

# Introduction

This volume of the World Readers series is devoted to the Ocean, which currently covers 71 percent of the world, a figure that is certain to rise along with sea level. The aqueous regions of the earth have been important throughout human history, politics, and culture, but never more so than now.

It has always been difficult for humans to think of the Ocean as a place. Those who have considered the watery majority of the planet on its own terms have often seen it as a changeless space, one without a history. Because the Ocean can't be plowed, paved, or shaped in ways the eye is able to discern, it has seemed to be a constant, while the land has changed drastically over the centuries. The fish and marine mammal populations of the Ocean have also seemed unchangeable, inexhaustible, and impervious to the onslaught of the harvesters. But such is not the case. As this collection emphasizes, the Ocean is changeable, and it has a history.

Terracentrism, a term that is rapidly gaining currency, refers to people's tendency to consider the world and human activity mainly in the context of the land and events that take place on land. This book aims to avoid that natural bias predominating among our terrestrial species and replace it with a steady focus on the Ocean and on events that take place offshore. Such an aquacentric perspective can be found in an increasing number of scholarly works, as the overarching importance of the watery parts of the world gains wider recognition. This awareness in turn contributes to a growing consensus that we need to take concerted action to avoid the devastating consequences of having ignored the Ocean for too long.

The Seven Seas is a mutable concept. In antiquity, the seven bodies of water in question were all really just embayments of the Mediterranean Sea, which itself is merely an embayment of the Atlantic Ocean. The Atlantic Ocean and the other bodies of water now designated as oceans on maps of the world constitute a relatively recent variation of the Seven Seas. In reality, there is only one interconnected global Ocean, with currents that exchange water widely among its different regions, with the same molecules of H<sub>2</sub>O moving from one of today's seven Oceans to another, and then another, over the course of ageless and endless cycles of circulation.

There is one big Ocean, and while its regions have been conceptualized

as separate bodies of water and named as different Oceans, the fact is, they are all connected, and seawater travels widely and endlessly across these artificial geographic markers. The largest of the regions is the Pacific Ocean, which is an expanse of 64 million square miles (about 165 million square kilometers [km]). It is difficult to grasp such enormous dimensions. By contrast, the landmass of Asia, the largest continent, is only about 17 million square miles (44 million square km), while North America covers just 9.5 million (24.6 million square km), of which the United States represents less than half, with 3.8 million square miles (9.8 million square km). The Atlantic Ocean is half the size of the Pacific, which is nearly ten times the size of the United States, at 32 million square miles (almost 83 million square km), while the Indian Ocean covers 28 million square miles (72.5 square km). The area of the Antarctic, or Southern, Ocean is less than 8 million square miles (20.7 million square km), and the smallest is the Arctic Ocean, with about 5.4 million (14 million square km).

The deepest place in the Ocean is in the Pacific, at the bottom of the Mariana Trench, a fissure in the seafloor some 1,580 miles (2,550 km) long and 43 miles (69 km) wide, which reaches more than 36,000 feet (nearly 11,000 meters [m]), more than 6.8 miles (about 11 km). The deepest Ocean generally is the Antarctic, which ranges from 13,100 to 16,400 feet (4,000–5,000 m) deep, while the average depth of the Indian Ocean is 12,762 feet (3,890 m). The Pacific Ocean averages more than 12,000 feet (3,600 m) deep, and the Atlantic, which reaches a depth of five miles (8 km) in the Puerto Rico Trench, averages nearly 11,000 feet (3,400 m). The shallowest is the Arctic Ocean, with an average depth of less than 3,500 feet (1,050 m), which allows the upwelling of nutrients from the seabed to take place, attracting whales and other sea animals to the northern latitudes.

The tectonic plates that make up the crust of the planet are most active around the Pacific Ocean, which is rimmed by subduction zones known as the Ring of Fire, a chain of submarine volcanoes and fault lines that make the Pacific the most volatile of the seas. Islands form and expand, as Hawai'i continues to do, with the most active volcano in the world pouring molten rock into the sea regularly, and they suddenly disintegrate, as Krakatoa did in 1883, when the largest explosion that has occurred in human history erased most of the island. Undersea earthquakes churn up epochal tsunamis around the Pacific basin, with the Japanese disaster of 2011 being both the most recent and the worst ever recorded.

The winds and waves that sweep over the Ocean are subject to circular patterns collectively known as the Coriolis effect, named for the French physicist Gaspard-Gustave de Coriolis (1792–1843), who first described the phenomenon in 1835. As a result of the earth's rotation, the air and water alike move in gyres, in both hemispheres, with the motion trending clockwise in the north and counterclockwise in the south. These predictable movements

## 2 Introduction

in the atmosphere go by names that have gained romantic connotations, such as the southeast and northeast trade winds, and the westerlies. Likewise, the enduring patterns that seawater follows in tandem with the winds have become fluid geographic references. The North and South Equatorial Currents, in both the Atlantic and Pacific Oceans, follow the storied line in opposite directions. The Canary Current brings cold water from the northern Atlantic to the latitude of its namesake islands, then feeds the North Equatorial Current, much like the California Current does in the Pacific Ocean. The chilly Peru Current, 100 miles wide, flows north in the Pacific Ocean, offering a highway for migrating sea life. Perhaps the most famous was the first to be identified, the Gulf Stream, which is equivalent to a thousand Mississippi Rivers gushing forth from the warm Gulf of Mexico and Caribbean Sea, skirting North America, making Bermuda balmy year-round, even when the coast of the Carolinas, 500 miles to the west, is frigid. The largest of them all is the Antarctic Circumpolar Current, or West Wind Drift, which flows clockwise around the frozen continent, a band of constantly moving seawater 13,000 miles (21,000 km) in circumference, with a volume equal to 100 times the combined capacity of all the rivers on the planet!

*The Ocean Reader* combines a present-day perspective with a broad approach and consciousness of future implications. It serves as an introduction to the multifaceted Ocean, which is an enormous and very complicated system. Humans interact with that system in many ways. They relentlessly hunt sea creatures, taking 90 million tons of fish from it annually. They use it as a highway, with 100,000 ships at sea right now. They study it, find inspiration in it, play on it, and fight over it.

This anthology samples a variety of approaches to understanding the sea, reflecting what might be called the new Ocean history. Kären Wigen introduced this reinvigorated field to the readers of the *American Historical Review* in a special issue called “Oceans of History” in June 2006. She said, “Maritime scholarship seems to have burst its bounds; across disciplines, the sea is swinging into view.” Environmental science, social history, marine ecology, and other approaches have combined to transform the field of maritime studies.

*The Ocean Reader* includes many forgotten or overlooked gems of maritime writing, as well as previously unpublished selections from manuscript sources, from around the world. While the majority of the selections come from sources in English, and many have to do with topics touching on the United States, the balance of the entries come from non-English sources and have to do with other cultures and countries.

Ocean is capitalized in this book. This deviation from conventional style is intended to claim a formal name for that vast place within the realm of World History, as if it were a country or a continent. The stylebook spelling of “ocean” diminishes it as a geographic reference. To capitalize Ocean is to

challenge the conventional wisdom that the seas can be taken for granted. They cannot.

*The Ocean Reader* is organized thematically into twelve parts. Each part consists of selections that range chronologically from the earliest applicable period to the most contemporary. The themes are, basically, as follows: tales of the Ocean's origin, ancient seafaring, exploration, fishing and whaling, warfare, piracy, transportation, survival, religious and artistic inspiration, recreation, marine science, and the dire present and future plight of the Ocean. These categories overlap and intertwine along manifold lines, to the extent that a large proportion of the entries could easily fit into more than one part. Each of the parts could stand alone as a book of its own, a thick volume, even a trilogy, or a series of books, for that matter, because the literature concerning each topic is so vast and rich. It has been an impossible task to choose the perfectly representative sample, one that could be printed as a manageable volume, from this Ocean of words.

However incomplete this Reader must be for that reason, the most important part is the last. It concerns the compounding environmental disasters taking place in the Ocean right now, which are mainly being ignored. Everyone should be aware of this information, because we all depend on the Ocean, which is in trouble.

#### 4 *Introduction*