject matter but also in their musicality. Often, an anchor 'song' could be, in reality, a series of chants that rhythmically correspond to shipboard work. A ballad, on the other hand, could travel from sea to land and be utilized for more than a work song. The OED defines the 'ballad' as 'A light, simple song of any kind', making the 'sea ballad' its marine form.[22] Though some sea ballads rely on repetition, especially in their choruses, they generally do not have as much repetition, or as many imperatives, as the call-and-response hauling song.

'A-Roving' is a prominent example of a sea ballad used for practical and entertaining purposes, as the song's popularity also inspired many variations and adaptations throughout the sixteenth and seventeenth centuries. As Roy Palmer explains, 'A-Roving' was 'popular at the time and was presumably taken on board by sailors and used as a capstan or heaving shanty'.[23] Palmer also notes that a tune 'unmistakably akin to that of "A-Roving"' appears in Thomas Heywood's *The Rape of Lucrece*, performed in London around 1630.[24] In the case of 'A-Roving', the ballad was popular enough to have been adapted in anchor songs as well as theatrical productions, demonstrating the malleability of 'light, simple song[s]' for different purposes.[25] Like many sea ballads during this time, 'A-Roving' is repetitive and minimal in its message and structure, repeating the phrase, 'In Plymouth Town there lived a maid' every other line in the first verse. The sailor laments:

> In Plymouth Town there lived a maid,
> And she was mistress of her trade.
> I'll go no more a-roving with you, false maid.
> Chorus: A-roving, a-roving,
> Since roving's been my ruin,
> I'll go no more a-roving with you, false maid.

This version of the song visits the common tropes associated with false maids, who were 'mistress of [their] trade'. This song is likely a variant or early version of 'The Maid of Amsterdam', which has a near-identical chorus, with the addition of the line, 'I'll go no more a-roving with you, fair maid' at the beginning of the chorus.[26]

The change from 'false maid' to 'fair maid' is also a striking change in the variant, the former emphasizing the maid's betrayal of trust. 'The Maid of Amsterdam' is notably much longer than its predecessor, adding a more detailed description of the maid's falseness by including bawdy puns, such as a description of a 'great big Dutchman' who 'rammed [his] bow' after the singer steals a kiss from the maid.[27] 'The Maid of Amsterdam' ends with a warning to male seafarers about the intentions of seemingly virtuous maids, but its low humour makes the song more of an entertaining jest than an earnest piece of advice.

Sea ballads also served as warnings against life's unexpected misfortunes. Just as 'A-Roving' and 'The Maid of Amsterdam' warn sailors and suitors of maids' falsity, sea ballads during this era also told of the capriciousness of fate. This is evidenced in the pair of sea ballads, 'In Praise of Seafaring Men, in Hope of Good Fortune', and its response, 'Another of Seafarers, describing Evil Fortune', both written after 1585 by the same writer.[28] These ballads speak to each other, like the catch or round, and present contradictory perspectives, as the titles suggest. 'Good Fortune' is a ballad about the virtues of sea service, and is seemingly hopeful in its outlook. However, the song was alternately titled, 'Sir Richard Grenfilldes Farewell', alluding to Grenville's 'discovery' voyage to the island of Roanoke (in present day North Carolina) in 1585. This alternate title pointedly refers to Grenville's abandonment of 15 people in Roanoke in 1586 after finding the island apparently deserted. Bidding 'farewell', Grenville left Ralph Lane, a soldier and colonist he knew well, and the other voyagers to go privateering at Bermuda, where he looted cargo worth thousands of pounds, though the exact amount is still imprecise.[29]

'Good Fortune' is sung from the perspective of an aspiring seaman, perhaps Grenville or any other ambitious explorer encouraged by the lucrative rewards of sea travel. The singer professes: 'To purchase fame I will go roam'.[30] The song portrays the determined seafarer as one whose motivations to travel are self-serving, whether to achieve material fortune or recognition. If it refers to Grenville, the implications of this line are particularly double-edged, as his abandonment of Lane and the other colonists revealed his intentions to secure wealth only for himself.[31] Yet, the song also recognizes the seafarer's sacrifices and sings about landlubbers' trepidation for sea travel because of toil, separation, and grief. One verse in 'Good Fortune' reads:

> To pass the seas some think a toil.
> Some think it strange abroad to roam;
> Some think it a grief to leave their soil,
> Their parents, kinfolks, and their home.
> Think so who list, I like it not:
> I must abroad to try my lot.[32]

The speaker addresses the complaints of his compatriots who fear a life at sea, and he thus portrays himself as a brave gallant 'try[ing his] lott' in the face of the 'toylle' and 'grefe'. By contrast, the response poem, 'Another of Seafarers, describing Evil Fortune', presents a much more sombre view of seafaring life, warning the listener against the harsh weather and hazards aboard ship. As Palmer comments, 'Evil Fortune' serves

as a 'vivid counterblast to the seafaring philosophy' of 'Good Fortune'.[33] 'Evil Fortune' begins: 'What pen can well report the plight/Of those that travel on the seas? […] Their poor estate is hard to show'.[34] The song asserts that the troubles of seafarers is 'hard to show', positing the same message that travel writings and sea literature have long expressed, that the truths and mysteries of seafaring life can only be truly understood through experience.

It is also possible that, like 'Good Fortune', the grave 'Evil Fortune' could refer to Grenville's life, or more precisely, his death while on the *Revenge* in 1591. Paired together, 'Good Fortune' and 'Evil Fortune' could depict Grenville's career as a seafarer. At the same time, both songs also depict more generally the life of every seaman, who must accept both the rewards and the toil of a life bound to the whims of an unpredictable sea. As 'Evil Fortune' puts it:

> We wander still from luff to lee,
> And find no steadfast wind to blow;
> We still remain in jeopardy,
> Each perilous point is hard to show;
> In time we hope to find redress,
> That long have lived in heaviness.[35]

The balladeer once again uses the phrase 'hard to show' to stress that the song itself is not a powerful enough medium to illustrate the toils of seafaring. The speaker, perhaps Grenville from 'Good Fortune', will thus 'remain in jeopardy', his hope for fame dashed by Fortune. This song's 'perilous point' might refer to Grenville's final journey, a fabled story of recklessness and bravery. During his last voyage aboard the *Revenge*, Grenville raided the Azores while serving as vice-admiral under Lord Thomas Howard.[36] Though Howard aimed to intercept a fleet containing silver, the Spanish became aware of their presence and sent out a fleet to protect the treasure ships.[37] When Howard and the other English ships retreated, the *Revenge* stayed behind.[38] It is not clear exactly why Grenville decided to stay and face the Spanish fleets head on, but doing so jeopardized the safety of his crew and ensured their defeat. Thus, in alluding to being in constant 'jeopardy' with 'no steadfast wind', the poem 'Evil Fortune' could refer to Grenville's demise, if it was based on his maritime exploits.

Sea dog songs

Sea songs were often calls to action: to pull the anchor, to set the sails, or to perform any other required task aboard ship. However, sea songs could also be calls to the sea. This was the case with a sea song recounting Francis Drake's return from his voyage around the world (1577–80). Drake served a central role in England's global expansion as one of Queen Elizabeth I's principal naval commanders and privateers.[39] There is a sea song about Drake's circumnavigation, titled, 'Upon Sir Francis Drake's Return from his Voyage about the World', which Palmer suggests was written around 1584.[40] In the third stanza, it makes a bold challenge: 'You gallants all o' the British blood,/ Why don't you sail o' the ocean flood?'.[41] Like many other shanties on the vocation

of seafaring, the song takes delight in goading landlubbers to set sail while telling tales of the successes or failures of famous voyagers. With their successful circumnavigation and the considerable wealth accrued on the voyage, Drake and his men were regarded as national heroes for their navigational skill. The song first describes the return of Drake to England, opening with the repetitive line, 'Sir Francis, Sir Francis, Sir Francis is come', and then recounting how Drake and his train 'marched gallantly on the road' to claim their glory.[42] The jaunty tune presents Drake as a model for seafaring excellence, though at the expense of his unsuccessful predecessors.

In praising Drake's accomplishment, the song recounts the failures of Sir Humphrey Gilbert, cousin of Grenville and uterine half-brother of Walter Ralegh. Unlike Drake, Gilbert 'ne'er came home again' from an expedition, which began 11 June 1583, when he endeavoured to go to Newfoundland and travel south along the coast.[43] Gilbert's expedition was supported by the Southampton Company and included the ships the *Delight*, the *Bark Ralegh*, the *Swallow*, the *Squirrel*, and the *Golden Hind* (formerly the *Pelican*), which Drake had commanded during his famous circumnavigation.[44] One surviving account is a song by Edward Hayes, captain of the *Golden Hind*.[45] As the song goes, Gilbert:

> went out on a rainy day,
> And to the new-found land found out his way,
> With many a gallant fresh and green,
> And he ne'er came home again. (Lines 11–16)

The sea song on Drake's return is ultimately a lament for Gilbert's failure to return, the latter being a foil for the former. The emphasis on the youth and vitality of Gilbert's sailors may attempt to suggest the reason for Gilbert's failure, as their inexperience could have proven disadvantageous. Drake and the other Elizabethan explorers, including Ralegh, continued raiding Spanish ships until, under James I and VI, the Treaty of London ended the Anglo-Spanish War in 1604.[46]

Like his contemporaries, Ralegh was also the subject of songs about his expeditions and exploits. 'Sir Walter Raleigh Sailing in the Lowlands' was a popular sailor's shanty and was likely written after Ralegh's execution in 1618 by James I.[47] John Ashton dates the song from 1635, though as Palmer explains, the earliest edition was published between 1682 and 1685.[48] The ballad, likely performed orally before its first printing, tells how Ralegh's ship, *The Sweet Trinity*, was 'taken by a false galley' and then retrieved by a 'little ship-boy'.[49] The song describes how the ship-boy successfully sinks the 'false galley' and frees the *Trinity*.[50] The boy bores 15 holes into the galley with an auger, leaving the men inside with saltwater up to their eyes while playing cards and dice.[51] After completing his task, the boy swims back to the *Sweet Trinity* and demands his reward.[52] The song reveals that Ralegh had agreed to pay the boy gold and the hand of his eldest daughter if he was successful. However, Ralegh takes back his word and proves to be a 'cozening lord', having deceived the boy into doing the work for nothing.[53]

'Sir Walter Raleigh Sailing in the Lowlands' was later adapted into the popular ballad, 'The Golden Vanity' (or 'Lowlands Low'). The songs share the description of

an assertive young ship-boy who endeavours to take down the threatening galley and free the English ship. 'The Golden Vanity', or 'Lowlands Low', was written around 1635 and tells the story of Barbary pirates who threaten the shipping and trading in the Mediterranean. The song describes the vulnerability of the titular ship, which, like Ralegh's *Sweet Trinity*, is vulnerable to being captured by a false galley, or 'by some Turkish galilee' (galley) while sailing in the Lowlands:

I. O I have a ship in the North Country,
And she goes by the name of the Golden Vanity,
And I fear she will be taken by some Turkish galilee
As she sails along the Lowlands low.
Chorus: Lowlands, Lowlands, as she sails along the Lowlands low.
II. To the Captain then upspake the little cabin boy,
He said: 'What will you give me if the galley I destroy –
The Turkish galilee, if no more it shall annoy,
As we sail in the Lowlands low?'.[54]

The premise of the tale is a common seafaring yarn; pirates seek to commandeer a ship, and a cabin boy saves the day by destroying the pirate's galley in exchange for a reward. Like the ship-boy in 'Sir Walter Ralegh Sailing', the cabin boy of 'The Golden Vanity' craftily bribes the captain to reward him in exchange for destroying the galley. As Palmer explains, there are many versions of the melody of the song, but the words have few variants.[55] Its popularity might also be due to its catchy, repetitive chorus: 'Lowlands, Lowlands, as she sails along the Lowlands low'.

The sea song 'The Praise of Sailors', printed between 1610 and 1646, describes the hardships that sailors endure on their journeys. The song, as the title suggests, is a tribute to those who choose a life at sea, and the descriptions of sailor's toil are often juxtaposed with the ease of landlubbers. While the singer 'lay[s] musing' in bed, 'Full warm and well at ease', the sailors have to endure 'lodging hard' on the turbulent seas.[56] Though the song's general sentiment is unsubtle, the writer gives a comprehensive layout of the ship and descriptions of its important crewmembers. The master, master's mate, boatswain, pilot, captain, quartermaster and sailors all have stanzas about their role and character:

The boatswain he's under the deck,
A man of courage bold:
'To th' top, to th' top, my lively lads.
Hold fast, my hearts of gold.'
The pilot he stands on the chain,
With a lead and line to sound,
To see how far and near they are
From any dangerous ground.[57]

The writer's description of the pilot is especially revealing, as it states the essential tools that this vessel needed to navigate and determine the depth of the water: the lead and line. As David Waters explains, the pilot's 'most important instrument has

always been, as it was in Drake's day, his lead and line for sounding the depth of water'.[58] The lead could also be 'armed' with tallow 'placed in a recess in its base, which could be used to bring up a sample of the seabed' to determine if the bottom was covered in sand, rock, shells, or other materials.[59] 'Praise of Sailors' could thus be a song to help familiarize seafarers with the responsibilities of each person aboard, as well as to highlight their worth during the voyage.

Professional consorts and instrumental performers

Professional consorts were employed on expeditions to provide music, drama, and other entertainments aboard ship. These entertainments were often given during introductions with foreign dignitaries, though they were also given in the presence of representatives, traders, and indigenous peoples. Consort members, unlike the naval officers aboard ship, were civilians recruited as servants to the captain. Consorts were also close-knit and would regularly include the same members within the group, though not necessarily with the same captain on subsequent voyages. Francis Drake hired a consort of musicians and performers for his voyages, and many of these men were continually employed for sea travel, having been listed on the rosters of other voyages during this time. Voyagers with professional consorts during this period included Sir Humphrey Gilbert, Edward Fenton, John Davis, Richard Hawkins, Thomas Cavendish, and Richard Grenville, in addition to Drake.[60]

Maritime consorts would typically be comprised of about four to six musicians, though some voyages had two or three times this number of consorts. The 1595 voyage of Hawkins and Drake to the West Indies, for example, had an unprecedented 19-member consort. However, that particular fleet was also quite large, comprising of 27 ships and 2,500 men.[61] Most consorts would be comprised of several string musicians, with occasional lute and brass instruments. There would also be a trumpeter aboard the voyages, though this musician would generally not be considered part of the consort. Unlike the musicians in a consort, who were recruited civilians, the trumpeter would be considered a naval rank, with the possibility of promotion.[62] Often, consort musicians could be counted on to provide other types of performance, such as singing and dancing.

Records from voyages from the sixteenth to eighteenth centuries reveal that instruments were brought aboard ship for musicians to entertain the captain and his guests. Musical performance often accompanied supper and became a seafaring tradition, as evidenced by the records of Drake's voyages. During his three-year circumnavigation, Drake ensured that music was a constant presence aboard the *Pelican*. A letter by Don Francisco de Zarate, allegedly on board the *Nuestra Señora de la Concepción* (also known as the *Cacafuego* – literally meaning 'shit-fire' or 'fire-shitter') when it was captured on 1 March 1579, offers a unique perspective on the way that music was part of Drake's daily routine:

> [Drake] has with him nine or ten gentlemen, the younger sons of great people in England. Some of them are in his counsels, but he has no favourite. These sit at his table, and he is served in silver place with a coat of arms engraved on the dishes; and music is played at his dinner and supper.[63]

As Zarate's passage reveals, Drake kept a train of people around him at all times, which also apparently included his professional consort. Of those 'nine or ten gentlemen', three or four of them could have been the consort, or perhaps just the string players. Another version of Zarate's letter published by N. M. Penzer includes an excerpt claiming that Drake 'dines and sups to the music of viols'.[64] If the claims in this version are correct, stringed (or 'still') music was frequently heard on board ship, played at multiple intervals during Drake's meals. Drake was always surrounded by others, partly for practical reasons but also for the performance of power. Having the consort perform at meals only reinforced the image he wanted to project, especially to Spanish captives. As the gentlemen accompanying Drake were often of higher social standing than himself, the privateer often demonstrated refinement, perhaps as a statement of conscious sophistication. Zarate also claims that Drake employed 'trained carpenters and artisans, so as to be able to careen the ship at any time'.[65] From these passages, we have a possible view into the expectations on board ship and the ways that Drake maintained aspects of English cultural practices in his daily routine.

There were several voyages contemporaneous with Drake's circumnavigation that included professional musicians. Gilbert recruited musicians for his Atlantic voyage, which was delayed in departing until November 1578. D. B. Quinn, in his edition of Gilbert's voyages, lists six 'musitians', one 'trumpiter', and one 'drume' aboard Gilbert's flagship, the *Anne Aucher*, in 1578.[66] Cavendish, like Drake, kept a consort of musicians aboard ship. Yet, as Woodfield also notes, 'Little is known of the musicians who accompanied Thomas Cavendish on the second English circumnavigation'.[67] On this circumnavigation, there could have been at least four musicians, and we know at least one of the musicians' first names. Unfortunately, this named member, recorded as 'Ambrose the musitian', drowned during a skirmish with the Spanish on 2 June 1587.[68]

Of course, music was played and enjoyed by more than professional consorts. In his diary, Samuel Pepys (1633–1703) describes playing instruments aboard ship while serving as secretary for Edward Montagu. Pepys, who eventually became an administrator for the Navy Board, recorded events from 1660 to 1669. His diary offers rare descriptions of the London theatre, as well as shipboard goings-on with Montagu. In his entry on 23 April 1660, for example, he writes about how he, along with his colleague William Howe, who also worked for Montagu, played music on board ship:

> W. Howe and I went to play two trebles in the great cabin belowe; which my Lord hearing, after supper he called for our instruments and played a set of Lock's, two trebles and a bass. And that being done, he fell to singing of a song made upon the Rump [Parliament] […] to the tune of 'The Blacksmith'.[69]

Pepys' writings reveal that shipboard recreation would not only regularly involve multiple musicians and instruments, but also that Montagu himself joined in the shipboard entertainment and sang alongside Howe and Pepys. It is interesting to imagine how Montagu's version of 'The Blacksmith', a traditional folk song, could be adapted into a riff on the Rump Parliament. It also raises the question of which, if any, original verses remained and which were modified. The original song tells of a maid courted

by a blacksmith for nine months, only to find out that he was married.[70] The theme of short-lived romance seems an apt metaphor for the equally short-lived Rump Parliament in 1648, created after Colonel Thomas Pride forcibly removed 180 members in a coup ('Pride's Purge').

Intercultural performance

There are many documented examples of intercultural performance during the formative years of European sea travel. Providing entertainment was particularly common on the long voyages for English explorers and merchants during the era of 'discovery' and trade in Asia, Africa, and the Americas. Often, musicians and performers were utilized to establish friendly relations and help build trade networks. There are many notable occasions recorded of when intercultural performance attempted to facilitate exchange and good relations between cultures. For example, accounts of John Davis' expedition in 1585 to find the so-called Northwest Passage mention multiple instances when music helped to make peace with Islanders.[71]

Another notable example of intercultural performance is mentioned in materials published from the East India Company's (EIC's) third voyage in 1607. One extract, apparently from the journal of General William Keeling, who commanded the third voyage, claims that the men aboard the *Red Dragon* flagship may have staged the first non-European performances of *Hamlet* and *Richard II* shortly after the Company arrived in Sierra Leone in September 1607.[72] Bernhard Klein and Richmond Barbour posit in their most recent reading of the event that if the Company did, in fact, perform the two plays, it was 'fortuitous and incidental, not essential to the episodic drama of voyaging at this early stage in Britain's bid for global access'.[73] Still, they confirm that journals surrounding this cross-cultural encounter 'command critical attention in their own right' by providing key testaments to the nature of England's cross-cultural encounters.[74] Barbour and Klein emphasize, as I have also argued, that the displays of power during these often elaborate encounters are a type of theatre; they define this type of maritime theatre as 'the shared viewing of symbolically charged persons and properties in orchestrated constellations'.[75] The 'orchestration' of performed introductions with foreign representatives depended on a number of factors specific to the occasion of their meeting, but they would also have depended on the abilities of crewmembers to provide the appropriate decorum.

There is also currently uncontested evidence that a play was performed during the EIC's sixth voyage on 18 June 1610, just a few months after the Company's ships left England in April. The journals of Captain Nicholas Downton of the *Peppercorn* and 'master mate' Thomas Love mention a play, or 'playing', aboard ship. If there was a play performed, it would have likely taken place on the *Trade's Increase*, since, as the flagship, it would have afforded more space to provide a stage for the Company to entertain. In addition, Love was transferred from the *Peppercorn* to the *Trade's Increase* on the day the Company played, suggesting the performance (dramatic or otherwise) was given on the ship to which he transferred. Love's journal records events of the voyage from 4 April 1610 to 4 December 1611 and only gives a short mention of the play,

indicating that it followed a 'great feast'. Clements Markham includes the following entry from Love in his compilation of EIC journals and documents:

> The *Trade's Increase*, on board of which was Sir Henry Middleton, General of the fleet, the Peppercorn, and the Darling, sailed from the Downs on the 4th of April 1610, and having on the passage put into 'Saffee in Barbery', arrived at the Cape de Verde Islands, from whence they departed on the 16th of May. On the 18th of June, Thomas Love was transferred from the Peppercorn to the *Trade's Increase*. On that day 'we had a great feast and a play playd'.[76]

The reason for the occasion, other than to provide merriment, is unknown. However, what few details are recorded about the dinner and play seem consistent with other occasions of English maritime play-culture. On his circumnavigation, Drake would insist that music be played for every meal. During the EIC's third voyage, the Company's entertainment at Sierra Leone in September 1607 likely accompanied a fish dinner with African dignitary Lucas Fernandez. However, it is not known whether the play on 10 June was given for a foreign representative or a guest on board the ship; the performance could have been staged mainly for shipboard diversion, rather than a 'shared viewing of symbolically charged persons and properties'.

The passage from Downton's journal is much vaguer than Love's, suggesting that the occasion for 'playing' could have been a shipboard drama, a musical performance, or engaging in another kind of 'play'. Downton's entry in Markham's edition reads: 'On the 18th June, Sir Henry Middleton invited Captain Downton 'to dinner and to play'; on the same day Thomas Love a master mate was, by the General's command, transferred from the Peppercorn to the *Trade's Increase*.'[77]

It seems a special occasion for Middleton to ask Downton to the flagship for a dinner and performance, but without knowing any other details, it is difficult to determine the type of 'play' that the Company gave. As Barbour and Klein emphasize, 'in both cases the "play" in question has neither title nor author and could reference a variety of ludic practices ranging from background entertainment to mimed shows, staged readings, extempore retellings, even card-playing or perhaps dancing'.[78] So even with the knowledge that some sort of 'play' occurred, additional evidence is needed to clarify if 'play' even indicates a dramatic performance. However, regardless of the type of entertainment, such an endeavour would have likely taken place on the flagship, which would have accommodated a 'great feast' and provided enough space for either an elaborate or an intimate performance.

In addition to the play on 18 June 1610, there is at least one other unique document connected to play-acting obtained from the sixth voyage. Benjamin Greene, a factor with the EIC who accompanied Middleton on the journey from 1610–13 to Surat, kept a diary dated from 15 November 1610 to 22 December 1612, currently held in the India Office Marine Department Records. On the last leaf of this diary is a dramatic fragment, which includes dramatis personae, a stage direction, and two lines of dialogue.[79] William Foster first published the fragment in a *Notes and Queries* article, 'Forged Shakespeariana', as an addition to the central discussion of the EIC's alleged performance of *Hamlet* on the *Dragon* in 1607.[80] Though unsure of whether

Greene was the true author, Foster presents the fragment as proof of the EIC's continued interests in theatre and shipboard performance.

There were a number of performances given to and by the EIC at their trade factory in Japan. The factory, managed by Richard Cocks, was a short-term but nonetheless successful enterprise from 1613 to 1623. In 1613, John Saris, commander of the EIC's eighth voyage, reached Hirado, Japan, then under the rule of Tokugawa Hidetada. In his journal of the expedition, Saris describes Cocks' hospitality toward Japanese guests, detailing the extent to which he employed musicians and crewmembers to entertain dignitaries and Japanese customers. The EIC's trade factory (also called the 'English House') at Japan, as Games explains, was 'simultaneously a residence, a storehouse, and a showroom'.[81] The house also became, as a result, a performance space at which Cocks and Company members could charm their patrons, especially if there was considerable wealth to be made or crucial negotiations to be secured.

There were several important occasions when entertainment at the English House helped secure friendly relations in Japan. The first example comes from Saris' journal, wherein he describes the entertainment given by the Japanese following the EIC's arrival. Saris records on 12 June 1613 that he and the residents of the English House were welcomed with Japanese entertainers who 'sang divers songs and played upon certain Instruments (where of one did much resemble our Lute) being bellyed like it, but longer in the neck, and fretted like ours, but had only foure gut-strings'.[82] The 'bellyed' instrument with 'foure gut-strings' was likely a biwa or a shamisen, resembling the European cittern in its design. This performance would be the first of a series of shared greetings between the English and the Japanese, and, during this time, Saris and the rest of the Company were gaining cultural knowledge and becoming integrated into the community.

In Saris' entry on 21 June, he describes another performance given by Matsura Hoin in yet another demonstration of courtesy:

> The 21st the ould King came aboard and brought with him his women to be frollyke. (These women were Actors of Comedies, which passe there from Iland to Iland to play, as our Players doe here from Towne to Towne, having severall shifts of apparel for the better grace of the matter acted; which for the most part are of Warre, Love, and such like.)[83]

Saris describes a troupe of kabuki performers, which in Cocks' journal is given as 'caboque', or a dancing girl.[84] The description of the kabuki dancers in Saris' journal is valuable for several reasons. First, his description confirms that there were travelling female performers who went 'from Iland to Iland' just as England's travelling all-male actors performed 'from Towne to Towne'. Second, Saris' word, 'Comedies', indicates how English audiences interpreted international performance by way of their own understanding of theatrical conventions and genres. These performers may have presented a narrative through their performance that resembled a comedic play to Saris.[85] It is also possible that Saris used the word 'Comedies' to distinguish the tone of the performance as being light or playful, which corresponds with his description of

their 'frollyke'. Saris' musicians attended, as his journal also indicates that there was reciprocal entertainment given by the English. Saris' journal reads: 'I intreated them kindly with musicke and a bankett of Conserves of divers sorts, which the King tooke verye well'.[86] The EIC's mode of operation was to trade with the Japanese, and this trade included all aspects of cultural life, rather than focusing solely on commodities. Returning the gesture of the kabuki performers, Saris had his own musicians perform during the same banquet.

Intercultural performances between travellers occurred well into the nineteenth century. In 1884, while on the return voyage from Queensland, the schooner *Roderick Dhu* met with the Royal Navy schooner yacht *Undine* at Havannah Harbour, Efate, Vanuatu. During their encounter, the men of the *Roderick Dhu* were invited aboard the crew of 35 'blue jackets' and were treated to an 'enjoyable evening' with the navy and their performers.[87] Among those invited from the *Roderick Dhu* was a journalist, who used the nom de plume 'Traveller', whose account of the event was published in *Brisbane Courier*. The following excerpt appears in the journalist's article:

> After dinner Lieutenant Martin had all hands piped for a sing-sing, and I must say it has seldom fallen to my lot to spend a more enjoyable evening anywhere. The songs were well rendered, and the stepdancing did great credit to the performers.[88]

Rather than employ a consort of musicians for a private performance with the captain and officers, the lieutenant had everyone on board ship participate in the 'sing-sing' for their guests, as well as join in the 'stepdancing'. This was one of several recorded 'sing-sings' during the *Roderick Dhu*'s journey, and 'Traveller' even participated in one of these performances not long after their encounter with the Royal Navy. Michael Webb and Camellia Webb-Gannon note that 'Twelve days later on the same voyage, in response to an invitation by villagers on the island of Epi in Vanuatu, Traveller took part in an actual sing-sing, which he lampooned in person and ridiculed in writing'.[89]

Pirate performers

One notable example of play-acting at sea appears in *A General History of the Robberies and Murders of the Most Notorious Pirates* (1724), which might possibly have been written by Daniel Defoe.[90] *A General History* describes a disastrous performance of a play called *The Royal Pyrate*, allegedly staged on the *Whidaw* under the command of Captain Samuel Bellamy (1689–1717). During the performance, an actor playing Alexander the Great examined a pirate brought to him, telling him 'Know'st thou that Death attends thy mighty Crimes, And thou shall'st hang to Morrow Morn betimes'.[91] However, 'The Gunner, who was drunk, took this to be in earnest', and after swearing that he would avenge the pirate-actor Jack Spinckes, took 'a Grenado with a lighted Match, followed by his Comrades with their Cutlash', and 'set Fire to the Fuze and threw it among the Actors'.[92] This led to an eruption of violence on the *Whidaw* stage, resulting in a number of limbs lost and other injuries. When the chaos calmed, the gunner was praised for his zeal.[93]

This account of a raucous pirate-produced play was likely a fictitious sea story, but its survival and reappearance in *A General History* demonstrates the popularity of shipboard performance as both a folk tale and a potential reality. The account of *The Royal Pyrate* also presents an interesting case where performance and reality blurred on stage, causing confusion for the gunner, who became an accidental audience member. In this case, we could ask, were the actors so good that they could influence an audience on board ship just as well as they could at a theatre? Were the *Whidaw* actors performing *The Royal Pyrate* perhaps too convincing?

Conclusion

Whether to entertain, complete tasks, or bridge cultural barriers, sea music and performance provided essential functions for captain and crew. The early shanties and sea ballads were often adapted and reproduced for whatever occasion suited the song, and these changes often reveal important historical or cultural shifts. The transformation of 'Sir Walter Raleigh Sailing in the Lowlands' to 'The Golden Vanity' shows how sea songs can be universalized when taken out of their historical moment, turning figures like the captain and the cabin boy into archetypes. The varying translations of Camões's *Os Lusíadas* highlight the differing definitions of the shipboard shanty, whether as a 'shout' or a 'song'. Montagu's transformation of 'The Blacksmith' into a new tune about the Rump Parliament reveals how shipboard diversion could also be a form of political commentary. As the staging of *The Royal Pyrate* transformed from lively piratical play to real-life catastrophe, the ship became a space that blurred the lines of stagecraft and subversion. What is certain about early modern sea songs and shipboard performances is their unpredictability; maritime music and drama were constantly changing and evolving, like the sea itself.

Notes

1 From Felix Fabri's, *Evagatorium in Terrae Sanctae, Arabiae et Egypti peregrinationem* (1494), which appears in translation in S. Hugill, *Songs of the Sea: The Tales and Tunes of Sailors and Sailing Ships*, New York: McGraw-Hill, 1977, p. 10.
2 Hugill, *Songs*, p. 10.
3 S. Hugill, *Sea Shanties*, London: Barrie & Jenkins, 1977, p. 2.
4 'shanty | chant(e)y, n.2', *OED Online*.
5 D. Thompson, *The Uses of Poetry*, Cambridge: Cambridge University Press, 1978, p. 30.
6 Thompson, *The Uses of Poetry*, p. 31.
7 Hugill, *Songs*, p. 10.
8 Hugill, *Songs*, p. 10.
9 J. A. H. Murray (ed.), *The Complaynt of Scotlande, with ane Exortatione to the Thre Estaits to be Vigilante in the Deffens of their Pulic Veil. 1549. With an Appendix of Contemporary English tracts, viz. The Just Declaration of Henry VIII (1542), The Exhortacion of James Harrysone, Scottisheman (1547), The Epistle of the Lord Protector Somerset (1548), The Epitome of Nicholas Bodrugan alias Adams (1548)*, London: N. Trübner and Co., 1872–3, p. 40.
10 D. Doran, *Notes and Queries: A Medium of Intercommunication for Literary Men, General Readers, Etc.*, vol. 4, London: John Francis, 1875, pp. 122–3.
11 *Notes and Queries*, p. 123.
12 M. Kowaleski, '"Alien" Encounters in the Maritime World of Medieval England', *Medieval Encounters* 13/1, 2007, p. 99. For additional information on languages within European

Atlantic voyages, see the chapter, 'Conceptualizing the Atlantic World', in D. R. Egerton, A. Games, J. G. Landers, K. Lane, and D. R. Wright, *The Atlantic World: A History, 1400–1888*, Wheeling, IL: Harlan Davidson, 2007, pp. 21–2.

13 Egerton et al., *The Atlantic World*, p. 99.
14 L. de Camões, *Os Lusíadas*, vol. 1, 2nd edition, trans. J. J. Aubertin, London: Kegan Paul, Trench, and Co., 1884, p. 64.
15 Camões, *Os Lusíadas*, p. 69.
16 Hugill, *Songs*, p. 10.
17 Hugill, *Songs*, p. 10.
18 Hugill, *Songs*, p. 10.
19 'catch, n.1', *OED Online*.
20 Hugill, *Songs*, pp. 9–10.
21 Hugill, *Songs*, pp. 9–10.
22 'ballad, n', *OED Online*.
23 R. Palmer (ed.), *The Oxford Book of Sea Songs*, Oxford: Oxford University Press, 1986, p. 159.
24 Palmer, *The Oxford Book of Sea Songs*, p. 159.
25 As Palmer also notes, 'The words have been rewritten several thousand times by those with an eye for sobriety rather than authenticity. But somehow the original intentions of those ancient singers is never quite sublimated'. Palmer, *The Oxford Book of Sea Songs*, p. 159.
26 D. Ingram (ed.), *A Song Book: Musical Phantasies Fitting for Soldiers, City and Country Humours*, 4th edition, Edinburgh: Prince Maurice's Regiment of the Sealed Knot Society Ltd, 2016, pp. 125–6.
27 Ingram, *A Song Book*, pp. 125–6.
28 C. N. Robinson, *The British Tar in Fact and Fiction: The Poetry, Pathos and Humour of the Sailor's Life*, New York: Harper and Brothers, 1909, p. 378.
29 D. Loades, 'Grenville, Sir Richard (1542–1591), naval commander', *Oxford Dictionary of National Biography* [hereafter *ODNB*], Oxford: Oxford University Press, 2004 (www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-11493, accessed February 2019). Loades explains that Grenville estimated the worth of his hoard at Bermuda to be £12,000–15,000, but other evidence 'suggests it may have been worth as much as £50,000'.
30 This modern spelling appears in Palmer, *The Oxford Book of Sea Songs*, p. 5.
31 As Loades notes in Grenville's *ODNB* entry (see note 29), Grenville did return to Roanoke, but he arrived several weeks after Lane and the surviving men abandoned the project and departed Virginia.
32 Palmer, *The Oxford Book of Sea Songs*, p. 5.
33 Palmer, *The Oxford Book of Sea Songs*, p. 7.
34 Palmer, *The Oxford Book of Sea Songs*, p. 6.
35 Palmer, *The Oxford Book of Sea Songs*, p. 6.
36 Loades, 'Grenville', *ODNB*.
37 Loades, 'Grenville', *ODNB*.
38 Loades, 'Grenville', *ODNB*.
39 See E. J. Dolin, *Black Flags, Blue Waters: The Epic History of America's Most Notorious Pirates*, New York: Liveright Publishing Corporation, 2018, p. 9; C. A. Fury, 'The Elizabethan Maritime Community', in C. A. Fury (ed.), *The Social History of English Seamen, 1485–1649*, Woodbridge: The Boydell Press, 2012, pp. 117–39.
40 Palmer, *The Oxford Book of Sea Songs*, p. 4.
41 Palmer, *The Oxford Book of Sea Songs*, p. 4.
42 Palmer, *The Oxford Book of Sea Songs*, p. 4.
43 Palmer, *The Oxford Book of Sea Songs*, p. 4. For more information on Gilbert and his travels, see R. Rapple, 'Gilbert, Sir Humphrey (1537–1583), explorer and soldier', *ODNB* (www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-10690?rskey=r2KqEm&result=1, accessed 12 July 2018).

44 Rapple, 'Gilbert', *ODNB*.
45 For the account of Gilbert's voyage and more information about the expedition, see D. B. Quinn, *The Voyages and Colonising Enterprises of Sir Humphrey Gilbert*, vol. 1, London: Hakluyt Society, 1940, pp. 83–4.
46 J. H. Clifford (ed.), *The Standard History of the World by Great Historians: A Narrative of Political Events and a Survey of Civilization, Forming a Comprehensive Record of Human Progress and Achievement*, vol. 5, New York: The University Society Inc., 1914, pp. 2693–700.
47 Palmer, *The Oxford Book of Sea Songs*, pp. 47–50.
48 Palmer, *The Oxford Book of Sea Songs*, p. 50.
49 Palmer, *The Oxford Book of Sea Songs*, p. 47.
50 Palmer, *The Oxford Book of Sea Songs*, p. 49.
51 Palmer, *The Oxford Book of Sea Songs*, p. 48.
52 Palmer, *The Oxford Book of Sea Songs*, p. 48.
53 Palmer, *The Oxford Book of Sea Songs*, p. 48.
54 Palmer, *The Oxford Book of Sea Songs*, p. 48.
55 Palmer, *The Oxford Book of Sea Songs*, p. 50.
56 Palmer, *The Oxford Book of Sea Songs*, p. 21.
57 Palmer, *The Oxford Book of Sea Songs*, p. 22.
58 D. W. Waters, 'Elizabethan Navigation', in N. J. W. Thrower (ed.), *Sir Francis Drake and the Famous Voyage, 1577–1580: Essays Commemorating the Quadricentennial of Drake's Circumnavigation of the Earth*, Berkeley, CA: University of California Press, 1984, p. 15.
59 Waters, 'Elizabethan Navigation', p. 15.
60 A full table of consorts and navigators from 1567 to 1595 is listed in I. Woodfield, *English Musicians in the Age of Exploration*, Stuyvesant, NY: Pendragon Press, 1995, p. 15.
61 Woodfield, *English Musicians*, p. 13.
62 Woodfield, *English Musicians*, p. 33.
63 N. M. Penzer (ed.), *The World Encompassed and Analogous Contemporary Documents Concerning Sir Francis Drake's Circumnavigation of the World*, New York: Cooper Square Publishers, 1969, p. 219. Though it was a coastal transport ship, the *Cacafuego* was laden with treasure and became Drake's primary target. Its contents constituted a 'king's ransom', Eric Dolin notes, as there were 'so many tons of silver bullion that they were used as ballast instead of the cobblestones usually employed for that purpose' (Dolin, *Black Flags*, pp. 8–9).
64 Penzer, *The World Encompassed*, p. 219.
65 Penzer, *The World Encompassed*, p. 219.
66 Quinn, *The Voyages and Colonising Enterprises*, vol. 1, p. 211.
67 Woodfield, English Musicians, p. 10.
68 R. Hakluyt (ed.), *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation*, vol. 3, London: George Bishop, Ralph Newberie, and Robert Barker, 1599, p. 813.
69 R. Latham (ed.), *The Illustrated Pepys: Extracts from the Diary*, Berkeley, CA: University of California Press, 1978, p. 20.
70 Also referred to by the first line: 'A Blacksmith courted me for nine months or better'. There is currently an edition of 'The Blacksmith' published on Broadside Ballads Online from the Bodleian Libraries. See http://ballads.bodleian.ox.ac.uk/search/roud/816
71 The sister ships *Sunshine* and *Moonshine* left Dartmouth on 7 June 1585, and included four musicians: James Cole, Francis Ridley, John Russel, and Robert Cornish. For more information, see John Jane's account of the voyage in P. F. Alexander (ed.), *The North-West and North-East Passages 1576–1611*, Cambridge: Cambridge University Press, 1915, p. 49.
72 This mystery has confounded scholars since the nineteenth century. However, the documents that allege these performances, which include reprinted extracts supposedly from the journal of General William Keeling, are notoriously problematic in their authorship. See B. Kliman, 'At Sea about *Hamlet* at Sea: A Detective Story', *Shakespeare Quarterly* 62/2, 2011, pp. 180–204, and S. Race, 'J. P. Collier's Fabrications', *Notes and Queries* 195, 1950, pp. 345–6.
73 R. Barbour and B. Klein, 'Drama at Sea: A New Look at Shakespeare on the *Dragon*, 1607–08', in C. Jowitt and D. McInnis (eds), *Travel and Drama in Early Modern England: The Journeying Play*, Cambridge: Cambridge University Press, 2018, p. 163.

74 Barbour and Klein, 'Drama at Sea', p. 163.
75 Barbour and Klein, 'Drama at Sea', p. 163. See also J. Seth, 'Maritime Performance Culture and the Possible Staging of *Hamlet* in Sierra Leone', *Shakespeare en devenir – Les Cahiers de La Licorne* 12, 2017, http://shakespeare.edel.univ-poitiers.fr/index.php?id=1091
76 C. R. Markham, *The Voyages of Sir James Lancaster, Kt., to the East Indies, with Abstracts of Journals of Voyages to the East Indies during the Seventeenth Century, Preserved in the India Office, and the Voyage of Captain John Knight (1606), to Seek the North-West Passage*, New York: Burt Franklin, 1877, p. 147.
77 Markham, *The Voyages of Sir James Lancaster*, p. 153.
78 Barbour and Klein, 'Drama at Sea', p. 156.
79 'Fragment of a Play in the Journal of Benjamin Greene', (anon. 1610–1613), *Lost Plays Database* (eds), R. L. Knutson, D. McInnis, and M. Steggle (https://lostplays.folger.edu/Fragment_of_a_play_in_the_Journal_of_Benjamin_Greene, accessed 1 September 2018).
80 W. Foster, 'Forged Shakespeariana', *Notes & Queries* 145, 1900, p. 42.
81 A. Games, *The Web of Empire: English Cosmopolitans in an Age of Expansion 1560–1660*, Oxford: Oxford University Press, 2008, pp. 88–9.
82 E. M. Satow (ed.), *The Voyage of Captain John Saris to Japan, 1613*, London: Hakluyt Society, 1900, p. 84.
83 Satow, *The Voyage of Captain John Saris*, p. 90.
84 A full list of Japanese words (as spelled by the English) and their definitions is listed in the Preface in E. M. Thompson (ed.), *Diary of Richard Cocks, Cape-Merchant in the English Factory in Japan 1615–1622, with Correspondence*, vol. 1, London: Hakluyt Society, 1883, p. liii.
85 It could have, for instance, referenced a marriage or ritual at the end of the performance, which would have signified to early modern Englanders a comedy. See N. Frye, *A Natural Perspective: The Development of Shakespearean Comedy and Romance*, New York: Columbia University Press, 1965, pp. 72, 85.
86 Satow, *The Voyage of Captain John Saris*, p. 91.
87 *Brisbane Courier*, 19 Feb. 1885, p. 6.
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89 M. Webb and C. Webb-Gannon, 'Melanesians and Music on the Move: South Sea Island Shipboard and Plantation Performance in Queensland, 1860s–1906', *The Journal of Pacific History* 52/4, 2017, p. 433. The account appears in *Brisbane Courier*, 19 February 1885, p. 6.
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91 D. Defoe, *A General History of the Robberies and Murders of the Most Notorious Pirates*, New York, Carroll and Graf Publishers, 1999, p. 588.
92 Defoe, *A General History*, p. 589.
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25

'We split!'

Shipwreck in early modern European history and culture

Steve Mentz

Europe's turn toward global oceanic navigation during the early modern period gave new currency to ancient narratives of shipwreck while also generating many new stories of maritime disasters.[1] As European ships entered unfamiliar waters, wrecks and near-wrecks became both more common and increasingly meaningful, not only to mariners but to readers and intellectuals.[2] Shipwreck narratives proliferated in historical and fictional texts. The threat and experience of shipwreck came to epitomize the risks of maritime expansion, both in historical compilations such as Richard Hakluyt's *The Principal Navigations* and literary fictions such as Sir Philip Sidney's *The Countess of Pembroke's Arcadia*.[3] These disasters would populate canonical literature, from William Shakespeare's plays to the verse epics of Luis vaz de Camões, and John Milton to lyric poetry that descended from Francesco Petrarch through assorted Continental figures to Sir Thomas Wyatt and the tradition of the English sonnet.[4] The global maritime expansion of European culture fuelled awareness of and fascination with maritime disasters.

Certain sea routes, especially the *Carreira d'India*, which sent at first mostly Portuguese ships around the Southern Cape of Africa into the wealthy trading centres of the Indian Ocean, became notorious for catastrophic wrecks.[5] During this period, literary culture reexamined classical and biblical texts that employed the narrative trope of shipwreck. In such prominent literary works as Shakespeare's *The Tempest* (1611) and Camões's *The Lusiads* (1572), European writers signalled their engagement with shipwreck as a master-trope for thinking about the risks and benefits of oceanic exploration and trade.[6] The crisis moment at the end of the opening scene of *The Tempest* in which the sailors give themselves over as lost, crying 'We split, we split, we split!', provides a poetic microcosm of shipwreck as it rippled through European culture.[7] In nations that were becoming increasingly dependent upon overseas travel, trade, and exploration, shipwreck represented the shock of individual and collective

risk.[8] To 'split', in Shakespeare's resonant language, means to risk spilling one's self and one's collective community into hostile waters. Shipwreck shadowed early modern maritime exploration as looming disaster, feared even when not encountered directly.

As Europe entered its transoceanic and eventually its global maritime imperialist phases, shipwrecks both real and fictional were central to its globalizing culture.[9] In contemporary historical records and ancient narrative models, shipwreck represented a hinge-event, a radical swerve away from a safe path, and a crisis moment in which divine or infernal powers might directly touch human lives.[10] In sermons by English clergyman John King, historiographical materials collected by Hakluyt and Samuel Purchas, and lyric poetry from courtier-poets such as John Donne to common sailors such as Edward Barlow, shipwreck came to define the risks of oceanic travel in early modern European culture.[11] For political and theological thinkers as well as poets, preachers, painters, and other intellectuals, shipwrecks and the narratives they generated were central to early modern Europe's experience of the global oceanic world.[12] For sailors, including shipwrecked sailors who were in some cases themselves trained or untrained writers, shipwreck represented the painful touch of God's heavy hand in the sublunary contingent world.[13] The multiple valences of shipwreck makes these events and their representations revealing windows onto the early modern oceanic world.

This chapter's overview of the place of shipwreck in early modern history and culture will structure its three major examples by bringing accounts of early modern shipwrecks into dialogue with familiar narrative models from the classical and biblical traditions that provide early modern intellectual context for narratives of disasters at sea. Two famous examples of the shipwreck topos that were widely understood to be ideal models appear in the classical epic poetry that was central to the education of European humanists.[14] In both Homer's *The Odyssey* and Virgil's *The Aeneid*, the titular heroes survive shipwreck at crucial moments. Odysseus suffers shipwreck on his way home to Ithaca, where he eventually re-establishes his kingdom and family. The Greek hero's return to his home, however, diverges sharply from the Trojan refugee Aeneas' founding of a new imperial settlement in Rome after his experience of shipwreck. Aeneas' model of shipwreck-into-empire was the one that became central to the ideology behind early modern maritime expansion.[15] During early modern transoceanic expansion, Aeneas' colonial outward-bound model appeared more directly applicable than Odysseus' homeward journey. For Odysseus, shipwreck was an obstacle directly in the way of his return home. For Aeneas, however, the shipwreck that deposited him on the shores of Dido's North African kingdom represented an errant turn from which he barely escaped. For many early modern European thinkers, the Virgilian narrative of shipwreck-into-empire would become a potent model for their own era's experiences of voyaging, settlement, and empire.[16] Odysseus' wreck, as I shall show, was not quite as comforting or generative.

The biblical narrative of Jonah, as sermonized for a full calendar year by English clergyman and future Bishop of London John King in his *Lectures upon Jonas* (delivered 1594, published 1597), provides a third important ancient template in relation to which early modern shipwreck narratives were understood.[17] The revelations the prophet found in the whale's belly helped him to produce different wisdom from that

of Aeneas or Odysseus. Jonah's oceanic experience is deeper, more alien, and legible to readers primarily in theological terms. In a culture that engaged with multiple literary, religious, and philosophical perspectives, shipwreck served as a flexible touchstone. Renaissance humanists including Desiderius Erasmus and Leon Battista Alberti used the topos of shipwreck as both a literary commonplace and a valuable rhetorical figure.[18] All these kinds of shipwreck writings show how early modern shipwreck narratives developed a hybrid between Christian and classical ideas and literary forms.

The core of this chapter will consider how classical, humanist, and Christian topoi operate in accounts of three significant historical shipwrecks, each of which generated multiple literary responses. The first of these is the wreck of the English ship the *Sea-Venture* on Bermuda in 1609. The ship had been on its way from England to resupply the just-established Virginia Colony at Jamestown when it encountered a destructive storm that forced it onto the Bermuda islands. The second wreck-story explores the loss of the Portuguese great galleon *S. João* off the southern coast of Africa in 1552, when the ship was on the return voyage of the then-thriving Portuguese trade with India. The final wreck that I will discuss is the sinking with all hands in a storm of Sir Humphrey Gilbert's ship the *Squirrel* in the North Atlantic in 1583, as his fleet was on its way back to England from attempting to found a colony in Newfoundland. All three of these shipwrecks interrupted voyages that were central to early modern maritime trade and settlement. All three also generated significant literary and cultural texts in response to their disasters. Shakespeare's *The Tempest* is the most famous of many responses to the wreck of the *Sea-Venture*, including several published and manuscript eyewitness accounts. The destruction of the *S. João* and the trials of the ship's survivors would become central to Portuguese literary culture in the late sixteenth century, appearing in Camões' epic poem *The Lusiads*, in a less well-known poetic epic by Jerónimo Corte-Real, entitled *Naufrágio de Sepúlveda* (1592), and in other poems and plays.[19] The story of this wreck would also become the first prose entry in the Portuguese historical compilation, *The Tragic History of the Sea*, assembled in the eighteenth century by Bernardo Gomes de Brito and still considered a landmark of Portuguese culture.[20] Gilbert's death in the North Atlantic was also documented in multiple historical records, as well as in the poetry of the Hungarian humanist Stephen Parmenius, who travelled with Gilbert's fleet to Newfoundland.[21]

This handful of historical and literary accounts of these three wrecks represents only a small fraction of the massive corpus of early modern shipwreck narratives. In making sense of shipwreck as a micro-genre, my efforts to pair three mythic accounts of shipwreck, in *The Odyssey*, *The Aeneid*, and the Book of Jonah, with three historical wrecks, of the *S. João*, the *Sea-Venture*, and the *Squirrel*, enable some provisional structural interpretations of the way this narrative trope helped Europe's maritime cultures imagine their global salt-water turn. Looking at the wreck of the *S. João* in dialogue with Homer's depiction of Odysseus at sea provides a picture of maritime disaster as a symbol of environmental hostility and bare survival. By contrast, the story of the *Sea-Venture* inscribes the redemptive shipwreck-to-empire trajectory of Virgil's *The Aeneid* onto the painful sufferings of early English colonists. Accounts of the drowning of Gilbert on board the *Squirrel* in the North Atlantic show how biblical ideas that suffuse the parable of Jonah continued to influence accounts of shipwreck by evoking

the deadly hand of divinity touching human bodies in the world. These historical accounts of shipwreck were interpreted through existing cultural ideas about Odysseus' skill, Aeneas' piety, and Jonah's prophetic duty. These stories were understood as tragic, in the cases of the *S. João* and the *Squirrel*, or redemptive, in the case of the *Sea-Venture*. Juxtaposing these fictional and historical wrecks can provide a sense of how shipwreck helped early modern Europeans imagine the disorienting experience of the first age of maritime globalization. Shipwreck turns out to be both a window into early modern ideas about oceanic expansion, and a mirror in which early modern mariners and writers imagined their changing places on the watery globe.

Shipwreck as representation and encounter: analysis and keywords

Shipwreck tells a story of disaster and loss, and, in some fortunate cases, also a tale of redemption or even salvation. Before I explore the three pairs of exemplary literary and historical wrecks that will make up the bulk of this chapter, I shall summarize some of the range and innovation of current critical writing in shipwreck studies by offering a brief account of four key terms that are prominent in current literary and cultural responses to these texts. Scholarship on pre-modern shipwreck is interdisciplinary, with prominent contributions from English Literature and History scholars, from the fields of Art History and the Environmental Humanities, and from scholars who work on religion, maritime culture, and other areas.[22] The critics and theorists whose work I take up here represent only a small slice of the rich scholarship on representations of pre-modern maritime disasters.[23] Scholarly projects from different disciplinary conversations have different critical aims, but together the current state of criticism suggests that shipwrecks powerfully present the shock and disruption of cultural, physical, and environmental change. Recent critical work in shipwreck studies suggests that representations of these disasters can be employed as techniques for focusing attention on the maritime environment in ways that may be particularly valuable for pre-modern studies and the environmental humanities.[24] My aim here is to provide a concise but broad overview of the ways that humanities scholars are using shipwreck today.

The first key term I will introduce for engaging contemporary shipwreck studies is 'now', a word that focuses attention on the peculiar experience of time in these disasters. Shipwreck scrambles the human experience of chronology. Depictions of maritime disaster engage what the modern critic Walter Benjamin famously calls 'now-time', or time suffused with the possibility of messianic redemption. The dramatic foreshortening or intensifying of temporality in shipwreck is a common theme in many accounts. The opening scene of Shakespeare's *The Tempest*, for example, lasts fewer than 75 lines and usually under 10 minutes of stage time, but its chaos and disorientation ripple through the play. Benjamin describes 'now-time' in several places in his writing, but the phrasing of the posthumously published *Arcades Project* might be the most revealing. 'Each "now" is the now of a particular recognizability', he writes, 'In it, truth is charged to the bursting point with time'.[25] The technical challenge of representations of shipwreck, in poetry, or paint, or prose, entails forcing that bursting

point into stillness, so that we can interpret it. Representing 'now' in a lasting medium defines the art of shipwreck.

A second key term regarding shipwreck is 'spectator'. Hans Blumenberg's sparkling little book of metaphorology, *Shipwreck with Spectator*, unravels the long and eventful history of a scene from Lucretius in which the philosopher takes pleasure in watching from the shore the spectacle of another person's shipwreck. In Book II of Lucretius's *De rerum natura* (*The Order of Things*), the philosopher-poet praises the position of the spectator, feeling solid ground beneath his feet as he watches a ship struggling offshore. ''Tis sweet', the poet intones, 'to watch another's laboring anguish'.[26] Early modern literary writers were fascinated by Lucretius' image of the shipwreck spectator who looks eagerly at the disaster. Perhaps the most famous example is Shakespeare's Miranda, who gazes at the shipwreck that opens *The Tempest* and empathizes with the mariners' pain. 'O I have suffered', she laments, 'with those that I saw suffer'.[27] The spectator's position, as elaborated by Montaigne, staged in the second scene of *The Tempest*, and traced forward by Blumenberg into Goethe, Nietzsche, and many others, turns passivity to advantage. The one who watches the wreck from shore, Blumenberg writes, 'survives through one of his useless qualities: the ability to be a spectator'.[28] From stability, we watch disorder. We enjoy watching, and through spectatorship, we generate lasting ideas about shipwreck and the human relationship with the watery globe.

The remnants left after shipwreck include survivors and pieces of flotsam, but in cultural terms the key items are 'texts'. Josiah Blackmore, whose work on Portuguese shipwreck narratives has been foundational for early modern shipwreck studies, emphasizes the way shipwreck builds symbolic structures from failed voyages: 'Out of shipwreck, the poet tells us, come texts. Disaster sends them, waterlogged but intact, to the readers waiting on shore'.[29] I will return to Blackmore's treatment of shipwreck and empire when I discuss the *S. João*, but his sense that the legacy of shipwreck appears via textual interpretation as well as physical salvage seems essential. In *The Tempest*, to continue with my Shakespearean example, the play itself emerges from the wet chaos of the opening scene.

The last of these four critical terms, 'valuation', comes from the art historian Anne Harris' analysis of the economics of pre-modern shipwreck. She emphasizes that even the most literary of shipwrecks operates within a global economic system in the early modern maritime world. She chooses as her textual example an enigmatic description of shipwreck from Book Four of Rabelais' *Pantagruel*: 'To whom does a shipwreck belong?'.[30] Tracing a brisk history of Roman and medieval maritime law, Harris emphasizes that wrecks belong both to the sea and to investors. We salvage from them both meanings and, at least if the insurance is paid up, money. Building on influential work by Luke Wilson in Shakespeare studies, and drawing also on broader historical studies of medieval and early modern maritime law, Harris emphasizes that shipwreck studies can contribute to the economic history of ideas of risk and valuation.[31] As Wilson also notes, insurance was available for early modern ships, even though neither Antonio, whose argosy founders in *The Merchant of Venice*, nor King Alonso in *The Tempest* appear to take that financial precaution. Even if literary writers such as Shakespeare downplay marine insurance in order to increase dramatic tension,

the economic realities attendant on marine disasters seem crucial to understanding the cultural history of shipwreck in this period.

Representations of shipwreck also appeared widely in early modern emblems, paintings, and decorative culture.[32] Shipwreck as idea, poetic topos, and object of cultural fascination served as an early modern laboratory for focusing attention on moments of maritime risk and extremity. These resonant narratives, which are both as old as literary culture itself and as new as Welsh writer Cynan Jones's brilliant short novel *Cove* (2016), encourage audiences to narrow our attention, to focus, and to interpret inside a field in which everything is meaningful.[33] All objects in view during the scene of shipwreck simultaneously become legible as allegorical tokens and practical tools for survival. The urgency of shipwreck trains humans to face into disaster. In recent years, the French philosopher Michel Serres has suggested that the modern world might need to live on 'shipwreck alert', or in a state of constant disaster preparation.[34] The enduring appeal of shipwreck stories, which pre-dates the early modern period but also appears to have increased during that time, suggests that this condition of alert fascination is not new to late modernity but rather has been an essential part of Western cultural history.

The *Sea-Venture* (Bermuda, 1609) and *The Aeneid* (Book I)

No work of classical literature was more central to early modern European culture than Virgil's *The Aeneid*. As the epic that celebrates the founding of Rome and prophesies its future empire, Virgil's poem provided a classical template through which Europeans imagined their outward expansion during the early modern period.[35] Self-consciously drawing together a revision of the wanderings of Odysseus in its first six books and a variation on the martial rage of Achilles in the *Iliad* in the concluding six, Virgil's Latin poem creates in *pius Aeneas* a model of endurance, devotion, and ideological rectitude.[36] Aeneas, the hero who carries his aging father on his back out of burning Troy and abandons the beautiful Queen of Carthage in order to fulfil his divine destiny in Italy, does not precisely resemble either the wrathful God-man Achilles or wily Odysseus. Instead, Aeneas presents a model of the hero who always subordinates his own desires to larger national and religious duties. Early modern interpreters found Aeneas' piety compatible with the missions of both early modern European nationalisms and muscular Christianity. Aeneas, upon seeing his father's ghost in the Underworld, accepts from him the prophetic vision of Augustan Rome:

> Roman, remember your strength to rule
> Earth's peoples – for your arts are to be these:
> To pacify, to impose the rule of law,
> To spare the conquered, battle down the proud.[37]

This ghostly mandate fashions Aeneas as world emperor, and European monarchs from Charles V of Spain to James I of England explicitly took his model to heart. The power of empire shows itself in the collection of active verbs: rule, pacify, impose, spare, battle down (the Latin verbs, *pacique*, *parcere*, and *debellare* carry comparable

force).[38] The model of this imperial epic, as David Quint has observed, is to assume the position of history's winners and control all the land.[39] This imperial ideology travelled with European ships around the globe.

The conquering hero's quest, however, begins with shipwreck off the coast of North Africa. Following the Homeric model of beginning *in medias res* ('in the middle of things'), Virgil's poem opens with wrathful Aeolus scattering the Trojan fleet and driving its remnants to seek sanctuary in Carthage. The scene draws on familiar poetic tropes: lightning brightens the sky, a ship gets sucked under by a whirlpool, men surface clinging to flotsam in the wreck.[40] The force that calms the storm, in a precise inversion of the hostility of the sea-god Poseidon in *The Odyssey*, is the power of Neptune himself. The sea-god torments Odysseus because of the blinding of his Cyclops son, but the same deity, under his Roman name, protects Aeneas from the rage of Juno. Notably, Neptune's power presents itself in verse via a political metaphor. The ultimate force, Virgil seems to say, establishes political authority in the midst of the storm:

> When rioting breaks out in a great city,
> And the rampaging rabble goes so far
> The stones fly, and incendiary brands –
> For anger can supply that kind of weapon –
> If it so happens they look around and see
> Some dedicated public man, a veteran
> Whose record gives him weight, they quiet down,
> Willing to stop and listen.
> Then he prevails in speech over their fury
> By his authority, and placates them.[41]

The extended metaphor of the 'public man' represents the god's authority in language that recalls Aeneas himself, who is a 'veteran', an able speaker, and a hero whose 'record gives him weight'. In the poem's allegorical opening, the literal cause of the storm's diminishment is divine power, but that power becomes connected through metaphor to the political authority of wise Aeneas and his political destiny. For Virgil, and for the early modern mariners, politicians, and poets who followed his model, political unity was the best answer to the storm.

Not all records of shipwreck during the early modern period lend themselves easily to the Virgilian interpretation, but the famous and widely discussed wreck of the *Sea-Venture* on the island of Bermuda in 1609 fits neatly inside the imperial-Providentialist mode. The *Sea-Venture* was flagship of a fleet sailing to resupply the nascent colony at Jamestown, Virginia. After wrecking on the uninhabited island chain in the mid-Atlantic, the ship's crew, all of whom survived the disaster, spent nine months on Bermuda where they built two smaller vessels out of salvage from the wreck and local cedar. These ships arrived in Jamestown in time to meet another resupply fleet from England and fortuitously end what is known as the 'Starving Time' in England's first fragile colony in the New World.[42] In multiple accounts of this shipwreck, including historical retellings by such figures as Captain John Smith,

in *A General History* (1624), and literary extrapolations including Shakespeare's *The Tempest*, the *Sea-Venture*'s wreck helped support and substantially create England's overseas empire, both in Virginia and in Bermuda itself.[43] First-hand narratives such as William Strachey's 'A True Reportory of the Wrack', which would not be published until 1625 but appears to have circulated in manuscript soon after the event, worked to transform 'the Devil's Islands' of the Bermudas into a settled colony. Sylvester Jourdain's quickly published account, *Discovery of the Bermudas*, was issued with two competing subtitles that together describe the ideological arc of the shipwreck narrative. The first subtitle, published the year following the wreck in 1610, described Bermuda as, *Otherwise called the Isle of Devils*, but that devilish vision was changed when the book was reprinted in 1613 under the substitle, *Now called the Somer Islands*. The new title, and the name the colony assumed after its founding in 1612, referred to the leader of the first official settlement on Bermuda, Sir George Somers, but the pun on 'summer' as a land of warmth and plenty rang out clearly. These islands, like Aeneas' Italy, represented England's destined route to maritime empire.

Treating the *Sea-Venture* wreck as a prelude to empire in parallel to the way that wrecking in North Africa presaged Aeneas' conquest of Italy, enabled early modern English writers to celebrate Virginia and Bermuda as glorious and as precursors to future glory. While Shakespeare's *The Tempest* appears ambivalent about some aspects of European imperial rule, the interpretation given to the aftermath of the *Sea-Venture* by writers such as Richard Rich was not.[44] Rich's *Newes from Virginia* (1610), a 22 stanza mini-epic, celebrates the wreck for saving the mainland colony. Calling his story *The Lost Flock Triumphant*, Rich further assimilates the divine forces behind the storm to Christian rather than pagan deities: 'heauen was Pylotte in this storme'.[45] That pious refrain, often presented with the phrasing that 'it pleased God' to send the storm that wrecks the ship, serves as through-line in many early accounts of shipwreck. God's hand sits behind the killing storm, but in ideal cases, as with Aeneas and the *Sea-Venture*, a hidden redemptive purpose guides the wreck.

For both *The Aeneid* and the Bermuda wreck, the underlying ideology of shipwreck supports imperial expansion. For England, which by the early seventeenth century was belatedly entering the colonial game pioneered by the maritime expansions of Spain and Portugal over a century before, establishing Jamestown, Bermuda, and later the Massachusetts Bay Colony meant arriving on the global stage. These shipwreck stories represent themselves as fortunate: only two sailors die over the course of the *Sea-Venture*'s disaster and recovery, and the nameless Trojans who perish in ships off North Africa do not impinge upon Aeneas' epic's trajectory. Shipwreck fuels empire, and oceanic disorder becomes a means to create lasting political order. This fantasy of control, however, does not accurately describe the experiences of the men and women who sailed on the *Sea-Venture* or other wrecked ships. In fact, Joseph Kelly's recent reconsideration of the narrative of Stephen Hawkins, an English passenger on board the *Sea-Venture* who attempted to lead a quasi-revolution on Bermuda and then subsequently was among the Mayflower settlers in 1620, suggests that anti-authoritarianism might be another viable way to understand the English settlement of North America.[46] The experience of shipwreck, at least for Hawkins and possibly for other non-elite travellers, appears to have been of loosening rather

than solidifying their loyalties to the Crown. Shipwreck becomes, at least for some, a pathway to radicalization. As scholars continue to examine the records of shipwreck, the early modern Virgilian overlay remains essential intellectual context, but these stories might not be as simple or unifying as English imperialists and propagandists wished to believe.

The Great Galleon *S. João* (South Africa, 1552) and *The Odyssey* (Book VI)

The Virgilian mode reads shipwreck as retrospectively foundational, but the disaster can only create political solidity by forgetting the chaos of the wreck. In previous work, I have explored the difference between the 'wet' experience of disaster and the 'dry' consolations of interpretive clarity.[47] Disaster creates community in the short term, as humans and technology struggle against impersonal forces. However, the communities the disaster creates must engage with memories of chaos and disorder. Even when the waters recede, it can be difficult to wash the taste of salt danger out of one's mouth. A closer look at one of the most famous wrecks in sixteenth-century European history, in which the Portuguese great galleon *S. João* went down off south-west Africa on the return voyage from India in 1552, highlights elements of the shipwreck narrative that Virgil and apologists for Virginia and Bermuda attempted to pass over. The raw chaos of the wreck of the *S. João* reaches beyond the political moralizing of Virgil's account to recall the less comforting story of Odysseus' solitary wreck in *The Odyssey*. Both Aeneas and Odysseus sail from Troy into the central Mediterranean, but while Aeneas and his Trojan retinue found an imperial dynasty, Odysseus returns home alone, having lost all his men and ships. Shipwreck contains violence as well as promise.

The catastrophic narrative of the *S. João*, which wrecked on the coast of Africa and stranded hundreds of survivors, many of whom subsequently perished, became one of the most renowned and often-represented shipwrecks in early modern European history. The story of the shipwrecked aristocrat Manuel de Sousa Sepúlveda and his wife, Leonor de Sá, appears tangentially in *The Lusiads*, the national epic of early modern Portugal, a poem which is itself self-consciously modelled on *The Aeneid* and other classical epics.[48] As I have discussed elsewhere, the short narrative of the moment at which the ship goes down provides neither consolation for, nor any definitive explanation of, the disaster.[49] Rather, the ship's doom appears massively over-determined, caused by over-loading, bad seamanship, defective parts, delays for repairs, and other human errors, as well as the fateful and mysterious arrival of the storm. Even though the anonymous narrator of the account defers at the last to divine will – 'But since it was already written on high' – the cumulative impact of the narrative of the *S. João* emphasizes the chaos and disorder of transoceanic travel. The wet world appears as likely to break empires as it is to make them.

One conceptual solution to the dilemma of the *S. João* wreck, which marks both the triumph and the tragedy of early modern Portuguese expansion into the Indian Ocean, appears in the critical work of Blackmore. In his influential book *Manifest Perdition* (2002), Blakemore recognizes the entanglement of shipwreck and empire,

but he finds in the Portuguese example an alternative to the Virgilian model to which English propagandists attached themselves. Blackmore notes that 'the shipwreck narratives undermine the master historiographic narrative of imperialism in all its cultural, political, and economic valences, upsetting the imperative of order and unifying paradigms of "discovery" or "conquest"'.[50] In Blackmore's analysis, shipwreck asserts itself in opposition to imperial fantasies:

> Shipwreck is […] the violence done to (maritime) linear forward movement and predictability; it is the reversal of perspective or epistemological frames; it is disorientation realized. If the ship is a symbol of empire and full expression of maritime supremacy, of the uncontested ship of state, a shipwreck represents the wreck to trade and empire and the threat to thalassocratic might.[51]

In the Portuguese context, the surge of interest in shipwreck narratives can be connected, by the late sixteenth century, to 'the decline of empire in the East', and to the late imperial melancholy that Blackmore finds in Camões which also reflects the crisis of Portugal's maritime reach.[52] When Vasco da Gama's fleet sails forth from Portugal, they are wafted on their way by the deeply anti-maritime curses of the Old Man of Belem, who attacks maritime enterprise. 'The devil take the man', the Old Man intones, 'who first put/Dry wood on the waves with a sail'.[53] In considering these two models – the Virgilian/Bermudan/English fantasy of endless settlement, and the Camonian/South African/Portuguese diagnosis of imperial overreach – it might be valuable to consider these narratives as rival poetic modes, which surface differently in different historical contexts. For some writers and some sailors, shipwreck represents opportunity. For others, the disaster shatters all coherence.

The split between epic survival and tragic loss appears within classical literary depictions of shipwreck as well as within the early modern historical record. Taking the example of the shipwreck of Odysseus on the island of the Phaeacians in Book V of *The Odyssey*, Homer appears to present a more radical and destructive view of shipwreck than his Roman heir Virgil. As the storm nears the raft of the now-solitary hero, whose adventures have already caused the death of all of the companions who sailed with him from Troy, Odysseus fears that he is encountering a 'sea of sufferings'.[54] Ino, the sea goddess who takes pity on him, asks 'Why does enraged Poseidon/ create an odyssey of pain for you?'.[55] In an immersive extremity that Aeneas notably avoids, the storm splits Odysseus' ship, and he must brave the seas by swimming alone for days and nights. The human metaphor that initiates Odysseus' rescue is not, as in *The Aeneid*, the successful authority of a brave public man, but instead the last gasp of nearly exhausted mortal weakness:

> As when a father
> Lies sick and weak for many days, tormented
> By some cruel spirit, till at last the gods
> Restore him back to life; his children feel
> Great joy; Odysseus felt that same joy
> When he saw land.[56]

The hero survives but does not triumph. Interestingly, the metaphor's point of view shifts mid-way, so that Odysseus is first the tormented father, drowning in sickness, but at the sight of land he instead switches to the perspective of the man's happy children. Not an emperor in training like Aeneas, but a cunning survivor whose most potent skill is shifting his own identity, Odysseus preserves himself in part by refusing the public role Virgil's hero must assume. Odysseus' adventures and his suffering testify to a level of disorientation that Aeneas' imperial destiny covers over.

The split between epic narratives of conquest like *The Aeneid* and romance-inflected tales of survival and disorientation like *The Odyssey* echoes throughout early modern maritime culture, particularly in shipwreck narratives.[57] The frequency of shipwreck in English Renaissance drama increased with the early seventeenth-century surge of romance narrative such as, to take only Shakespearean examples, *Pericles* (1609), *The Winter's Tale* (1611), and *The Tempest* (1611). The wrecks in these plays tend to disorient and re-structure their dramatic worlds; the most shocking example is probably the sudden wreck of the ship carrying the baby Perdita on the geographically nonsensical 'sea-coast of Bohemia' in the middle act of *The Winter's Tale*, but the opening scene of *The Tempest* also performs Odyssean disorientation more distinctly than Virgilian empire-building.[58] Shipwreck narratives in early modern literary culture refer dually to both Virgil's construction of empire and Homer's dissolution of his hero's frail body. Between these generic and philosophical poles, both literary and historical accounts move.

The *Squirrel* (North Atlantic, 1583) and the Book of Jonah

In the late summer of 1583, Gilbert's fleet returning to England from Newfoundland encountered a destructive storm. According to an account by Edward Hayes, which was printed by Hakluyt in the second, expanded edition of *The Principal Navigations* (1598–1600), Gilbert's final moments before going down with his ship saw him, 'sitting abaft with a booke in his hand'.[59] Gilbert's last words, which have since become a semi-official motto of the province of Newfoundland in Canada, pronounced his faith in the Christian mystery: 'We are as neere to heaven by sea as by land'.[60] I have argued elsewhere that Gilbert's tragic loss captures the divine resonances that subtend early modern accounts of shipwreck, even those like the *Sea-Venture* or the *S. João* that also reflect classical pagan literary models.[61] Plunging into the sea entailed a violent encounter with divine knowledge. Gilbert, though he was primarily a humanist propagandist of North American colonization who wanted desperately to fulfil the Virgilian template, represents in his death by drowning a gesture toward the inhuman and divine in the shipwreck encounter.

Several biblical narratives resonate with the religious meanings of this physical encounter with the God-sea, including St Paul's shipwreck on Malta (Acts 27), Christ calming the Sea of Galilee (Mark 4), and the admonition of Psalm 107, 'They that go down to the sea in ships, that do business on the great waters/These see the works of the Lord, and his wonders in the deep'.[62] The most direct encounter between a human body and oceanic depths in the biblical tradition, however, comes in the story of Jonah and his sojourn in the belly of the whale.[63] Jonah performs a ship-less

shipwreck narrative of descent and ascent, placing his body into God's hands. King's *Lectures upon Jonas* (1597), which was reprinted five times before 1618, explores the Old Testament figure in the detail that only a full calendar year of sermons can provide.[64] Jonah was widely viewed in the early modern period as a typological premonition of the sacrifice of Christ, with the sojourn in the whale's belly representing Christ's three days in the tomb. The knowledge that the prophet gains through immersion extends the imperial and individual stories of Aeneas and Odysseus into eternal truths.

The verticality of Jonah's descent and ascent narrative complicates the horizontal binary contrast between Aeneas' devotion to collective empire and Odysseus' solitary survival. Early modern shipwreck narratives tend to draw, at least to some extent, on all three poles in this triangle, so that each example of shipwreck becomes a complex hybrid mixture of a tale of collective political formation, an example of individual endurance, and a glimpse of forbidden knowledge. Literary works that deploy shipwreck at key moments, from Shakespeare's *The Tempest* to Philip Sidney's *The Countess of Pembroke's Arcadia* to shipwreck sonnets by Lady Mary Wroth, Edmund Spenser, and Sir Thomas Wyatt, range among the contrasting points of this triangle, using politics to illuminate religion to engage with individual suffering. Scholarship on shipwreck narratives both literary and historical can benefit from considering these master-tropes as organizing principles from which shipwreck assumes meaning in early modern context.

Conclusions: shipwreck as empire, endurance, and divine will

The interpretive triangle of this chapter contrasts a tradition of collective political structures epitomized by the shipwreck of Virgil's Aeneas in North Africa against the perspective of a disoriented individual represented by the multiple wrecks of Homer's Odysseus, and against a divine seeker as portrayed by the Hebrew prophet Jonah and his descent into the whale's belly. These three poles do not exhaust the cultural meanings of shipwreck in this period, nor do these three sources comprise the only models on which early modern shipwreck writers drew. A substantial lyric tradition that descended from Petrarch treats shipwreck in emotional terms.[65] Alternative versions of shipwreck in Latin poetry appear in Ovid and Lucan.[66] Shipwreck represents a humanist topos in the writings of Erasmus, Alberti, and others. The relative narrowness of the interpretive triangle that I propose should not be taken as a claim of completeness or of exhaustive coverage. Shipwreck was a favourite plot device in early modern Europe, as it was also in the classical and medieval traditions from which these writers drew.

The advantage of considering shipwreck through a three-part structure that contrasts collective empire, individual endurance, and divine will emerges from the robust nature of the opposition between these terms. When the collective pressure of politics becomes too constricting, an alternative appears in individual endurance. In fact, one way to understand the episode in *The Aeneid* in which Aeneas is tempted to stay with Dido, Queen of Carthage, rather than seek his destiny in Italy would be to imagine that the hero's temptation is to follow the example of his predecessor

Odysseus in preferring his personal happiness to his imperial destiny. Alternatively, to take a slightly different example, the plight of Manuel de Sousa Sepúlveda can be read not only as a political or individual failure, but also as an allegorical engagement with the African continent that defined so much of early modern Portuguese expansion, both in the Atlantic and Indian oceans. Sepúlveda's encounter with African natives and his wife Leonor de Sá's death on land represent their encounter with the Africa that they previously had skirted by sea. In reconsidering this famous shipwreck, it may be that deeper meanings and implications are still to be discovered.

The shipwreck triangle constructed here can serve to outline a hermeneutic for interpreting other representations of these disasters in other genres and modes. The Dutch tradition of shipwreck painting, for example, also draws upon these imperial, individual, and Christian structures.[67] Shipwreck as micro-genre can be considered a focalizing device that allows artists and writers to explore the relationships among these and other modes of thinking about human experience, the oceanic environment, and political authority. As twenty-first-century blue humanities scholarship becomes increasingly interested in responses to environmental hostility in our own age of climate catastrophes, the substantial tradition of maritime disasters looms large.[68] Shipwreck is an ancient topos, but contemporary stories about migrants attempting to cross the Mediterranean remind us that these stories remain very much alive in the present.[69] Shipwreck's multi-vocal complexity and variable dramatic structures subtend the continuing interest in these stories on the parts of critics and artists today.

Notes

1 For literary studies of the early modern oceanic turn, see, among others, B. Klein and G. Mackenthun (eds), *Sea Changes: Historicizing the Ocean*, London: Routledge, 2012; B. Klein (ed.), *Fictions of the Sea: Critical Perspectives on the Ocean in British Literature and Culture*, Aldershot: Ashgate Publishing, 2002; R. Foulke, *The Sea Voyage Narrative*, New York: Routledge, 2002; J. Hattendorf, *'The Boundless Deep …': The European Conquest of the Oceans, 1450–1840,* Providence, RI: John Carter Brown Library Press, 2003; and E. J. Bellamy, *Dire Straits: The Perils of Writing the Early English Coastline from Leland to Milton*, Toronto: University of Toronto Press, 2013.

2 For an overview of shipwreck studies, see C. Thompson (ed.), *Shipwreck in Art and Literature: Images and Interpretations from Antiquity to the Present Day*, London: Routledge, 2013.

3 Both Hakluyt's compilation and Sidney's romance have complex textual histories. Hakluyt's collection of writings from English maritime history was first published in 1589 but substantially expanded and revised in a three-volume edition published 1598–1600. For a survey of responses to Hakluyt and his career, see D. Carey and C. Jowitt (eds), *Richard Hakluyt and Travel Writing in Early Modern Europe*, Aldershot: Ashgate Publishing, 2012. Sidney's narrative fiction, which he left incompletely revised upon his death in 1586, was published in part in 1590, revised and republished by Sidney's sister Mary in 1593, and published in assorted hybrid editions after 1621. The complete original text, which Sidney finished in the 1570s before writing a substantial revision of the first half of the story, was first published in 1926. On Sidney's *Arcadia* as shipwreck fiction, see S. Mentz, *Romance for Sale in Early Modern England: The Rise of Prose Fiction*, Aldershot: Ashgate Publishing, 2006, pp. 73–104.

4 On the maritime lyric, see J. Blackmore, 'The Shipwrecked Swimmer: Camões's Maritime Subject', *Modern Philology* 109/3, 2012, pp. 312–25. Blackmore's full treatment of this subject is forthcoming from University of Chicago Press.

5 On the Portuguese writing of shipwreck, see J. Blackmore, *Manifest Perdition: Shipwreck Narrative and the Disruption of Empire*, Minneapolis: University of Minnesota Press, 2002; J. Duffy, *Shipwreck and Empire: Being an Account of Portuguese Maritime Disasters in an Age of Decline*, Cambridge, MA: Harvard University Press, 1955.

6 For an influential reading of early modern exploration through the lens of English and European literature, see R. Helgerson, *Forms of Nationhood: The Elizabethan Writing of England*, Chicago, IL: University of Chicago Press, 1992.

7 W. Shakespeare, *The Tempest*, eds V. Mason Vaughan and Alden Vaughan, London: Bloomsbury, 2011, 1. 1. 61. For expansive consideration of Shakespeare's *The Tempest* in oceanic and historical contexts, see P. Hulme and W. Sherman (eds), '*The Tempest' and Its Travels*, Philadelphia: University of Pennsylvania Press, 2000.

8 For a compelling examination of the 'transoceanic turn' of European culture during the early modern period, see U. Kinzel, 'Orientation as a Paradigm of Maritime Modernity', in B. Klein (ed.), *Fictions of the Sea*, pp. 28–48. On European maritime expansion more generally, see K. Andrews, *Trade, Plunder, and Settlement: Maritime Enterprise and the Genesis of the British Empire, 1480–1630*, Cambridge: Cambridge University Press, 1985.

9 On the relationship between literary and historical accounts of maritime voyaging in the early modern period, see M. Fuller, *Voyages in Print: English Narratives of Travel to America, 1576–1624*, Cambridge: Cambridge University Press, 1995; R. Barbour, *Before Orientalism: London's Theater of the East, 1576*, Cambridge: Cambridge University Press, 2003; and R. Markley, *The Far East and the English Imagination, 1600–1730*, Cambridge: Cambridge University Press, 2006.

10 For recent scholarship on early modern oceans through environmental thinking, see D. Brayton, *Shakespeare's Ocean: An Ecocritical Exploration*, Charlottesville: University of Virginia Press, 2012; L. Duckert, *For All Waters: Finding Ourselves in Early Modern Wetscapes*, Minneapolis: University of Minnesota Press, 2017.

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12 Another major tradition of shipwreck representation during this period appeared in painting, beginning with the Dutch maritime tradition of the seventeenth century and spreading from there. See L. O. Goede, *Shipwreck and Tempest in Dutch and Flemish Art: Convention, Rhetoric, and Interpretation*, State College: Penn State University Press, 1990.

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