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## Humboldt in the New World

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Feature

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Humboldt in the New World

Alexander von Humboldt's journey to becoming the preeminent scientist of his day had many possible starting points. But July 16, 1799, the day that he, a Prussian naturalist, and his friend Aimé Bonpland, a French botanist, disembarked from the *Pizarro* in the South American city of Cumaná, capital of Nueva Andalucía, is as good as any.

From Europe, the explorers carried the finest scientific equipment available and something even more valuable: Spanish passports. A boon rarely awarded to foreigners, the documents assured them safe passage through Spain's New World viceroyalties and allowed them to "make astronomical observations, measure the height of mountains, collect whatever grew on the ground, and carry out any task that might advance the Sciences."

Crucially, the imprimatur of the Spanish government also guaranteed the support of local officials for a scientific adventure that would take Humboldt and Bonpland through what is now Venezuela, Colombia, Ecuador, Peru, Mexico, and Cuba. What they learned about the physical landscapes, peoples, and economies of Spanish America, especially the little studied interior of South America, advanced the world's knowledge of the region and transformed how Europeans perceived the New World.

Humboldt's original plan had been to go first to Cuba, but a chance decision put him in Cumaná on the coast of Venezuela. In his *Personal Narrative of a Journey to the Equinoctial Regions of the New Continent*, Humboldt recounted that illness had struck the *Pizarro* as it approached the West Indies, killing one young man from Asturias.

"Though it had not been proved that the fever was contagious I thought it more prudent to

disembark at Cumaná,” he wrote. “We spent a year in this part of the world. Had not the fever broken out on board the *Pizarro* we would never have explored the Orinoco, the Casiquiare and the frontiers with the Portuguese possessions on the Río Negro.” These explorations would put to rest a European debate over whether there really was a waterway connecting the Orinoco and Amazon river systems. In 1745, the French explorer Charles Marie de La Condamine, who had mapped the Amazon basin, reported that a Jesuit priest told him of using the Casiquiare to connect to the Río Negro, a tributary of the Amazon, but intellectuals who had never left Europe disputed La Condamine’s claim.

When Humboldt landed in South America, he was twenty-nine and had already made a name for himself through his geology and botany writings. Well educated and well connected, the young aristocrat traveled in the same intellectual circles as Schiller, Goethe, and Moses Mendelssohn. Humboldt and his older brother, Wilhelm, studied at the University of Göttingen, and, before joining the Prussian Department of Mines, the younger Humboldt trained at the Freiberg School of Mines in Saxony.

Following his mother’s death and the receipt of his inheritance, Humboldt left his government position to pursue the traveling scientist’s life. Greatly influenced by Georg Forster, a friend from Göttingen, who had circumnavigated the globe on Captain James Cook’s second voyage, and spurred by what he called “an uncertain longing for what is distant and unknown,” Humboldt tried for two years to join a government-sponsored research expedition.

Opportunity after opportunity fell through, and travel became harder to arrange as Napoleon Bonaparte’s grasp on the Continent tightened. Finally, in March 1799, Humboldt convinced Spain’s monarchs to allow him—using his own money—to explore their colonies. Their permission launched the first inland exploration of South America since La Condamine’s.

Before leaving from the Spanish port of La Coruña, Humboldt had written to Karl Freiesleben, a friend from his mining-school days. With characteristic enthusiasm, he said, “I shall try to find out how the forces of nature interreact upon one another and how the geographic environment influences plant and animal life. In other words, I must find out about the unity of nature.”

To attempt such an ambitious scientific synthesis, Humboldt would need a vast amount of anthropological, archaeological, astronomical, botanical, climatological, economic, geological, geographical, and zoological data. Fortunately for him, Humboldt lived at a time when advances in the natural sciences and improvements in instrumentation made it possible to contemplate a scheme that would be grandiose even with twenty-first-century equipment and knowledge.

During his five years in Latin America, Humboldt marked the course of rivers, measured mountains, recorded the vocabulary of indigenous languages, studied the artifacts of the Aztec and other civilizations, and collected economic data, most notably in Cuba. To get what he was after, Humboldt traversed vast *llanos* inhabited by desperadoes and paddled wild waterways in a forty-foot canoe crammed with twelve men, monkeys, a mastiff, and equipment that included chronometers, barometers, telescopes, thermometers, eudiometers, compasses, sextants, magnetometers, dipping needles, and reference materials. In the Cordillera de los Andes, Humboldt walked along roads traveled centuries before by the Inca and climbed nearly to the top of Mount Chimborazo, reaching a dizzying height of more than 19,000 feet.

With its volcanoes and waterfalls, crocodile-infested waters and jungles, the interior of South America provided plenty to marvel at and much to fear. Humboldt received a shock from an electric eel and nearly poisoned himself with curare, a plant-derived toxin used by

Amazonian Indians to bring down prey. Bonpland had to save him from a near drowning because Humboldt could not swim, and, when he was uncomfortably close to a jaguar,

Humboldt noted, "There are moments in life when it is useless to call on reason." Although scared, he remembered to walk—not run—away.

Humboldt's New World adventure ended in 1804 with a visit to the United States, where he was feted in Washington and Philadelphia. The connections he made there—among them Thomas Jefferson and James Madison—were added to a growing network of international correspondents, who kept him abreast of all things scientific in Europe and the Americas.

Instead of going home to Berlin, Humboldt joined the large community of scientists in Paris and set about the monumental task of putting his findings on paper. His decision to write mainly in French was a smart one, says Vera Kutzinski, professor of comparative literature at Vanderbilt University and director of the Alexander von Humboldt in English Project. "He would have limited himself pretty dramatically if he had written only in German."

A polymath who needed little sleep, Humboldt embarked on a suitably expansive publishing career. He wrote, he drew, he devised maps and charts and whatever else was needed. An obsessive reviser, he brought out *Voyage to the Equinoctial Regions of the New Continent* in twenty-nine lavish folio editions and numerous smaller abridged editions between 1805 and 1834. Armchair explorers lapped up his adventures, and poets, presidents, and painters sought out his books, delighting in writings that reflected the crispness of Enlightenment thought, a Romantic sense of the sublime, and the values—though not the bloodshed—of the French Revolution.

Humboldt's books were packed with new intelligence. His *Political Essay on the Kingdom of New Spain* is a broad survey of Mexico, including maps. "For forty years it guided a succession of exploring expeditions into what would become the American Southwest," says Laura Dassow Walls in *The Passage to Cosmos*.

The *Personal Narrative*, which Humboldt wrote at the behest of admirers, is about as close as readers would get to the inner Humboldt. Friendly and sociable—one contemporary went so far as to say he had mastered "the art of talking to perfection"—the explorer was also "an intensely private person," who notably destroyed much of his personal correspondence, writes Aaron Sachs, author of *The Humboldt Current*.

In writing his *Personal Narrative*, Humboldt strove for "a high-minded scientific decorum that forbade him from violating anyone's privacy, including his own. It would not do to spill his emotions all over the paper," says Walls. So, a not-so-personal *Personal Narrative*, yet the book served as the definitive guide for other intrepid spirits. "If you really want to have a notion of tropical countries, study Humboldt," wrote Charles Darwin, who knew parts of the *Narrative* by heart.

Darwin may well be the most famous of Humboldt's scientific devotees, but Humboldt's capacious understanding of the natural world and commitment to collecting vast numbers of data points and, most important, finding meaning in them, drew legions of admirers, among them Charles Lyell, Louis Agassiz, Franz Boas, and Samuel Morse. So great was Humboldt's influence, the middle years of the nineteenth century are now considered the era of Humboldtian science.

Latin Americans and Europeans are more likely to know of Humboldt's legacy than people in the United States, where place names—among them, Humboldt Avenue in Milwaukee; Humboldt, Tennessee; Humboldt River, Nevada; and Humboldt County, California—are the main reminders of the man considered by many to be the father of modern geography. His

star may rise again with the efforts of the Alexander von Humboldt in English project.

Kutzinski and her colleagues are preparing key parts of *Voyage to the Equinoctial Regions of the New Continent* for publication by the University of Chicago Press. *Political Essay on the Island of Cuba*, which was edited by Kutzinski and the University of Potsdam's Ottmar Ette, came out in 2010, and this January *Views of the Cordilleras and Monuments of the Indigenous Peoples of the Americas* will be released. Fully annotated and containing all sixty-nine illustrations from the French original, *Views of the Cordilleras* is the first complete English translation of this work. *The Political Essay on the Kingdom of New Spain* is also slated for future publication.

For each of his books, Humboldt wrote in a distinctive style. The *Personal Narrative*, possibly the most widely read of his works, provides adventure and a running commentary; in *Cuba*, we see an exacting scholar. Although he spends some time on description—Havana for him was one of the most pleasant and picturesque ports in tropical America—this work is laden with data tables, tracking temperature, population by race and free or slave status, export figures for rum, molasses, and sugar, and import figures for alcohol. He even made new maps of Cuba, placing towns and cities in their proper places and charting the coastline.

In *Cuba*, Humboldt wrote prolifically about the condition of slaves on the island and sought to demonstrate that slavery could not be justified even on economic grounds. "Slavery is possibly the greatest evil ever to have afflicted humanity, no matter if one focuses on the individual slave ripped from his family in the country of his birth and thrown into the hold of a slave ship or considers him as part of the herd of black men penned up in the Antilles."

Humboldt called for a gradual end to slavery and suggested that laws be enacted to equalize the populations of black men and women on sugar plantations and grant freedom to slaves who had served fifteen years. He proposed that profits be shared with slaves to give them an incentive to increase agricultural wealth and that public funds be set aside to buy slaves' freedom. Humboldt's ideas so infuriated officials in Havana that they banned his book.

Kutzinski characterizes *Views of the Cordilleras* as "Humboldt's most experimental book." Originally conceived as a picture atlas, it contains a collection of shorter pieces that can be read as stand-alone essays rather than as a continuous narrative. In some essays in *Views*, Humboldt delights his readers with stories like that of *el correo que nada* (the swimming postman). This Peruvian mail carrier regularly swam for two days down the Chamaya and Amazon to deliver letters safeguarded in a turban upon his head. "It is quite rare for this postman to lose letters or get them wet on his way from Incatambo to the residence of the governor of Jaén."

Other pieces read like extended but elegantly written scientific abstracts. In "View of Chimborazo and Carihuairazo," Humboldt addresses a seemingly dry topic: the relative sizes of European and South American peaks. After pointing out that many Andean peaks are indeed higher than Mont Blanc, the tallest mountain in the Alps, Humboldt takes a poetic turn: "On the South Sea coasts, after the long winter rains, when the air has suddenly become more lucid, Chimborazo appears to the observer like a cloud on the horizon; it stands out from the neighboring peaks; it looms above the entire Andes range just as that majestic dome, Michelangelo's work of genius, looms above the ancient monuments that surround Capitoline Hill." It is the sort of description that spurred artists like Frederic Edwin Church southward to paint.

Throughout his works, Humboldt was always tossing around fresh ideas. For instance, in his *Essay on the Geography of Plants*, Humboldt painstakingly described which plants were found at particular elevations on Mount Chimborazo, anticipating the field of plant ecology.

Today, it seems patently obvious that it is important to know how organisms are distributed in ecosystems, if only to meet agricultural, silvicultural, and conservation needs. But Humboldt encouraged his readers to think about big-picture biogeography over time. In *Views*, he wrote, “The unequal distribution of animals across the globe has had a profound impact upon the lot of peoples and their more or less rapid march toward civilization.”

Humboldt’s foundational assumption, according to Walls, is that “neither humans nor nature can be understood in isolation.” For him, “nature was never merely background but played an essential role in the development of human societies.”

Again and again, Humboldt challenged European notions about a continent that to some degree had been shaped by people who had never set foot in South America. He was up against a prevailing view that the Americas had no history to speak of, says Kutzinski. There were people who believed that the continent had only risen in relatively recent geological terms and that its lands were inhabited by uncultured hordes.

Humboldt argued that the old and new worlds are the same geological age. The “same succession of rocky layers” appears in both hemispheres, he wrote. “The micaceous schist, or the different gypsum and sandstone formations in the mountains of Peru date from the same periods as their counterparts in the Swiss Alps. The entire globe appears to have experienced the same catastrophes.”

In *Views of the Cordilleras*, Humboldt drew on his own travel observations, information from European collections and archives of the Spanish viceroalties, the *relaciones* of the conquistadors, and histories created by Mestizo and Nahua writers to comment on the Mesoamerican world. Hieroglyphs, costumes, myths, Aztec genealogies, and languages all caught his attention, and calendars were, as Humboldt said, “among all the monuments that seem to constitute evidence that the peoples of Mexico had attained a certain degree of civilization by the time of the Spaniards’ arrival.” About an Inca trail in Peru, Humboldt said, “this roadway can be compared with the most beautiful Roman roads.”

A self-conscious European “unlikely to go native,” as Kutzinski puts it, Humboldt did not fully embrace everything he saw, but he argued for the relevance of Latin American culture. His statement that “we no longer consider as unworthy of our attention anything that diverges from the style that the Greeks bequeathed to us through their inimitable models” can be seen as a direct challenge to the European sense of cultural superiority.

When Humboldt began his explorations, he faced what Walls called “a wall of ignorance in Europe and North America alike of the most basic realities of Spanish America, its peoples, and cities no less than its geology and geography, flora and fauna.”

His Latin American writings broke down that wall by providing factual information. Just as important, Humboldt’s methods of doing science influenced a number of significant U.S. ventures, among them the Wilkes expedition to study the Pacific, Joseph Nicollet’s mapping of the Upper Mississippi, and John Charles Frémont’s explorations of the Rockies and California. At the end of the nineteenth century, John Muir, a great admirer of Humboldt, joined the railroad magnate Edward Harriman’s expedition to study Alaska.

Despite the fame he gained from his southern forays and the influence he wielded, Alexander von Humboldt was broke by 1827, made penniless covering book production costs. Forced by financial necessity, he left Paris to take a position in King Frederick Wilhelm III’s service. During his Berlin years, Humboldt continued fieldwork—this time in Russia—and worked on *Cosmos*. The five-volume masterwork that capped his career was a grand attempt to integrate methods and findings across disciplines in order to explain connections among phenomena,

the very problems he first wrestled with in South America. “He keeps coming back to the trip to the Americas time and again,” says Kutzinski. “It is a touchstone . . . it is always there, always on his mind.”

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**Author Bio**




Anna Maria Gillis is managing editor of HUMANITIES.

**Funding Blurb**

NEH has provided \$100,000 in support to Vanderbilt University for the [Humboldt in English Project](#) <sup>[2]</sup>. [Laura Dassow Walls](#) <sup>[3]</sup>, author of *The Passage to Cosmos: Alexander von Humboldt and the Shaping of America*, received a \$24,000 NEH fellowship to support her work.

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