

The Forgotten Father of Environmentalism

Alexander von Humboldt revolutionized the Western conception of nature by describing it as an interconnected living web—and in doing so, inspired thinkers from Darwin to Thoreau.

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Dec 23, 2015



Alexander von Humboldt and Aimé Bonpland at the foot of the Chimborazo Volcano Friedrich Georg Weitsch

On September 14, 1869, 25,000 people marched through New York to celebrate the centennial of the birth of German scientist Alexander von Humboldt. Manhattan's cobbled streets were lined with flags and even the ships on the Hudson River were garlanded in colorful bunting. By early

afternoon the revelers had assembled in Central Park where a large bronze of Humboldt was unveiled. Though Humboldt had died 10 years previously, he was still the most celebrated scientist of his age. There were street parades everywhere in the United States, from San Francisco to Philadelphia, and from Chicago to Charleston, but also across the world in Australia, Germany, Mexico, Russia, and Egypt.

Almost forgotten today—at least in the English-speaking world—in his day Humboldt was described by Ralph Waldo Emerson as the most famous man after Napoleon and “one of those wonders of the world.” His name still lingers everywhere from the Humboldt Current running along the west coast of South America to the Humboldt penguin. In North America alone there are four counties, 13 towns, a river, bays, lakes, and mountains named after him—and the state of Nevada was almost called Humboldt when its name was debated in the 1860s.

So who was this man? Alexander von Humboldt was born in 1769 into a wealthy Prussian aristocratic family, but he later left his life of privilege to explore Latin America for five years—a voyage that made him legendary across the world. Humboldt threw himself into physical exertion, pushing his body to the limits. He ventured deep into the mysterious world of the rainforest in Venezuela and crawled onto narrow rock ledges at a precarious height in the Andes to see the flames inside an active volcano. Even as a 60-year-old, he traveled more than 10,000 miles to the remotest corners of Russia. He was curious, charismatic, and incredibly restless—impelled by a “perpetual drive,” he admitted, as if chased by “10,000 pigs.”

He risked his life many times, experimented on his own body to learn more about the world and believed that knowledge had to be shared and made accessible for everybody. He was handsome, adventurous, and worked at a frenzied pace—fueled by his love for nature and science but also by large amounts of coffee which he called “concentrated sunshine.”

Humboldt visited Thomas Jefferson in Washington and briefed the president

on Mexico and South America. He called himself for the rest of his life “half an American,” but was a staunch abolitionist. He lived in Paris and Berlin where he became the center of scientific inquiry. He was so famous that Parisian cab-drivers didn’t need an address, just the information “chez Monsieur de Humboldt” to know where to take visitors.

Humboldt inspired thinkers, writers, scientists, and poets alike. Thomas Jefferson remained a lifelong friend and pronounced him “the most scientific man of his age,” while Simón Bolívar called him the “discoverer of the New World.” Charles Darwin said that Humboldt was the reason why he boarded the *Beagle*, and Germany’s greatest poet, Johann Wolfgang von Goethe, declared that spending a few days with him was like “having lived several years.”

Humboldt helped Henry David Thoreau find an answer to his dilemma on how to be a poet and a naturalist—*Walden* would have been a very different book without him. Walt Whitman wrote his celebrated poetry collection *Leaves of Grass* with a copy of one of Humboldt’s books on his desk and John Muir’s ecological thinking was heavily influenced by Humboldt. Even Captain Nemo in Jules Verne’s famous *Twenty Thousand Leagues Under the Sea* is described as owning Humboldt’s complete works.

Humboldt revolutionized the way Westerners see the natural world. As I explain in my book [*The Invention of Nature*](#), he came up with the idea that nature was a web of life and described Earth as a living organism. Everything was part of this “never-ending activity of the animated forces,” Humboldt wrote. Nature was a “living whole” where organisms were bound together in a “net-like intricate fabric.” Nothing, not even the tiniest insect or fleck of moss, was looked at on its own. “In this great chain of causes and effects,” Humboldt said, “no single fact can be considered in isolation.” When nature is perceived as a web, its vulnerability also becomes obvious. Everything hangs together. If one thread is pulled, the whole tapestry might unravel.

After he saw the disastrous environmental effects of colonial plantations—

cash crops, monoculture, irrigation, and deforestation—in Venezuela in 1800, Humboldt became the first scientist to talk about harmful human-induced climate change. Deforestation made the land barren, he said, and with the disappearance of brushwood, torrential rains washed away the soils, while water levels of lakes were falling. Humboldt was the first to explain the forest's ability to enrich the atmosphere with moisture and its cooling effect, as well as its importance for water retention and protection against soil erosion.

At the Rio Apure in Venezuela, Humboldt commented on the devastation caused by the Spanish who had tried to control the annual flooding by building a dam. To make matters worse, they had also felled the trees that had held the riverbanks together like “a very tight wall,” with the result that the raging river carried more land away each year. At the Venezuelan coast, Humboldt noted how extensive pearl fishing had completely depleted oyster stocks. He warned that humans were meddling with the environment and that this could have an unforeseeable impact on “future generations.” It was all an ecological chain reaction.

“Everything,” Humboldt later said, “is interaction and reciprocal.” Towards the end of his life, he even prophetically warned about deleterious gas emissions at industrial centers. There were moments when he was so pessimistic that he painted a bleak future of voyages into space, when humans would spread their lethal mix of vice and greed even across other planets.

All this makes Humboldt the forgotten father of environmentalism and it's time to remember him again. In a time when scientists are trying to understand and predict the global consequences of climate change, Humboldt's interdisciplinary approach to science and nature is more relevant than ever. He refused to be tied to one discipline and insisted that all and everything was linked—humans, land clearing, plants, oceans, geography, atmospheric changes, temperature, and so on. Humboldt's nature was a

global force.

Even Humboldt's historic data is still important today. In September, a group of scientists published an article in *Proceedings of the National Academy of Sciences* which analyzes the effects of climate change on alpine vegetation. They used observations that Humboldt collected on Chimborazo, a volcano in Ecuador, in June 1802. Retracing Humboldt's ascent of the volcano, they proved that during the past 210 years, the plants have moved upwards by an average of 500 meters, in tandem with glacier retreat and increased temperatures. Chimborazo (then believed to be the highest mountain in the world) had been elemental to Humboldt's vision of nature—it was here that his concept of nature as one of global patterns clarified.

Humboldt was a prescient proto–environmentalist and should be restored in the pantheon of nature. He was, after all, as one contemporary said, “the greatest man since the Deluge.”

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