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# BY THE SEA

LIFE ALONG THE COAST

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PRESTEL

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No single yard of the seafront is like the other. The power of the surf changes rockfaces, bay areas and lagoons.

#### A FEW WORDS TO START

## WHERE SEA AND LAND COME TOGETHER

Everyone loves the coast. This place between land and sea created by wind and waves is the most desirable environment on our planet.

Today, one third of all people already live close to the sea. The bulk of all fish are found in shallow coastal waters. Birds find their breeding grounds and feeding areas there. Turtles swim for thousands of miles just to lay their eggs on a specific beach. And we too are drawn to the sea, as you will see in this book.

Let's set sail and go on a journey to the world of seacoasts! We'll see how the first continents took shape over three billion years ago, how sea travel developed over the centuries, and



The coastline throughout the whole world totals about 370,000 miles.

Over thousands of years, sea spray has ground large boulders down to sand.

We probably get the word coast from the French word *côte*, which can also mean slope.

how rising sea levels put stress on our coasts today. From ocean to ocean, we'll sail around the world – always in sight of land and with views of steep cliffs, soft beaches, busy harbors, tidal flatlands and colorful corals and mangroves. Along the way, we will encounter fantastic sea monsters, legendary lady pirates, the odd fisherman or two, freshly tattooed sailors and a sloth in the Brazilian coastal rain forest. We'll visit the English seaside resort of Brighton, stop off for a chat at Hansen's harbor store, surf the

waves off Hawaii, and celebrate the birthday of the elephant-headed god Ganesha on the beach by Mumbai.

Most importantly, we'll discover how closely linked the futures of people all over the world are to these beautiful coastal areas – places where there is always something to see and do!



### 4.6 BILLION YEARS AGO

Our solar system developed. The young, red-hot Earth was formed by rocks.



### 4 BILLION YEARS AGO

Earth's crust slowly cooled down. It rained for millions of years until the Earth was covered by one ocean.



### 230 MILLION YEARS AGO

The supercontinent Pangea broke up and formed the continents we know today. Dinosaurs inhabited the Earth for 170 million years.



### 15 MILLION YEARS AGO

Coasts and oceans reached their present shape. Mammals dominated the landscape, among them highly evolved apes.

## FIRE, WATER, LIFE

# FROM THE BEGINNING

Let's look at what has happened so far. Our story begins about 4.6 billion years ago. The solar system had just come into being and the undeveloped Earth was still scorching hot. As it gently

cooled down, the most violent vapors erupted, forming a protective atmosphere around the Earth and a giant ocean. The first continent and the very first coastlines appeared. Through simple chemical reactions over millions of years, tiny protozoa – the first life forms – developed deep in the sea. Nobody was in a rush at that point in time. Evolution just developed at its own pace – and with success! Two and a half billion years later, the ocean had become full of