



The contributions of Andrea Wulf, Juan Pimentel, Sandra Rebok, Jaime Labastida, and Miguel Ángel Puig-Samper, among many others, are behind this story of the journeys of Alexander von Humboldt.

The journal “quotes” in the book are not actually by Humboldt, but they capture the spirit of this extraordinary, visionary scientist. They reflect both his experiences and his emotions.

The scales on the maps provide an approximate idea of the distances traveled or the altitudes climbed by Humboldt on his journeys and expeditions.



Rocío
Martínez

*Alexander
von
Humboldt*

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of
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and BEYOND

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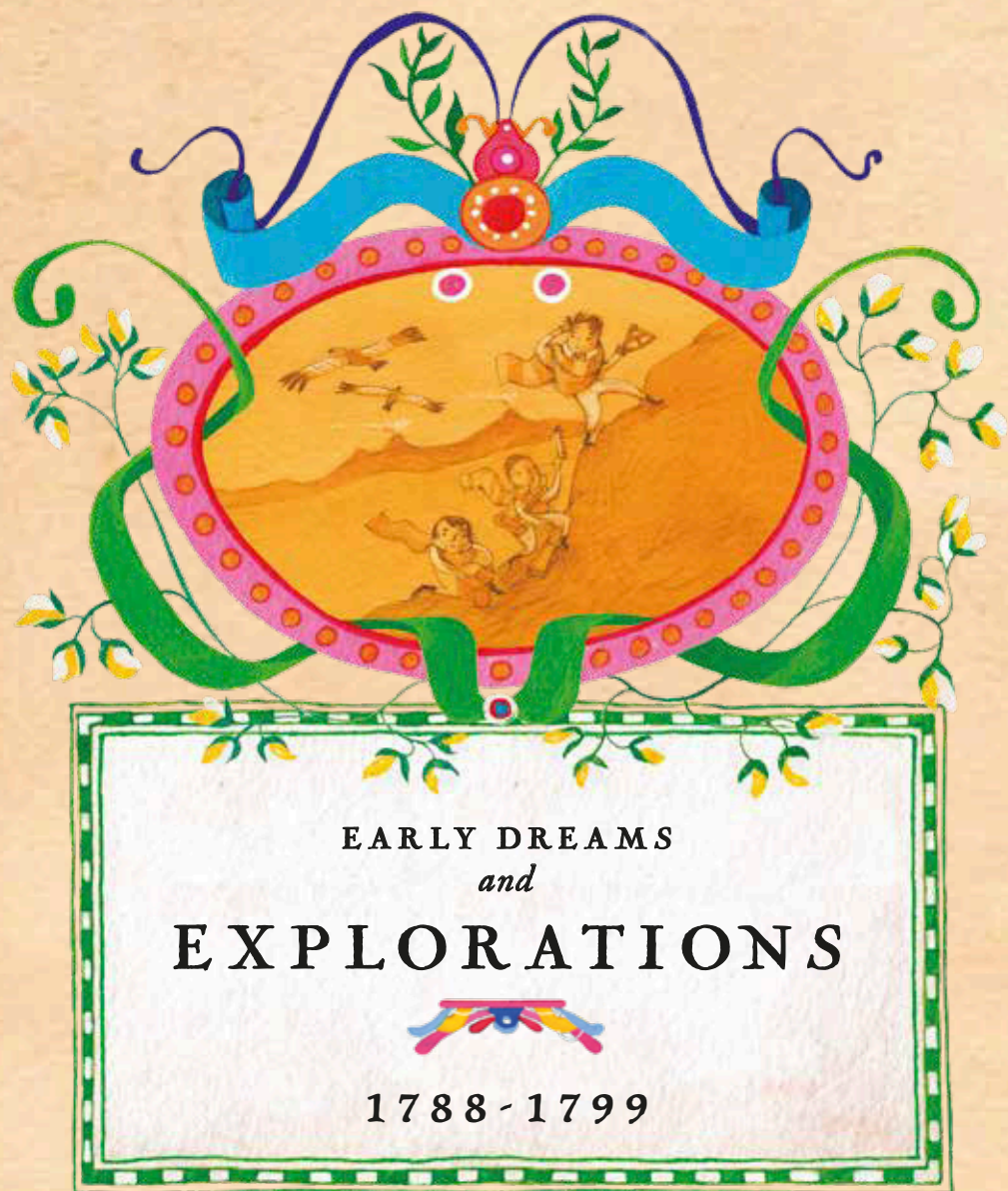
Alexander von Humboldt

"You must experience nature—measure it, quantify it—even through your emotions."
A. v. H.

Explorer and scientist, naturalist and geographer, geologist and inventor, the Prussian aristocrat Alexander von Humboldt learned from an early age to observe nature. Restless and tenacious, he traveled thousands of miles to study the natural world, taking measurements and testing theories. Sometimes he was wrong, but most of the time he was right. Alexander collected samples of plants, animals, minerals, and an endless amount of knowledge, which he wrote down in his field notebooks and journals.

After returning from his journeys, Humboldt would hold lectures and write about his experiences in articles and books. His most important works are *Personal Narrative of a Journey to the Equinoctial Regions of the New Continent* (1799–1804), written with Aimé Bonpland, and *Cosmos: A Sketch of a Physical Description of the Universe* (1845–1862). British naturalist Charles Darwin numbered among the thousands of his enthusiastic readers.



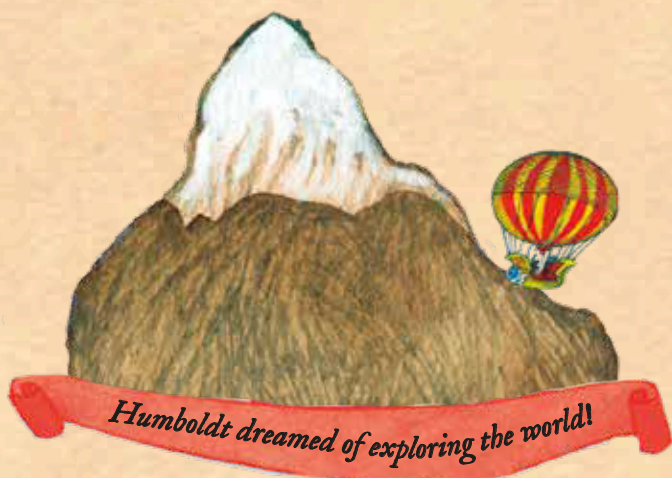


Humboldt's first encounter with travel was through maps. When he was 6 years old and living at Tegel Palace in Berlin, his tutor, the eminent teacher Joachim Heinrich Campe, would allow Humboldt to look at the maps only when he had finished his economics and Latin lessons.

The journals of explorers who had circumnavigated the world, such as Captain James Cook (1728-1779) and the Louis Antoine de Bougainville (1729-1811), encouraged him to dream of setting foot in unknown and unexplored places.

But before setting off on adventures, he still had to educate himself, studying subjects such as botany and zoology, learning languages, and meeting people willing to support his projects. In 1788, Humboldt enrolled at university and began traveling around Europe. He visited different places in Germany, as well as Flanders (now part of Belgium), the Netherlands, and England.

Searching for new sources of knowledge was in the spirit of the age. To expand, confirm, and correct what was then known became Humboldt's calling. And although he was unable to join any of the great scientific expeditions of the age, his ambitions were beginning to become a reality.



ALEXANDER von HUMBOLDT

EXPLORER of NEW WORLDS

The Young Alexander

Humboldt was born in Berlin in 1769 into a noble Prussian family. He grew up during the Age of Enlightenment, when knowledge and empirical evidence were adopted as tools for understanding the world. That is why he wrote down, calculated, and classified everything!

From a very young age, Alexander went on long hikes into the mountains. There he collected plants and minerals, calculated the atmospheric pressure, and took measurements. These outings prepared him for the high peaks around the world he would climb one day.

Alexander studied at the Mining Academy in Freiberg (a German city in Saxony) and became a mines inspector there. The job allowed him to travel.

He lived in various German cities and in France, and eventually traveled around Europe and the Americas. Along the way, he met many famous people.

Alexander wanted to explore the world. And in time, he would! One of the expeditions that would make him most famous was climbing Chimborazo (1802), a volcano in the Ecuadorian Andes, then thought to be the highest peak on the planet.

He was very determined and daring. Although he tried to join some of the great scientific expeditions of his time, for an assortment of reasons he never did and had to finance his trips out of his own pocket.

CLIMBING CHIMBORAZO

Peak: 20,548 feet

A little more than 1,000 feet from the summit, an insurmountable crevasse forced them to put an end to their ascent.

At 15,420 feet, the porters abandoned the expedition.

At 13,450 feet, they had to abandon their mules.

The highest altitude ever reached before Humboldt: 9,840 feet (in a balloon)

Humboldt and the French botanist Aimé Bonpland made history in 1802 with their expedition to Chimborazo, then thought to be the top of the world. They wanted to measure the volcano and document the plant species. They faced many challenges. But despite the intense cold and not reaching the summit, Humboldt still measured the altitude they had reached with a barometer. Bonpland made a note: 19,412 feet. It was the highest known point reached at that time!

Freiberg, June 23, 1791

"Soon I'll finish my mining studies and then finally be able to travel and visit 'real' mines! I hardly have time to observe the effect that the lack of light has on plants, but it fascinates me to study them. In the morning, I descend the shaft and learn about its construction and the methods of working the mine (which seem antiquated), and I collect samples. Then I run to class and learn a lot about geology."

DESCENT into the GERMAN MINES

VOYAGES of JAMES COOK

1768-1771
Ship: Endeavour
1772-1775
Ship: Resolution
1776-1779
Ship: Resolution

VOYAGES of COUNT de BOUGAINVILLE

1766-1769
Circumnavigation of Bougainville

MALASPINA EXPEDITION

1789-1793
Outbound Journey
1793-1794
Return Journey

Khufu: 454 feet
Khafre: 448 feet

Menkaure: 200 feet

Sphinx of Giza: 66 feet

Base: 0 feet

Tegel Palace,
November 8, 1776

"Since I learned my arithmetic lesson, my tutor has left me with another map! My finger follows the route of Bougainville's voyage around the world. How challenging it must have been! An excellent naturalist traveled with him, Jeanne Baret, the first woman to circumnavigate the globe. (She did it disguised as a man!) When I grow up, I want to travel too. When I learn English, I will read about Captain James Cook's exploits. Like the great explorers, I have started collecting plants and stones. I keep them in jars in my room. My mother calls me her 'little apothecary'!"

BAUDIN EXPEDITION

1800-1803
Baudin

The Great Scientific Expeditions of the Era

British explorer James Cook made 3 expeditions to the Pacific (1768-1779). He was the first European to set foot on the Hawaiian Islands and the eastern coast of Australia. He explored the Antarctic Ocean and was the first to circle New Zealand.

Italian explorer Alejandro Malaspina undertook a political-scientific expedition through the Americas, Asia, and Oceania (1789-1794) that discovered many unknown species, bringing back plant and animal specimens.

Louis-Antoine de Bougainville, captained the first French expedition to circle the world (1766-1769). In Brazil, the botanist Jeanne Baret collected the bougainvillea flower and named it after their commander.

In 1798, on his trip to England, Humboldt met Bougainville, who proposed he join the expedition to Australia that he was planning with Nicolas Baudin. However, the expedition could not take place due to lack of funds.

Humboldt also tried to join the scientific expedition that accompanied French general Napoleon Bonaparte in his campaign across Egypt. But there were problems with the ship that was to take him from Marseille to Algiers, so he could not enlist.