

The Invention of Nature: Alexander von Humboldt's New World, by Andrea Wulf, Alfred A. Knopf, New York, 2015, 496 pp., ISBN-13: 978-0-385-35067-9

Although the subtitle suggests that *The Invention of Nature* is only about the New World, the book covers much more: Humboldt's early life, his trip to the new world, his attempts to visit the Himalayas stymied by the East India Company, a substitute trip to Siberia, his interactions with the scientists of his day, his publications that provided tremendous information to the general public and his later life in Berlin. The epilogue discusses one of the repercussions of WWI—the purge of everything German from many places around the world. Humboldt's current obscurity arises from his Prussian heritage and use of the German language.

I vaguely remember Humboldt as an explorer of South America from my elementary school classes – everyone learned about the Humboldt Current (at least in the US in the fourth grade in 1970). I did not realize the extent of Humboldt's travels nor his contributions to our understanding of nature. As he traveled through South America he took detailed notes and made measurements with all types of instrumentation, creating a fascinating picture of the connectivity of nature. He climbed near the summit of Mt. Chimborazo in the Andes, taking measurements all along the way in clothes that were not suitable for even a low ascent. He mapped the plant life as he ascended and ultimately correlated the types of plants he saw rising up the mountainsides with the plants one sees as one heads north from the equator to the pole.

In life Humboldt influenced the likes of Simon Bolivar, Thomas Jefferson, Ralph Waldo Emerson and Henry David Thoreau. He presented results to the Royal Society and published many works for the general public, including titles like *Personal Narrative* and *Cosmos*, bestsellers of their day.

The book does not end with Humboldt's death in 1859. After his death, his work influenced the naturalists George Perkins Marsh, Ernst Haeckel and John Muir, all of whom contributed to the creation of the national parks system in the US to preserve nature.

What Humboldt can teach us, as perhaps the first great naturalist, is that everything is connected and has a place and we need nature to survive.

Here some other interesting reads for the fall:

The Bully Pulpit: Theodore Roosevelt, William Howard Taft, and the Golden Age of Journalism by Dorothy Kearns Goodwin, Simon and Schuster, New York, 2013, 928 pages, ISBN: 978-1416547860 and *Wilson* by A. Scott Berg, GP Putman's Sons, New York, 2014, 832 pages, ISBN 978-0425270066. The first book is a dual biography of Theodore Roosevelt and William Howard Taft, while the latter book is the biography of Woodrow Wilson. These two books provide a detailed view of the American presidency for the first twenty years of the last century.



The Three Body Problem by Cixin Liu translated by Ken Liu, Tor Books, New York, 2006, 400 pages, ISBN: 978-0765377067. This is part one of a trilogy that includes *The Dark Forest* and *Death's End*. While some of the science (it is science fiction after all) is not quite right, I really enjoyed Part I and look forward to part II. The premise is that we make contact with a civilization a few light years away that wants to invade to earth, but the human race has 450 years to prepare.

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