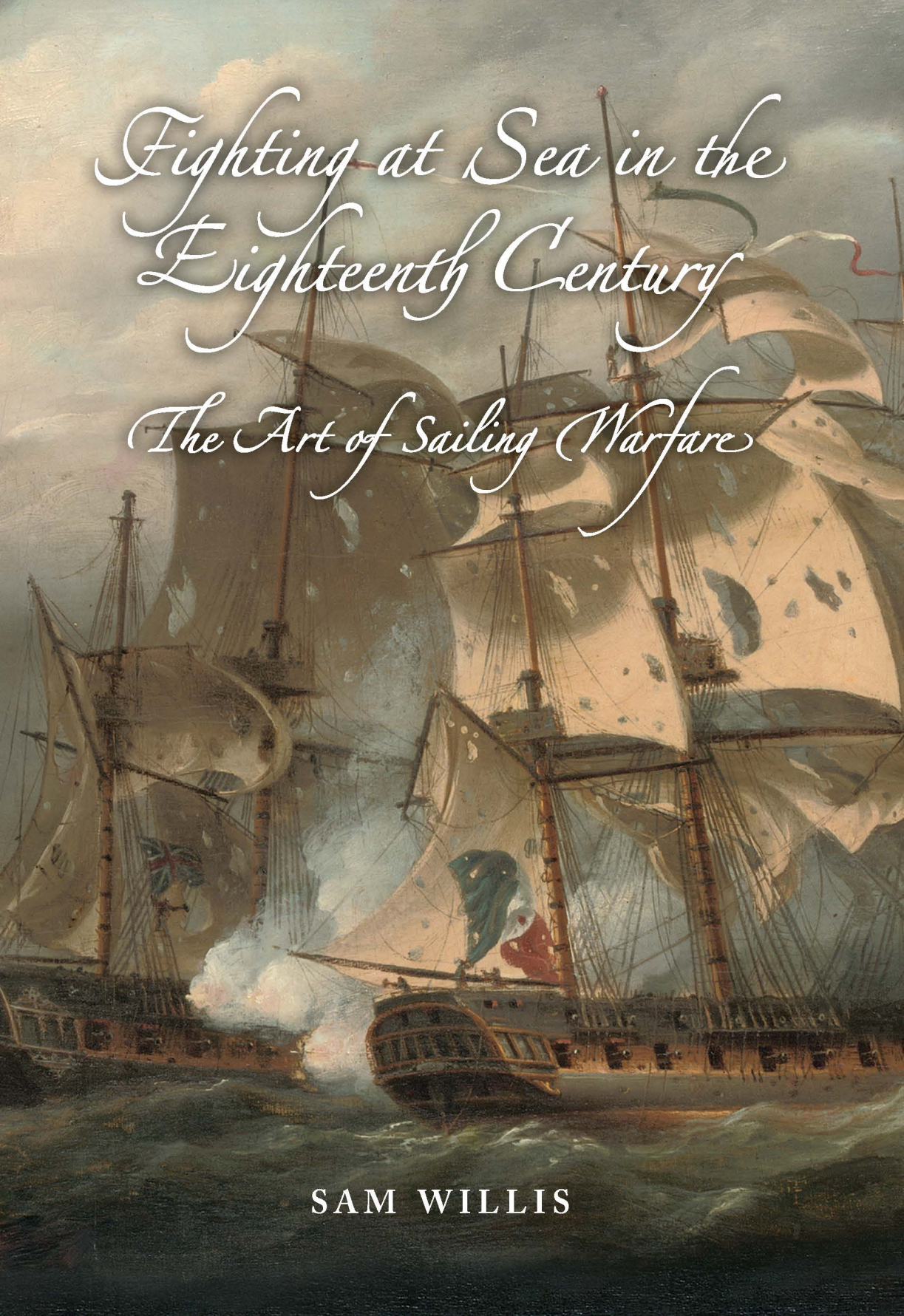

Fighting at Sea in the Eighteenth Century

The Art of Sailing Warfare

SAM WILLIS

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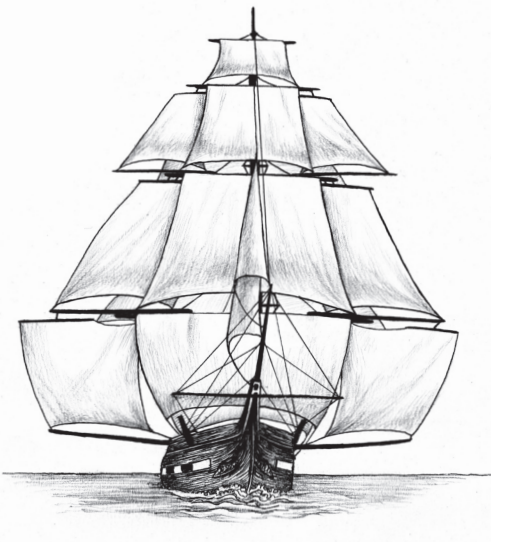

Sam Willis

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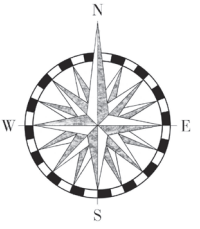
Still for Tors



Preface

Some years ago now the challenge of writing a history of sailing warfare that was faithful to the practical realities of life at sea in the eighteenth century was brought to my attention; the subsequent research, which started at sea before moving to the archives and museums, has resulted in this series of essays. They are designed to provide a thematic interpretation of fighting at sea, and they follow a very rough chronological narrative of two ships or fleets meeting, through chase and escape, and their manœuvring for position to engagement, and so on to the aftermath of battle. This book is not a narrative of any one action or even a series of battles. Quite to the contrary and quite deliberately, it has abandoned the cosiness of such a conservative approach for one which allows a greater penetration of the subject matter. The subject of fighting at sea in the age of sail has long lain dormant, and I hope that by providing fresh perspectives and alternative narratives this book will generate new discussion. Areas of investigation that have been closed must be reopened; new subjects must be explored; new approaches considered. Debate of the nature and development of fighting tactics must, once again, flourish.

There has been much to cover, and certain subjects do not feature in this book. I do not, for example, cover the practicalities of the immediate aftermath of battle in which seamanship skills were tested in a different way from in the heat of battle, nor have I been able to cover certain specifics, like fighting at anchor. The book is also focused on the experience of the Royal Navy, at the expense of others.

The thematic approach certainly raises its own problems, not least the frequent need to refer to a number of naval battles that took place throughout the century. To ease the reader through such references, the general background detail to the most important actions is presented in an appendix. A major purpose of this book is to open up a previously closed world to a wider readership; this inevitably requires the use of many technical terms. These are explained in a glossary.

Maritime historians are all too aware of the difficulties and rewards of their profession, and there is a healthy network of support for those seeking to enter it; we are, after all, in the same boat. The man responsible for bringing my attention to this subject was Professor Nicholas Rodger, who has guided me with a generous and steady hand throughout. Dr Michael Duffy has also been there from the start. Many others have made an important impact on my work for their general support, detailed advice, raised eyebrows, impatient coughs and selective deafness. I must thank in particular Professor Roger Knight, Dr Colin White, Mr Peter Sowden, Mr Andrew Bond, my grandfather Commander Derek

Willis, who read this through numerous times in draft, and the staff of the NMM, British Library and National Archives. The Phillip Nicholas Trust was very generous at an early stage in my career. Mr Roger Brien and Mr James Turner were indispensable for providing entertainment (of sorts) in the long days of writing. Jamie Whyte is the artist responsible for the beautiful illustrations and maps; I owe him a great debt. Last in this list but first in my heart is Torsy, whom I must thank for everything; without her this book could never have been written.

It would be impossible to write such a complex book without making a number of mistakes. Some of those have come to light already, and many others no doubt will do so in the course of this book's life. All of those mistakes are my own.

Sam Willis
Trafalgar Place, July 2007

Abbreviations

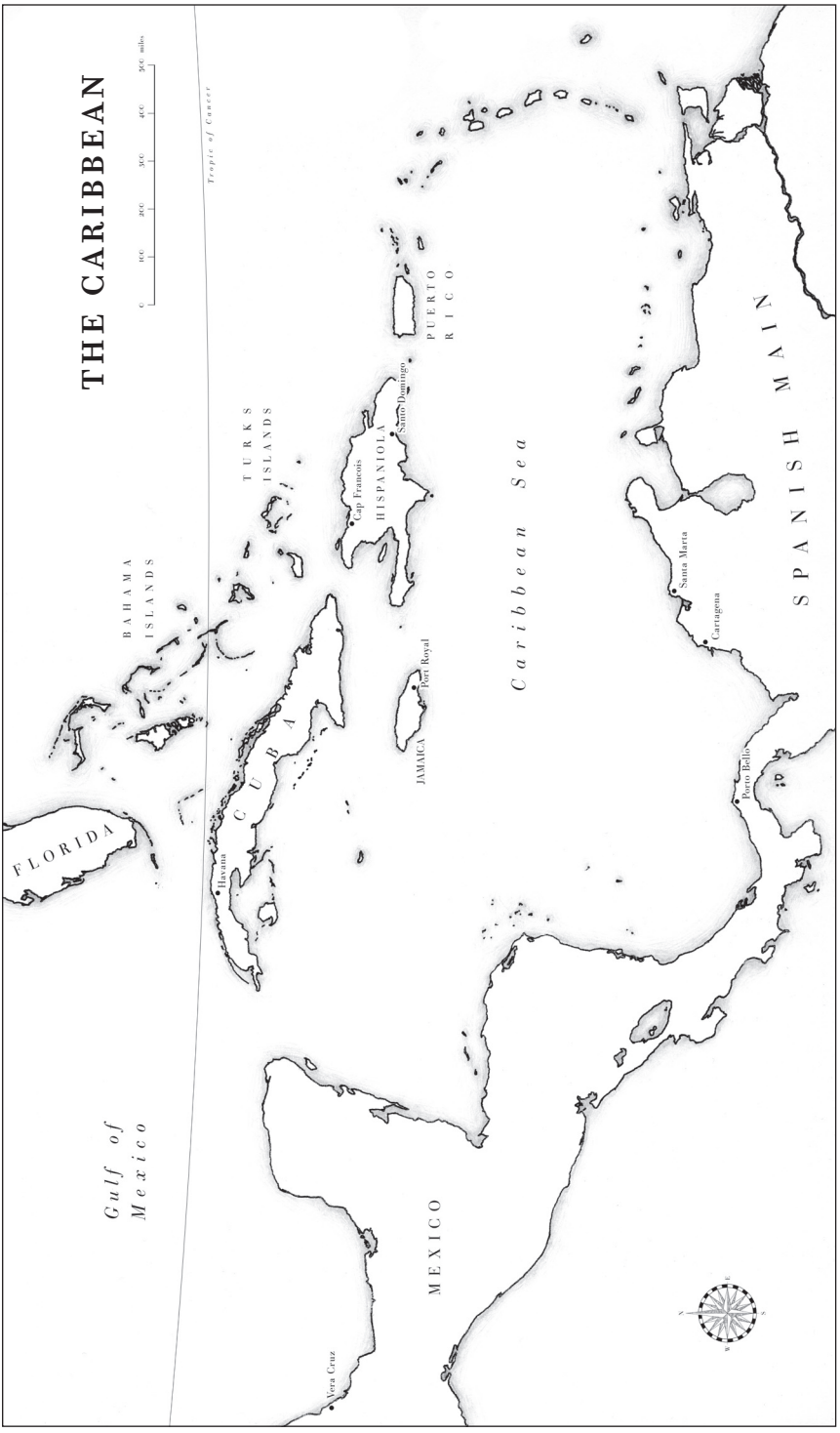
Add. Ins.	Additional Instructions
BL	British Library
Ins.	Instructions
MM	*Mariner's Mirror*
NMM	National Maritime Museum
NRS	Navy Records Society
TNA	The National Archives

Maps

All the maps were drawn by Jamie Whyte.

THE ATLANTIC


NORTH AMERICA
0 100 200 300 400 500 miles
Atlantic
Ocean
Gulf of
St Lawrence
R. St Lawrence
Quebec
Lake Superior
Lake Huron
Lake Michigan
Lake Ontario
Lake Erie
Presque Isle
New York
RHODE ISLAND
LONG ISLAND
Sandy Hook
Chesapeake Bay
VIRGINIA
Yorktown
Lynn Haven Bay
Cape Henry
SOUTH
CAROLINA
FLORIDA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TURKS ISLANDS
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Havana
CUBA
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Santo Domingo
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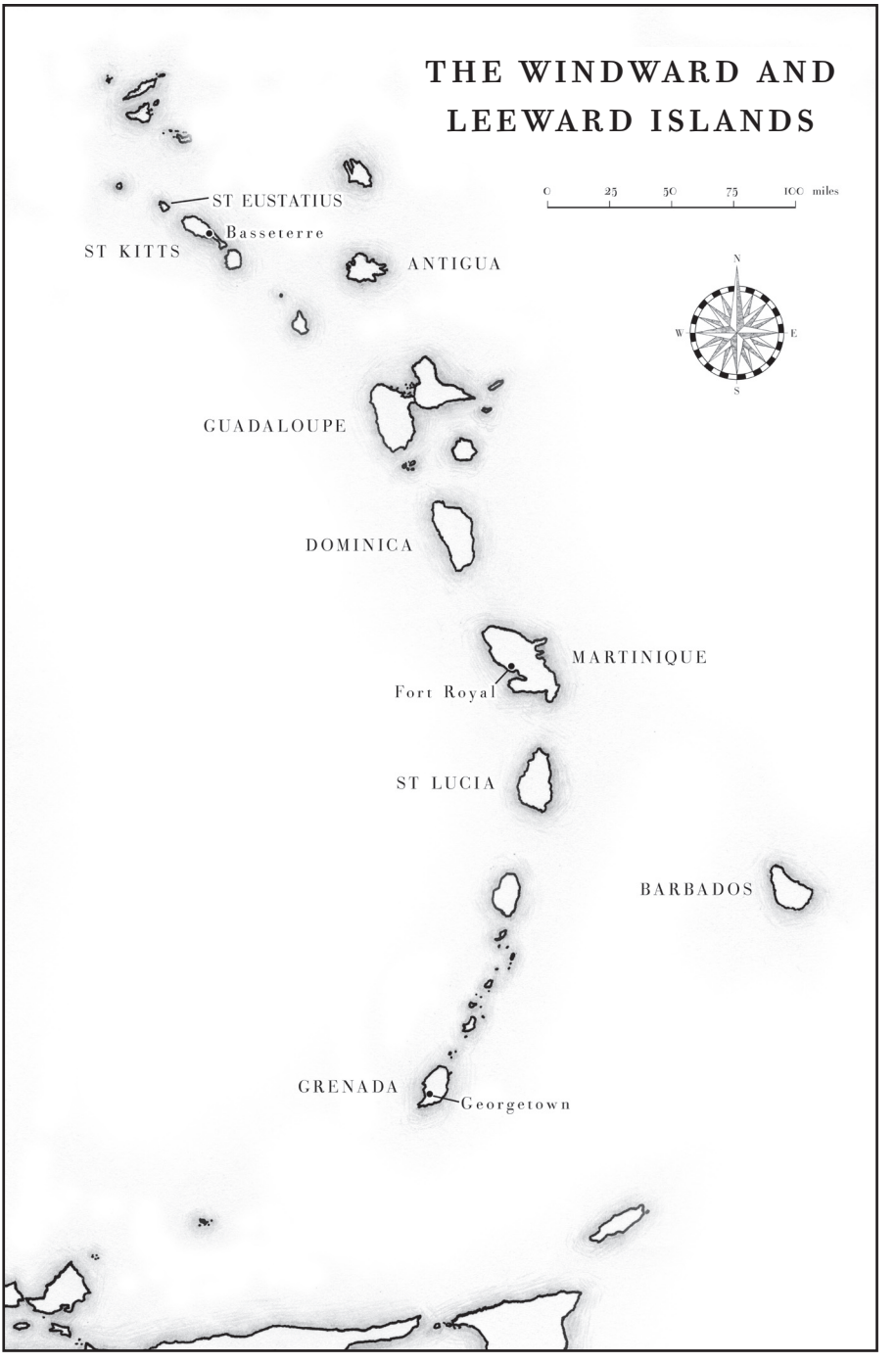
Port Royal
Caribbean Sea
Santa Marta
Cartagena
Porto Bello
SPANISH MAIN
Gulf of Mexico
MEXICO
Vera Cruz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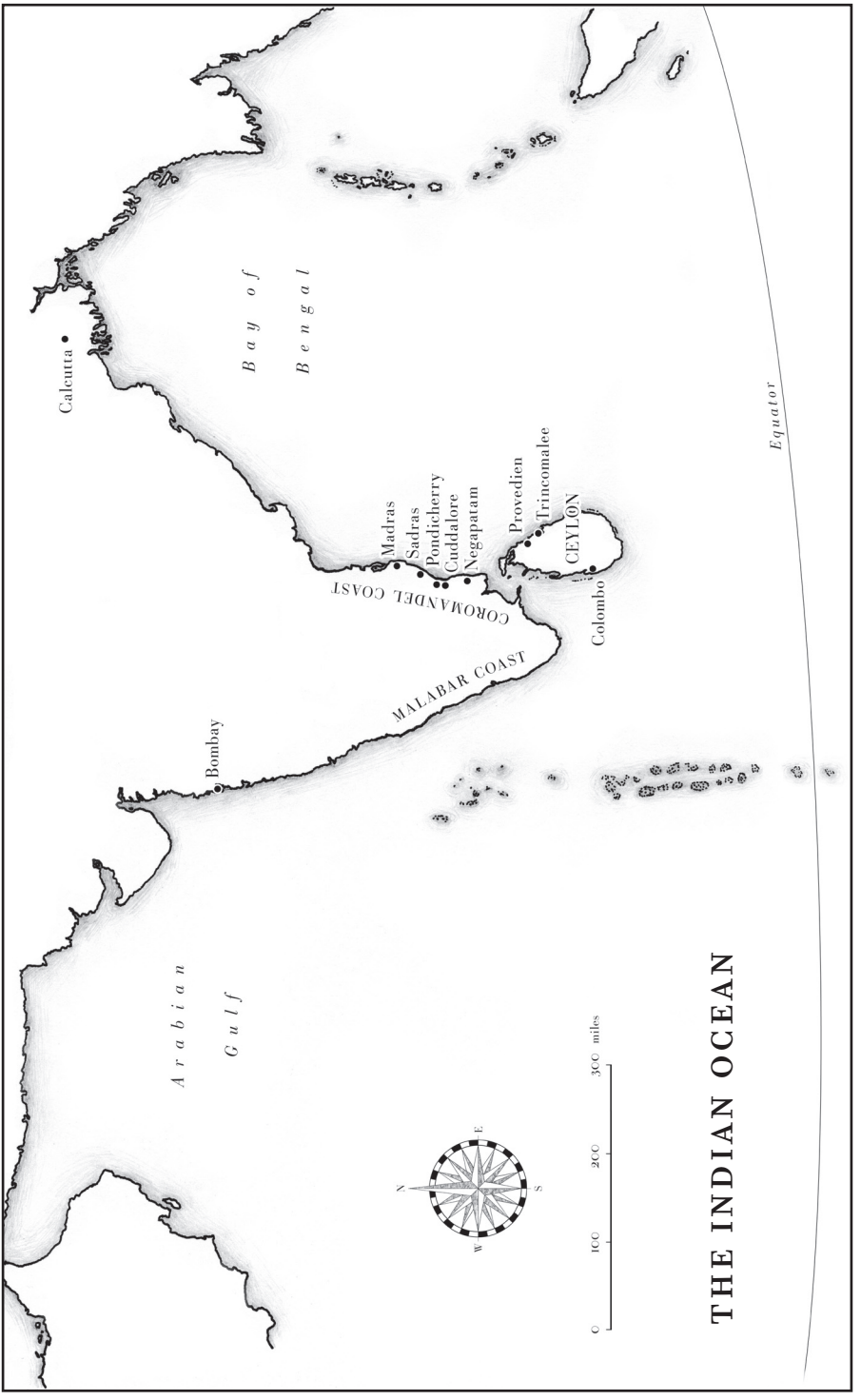
GRENADA
Georgetown


Calcutta
Bay of Bengal
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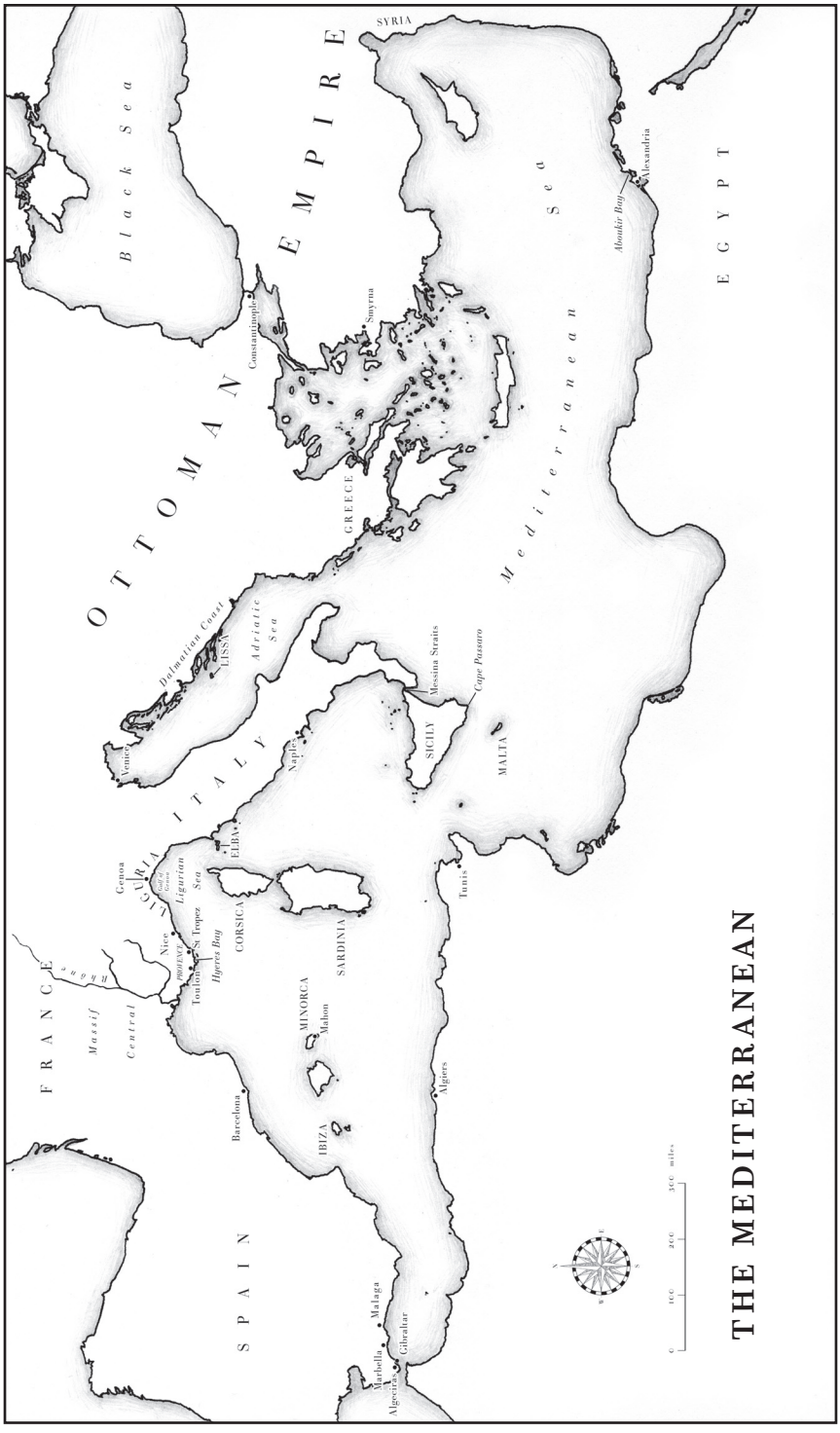
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EGYPT
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Adriatic Sea
Venice
ITALY
Naples
Messina Straits
Cape Passaro
SICILY
MALTA
Genoa
Ligurian Sea
Nice
Provence
St Tropez
Toulon
Hyeres Bay
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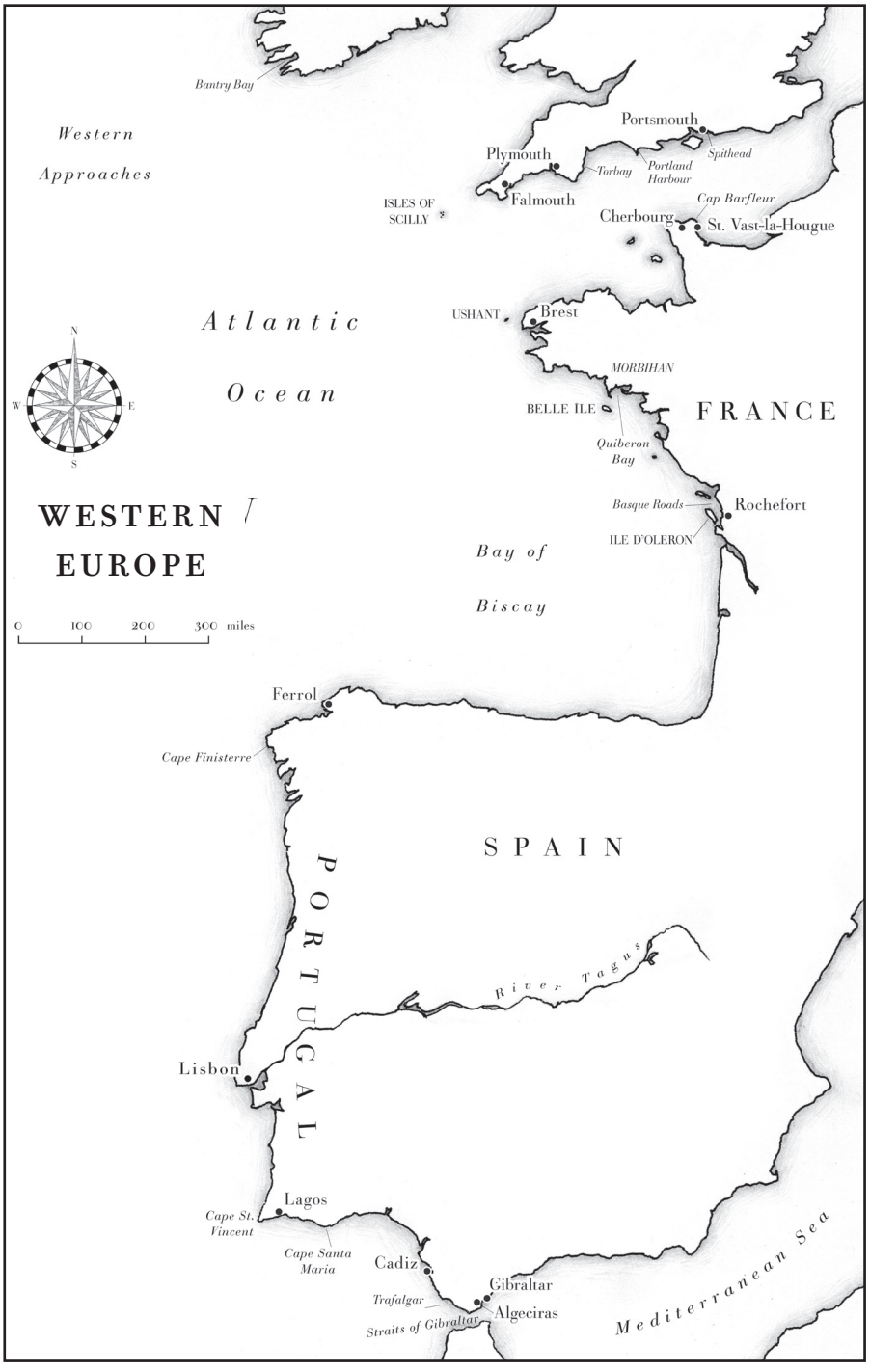
Bantry Bay
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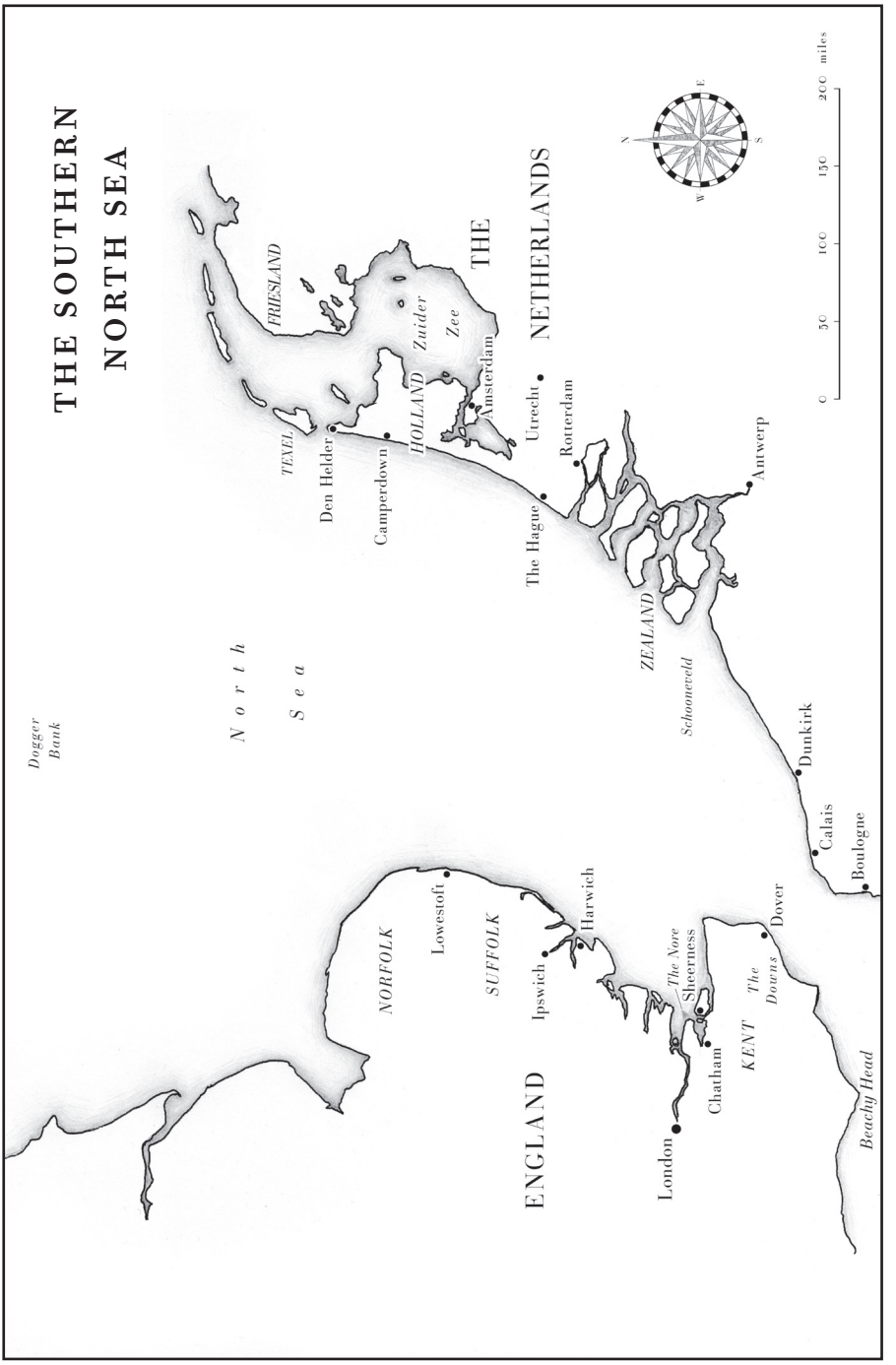
THE SOUTHERN
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Dunkirk
Calais
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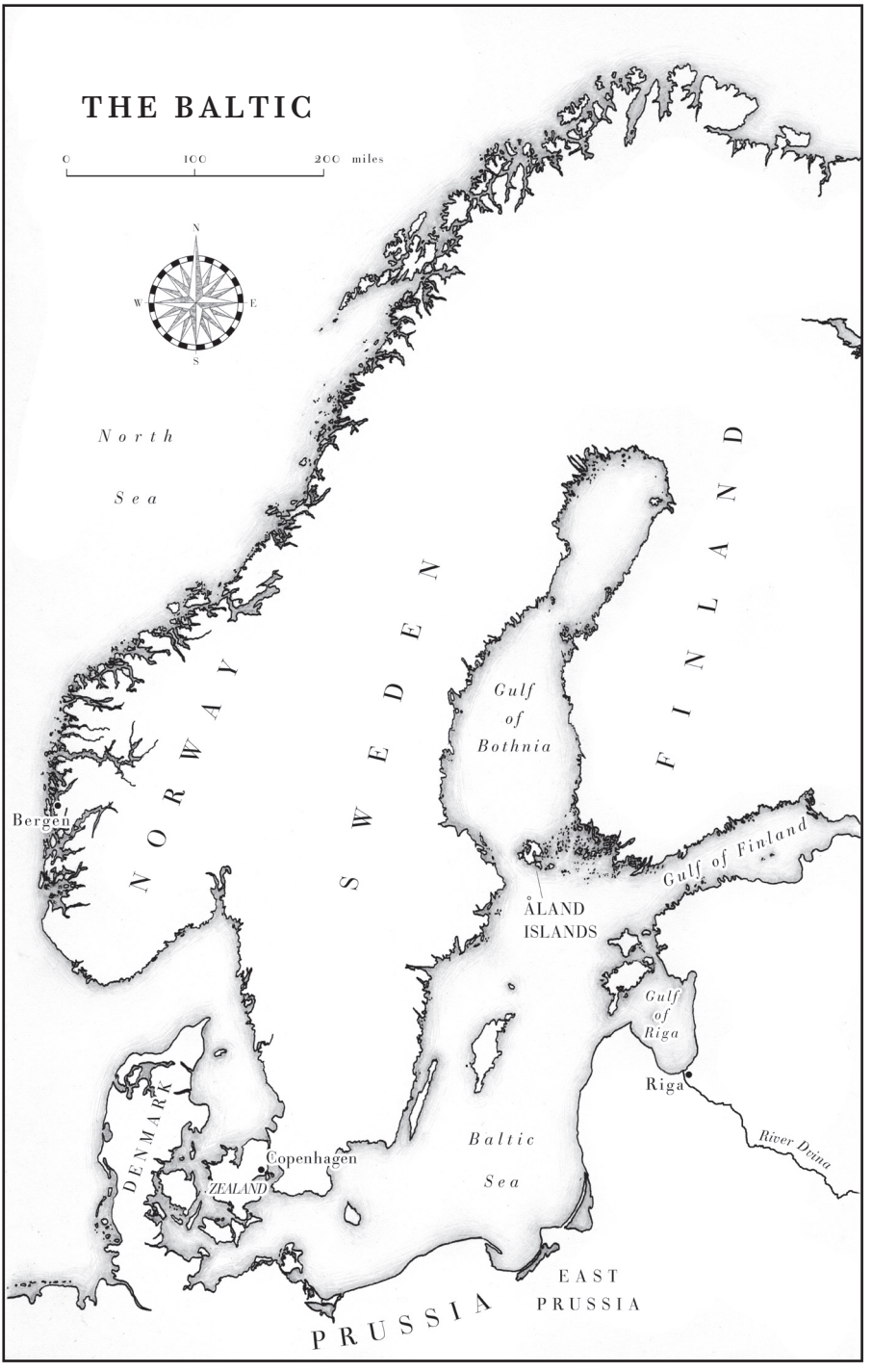
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Riga
Riga
River Dvina
DENMARK
Copenhagen
ZEALAND
Baltic
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EAST
PRUSSIA
PRUSSIA

Introduction

In *The Tempest* William Shakespeare was responsible for the greatest stage direction ever penned: 'Enter mariners, wet.' Shakespeare's audience was discerning. They expected authenticity and accuracy in the portrayal of the maritime world, and would not be insulted by anything as improbable as a dry mariner in a storm. Very little has changed since, and an ever-increasing body of fine scholarly literature portrays our maritime past with an impressive degree of accuracy. For those who like more flesh on the bones of their story, a fine and continuing tradition of naval fiction exists which has translated well to television and film. Many of these authors of fiction are familiar with much of the scholarly historiography, and all of them owe a great deal to the grandfather of naval fiction, Frederick Marryatt, who served in the navy for twenty-four years between 1806 and 1830. Although his works are fictional, there is little reason to doubt their technical detail and it is immediately obvious to any reader that the strength of his stories lies in his intimate knowledge of the ships and men about which he writes. The best modern authors of naval fiction have learned that lesson.

For those who seek to experience their subject in more than books or film, a handful of ships from that era survive in varying conditions, and in maritime museums throughout the world lie important collections of artefacts that relate to men of war. Maritime archaeologists continue to discover more, and conservators are becoming increasingly skilled at the preservation of these ships and their material culture. In most cases public and private support somehow match the daunting financial challenge posed by its preservation, and these important collections will only grow for future generations to enjoy.

With such an established tradition of scholarly research backed, and in many respects driven, by public and commercial interests in sailing warfare, one may be forgiven for thinking that we know more about how sailing warships of the eighteenth century were fought and how battles were won or lost than we actually do, but the reality of the situation is far less encouraging. There is indeed much that we do not know, and much of what we do know is unsafe. This is a bold claim, and it is not designed in any way to denigrate those historians who have laid the foundation for this work. No one can begin to investigate sailing warfare without being immediately and profoundly impressed by the depth and width of the extant scholarship. There are reference works on ship construction, guns and gun founding, rigging, shiphandling, signals and instructions, tactics, command, the infrastructure and development of contemporary navies which have made this work possible.

The numerous issues tackled in this book can be reduced to a deceptively

simple problem. Sailing warfare is a practical subject, and to retain any accuracy the historian must think about it in a practical way: his work must reflect the kinetic, bruising, and unpredictable nature of warfare at sea in the eighteenth century. This is the challenge that historians of sailing warfare have always been faced with, and there has been a growing acknowledgement that it must be met.[1] The extent to which it has been remains limited, however, and there are two main reasons for this.

The first is that to write about sailing warfare, one must first master its language. One must know a spritsail from a studdingsail, a topsail from topgallant sail, and a bowsprit from a jib-boom. But this is far from easy. In his memoirs Commander James Gardner recalled an anecdote concerning an eccentric seaman named Billy Culmer of the *Barfleur*. Culmer travelled to London for his lieutenant's exam in 1790, and when brought in front of the Navy Board he cheekily asked the commissioners the meaning of the word 'azimuth', telling them that 'he could never find any *wa wa* that knew a word about it.'[2] It appears that Gardner found this anecdote amusing for its tongue-in-cheek honesty: Culmer used the formal condition of interview to feign or confess ignorance of a peculiar-looking and -sounding word, but one that was central to the skill of the very profession for which he was being examined. It is a clear reminder that then, as now, the art of the sailor was at once protected and defined by its own language, and then, as now, the complexity of that language was often baffling, even a source of amusement to the sailors themselves. It is enough to send a shiver up any historian's spine. What hope have we as alien observers of this distant culture that could puzzle those even at its heart?

The second reason for our inability to understand the practical reality of fighting at sea is the continued use of contemporary sources that are not themselves rooted in those practical realities. There are two main culprits here: contemporary treatises on naval tactics and the Fighting Instructions. In both examples, many specimens survive. They are often lavishly illustrated, beautifully presented and many are well preserved. Somewhat inevitably historians have been drawn to them like moths to a flame. All works on fighting at sea are heavily influenced by both these sources, and some rely entirely on one or the other.[3] To understand their flaws, it is necessary to consider each separately.

THE FIGHTING INSTRUCTIONS

The Fighting Instructions are well named. They are lists of instructions from an admiral to his fleet captains that explain what is meant by a particular signal made in battle. Thus, the very first instruction in Edward Russell's Fighting Instructions of 1691 reads:

> I. When the Admiral would have the fleet draw into a line of battle, one ship ahead of another (according to the method given to each captain) he will hoist a union flag at the mizzen peak, and fire a gun; and every flagship in the fleet is to make the same signal.[4]

A focus on the Fighting Instructions and signal books has necessarily led to a concentration by historians of eighteenth-century sailing warfare on the nature and development of the command system, and for years there was a tendency to over-emphasise the rigidity of that system. Primarily responsible were those early historians of the navy who wrote in the late nineteenth and early twentieth centuries with an agenda of studying the past to illustrate strategic, tactical and command principles for their contemporary navies, and to stimulate discussion on aspects of contemporary professional interest.[5] With such an agenda, a certain degree of bias was influential in their writing. The most prominent concerning command and command efficiency was a fear of restrictive dogma. Such a fear is common to all armed forces.[6] It is born of an inherent conflict: tactical systems must be rooted in experience, but they must also look to the future. The concern of being caught unprepared, whether by a magnificent new weapon or a new tactic, ensures that armed forces must continually strive for innovation. For the earliest historians of the eighteenth-century Navy, this led directly to a witch-hunt for restrictive dogma in all aspects of fleet operations. Disasters had to be attributed to it, and successes to reaction against it, and there was a good deal of evidence to flatter their prejudices.[7]

Such severe interpretations have gradually been eased,[8] but there still remain a number of problems with our understanding of command in practice as it stems almost entirely from the Fighting Instructions. They have, for example, never been put into any sort of context regarding other methods of communication between a commander and his subordinates or notions of professionalism and duty: we have been led to believe that subordinates acted unthinkingly in relation to the receipt of signals or instructions, and nothing else. This is certainly unrealistic. In practice, contemporary courts martial for conduct in battle judged innocence or guilt according to a broader concept of duty, and obedience to specific instruction constituted only a fraction of the evidence used at those trials.[9] To retain any accuracy, therefore, our approach needs to mirror that of the contemporaries we study; we need to consider the signals and Fighting Instructions as just one ingredient of that body of knowledge that influenced subordinate behaviour, and not as the whole embodiment of it.

CONTEMPORARY TREATISES

The other main focus of modern historians has been on contemporary treatises on naval tactics. From the late seventeenth century the study of fighting tactics

established itself as a significant intellectual tradition. Père Paul Hoste set the precedent with his widely acclaimed *L'Art des armées navales* (Lyon, 1697), which was followed in the second half of the eighteenth century by a spate of similar works: Bigot de Morogues's *Tactique navale* (Paris, 1763); Bourdé de Villehuet's *Le Manœuvrier* (Paris, 1769); le vicomte de Grenier's *L'Art de la guerre sur mer* (Paris, 1787); and the Scotsman John Clerk's *An Essay on Naval Tactics* (London, 1797).[10]

It has, however, been made quite clear recently that there was a wide gulf between tactical theory and tactical practice.[11] Hoste, for example, the author upon whose work all later authors heavily rely, had spent nearly twelve years at sea with the admirals le comte d'Estrées and le comte de Tourville, and the Général des Galères le duc de Vivonne et Montmarte. He had also witnessed fleet battle at first hand, being present at the battles of Beachy Head (1690) and Cape Barfleur (1692). Crucially, however, he was not a professional naval officer but a chaplain. His primary interests were in science, mathematics and astrology, and he died aged only forty-seven as Professor of Mathematics at the Royal Seminary at Toulon.[12] Most significantly, he died in 1700, three years after publishing his work on naval tactics. His experience of sailing warfare was restricted to the cumbersome ships and fleets of the last quarter of the seventeenth century, when the line of battle itself was a relatively new concept. The eighteenth century brought with it much improvement in ship and fleet capability through design improvements in hull and rig, not least the replacement of the whipstaff with the wheel, deeper understanding of the practical problems of fleet performance and capability, and a greater sophistication of both practical skill and theoretical philosophy: Hoste knew a different age from that which modern writers have used his writings to illustrate and explain.

The motive of Hoste's writing was also far removed from modern standards of historical observation and research. His intention was to write a text to promote the intellectual study of sailing tactics. As a man with the intellectual aspirations and principles of the Enlightenment, his goal was to analyse and describe the natural world according to precise scientific method.[13] He believed that without knowledge and without order, everything depended on caprice and chance,[14] and he sought to apply this philosophy to naval warfare. Through detailed but speculative argument demonstrated through complex geometrical patterns and shapes, Hoste explained how naval warfare could be understood and explained. In doing so, he was always careful to promote the numerous tactical ideas of his patron, Admiral Tourville.

To act as a solid foundation for his highly theoretical arguments, Hoste, much like modern historians of naval warfare, needed a formulaic 'key' of easily digestible facts regarding ship and fleet sailing capability from which he could logically expand. Without such a key, his arguments would neither make sense, nor be easily explained according to clear and demonstrable principles. This

would be quite contrary to his avowed intention of creating a system of naval evolutions that were '... so simple, and that without presuming any knowledge of geometry, that a little application, with practice, will suffice to render their use familiar to the dullest comprehension'.[15]

The haphazard reality of tactics in practice and the relative variation in ship and fleet capability that characterised actual performance could have no place in such a work, and would have made his theorising all but impossible. He settled, therefore, on a simple and uncompromising understanding of sailing capability that bore little relation to reality, and, crucially for modern historians, his approach was mirrored – and in many instances copied verbatim – in the works of those who followed him. Indeed, in his introduction to *L'Art de la guerre sur mer* (Paris, 1787), the viscomte de Grenier is explicit that his tactics should never be practised, and he further adds that the works of Hoste, Bigot de Morogues and the chevalier du Pavillon's *Tactique navale* (Versailles, 1773) 'are of no service than to teach the manner of ranging the ships for battle'.[16] These sources must not be used blindly to illustrate naval tactics, therefore, as they bore little relation to reality. Because they cover a subject that so few understand in any depth, however, many historians have done just that, mistaking confident for accurate prose.

UNCONSIDERED QUESTIONS

With historians of sailing warfare concentrating so hard on the Fighting Instructions and contemporary treatises as the only two major bodies of evidence available to them, subjects highly significant to battle which are not mentioned in these sources have been consistently overlooked. We do not know, for example, how two or more ships recognised each other as friend or foe upon initial contact. How did a captain decide if he was to fight or to flee? What, moreover, were the tactics used in chase and escape? How did the signalling system actually work in battle? How did ships maintain station in a fleet? How did position in relation to the wind really affect tactics? What impact did certain types of damage have on a ship's or fleet's capability, and how did they influence tactics and the outcome of battle?

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. If, as one anonymous contemporary commented, 'the way of making war at different ages is as much a fashion as that of our apparel',[17] one could say that we currently know a little about the hat and the overcoat, but nothing of what was worn underneath, and still less of the process of dressing. The problem is best summed up by the most frequently quoted of contemporary theoretical writers on naval tactics, John Clerk. It was Clerk, a civilian with no formal connection with the navy, or, indeed,

with anything maritime, who roundly declared in his 1797 *Essay on Naval Tactics*:

> That the face of the ocean, considering it as a field for military operations, but more particularly as a field for immediate engagement, the hostile fleets opposed, having neither rivers, ravines, banks, woods, or mountains, to stop progress, or interrupt the fight, so that ambuscades or stratagems can be formed, and while each are extended in line of battle, where every individual ship, and the line into which she belongs, is operated upon by the same wind, at the same time, and by the laws of mechanism, confined to movements in every respect consonant in relation to each other, should not every occurrence, every transaction, for these reasons, and in such circumstances, be the more easily conceived, understood, and explained, than even in military operations on land?[18]

Clerk poses a rhetorical question, but the answer must surely be 'no'. In fact the whole point about the inadequacy of our understanding of sailing warfare is that it is *not* easily conceived, understood or explained. Indeed, Clerk's argument raised the ire of Captain Graham Moore, a frigate captain with an excellent reputation, who declared Clerk's belief that command of a fleet required inferior talents to those which were requisite for the general of an army 'was an argument not worth entering'.[19] The future Rear-Admiral Leake asked himself a similar rhetorical question after the Battle of Malaga in 1704, but with a lifetime of experience of the sea and a poetic capacity for understatement, he remarked 'there is surely some skill in sea as well as land actions'.[20] There certainly was, and in a series of thematic chapters, starting with initial contact and ending with the impact of damage, this book will set out to explain how and why.

CHAPTER 1

Contact

If e'er I saw wood and canvas put together before in the shape of a ship, that there is one of John Bull's bellowing calves of the ocean, and not less than a forty-four gunner.[1]

Any sea fight necessarily began with the meeting of two ships or fleets. It was a critical time: it tested the seamanship and decision-making skills of the officers, dictated the tactics that would be most effective, and provided opportunities for tactical advantage to be won or lost. It was also a particularly delicate situation for the captains concerned. A captain needed to exercise prudence to prevent a potential enemy from taking advantage of any inaction on his part, and also to avoid assaulting friends and countrymen. Hundreds of lives, great wealth, and personal and professional reputations were all at stake. To compound matters, it is equally clear that the identification of friend or foe was not straightforward. To be good at it required experience and skill, intuition and judgement. One contemporary with considerable personal experience of the navy and of combat believed that there was in fact 'no situation perhaps more difficult and demanding so much caution as the occasional meeting with a doubtful ship.'[2]

NATIONALITY

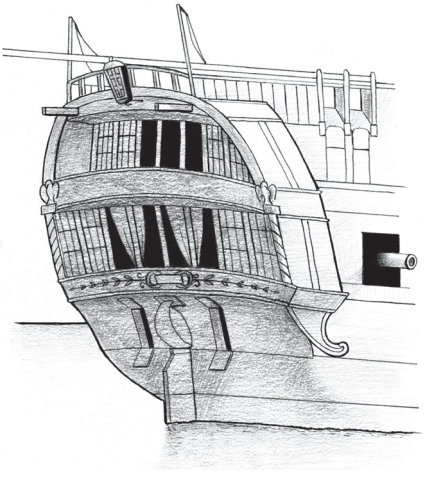
The physical characteristics of a ship could offer important clues to her nationality, and their interpretation became a science in its own right. Upon initial contact this job fell to the signalman. The lookouts would report a sighting, and the signalman would climb aloft, armed with a looking glass.[3]

Hull form was a common tell-tale. Thomas Pasley, then captain of the *Glasgow* escorting a fleet of merchantmen back from Jamaica in the summer of 1778, professed to be able to identify every one of the forty-seven ships in his charge if he was only near enough to see their hulls, though unsurprisingly such an ability was achieved 'through unwearied attention ... and at the expense of my eyes'.[4] There were a number of generations of each class of ship designed and built by each shipbuilding nation, each with their own distinguishing features, but as a general rule British warships were shorter than their French equivalents, which in consequence had more guns per tier. The British warships, being shorter, tended to have more freeboard. Those of the 1780s were well known for carrying more and larger gun ports along their upperworks to house the carronades, a short-range cannon adopted by the British in 1779 and unique to the Royal Navy for more than twenty years. Very large eighty-gun

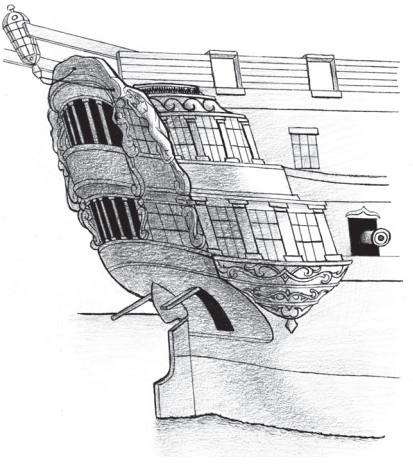
two-deckers were characteristically French, whereas Dutch warships were traditionally small for their class. Height of the poop, shape of the head and design of the bowsprit were other distinguishing features. Spanish ships in particular were known for their foreshortened beak-heads.[5]

The shape and decoration of the stern and quarter galleries was also important. The horseshoe shape, for example, was characteristically French, and Spanish ships were known for their almost vertical sterns. One of the most obvious differences between national styles was the form taken by the lower finishing (sometimes called the 'drop') of the quarter gallery. On French and Spanish ships this took the form of a forward sweeping volute (Fig. 1), but in English vessels the design was conical (Fig. 2). Even the fashion in which the ship's name was displayed was significant. The French preferred to place it in small letters, inside a decorative framework or cartouche, while in British ships of the 1770–80s the name was painted in large letters across the upper counter. Later on in the century British warships would often remove their names altogether for security reasons.[6]

There were also national characteristics associated with rig construction and style. Towards the end of the century an equality in the height of the fore and main topgallant masts suggested a Frenchman, and it was characteristic of small French brigs to set the channels below the gun ports.[7] The shape of the sails was another tell-tale. Unfortunately, little information survives regarding the actual detail of this, but at the court martial which enquired into the loss of



1 The stern of a French warship, with its typical horseshoe shape. Notice, too, the forward-sweeping volute at the bottom of the stern decorations, also characteristic of Spanish ships.



2 The stern of a British warship, showing the conical finishing of the stern decoration in place of the more Continental curled volute.

the *Ardent* in 1779, it was reported that the officers identified a strange fleet as English on the grounds that their sails were 'very square'.[8]

There were, therefore, a large number of distinguishing features, but their analysis was not a panacea in the identification of nationality. Owing to the constant international exchange of vessels through trade and warfare, even a combination of these identification techniques was an unreliable guide to a vessel's nationality. In the above example, the crew of the *Ardent*, once so confident in their identification of the strangers as English warships, were more than a little surprised to find themselves in the midst of the French fleet. In a similar incident, an unfortunate French officer mistook the British fleet for the French in 1782, and carried his dispatches to a rather surprised Rear-Admiral Hood instead of to their intended recipient, the comte de Grasse.[9] One contemporary, writing nearly a century earlier, suggests that this type of confusion had long been happening at sea: 'I have known that divers strange ships have passed through the very midst of a main fleet even at noon day, without any discovery made upon them, or scarce any notice taken of them, until it was too late.'[10]

In an attempt to counter this potential for confusion, private signals were always used, and it was an established custom that the private signal was to be made before a shot was fired.[11] These signals varied widely and were frequently elaborate. George Anson's 'Private Signals by Day' of 22 March 1752 required that:

> When any of the Fleet lose Company And meet again those to Windward shall brail up their Foresail and those to Leeward shall answer by brailing up their Main Sail, then he who made the first Signal, after being answered by the Sail of the other, shall hoist his Ensign, with the Cross downwards at the Mizzen Peak and the other shall answer by hoisting his Jack on the Ensign Staff.[12]

At night a combination of lights, false fires and voices were used. A set of private signals by night from December 1757 required:

> The ships to windward shall show three lights in a triangle at the mizzen peak and two lights of equal height in the mizzen shrouds. The other shall answer by showing three lights in the fore and three in the mizzen shrouds of equal height. Then the ship who made the signal first shall burn three false fires and the other shall answer by burning two. If within hail, he who hails first shall ask: *What ship's that?* The other shall answer: *God Save the King.* The other shall reply: *Halifax*.[13]

Yet the effectiveness of these private signals for the identification of friend or foe was restricted by the problems of visibility that attended any attempt to signal with flag, sail or lantern. A lack of response might indicate an ignorance of the correct response, but it might as easily be caused by the weather being too