

PRESS RELEASE

BBAW/PM-02/2021

The Geography of Plants – Alexander von Humboldt’s Life Project New research on unpublished papers from Humboldt’s estate

Berlin, 28th January 2021. As early as 1794, inspired by his mentors Georg Forster (1754–1794) and Carl Ludwig Willdenow (1765–1812), a 24-year-old Alexander von Humboldt sketched out a research agenda for plant geography in a letter to Friedrich Schiller. Humboldt’s overarching plan was no less than the unification of natural and human history. The most iconic result of this research is the well-known “Physical Tableau of the Andes” (*Naturgemälde*, fig. 1), in which Humboldt depicted the natural vegetation and cultivated plants of the American tropics in their respective elevations.

It is less well-known that Humboldt spent the next decades trying to expand his early findings in tropical America into a global plant geography. The first volume of the series “edition humboldt print” from the Academy Project “Travelling Humboldt – Science on the Move” of the Berlin–Brandenburg Academy of Sciences and Humanities is dedicated to Humboldt’s unpublished manuscripts on this subject: [„Geographie der Pflanzen“](#), edited by Ulrich Päßler (J. B. Metzler / Springer Nature 2020).

The edition presents manuscripts – many of which have now been published for the first time – that show Humboldt not as a traveling researcher in the field, but rather as a scholar at his desk in Paris and Berlin. It was in these cities where Humboldt collected data from around the world in order to determine global laws of plant distribution (fig. 2). His statistical method, which Humboldt called “botanical arithmetic,” opened a new perspective into the complex biodiversity of the Earth, thereby also influencing the later work by Charles Darwin (1809–1882) on evolutionary biology.

The letters, lecture manuscripts and notes collected in this volume highlight the extent to which Humboldt’s scientific practice depended on vigorous intellectual exchange with colleagues, particularly those in France and Great Britain, as well as on

the collaboration with assistants who too often go overlooked in research on Humboldt. One of these collaborators was the Leipzig-born botanist Carl Sigismund Kunth (1788–1850), who worked in Paris to evaluate the botanical collection of Humboldt and his travel companion Aimé Bonpland (1773–1858). Together with Kunth, Humboldt planned in 1825 to undertake a comprehensive representation of plant geography of the entire world.

The failure of this ambitious book project, which has largely been forgotten today, was due in part to the flood of data that could no longer be managed with the tools of the time. More than this, however, it was Humboldt's ambition as a scientific writer to attain an elusive combination of science and aesthetics that ultimately hindered the work's completion. His aim was to use artistic means to vividly depict the physiognomy of plants and landscapes of the globe. The young landscape painter and traveler in Brazil, Johann Moritz Rugendas (1802–1858), provided early drafts of such a pictorial representation of scientific data, but these never reached a public audience during Humboldt's lifetime (fig. 3).

The materials related to this unpublished work (fig. 4) have now, for the first time, been presented in a scholarly edition, shedding light on Humboldt's views on biological research in Europe and America around 1825. Furthermore, the edited collection makes visible the fascinating scientific paperwork practices, through which the authors Humboldt and Kunth collaboratively developed, exchanged, and reworked ideas in the form of paper slips and notebooks.

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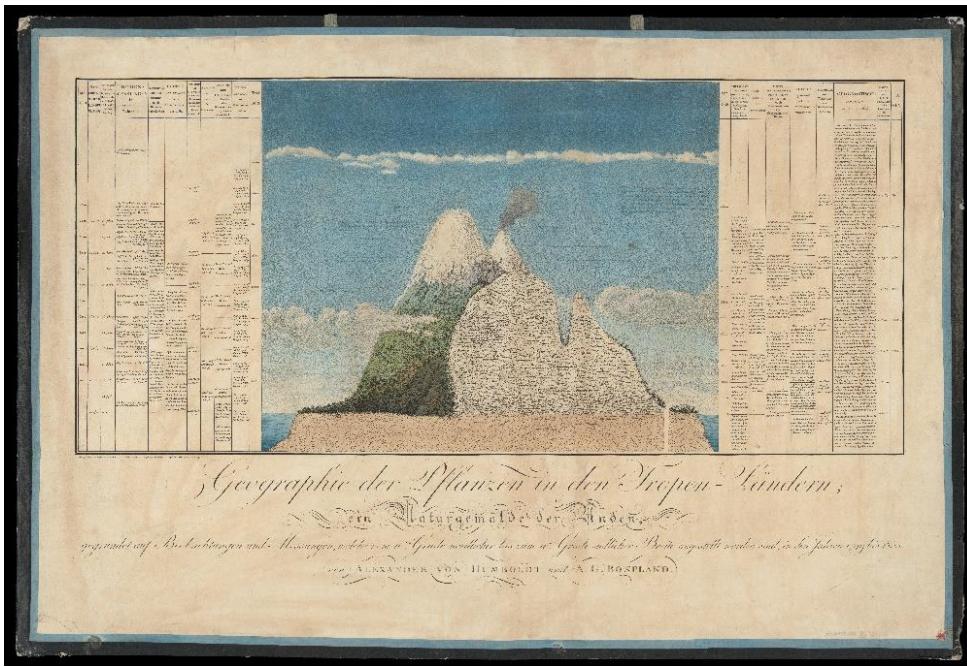


Fig. 1: Alexander von Humboldt: "Geography of Plants in the Tropical Countries; a Nature-Painting (Naturgemälde) of the Andes". In volume, figure on p. 55.

URL: https://commons.wikimedia.org/wiki/File:Zentralbibliothek_Z%C3%BCrich_-_Ideen_zu_einer_Geographie_der_Planzen_nebst_einem_Naturgem%C3%A4lde_der_Tropen%C3%A4nder_-000012142.tif

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| Individ. | 44. 11. | 4 : 1. | 2 : 19. 1 : 14. | — | — | 1 : 43. 1 : 48. | | |
| For. de Mar. | 109. 22. | 5 : 1. | 1 : 4. 1 : 7. | — | — | 1 : 17. 2 : 18. | | |
| Hypocrateas | 1460. 340. | 13 : 3. | 9 : 2. 9 : 4. | — | — | — | | |
| Astatales | 141. 47. | 3 : 1. | — | 1 : 10. 1 : 7. | 1 : 14. 1 : 10 | | | |
| Monopotales | 620. 121. | 5 : 6. | — | 3 : 7. 1 : 3. | 1 : 30. 1 : 4. | | | |
| Polyptales | 705. 163. | 13 : 3. | — | 1 : 2. 1 : 2. | 2 : 5. 1 : 3. | | | |
| Umbellatae | 86. 9 | 9 : 1. | — | 1 : 17. 1 : 18. | 1 : 22. 1 : 25. | | | |
| Coumiforae | 106. 22. | 5 : 1. | — | 1 : 14. 1 : 16. | 1 : 18. 1 : 23. | | | |
| Lemnacees | 90. 14. | 7 : 1. | — | 1 : 18. 1 : 19. | 1 : 18. 1 : 25. | | | |
| Caryophyllées | 71. 29. | 5 : 2. | — | 1 : 20. 1 : 12. | 1 : 27. 1 : 17. | | | |
| Compositae | 233. 58. | 6 : 1. | — | 1 : 6. 1 : 9. | 1 : 8. 1 : 13. | | | |
| Chionanthus | 31. 20. | 41 : 20. | — | 1 : 70. 1 : 17. | 1 : 92. 1 : 28. | | | |
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| Rubiaceæ | 73. 21. | 7 : 2. | — | 1 : 20. 1 : 16. | 1 : 46. 1 : 24. | | | |
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| Rubiaceæ | 27. 6. | 9 : 2. | — | 1 : 54. 1 : 67. | 1 : 69. 1 : 87. | | | |
| Rosaceæ | 1. 0. | — | — | 1 : 1466. — | 1 : 834. — | | | |
| Salicaceæ | 22. 1. | 92 : 1. | — | 1 : 266. 1 : 340. | 1 : 86. 1 : 497. | | | |
| Lamiac. | 2. 0 | — | — | 1 : 733. — | 1 : 962. — | | | |
| Apocynac. | 2. 0 | — | — | 1 : 703. — | 1 : 939. — | | | |
| Solanac. | 14. 0 | — | — | 1 : 103. — | 1 : 184. — | | | |
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Fig. 2: Alexander von Humboldt/Carl Sigismund Kunth: Botanical Arithmetic – Comparison of the floras of Germany and Lapland (around 1825). In volume, figure on p. 94.

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Fig. 3: Johann Moritz Rugendas: Physiognomy of vegetation – Ink drawing of a palm tree (*Elaeis guineensis*) with tamarind tree and caladium plant in foreground (1826). In volume, figure on p. 285.

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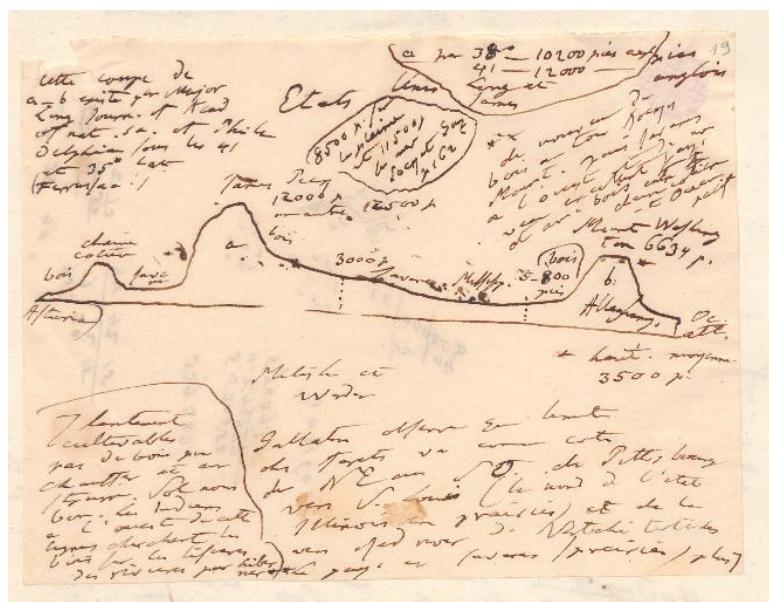


Fig. 4: Alexander von Humboldt: Materials for the new edition of Geography of Plants (around 1825) – Plant geographic elevation profile of the United States between the Pacific and the Atlantic, based on the work of Stephen Harriman Long (1784–1864). In volume, figure on p. 229.

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