Alexander von **HUMBOLDT** STIFTUNG

Alexander von Humboldt (1769-1859)



1|07.04.24

"Boredom Palace" – Childhood

"Here at Tegel I spent the best part of this cheerless life, amongst people who loved me, wished me well, but with whom I shared no sentience, under thousandfold constraints, a victim of solitude, in conditions that forced me to constantly dissimulate and sacrifice myself."

(Humboldt in 1792)







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An early role model: Carl Ludwig Willdenow

At age 18, Humboldt met the botanist Carl Ludwig Willdenow, who was only four years older



"What an impact this visit had on the rest of my life! He classified plants for me and I bombarded him with visits. In three weeks I was an enthusiastic botanist." (Humboldt im Jahr 1802)

Carl Ludwig Willdenow

Years of study

- 1787/88: Study of "Cameralistics" in Frankfurt/Oder
- 1789/90: Study in Göttingen, pupil of Lichtenberg
- 1790/91: Study of Finance in Hamburg
- 1790 Travel with Georg Forster; London-Bristol-Birmingham-Derbyshire-Stratford-uA.-Oxford Sir Joseph Banks, Cptn William Blight, Henry Cavendish

My unhappy circumstances force me to want what I can't have, and to do what I don't like.

• 1791/92: Study at Bergakademie Freiberg (three-year course in eight months)



Humboldt in Frankonia: Prussian Chief Inspector of Mines

- 1793: Transfer to Ansbach-Bayreuth
- Mines made profitable
- Improvement of working conditions:
 - development of safety lamps, respiratory masks
 - establishment and financing of a "Free Imperial Mining School"
- (from 1794: friendship with Goethe)



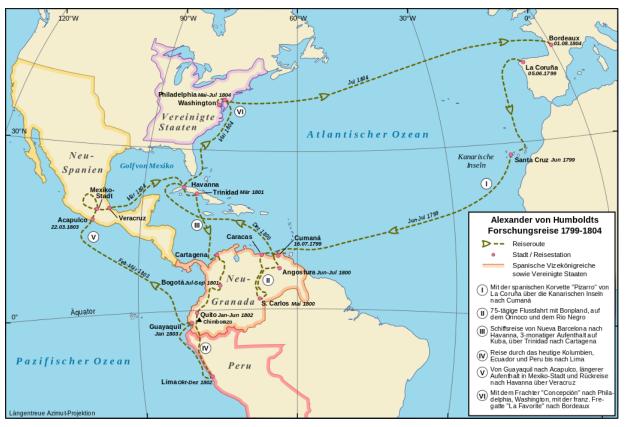
A radical break

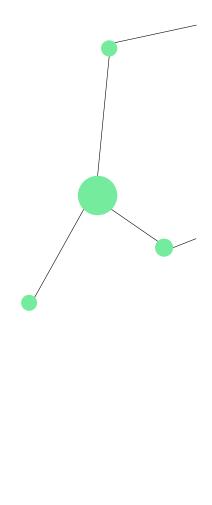
uncertainty and new departure

- 19.11.1796: Death of Humboldt's mother
- In the same year, Humboldt applies to resign from the civil service
 - to Willdenow: "My journey is unshakably certain. I shall prepare myself for a few more years, collect instruments, ... then to England via Paris, ... and then by English ship to the West Indies."
- June 1799: Sails from La Coruña on board the *Pizarro*



1799-1804: The American Journey of Alexander von Humboldt and Aimé Bonpland

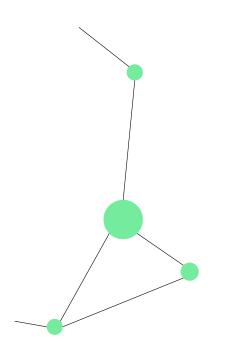




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Von Alexrk - Own work, https://de.wikipedia.org/wiki/Datei:Map_Alexander_von_Humboldt_expeditionde.svg#/media/File:Map_Alexander_von_Humboldt_expedition-de.svg





Orinoco – Rio Negro – (Amazon)

Confirmation of the Earth's most significant river bifurcation: The Casiquiare



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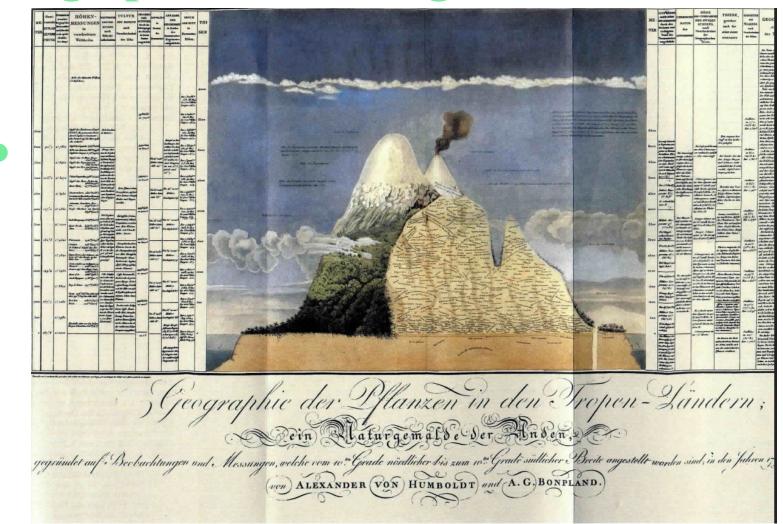
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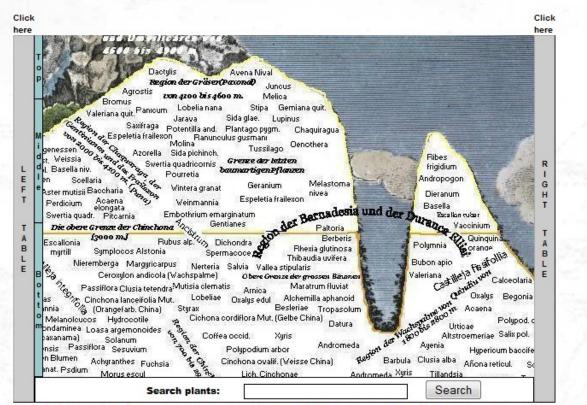
- Travelling in a dugout: Heat, mosquitoes, confinement, rapids, capsizing ...
- Thoughts about the inhuman treatment of indigenous people and black slaves
- Analysis of blackwater (humic) and whitewater (rich in minerals) rivers

A high point: climbing Chimborazo 1802



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Project: The Chimborazo Plant Geography



This is the interactive cross section through the Chimborazo vulcano, presenting the Latin names of plants, which are located in relation to areas and altitude. To get more information about those plants, just choose one of the three areas on the left border of the cross section or use the SEARCH button to find an inserted plant name. The search will check for Humboldt's descriptions in his volume "Nova Genera et Species Plantarum".

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A treasure: the diaries



Harvest of the American Journey



Leaf of the Brazil nut from the Humboldt/Bonpland collection, The Botanical Museum, Berlin

- 60,000 plant specimens
- 3,000 newly-discovered plant species
- Countless notes, drawings, rock samples
- Key results
 - Connection between animate and inanimate nature, e.g. deforestation and climate change
- Evaluation from 1804 onwards
 - 20 years, largely in Paris
 - ...Personal Narrative...

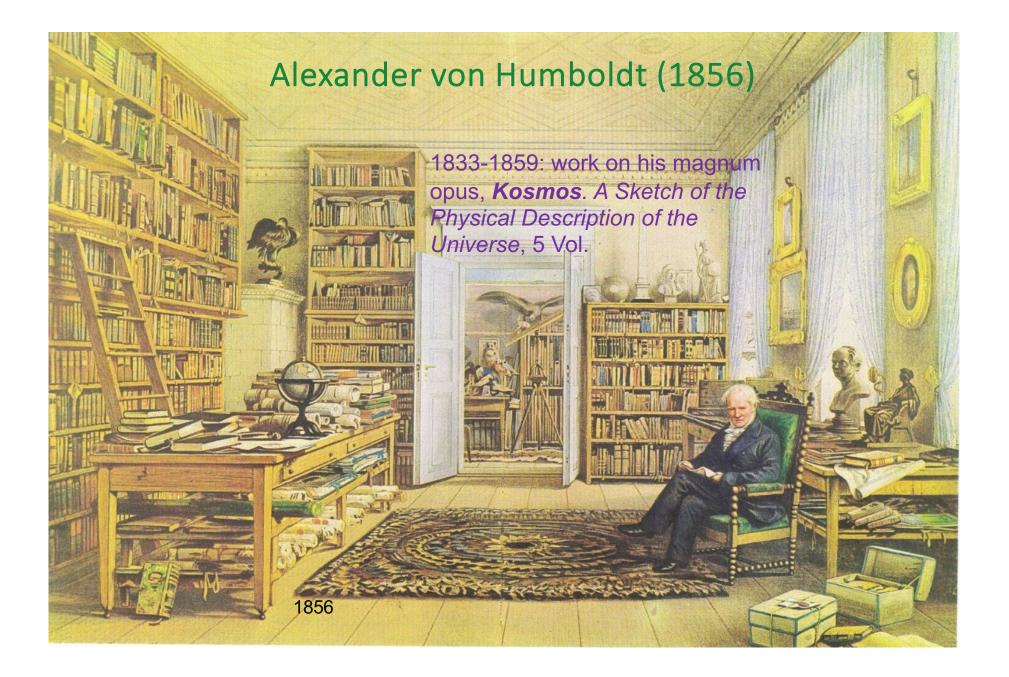
The Expedition to Sibiria Almost 6 months, 15.000 km, 12.000





©: V. Mehnert, C. Lieb, A.v.Humboldt oder Die Sehnsucht nach der Ferne, Gerstenberg 2018





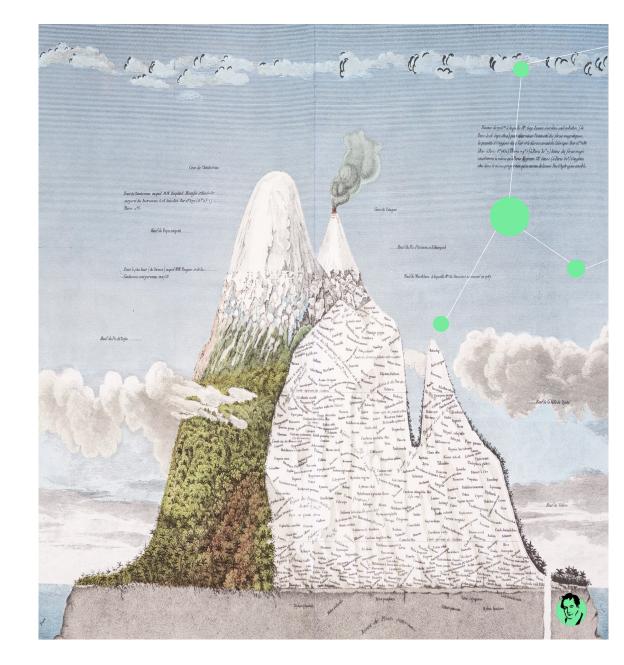


Humboldt the trendsetter: human rights, slavery and colonialism

- "While we maintain the unity of the human species, we at the same time repel the depressing assumption of superior and inferior races of men... All are in like degree designed for freedom."
- Criticised cultivation of cash crops for export instead of food production
- 1857 Law passed: "Every slave who enters Prussia is free"

Humboldt the trendsetter: methods or research

- Precise measurements: location of towns, Humboldt Current
- Insights not primarily derived from measuring but from comparing and combining
- Creating structures for research: Meteorological Institute with calibrated measurements at 35 systematically-selected locations in close cooperation with research institutions



Humboldt the trendsetter: promoting science

- Gifted or loaned objects he had collected: academic collaboration
- 1828: organised the Assembly of German Natural Scientists and Doctors 600 participants from across Europe crucial ideas for emancipating natural science from philosophy combination of networking meeting and disciplinary workshops
- Promoting young researchers (My) "works are only good if they engender better ones"
 - e.g. 1824: recommended the 21-year-old Justus Liebig for a professorship at the University of Giessen
- Communicating science: Cosmos lectures

Humboldt the trendsetter: ecology

- Paradigm shift:
 - from "nature made for the needs of human beings" to
 - "everything is interconnected"
 - Deforestation: Fichtelgebirge
 - Venezuela: Lake Valencia
 - "nature must be felt"
- *Enthusiasm* for biodiversity: Inspiration for emerging conservation movement: John Muir

