

Vera M. Kutzinski, Ottmar Ette, Laura Dassow Walls (eds.)

Alexander von Humboldt and the Americas

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# Alexander von Humboldt and the Americas

Edited by Vera M. Kutzinski, Ottmar Ette, Laura Dassow Walls

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Alexander von Humboldt, 1843, Joseph Karl Stieler (1781–1858), oil on panel, 107 x 87 cm (42,1 x 34,2 in)

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### Introduction

### Alexander von Humboldt's Americas: Starting with Particulars

Vera M. Kutzinski, Ottmar Ette, and Laura Dassow Walls

To make a start, out of particulars, and make them general, rolling... —William Carlos Williams, *Paterson* 

Given that the name Alexander von Humboldt used to be a household word in educated circles throughout Europe and America in the nineteenth century (see Rupke), it is rather astonishing that such an influential body of writings, on which generations of scholars in the Spanish-, French-, and German-speaking parts of the world have long been able to draw, has largely been ignored in the English-speaking world for most of the twentieth century. This neglect has, at least in part, been aggravated by the unavailability of complete and reliable English translations of Humboldt's major works, and by the fact that significant portions of Humboldt's writings—including his travel diaries, many letters, as well as his Examen critique de l'histoire de la géographie du Nouveau Continent [Critical examination of the historical development of the geographical knowledge of the New World] (1834-38) and Asie Centrale (1843)—have yet to be made available in English. That said, interest in Alexander von Humboldt has been steadily gathering momentum in the USA and the UK in recent years. A growing number of publications and conferences devoted to Humboldt (see Cañizares-Esguerra; Godlewska; Hulme; Kutzinski; Leask; Mathewson; Sachs; and Walls 2009) have followed hard on the heels of the many new developments in Humboldt studies in Germany especially during the past decade (see Ette 2001, 2009a and b; Ette and Lubrich 2004a and b, among others).

Although most USAmerican scholars have heard of Alexander von Humboldt (though some still mistake him for his older brother, Wilhelm von Humboldt), few appear to have read his work closely. As a result, countless inaccuracies have crept into Humboldt scholarship over the years, and they have been allowed to linger both in popular and academic discourses. Not only is there considerable confusion about the parts of the

Americas that Humboldt did and did not visit. There are also assertions about Humboldt's "godlike, omniscient stance" as scientist and narrator, and criticisms of his alleged failure to speak out against slavery and other colonial practices in the Americas (Pratt, 124). Similarly, Humboldt's extensive, indeed seminal, commentaries on pre-Columbian cultures, both in Vues des Cordillères et Monumens des Peuples Indigènes de l'Amérique (1811-13) [Views of the Cordilleras and Monuments of the Indigenous Peoples of the Americas] and in the Essai politique sur le royaume de la Nouvelle-Espagne (1808-1811 and 1825-27) [Political Essay on the Kingdom of New Spain], especially his contributions to what is now known as archeoastronomy, have gone unremarked even among experts in the field (see, e.g., Aveni). While natural scientists have long appreciated Humboldt's contributions to their fields, surprisingly few anthropologists are familiar with his writings, and other social scientists and humanists are only just beginning to discover-or better, re-discover-this expansive and unclassifiable thinker.

Why, then, is it so vital to recover Alexander von Humboldt for scholarly and popular readers of the twenty-first century? There are many reasons. For one, studies of the nineteenth century are simply incomplete unless Humboldt is included as a major figure on the level of Goethe and Darwin. Indeed, recent scholars have argued that the very idea of European and trans-Atlantic modernity is unthinkable without Humboldt's writings (see Ette 2001). Consider also Humboldt's centrality to what we now call "ecology," which Aaron Sachs and Laura Dassow Walls have so eloquently uncovered (see Sachs 2003; Walls 2001; also Jackson). Ecology is, of course, a term Humboldt himself did not use, but his ideas on "the geography of plants" prefigure the concept as early as 1805 (see Humboldt 2009 for an English version). A pioneer of scientific fieldwork but hardly uncritical of strict empiricism, Humboldt used a comparative global framework for his analyses, in which he demonstrated how people, plants, animals, goods, and ideas moved across the earth's varied regions, notably in Europe, the Americas, and Asia. Humboldt's voluminous, innovative writings on the New World also made him the undisputed father of modern geography (see Harvey; Mathewson), and his descriptions and drawings, as several of this book's contributors point out, had a profound influence on landscape art across the Americas (see also Cañizares-Esguerra for a different opinion). In addition, Humboldt reframed anthropology and ethnology and redirected linguistic studies of indigenous American languages. (Although not a linguist himself, he collected materials for his brother Wilhelm, who was particularly interested in indigenous languages.) Last but not least,

Humboldt's revaluation of Native American art, especially in *Views of the Cordilleras*, helped spark a movement to reconsider the aesthetic value of non-European art that eventually led to a new, "modern" aesthetic.

But perhaps the most valuable thing about Alexander von Humboldt's writings is not that they include something for everyone, that each discipline can pick and choose from his work what it finds most relevant to its own specialized pursuits. What makes Humboldt's writings so unusual and compelling—as well as frustrating to some readers—is his penchant for relating everything to everything, which typically produces a flood of incredibly diverse observational details flung across global geographies without a straight narrative trajectory. Reading Humboldt means being pulled in several directions at once, by currents that are spatial, temporal, and disciplinary. Humboldt was trained in a host of what would later become separate academic fields and disciplines-mining and mineralogy, botany, zoology, geology, climatology, astronomy, geography, economics, history, and, of course, letters and the fine arts-and he applied all of them in his studies, seemingly at once. To resort to several anachronisms, we may say that Humboldt approached the study of natural phenomena, human cultures and societies, and the very concepts of nature, culture, and civilization, from a transdisciplinary and transareal perspective. He integrated them all, not into a seamless whole (a system or schema) but into a dynamic work of art made up of carefully balanced and interconnected moving parts-what Ottmar Ette calls a "Mobile des Wissens," a mobile of knowledge (Ette 2009b).

In the process of bringing together different layers and dimensions of knowledge, Humboldt grappled with many of the ethical and epistemological questions that have, in recent decades, moved to the forefront of humanistic (and some social scientific) scholarship. Considering Humboldt's work anew brings us face to face with large questions about the production and organization of humanistic and natural, as well as social scientific, knowledge since the late eighteenth century. Because many of our current epistemological and academic divisions did not yet exist in Humboldt's day, his own scholarly-scientific practice is a vast resource for those who seek to reconnect the human with the natural and the social sciences, being attentive to the need for a shift away from the narrow idea of a history of "science," in which "science" defaults to the natural sciences, and toward a more encompassing history of what the French call les sciences and the German Wissenschaft. Ironically enough, the global language of English is bereft of a corresponding term and has to resort to the less elegant phrase "knowledge production."

If Humboldt's writings opened up exciting cultural spaces in his time, they can certainly do so again in our own day. Of particular significance is the fact that Humboldt forged a vision of modernity whose openness toward, and abiding respect for, other peoples, combined with his resistance to cultural self-assuredness, was at odds with the dominant ideas that swent Europe during the Enlightenment and the Romantic age. His vision runs refreshingly afoul of the insistence in today's university cultures on evergreater specialization and fragmentation, even in the face of plenty of interdisciplinary rhetoric and the obvious need for collaborations across large disciplinary divides. Similarly, Humboldt's "world openness"-what one might less satisfactorily call his cosmopolitanism-might help us better address old and new conflicts that loom increasingly large at our stage of globalization. As the twenty-first century addresses the problems of intercultural violence, environmental devastation, social justice, and global climate change, the tools and perspectives Humboldt developed and popularized may offer useful resources to meet challenges that he himself already foresaw.

In Humboldt's spirit, the aim of this collection of essays and translations is to foreground the importance of multiple vantage points, contestation, and disagreement. We bring together new scholarship on Alexander von Humboldt from academic disciplines as varied as literary studies, cultural history, history of science, art history, anthropology, and political history. The effect we hope to achieve is not simulated conversation—although all contributors to this volume have actually been in dialogue with one another—but, rather, the scholarly equivalent of what Alexander von Humboldt, along with his older brother Wilhelm, liked to call "Gesamteindruck": an impression or view of a large field constituted by individual moving parts and particles.

This book is divided into two parts, each of which takes its title from the epigraph to its section. Part I, "Historian of the Americas," reflects on Humboldt casting himself in the role of a "historien de l'Amérique," by which he really meant what we now call the Americas (Humboldt 1825-27, I:305; Kutzinski and Ette 2011, 142). But Humboldt himself was hardly just a historian, certainly not in the narrower, more specialized sense in which we understand that term now, no more than he was a just a naturalist or simply an historian of the parts of the world in which he traveled. Humboldt's scale is one of global history, but he always, to borrow William Carlos Williams's words from our epigraph above, "make[s] a start/ out of particulars" (Williams, 3). Humboldt's analyses and commentaries are fundamentally rooted in local particulars, and making them "general" is a

logical consequence both of his far-flung comparative approach to knowledge production and his desire for intellectually participating in, and contributing to, a larger world—larger in a planetary sense and larger also because its benefits were to reach beyond academia into the public sphere.

If the eight essays in Part I agree on anything, it is that the disciplinary location of Humboldt's work is neither exclusively, nor even primarily, the history of science, unless by that we mean the history of ideas more broadly. In the twenty-first century, Humboldt is becoming a figure with a rather diverse following, and the direction that Humboldt studies have taken for the past two decades or so has been decidedly multidisciplinary and even transdisciplinary. His writing has attracted, and continues to attract, scholars from a host of academic disciplines in the social sciences and the humanities. Each of our contributors, then, approaches Humboldt's work from a different disciplinary location (be it cultural history, literary studies, or anthropology) and in relation to diverse geographies in the Americas (Canada, Cuba, Ecuador, Mexico, Peru, and the USA). While these varied viewpoints produce some overlapping conceptual fields, they do not create a consensus about Humboldt and the significance of his achievements. In selecting these essays, we have deliberately followed Humboldt's invitation, indeed challenge, to think across familiar disciplinary boundaries in ways that may well cause discomfort among those of our colleagues who have more of a stake in keeping things in their customary places than we do, and in keeping imagination separate from so-called historical facts.

Part II, "Of Things Natural and Unnatural," is a collection of eight excerpts from Humboldt's diary entries and letters originally written in French and German. They appear here in English for the first time. Upon reflection, we found it imperative that a collection of scholarship on Humboldt also include Humboldt's own voice—albeit refracted in translation. The particular extracts we selected and offer as resources for research and teaching resonate with the different topics the essays in Part I develop: slavery; the idea of the Tropics; fieldwork and collecting; and, of course, volcanoes. Even in these relatively brief fragments, our readers will also begin to glimpse the outlines of a global network of scholarly-scientific collaboration that emerges from Humboldt's many references to his interlocutors in both Europe and the Americas.

What runs through all the contributions to this volume—essays and translations alike—is the underlying question of whether Alexander von Humboldt's goal was to achieve epistemic mastery over the globe or whether, and to what extent, that ambition was tempered by a self-reflective, self-critical humility in the face of the local particularisms he encountered in his

travels and research. Taken together, the essays in Part I show how Humboldt dares readers-now as in his own day-to rethink and, in effect, unlearn the deceptively simple binaries we continue to apply, in politics and in academia, even as we question them. The "local" versus the "global" is perhaps the most prominent of those binaries today. As Humboldt himself put it in his Political Essay on the Kingdom of New Spain: "Comment un voyageur, après avoir abordé dans une île, après avoir séjourné pendant quelque temps dans un pays lointain, s'arrogerait-il le droit de prononcer sur les diverses facultés de l'âme, sur la prépondérance de la raison, de l'esprit et de l'imagination des peuples?" [How could any traveler who lands on an island, or even one who had lived in a distant country for some time, possibly presume to judge the different faculties of the soul and the prevalence of reason, wit, and imagination of other peoples and nations?] (Humboldt 1825-27, I:380). Humboldt's writings compel us to be more attentive to the interplay of seemingly rigid oppositions—between peoples. cultures, nations, and intellectual/disciplinary or political positions—than to resort to their presumed opposition and irreconcilability.

Laura Dassow Walls's "Humboldt's Passage to America" begins with what became Alexander von Humboldt's final American destination once he had given up on his voyage around the world (see also his letters to Willdenow and Wilhelm von Humboldt in this volume): the United States of America, notably Washington, D.C. and Philadelphia. Walls addresses in detail the question of Humboldt's associations with, and unwitting furtherance of, the beginnings of USAmerican hemispheric imperialism. In Walls's essay converge many of the threads that run through the collection as a whole. Walls, like other contributors, places Humboldt at the historical intersection of the different, and conflicting, discourses tied to politicaleconomic developments. But her specific focus is on Manifest Destiny, a discourse in which isothermal mapping played an important role (see also Zeller below). Walls argues that Humboldt's writings are cut from the same intellectual and spiritual cloth as Walt Whitman's "Passage to India," the poem behind her essay's (and her book's) title (see Walls 2009). Like Whitman's poem, Humboldt's capacious global humanism is shot through with glittering strands of enthusiasm for commercial possibilities, ideally for the betterment of all of humanity and not the profit of any single nationstate. Faced with the worrisome manifestations and contradictions of nineteenth-century USAmerican nationalism (not to mention the vestiges of European colonialism), Humboldt, like Whitman, eventually had to face the fact that even the USA was not as deeply rooted in its democratic and ethical foundations as he had once believed. Nation and cosmos, Walls

argues, were on a collision course, as they still are now. In the United States of America, the ongoing and problematic quest for a unifying national consciousness and identity has frequently cast the ethics of cosmopolitanism to the winds, making globalization an economic playing field largely stripped of the humanistic values to which even the Enlightenment philosophers had still paid at least lip service.

Neil Safier highlights intertextualities of a different sort. In his "Climates of the Enlightenment: Humboldt, the Torrid Zone, and the Eighteenth Century," he contextualizes Humboldt's frequent use of a term he and others in his day had inherited from the geographers of old. Focusing mainly on the *Political Essay on the Kingdom of New Spain*, Safier looks backward from the turn of the nineteenth century, when European interest in the equatorial regions known as the "Torrid Zone" presumably started, to emphasize earlier Enlightenment efforts at understanding and representing landscape and place. Showing that earlier explorers such as Antonio de Ulloa and Charles-Marie de la Condamine, whom Humboldt referenced regularly in his own writings, had embraced linguistic constructs rooted in the work of medieval and classical geographers, Safier implicitly makes a case for the importance of previous cultural conceptions of landscape and environment to later notions of an ecological consciousness.

Landscape and climate play an equally important role in Suzanne Zeller's "Recalibrating Empire: Humboldtian Climatology in the Reports of the Palliser and Hind Expeditions to British North America's Great North West, 1857-58," which takes us to regions that Humboldt himself never visited and that we now know as Canada. Using archival sources, Zeller makes a case that Humboldtian concepts-notably the "isotherm" that some have seen as a mark of Humboldt's hubris (see Pratt)-played a crucial role in transforming public perceptions of the Great North West, leading to a dramatic shift in British imperial policy in the region. Reconstructing the debates surrounding the Paliser and Hind expeditions to the North West in the late 1850s, Zeller establishes the many ways in which explorers and scientists in Canada drew on Humboldtian models as they constructed new forms of climatological knowledge about the region to demonstrate its suitability for agricultural development and hence imperial settlement. Clearly, Alexander von Humboldt's influence in the Americas was no more limited to the geographies he actually visited than was his own imagination.

"From Pais to Nation: Alexander von Humboldt and the Formation of Ecuadorian Identity" pursues the discussion of Humboldtian landscapes in the context of the former Audiencia of Quito. Christiana Borchart de Moreno and Segundo E. Moreno Yánez link Humboldt's landscape re-

presentations to the rise of nineteenth-century political nationalism in the Spanish colony that would become Ecuador. They use local archives to reconstruct the traces of Humboldt's visit to Quito (which he describes in his letter to his brother Wilhelm included in the second section of this edition), connecting his emphasis on the importance of the Andean landscape with early map painting. Both, they argue, left their mark on the formation of an Ecuadorian national self-consciousness in the midst of the increasing regional fragmentation that accompanied the emergence of independent states in the former Kingdom of New Granada in the 1810s and 1820s. The authors note that Ecuadorians even today cannot agree on the day of national independence: should it be August 10, 1809, when the first Junta was proclaimed, or May 22, 1822, when General José Antonio Sucre won independence for the region at the battle of Pichincha? When politics failed to provide a foundation for a national Ecuadorian identity, the source for a national imaginary became the landscape and the drawing and paintings it inspired.

Tobias Kraft's concern with ways of knowing in "From Total Impression to Fractal Representation: the Humboldtian Naturbild" extends the line of inquiry that emerges from Humboldt's views of nature to the realm of literary aesthetics. Kraft argues that Humboldt's travel narrative-the Relation historique (1814-25 [1831]) [Personal Narrative, 1814-26]—does far more than present Humboldt's scientific exploits: Humboldt's intricate accounts of the natural world have distinct narrative and metaphoric shapes that represent not just what he knows but also how he comes to know it. Humboldtian writing is fractal, so Kraft, because it seeks to simulate nature's self-recursive processes. One of the cases in point is Humboldt's famous concept of the "tableau physique," which is semantically so flexible that it can mean table or chart as much as image or even painting, or all of them at once (see also Romanowski). In training his scholarly lens of Humboldt's descriptions of the earthquake in Cumaná, which occurred in 1799 only a few months after the Prussian had first set foot on American soil in what is now Venezuela, Kraft is able to show the precise layers that go into the construction of a narrative tableau physique of Cumaná. Kraft offers a suggestive way of explaining the deliberate fragmentation of Humboldt's writings, his almost obsessive delight in revising his prose, and his insistence on keeping his work open-ended, often to the dismay of friends and colleagues.

Like Kraft, Christopher Iannini focuses on the literary aesthetics in Humboldt's writing. Now, the context shifts to the island of Cuba, which Humboldt visited twice during the course of his American travels. At the beginning of the nineteenth century, Humboldt saw Cuba not only as the center of the Caribbean region but as a global island par excellence, a place where many trade routes intersected and where many different peoples and cultures had been thrown together as a result of slavery and the transatlantic slave trade. In "Humboldt's Political Essay on the Island of Cuba and the Natural History of Caribbean Slavery," Iannini analyses the political subtexts of Humboldtian writing in the context of natural history discourse in the long eighteenth century. Iannini places Humboldt's writing alongside Audubon's The Birds of America, seeing literary aesthetics in relation to constructions of natural history and their political contexts. He shows how tropes of violent disruption insinuated themselves into early nineteenthcentury natural history discourse, including Humboldt's, in the wake of the Saint-Domingue Revolution, which, in 1804 when Humboldt was already on his way back to Europe, had produced the independent black republic of Haiti. This change sent shock waves through the Caribbean and the rest of the slave-holding Americas. The Political Essay on the Island of Cuba, Iannini argues, shows us a Humboldt who was no less apprehensive than Audubon about this political upheaval. For, although Humboldt hated slavery from the bottom of his heart, he also abhorred the violence of revolutions, vividly remembering the French Revolution and the Reign of Terror.

How Humboldtian knowledge fared in various nationalistic contexts throughout the postcolonial Americas depended on each setting. His measurements, observations, and speculations were called upon either to legitimate expansionism and political imperialism (as they were in the USA), or else to discredit economic exploitation and provide alternative sources for national coherence (as they did, for instance, in Ecuador). Humboldt's scientific pursuits were driven by the unshaken belief that civilizational progress would reasonably benefit all, and he would have been appalled at the actual results of territorial incursion and economic development in the Americas. That Humboldt underestimated the havoc that the global circulation of locally specific information could wreak when harnessed by profit thinking and unchecked greed does not, however, make him an accomplice after the fact. But nor does it make his scientific vision and economic analyses "pure" and disinterested, two qualities that came to be associated with the figure of the professional scientist that emerged in tandem with industrial capitalism and neo-imperialism. That politicians from the United States of America and from the newly minted republics of the former Spanish empire would readily seize the mantle of Humboldtian science for a range of nationalist and expansionist designs shows a widening gulf between knowledge production and ethics. While Humboldtian science was hardly innocent of social and political significance, this does not necessarily mean that Humboldt himself was uncritical of colonialism. Collecting and disseminating knowledge especially about colonial worlds has always been risky business, Still, as Aaron Sachs notes, "it is hard to imagine anyone navigating these intellectual [and, one might add, ethical and political] shoals as carefully and conscientiously as Humboldt did" (Sachs 2006, 51).

Humboldt was not only a diplomat, albeit largely an unofficial one. He was also trained an administrator. Michael Dettelbach's "Describing the Nation: Local and Universal in Humboldt's Administrative Practice and in Late Eighteenth-Century Cameralism," explains how Humboldt's early training as a mining inspector shaped his approach to scientific work in the Americas. There is, Dettelbach argues, no contradiction between the pragmatism of cameralism (the science of political administration) and Humboldt's celebrated eclecticism. Primarily "concerned with describing and putting together what exists," cameralism actually shied away from overarching syntheses, that is, from "reducing all particularities to a common, uniform standard." Humboldt learned this early lesson well, and he was eager to apply it to contexts outside of Germany, most immediately that of the Americas, after first testing it during his brief stopover on the Canary Islands. Dettelbach's historical comments dovetail with Kraft's and Jannini's arguments in perhaps unexpected ways: if Humboldt's cameralism inculcated in him a resistance to reductive approaches to knowledge-and perhaps to administration itself, as Ette shows-this resistance also found its way into the shapes of his narratives and thus into his sense of aesthetics.

The final essay in this collection, Ottmar Ette's "TransTropics: Alexander von Humboldt and Hemispheric Constructions," introduces the concept of TransArea studies, an alternative to area studies that helps Ette connect Humboldt's travels in the western hemisphere with his later sojourn to Siberia and Central Asia. Showing that Humboldt's multi-faceted descriptions are, in fact, much "thicker" than even Clifford Geertz imagined when he coined the phrase, Ette argues that Humboldt's hemispheric constructions are always dynamic and relational. Hemispheres are fixed neither in time nor in space. They are, rather, shifting geographical and historical areas (or regions) that do not exist in isolation from one another but are moving parts in a complex network of simultaneous, multidirectional global exchanges. Eschewing familiar notions of American hemispheric exceptionalism, Ette demonstrates how Humboldt's new discourse on the Tropics—some of whose historical sources Safier sketches—while it begins to take shape in particular locales in the New World, is also, and quite inevitably, connected with other parts of the globe that are not necessarily even

"tropical." Why else would Humboldt think and write about America while traveling in the Russian empire?

With the global dimensions of Humboldt hemispheric constructions also returns the subject of his alleged striving for cognitive mastery over the globe. Our collective aim in this volume has not been to settle this complicated issue once and for all, but to offer carefully nuanced discussions that would do justice to its full complexity. Inconsistencies and disagreements even within the work of a relatively small group of contributors are a necessary and fruitful part of the course. Our hope is that, individually and collectively, we have mustered compelling evidence and arguments for why Alexander von Humboldt was so important to so many of his contemporaries—and why he still is to us today. Above all, we wanted to communicate to our readers the sense of the intellectual energy and frisson—Stephen Jackson has playfully called it catching the "Humboldt virus" (Jackson vii)—each one of us experiences when reading and writing about Alexander von Humboldt.

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8.

## TransTropics: Alexander von Humboldt and Hemispheric Constructions

### Ottmar Ette (Translated by Vera M. Kutzinski)

### The Museum: Collecting instead of Directing

Quant à moi, cher ami, tes lettres, surtout les premières, m'ont sérieusement agité. Est-il possible, que tu penses sérieusement à moi comme Directeur? Le mot dont tu te sers "je crains que tu ne pourras pas te soustraire à la place," m'a effrayé. J'en ai presque eu des insomnies. J'aurais abandonné ma position de Paris, je serais rentré dans ma Patrie, pour devenir directeur d'une Galérie de tableaux, pour accepter une place de M. de Forbin, pour m'occuper de choses diamétralement opposées à tout ce qui m'a donné quelque réputation dans le monde. Cela serait trop humiliant et je refuserais net, même si l'on m'avait déjà nommé sans me consulter. ... Je refuserai non seulement la place de directeur, mais encore toute direction, présidence permanente d'une commission qui dirigerait. (Humboldt 2009a, 144-45)

[Your letters, dear friend, above all the first ones, have seriously upset me. Is it possible that you seriously think of me as a director [of a museum]? I am alarmed at your words, "I fear that you will not be able to turn down the position." They have nearly cost me some sleep. I should have left Paris and my position there and returned to Berlin to become the director of a museum, of an art gallery, to take the place of Mr. de Forbin, to turn my attention to things diametrically opposed to everything that has made me who I am in the world. This would be too humiliating, and I shall refuse it outright, even if they have already nominated me without consulting me. . . . I shall refuse not only the directorship but also all administration, being the permanent chairman of any standing committee.]

-Alexander von Humboldt to Wilhelm von Humboldt from Yekaterinburg

Alexander von Humboldt wrote these lines to his brother Wilhelm on July 14, 1829, making clear, not without some agitation, that he would rather leave Prussia, the home to which he had returned in May of 1827 after having spent more than two decades in Paris, than accept a position as direc-

tor or intendant-general in Berlin. King Friederich Wilhelm III had asked Wilhelm to head up the commission that would oversee the initial construction of a museum (designed by Karl Friedrich Schinkel) on the island right in the center of Berlin. Written on the anniversary of the Storming of the Bastille, the letter made it amply apparent to the affectionately addressed Wilhelm that he could never get Alexander to accept the directorship of the so-called Old Museum, which had been earmarked for him. Alexander von Humboldt did not want to be a man of the university—not even at the university that Wilhelm had conceptualized and that would later be named for the two brothers. He certainly did not see himself in the role of a museum director. He was successful in safeguarding his independence from all institutional affiliations and thus his freedom, which, for him, was the fundamental prerequisite for his own research. It would never have occurred to Humboldt to apply for the position of intendant-general of the future Humboldt Forum, which will be created in Berlin right next to the Old Museum.

Important for my argument is less that it was not Alexander von Humboldt but Count Karl von Brühl who would be appointed as the first head of the magnificent new museum in 1830, and more the fact that Alexander sent these lines to his older brother at Tegel Castle not from Berlin but from Yekaterinburg, with a "tendresse qui vient du fond de la Sibérie" [tenderness that comes from the depth of Siberia] (Humboldt 2009a, 145). At the time, the author of the monumental, but unfinished 30-volume Voyage aux régions équinoxiales du Nouveau Continent was on his second transcontinental voyage, his Russian-Siberian research expedition, which would lead him all the way to the Chinese border. Even from the depth of Asia's steppes did Alexander give free reign to his mocking dislike for all social obligations that would tie him down. At the end of the above letter, he leaves his loved ones with a rather peculiar image of Siberia as "l'Orénoque plus les épaulettes" [Orinoco with epaulets].

Unlike on his American voyage, which Humboldt had financed himself, he embarked on the journey across the Russian empire on request of the Czar, who also funded the expedition. This meant that the trip was conducted within certain political and social protocols that Humboldt and, to a far lesser extent, his research team—Gustave Rose and Christian Gottfried Ehrenberg—had to respect, at least for the duration of the expedition. For Humboldt, who, in his letters from Russia, liked to refer to himself, not without a certain measure of self-irony, as a traveler from the jungles of the Orinoco—a "sauvage de l'Orénoque" [savage from the Orinoco]—the constant social obligations toward the men with swords and epaulettes—were a horror; at times, he was even forced to dance (see Humboldt 2009a,

145). But these were conventions he could oppose only with difficulty. There are countless places in the Russian correspondence, where Alexander von Humboldt feels in his element only when he is able to carry out his field research in mine shafts, on ships, or climbing mountains. This is the (self-)image of a researcher in the field and surrounded by his instruments, enjoying his chosen life away from all social obligations and constraints. The reward, as Humboldt had told the Russian finance minister Cancrin even before the journey's beginning, would be, above all, "to spend time outside, in the fresh air, for 5-6 months [5-6 Monate in freier Luft sein zu können] (Humboldt 2009a, 87).

It seems that the presence of his instruments served to assure Humboldt that he could continue to pursue his life in freedom. There is clearly a reason why he repeatedly tells his brother, Cancrin, and many other of his correspondents that he and his research team are doing well and, in the same breath, mentions that his "instruments are still alive." On June 8, 1829, for instance, he joyously writes to Count Ferdinand von Galen: "Les instrumens sont encore en vie!" (Humboldt 2009a, 134). A letter dated July 18, 1829 and addressed to his brother Wilhelm shows just how much these instruments were virtually living companions and how important it was for Alexander von Humboldt to work in the field. In this letter, Humboldt first explains that he prays to God that von Brühl would accept the position as museum director, "pour n'avoir pas de scène" [to avoid a scene] (Humboldt 2009a, 151). Otherwise, he himself would summarily have to refuse the directorship and any chairing of a standing committee, even if those had already been announced in the Allgemeine Preußische Staats-Zeitung. Humboldt then proudly informs his brother that one has to put up with delays in the itinerary because many cases filled with precious metals-"12 caisses de nos collections" with large pieces of gold and platinum, as well as topaz and other semi-previous gemstones—had been dispatched to the Prussian Embassy in St. Petersburg: "je ferai naturellement de tout cela cadeau au cabinet du Roi" [I will of course make them all a gift to the king] (Humboldt 2009a, 151). Not only did Alexander von Humboldt create a collection for the cabinets of St. Petersburg; he also gave gifts to the mineral exhibition in the city of his birth, which was among Berlin's earliest museum collections. In 1810, the exhibit was merged with the mineralogical museum of the Royal University at Berlin, along with the objects from Humboldt's field work. The samples that he and his research team had gathered would later become part of the collection of the Natural History Museum (founded in 1889) of today's Humboldt University where they can still be viewed

Humboldt knew very well just how significant museums were as repositories of de-localized and trans-localized knowledge. His collecting was not limited to the realm of nature but also extended into that of culture. He adds to the letter to his brother that he has also collected books written in the Tartar language for the library or for Wilhelm's linguistic studies, along with several coins from Timor or Batu Khan found in the ruins of Bolgar (see Humboldt 2009a, 151). For Humboldt, on-site collecting is always prospective. The very act of collecting anticipates the transfer of what he gathers to collections that are then made available to the public in museums, libraries, and archives, in the country of origin itself and, above all in the traveler's home country. It does not surprise, then, that Alexander von Humboldt had already privately collected materials for his brother's language studies during this American sojourn (see Trabant) and that he continued this activity in Asia. The linguistic dimension, the literary articulation of his scientific practice, was hardly foreign to this polyglot author of Kosmos who had written the major part of his work in a language other than his native German. Although he did not see himself in the role of a head of a museum, whose institutional structures would inevitably have confined him, Alexander von Humboldt felt deeply obligated to the world of museums, libraries, and archives, as visitor or reader and as collector and researcher. During the course of his long scholarly life, he enriched many collections through his fieldwork and unearthed countless treasures while working in archives and museums.

### The Field of Research: Transdisciplinarity instead of Universal Knowledge

J'ai aujourd'hui 42 ans; j'aime à entreprendre une expédition qui dure 7 à 8 ans, mais pour sacrifier les régions équinoxiales de l'Asie, il faut que le plan qu'on me trace soit vaste et large. Le Caucase me tente moins que le lac Baikal et les Volcans de la Péninsule de Kamtschatka. [...] La Géographie, la science qui traite sur la superposition des rochers et de l'identité des formations, la Géographie des Végétaux, la Météorologie, la théorie du Magnétisme (Inclinaison, Déclinaison, Intensité des forces, variations horaires) feront des progrès immenses dans cette Expédition à cause de l'étendue que l'on peut parcourir. L'étude de l'homme, les races, les langues qui sont les monumens les plus durables de l'ancienne civilisation, l'espoir d'ouvrir des routes au commerce vers le Sud— mille objets divers se présenteront à nos recherches. Pour saisir d'abord l'ensemble du théâtre de mes opérations je voudrais qu'on me permît de commencer à parcourir toute l'Asie sous les

58-60° de latitude par Kathérinebourg, Tobolsk, Yeniseisk, Yakoutsk y aux Volcans du Kamtschatka et [au] bord de la Mer du Sud. ... Je ne sais pas un mot de la langue russe, mais je me ferai russe, comme je me suis fait espagnol: tout ce que j'entreprends je l'exécute avec enthousiasme. Plusieurs grands buts peuvent être atteints à la fois 1. avancer les progrès des sciences exactes, la Physique générale, la Géologie, la Botanique et toutes les autres parties d'histoire naturelle descriptive, la théorie de l'aimant, l'histoire de l'atmosphère etc. 2. rectifier les cartes par des observations astronomiques, sans s'ajuster à une triangulation très longue à exécuter, niveller barométriquement, former des coupes ou profiles comme dans mon Atlas Mexicain; 3. procurer au Gouvernement des détails d'économie politique et de commerce sur les parties qui n'ont pas encore été suffisamment examinées; 4) faire des recherches sur l'histoire des peuples et les langues pour étendre le dictionnaire polyglotte commencé d'aprés un plan peu philosophique parcequ'il excluroit l'analogie grammaticale; 5) enrichir les collections d'histoire naturelle de Sa Majesté .... (Humboldt 2009a, 58-59)

[Today, I am 42 years old; I would very much like to undertake an expedition of 7 or 8 years; but to sacrifice the equinoctial regions of Asia, it is necessary that the plan offered me be vast and extensive. The Caucasus tempts me less than Lake Baikal and the Volcanoes of the Kamtschatka Peninsula. ... Geography, the field of knowledge that deals with the superposition of rocks and the identifying of formations, plant geography, meteorology, theories of magnetism (inclination, declination, intensity, temporal variations) will make immense progress during this expedition because of the very expanse that one can traverse. The study of man, of races, of languages (which are the most durable monuments of ancient civilization), the hope of opening trade routes to the south—a thousand different objects invite our curiosity. In order to grasp the whole arena of my research, I would like them to let me begin my travels across all of Asia below 58 to 60 degrees of latitude, from Yekaterinburg, Tobolsk, Yeniseisk, and Yakutsk to the Volcanoes of Kamtschatka and to the rim of the South Sea. ... I do not know a word of Russian, but I will become Russian like I made myself Spanish: everything I do I do with enthusiasm. Many great goals may be attained at the same time 1. advance the exact sciences, general physics, geology, botany, and all the other parts of descriptive natural history, the theory of magnetism, the history of the atmosphere, etc. 2. correct the maps through astronomical observations, without carrying out a time-consuming triangulation; barometric leveling; drawing profiles, as I did in my Mexican Atlas; 3. procuring from the Government details about political economy and about trade in regions that have not yet been sufficiently studied; 4) research the history of the peoples and the languages to extend the polyglot dictionary that has been begun according to less philosophical plan, because it excludes grammatical resemblance; 5) enrich the natural history collections of His Majesty....]

Alexander von Humboldt rarely unfolded the project of a grand transcontinental expedition in denser form than in his letter to Baron Alexander von Rennenkampff from January 7, 1812. Even though not all of his ideas could be realized during the actual Russian-Siberian journey seventeen years later, the letter to Rennenkampff still shows the complexity of a project whose global dimensions still impress us today. In this letter from Paris, where the Prussian savant settled after having completed his voyage to the equinoctial regions of the New Continent in 1804, we can glimpse his longstanding wish to add to the exploration of the American tropics an investigation of the Asiatic tropics, a dream he could not realize because of the constant wars on Russia's southern borders. As a result, Humboldt developed an alternative itinerary when he was given the opportunity to visit the Czar's empire, a prospect that was barely on the horizon in 1812. This itinerary proposed to add to the traversing of the American tropics in their entire geographical spread, between Mexico and Peru, a route at a relatively high northern latitude that would traverse an enormous longitudinal expanse from Berlin to the farthest east of the Russian empire. The transareal complementarity of both itineraries, each of which passed through very different areas, was not coincidental; it was Humboldt's agenda.

Alexander von Humboldt's research projects were always long-term scholarly-scientific endeavors that required significant technical, financial, and human effort and engagement. He pursued his plans doggedly and with great determination. The excerpt from the letter of January 7, 1812 shows just how resolutely Alexander von Humboldt developed a research agenda whose roots went back to the 1790s and whose first concrete realization was his American voyage between 1799 and 1804, a full thirty years prior to his Russian-Siberian travels. When he finally had the opportunity to realize his dreams of traveling to Asia, he immediately tried to implement the route he had worked out in 1812. Between April and December 1829, he also focused on those parts of his research program that were politically feasible in Czarist Russia and which would also allow him to turn into reality the ambitious plan of his Kosmos, which would not have been possible without the Asia travels. Since Humboldt's science had a primarily empirical foundation, he could not have extended his scholarly-scientific cosmos without ever having traveled to Central Asia and thus having based his ideas about the Asian continent on his own measurements and experi-

The concept of knowledge production that I am sketching here gives a clear idea of what one might call Humboldtian science and, perhaps more

dynamically, the mobile knowledge of Alexander von Humboldt, which is always empirically grounded in his travel experiences. Part of Humboldt's research agenda are the different areas of what he called the "sciences exactes," along with the investigation of anthropological und social, political and economic, linguistic, historical, literary, cartographic, and broadly cultural phenomena. Contrary to what has frequently been suggested in earlier writings on Humboldt and even at times today, Humboldt's research is not the scholarly-scientific endeavor of the "the last universal scholar." Rather, it is a highly innovative concept of science in which radically different disciplines and areas of knowledge are dynamically put in relation to one another. The Humboldtian concept of science is best described as a science that is at once transdisciplinary, intercultural, cosmopolitan, and fractal. It is part of a global network that reflects on the politics of knowledge production and whose practice is consciously democratizing, inter- and transmedial, and transareal (see Ette 2009).

The complementary aspect of Humboldt's Russian-Siberian travels of 1829—the fact that he did not understand this voyage as a simple continuation but as an enhancement of a model of global and globalizing knowledge located very broadly outside of the tropics-shows that, in Humboldtian science, research subjects and objects are understood as crossing individual areas of scientific inquiry. That is, they emerge from relations, circulation, and interactions beyond the local. As a relational model of knowledge production, Humboldtian science dynamically connects separate spatial and disciplinary areas of knowledge worldwide. It is only against this background that we can understand why Alexander von Humboldt's American expedition is so omnipresent in Asie Centrale (Paris, 1843), and why tropical America is invoked in the context of extra-tropical Asia (see Ette 2007). Only by conceptually interrelating different kinds of knowledge could Humboldt successfully predict the existence of diamonds in the Ural mountains on the basis of research on corresponding natural resources in Brazil. Similarly, by considering global data, he could, for the first time, derive insights into the problematics of climate change caused by industrialization and the emission of vapors and gases in the densely populated parts of Europe. Humboldt's thinking resisted any reductiveness, and not just in the area of geo-ecology which his work fundamentally anticipated. In his writings, he succeeded in articulating complexities, making them transparent for and accessible to broader audiences.

None of this fits the image and behavior of "universal scholar" who continued to subscribe to an outdated concept of science regardless of the accelerated separation of the disciplines (on which he himself commented).

What I have outlined above are the marks of a courageous thinker who, as early as the 1790s, had provided creative and productive alternatives to an increasingly specialized academic landscape by developing transdisciplinary and transareal approaches to knowledge that transected radically different disciplines and fields and connected them in programmatic ways. Humboldt had emphasized as early as the Revolutionary Year 1789 that he thought of himself as a "stranger" or "nomad" among the sciences (Humboldt 1973, 74), a memorable formulation by the then barely twenty-year old. His remark also shows the beginnings of an attempt to establish as many connections and exchanges as possible among different areas of knowledge and knowledge production. It was precisely for this reason that Alexander von Humboldt had, on the occasion of his first transcontinental voyage, written in the travel diary of his American expedition the one sentence that best encapsulates his way of thinking: "Alles ist Wechselwirkung"—"everything is interrelated" (Humboldt 1986, 358).

### The Researching Subject: Life Project instead of Autonomous Science

In his letter to Alexander von Rennenkampff from January 7, 1812, Alexander von Humboldt had already emphasized his deep engagement with (field) research: "Tous que je entreprend j'exécute avec enthousiasme" (Humboldt 2009a, 59). This phrase—"everything I do I do it with enthusiasm"—encapsulates his concept of a close relation between life and science. It is typically the case in field research that the researcher and his personality play a significant role in how the *field* is constructed. It is with good reason that Voltaire's dictum—that one cannot effect anything without enthusiasm—was a perfect fit for the strong personality of the Prussian world traveler: "Rien ne se fait sans un peu d'enthousiasme" (Voltaire to Charles Augustin Feriol; see Voltaire, 85-135). From this enthusiasm Alexander von Humboldt drew the energy that made his science a consciously vitalizing and dynamic practice of knowing.

The scholarly-scientific project of this Berlin author and intellectual avant la lettre cannot really be grasped in all its different facets unless one also understands it as a life project. The connection between science and life surfaces in the letter from January 7, 1812, where Humboldt mentions his age of forty-two just as he is about to embark on a voyage that might last for eight years. More than seventeen years later, on the occasion of his 60th birthday, he wrote to the Russian minister of finance, Count Georg von Cancrin—who had been a deciding factor in the actual realization of

Humboldt's Asia travels—lines that show a clear awareness of the intense intersection of science with life:

Gestern habe ich hier meinen 60jährigen Geburtstag auf der asiatischen Seite des Urals, erlebt — ein wichtiger Abschnitt des Lebens, ein Wendepunkt, auf dem es einen gereuet so vieles nicht ausgeführt zu haben, ehe das Alter die Kräfte dahin nimmt. Vor 30 Jahren war ich in den Wäldern des Orinoco u[nd] auf den Cordilleren. — Ihnen verdanke ich es, daß dieses Jahr, durch die große Masse von Ideen die ich auf einem weiten Raume habe sammeln können (wir haben seit Petersburg schon über 9000 W[erst] vollendet) mir das wichtigste meines unruhigen Lebens geworden ist. Und was werde ich nicht erst von mineralogischen und geognostischen Merkwürdigkeiten auffinden können, wenn ich in Ruhe in Berlin mit Prof. Rose von den Sammlungen des Urals und Altai werde umgeben sein? (Miass, September 15, 1829; Humboldt 2009a, 184)

[Yesterday, I celebrated my 60th birthday in the Asiatic parts of the Ural, an important part of my life, a turning point that makes one regret not having done so many things before old age zaps one's strength. Thirty years ago, I was in the forests of the Orinoco and in the Cordilleras. Thanks to your good offices, this year, in which I have been able to amass a great number of ideas on this vast expanse (since leaving St. Petersburg, we have already completed 9,000 Werst<sup>1</sup>), has become the most important of my restless life. And just what mineralogical and geognostic oddities will I be able to find, when I sit quietly in Berlin later on, together with Prof. Rose and surrounded by the collections of the Ural and Altai?]

Traveling, a process during which the movement of Humboldt's own life connects with his two great transareal expeditions, brings together the collecting of mineralogical treasures with the gathering of ideas. The American voyage that began in 1799 and the Asia expedition from 1829 divide the life of the Prussian savant, who was born in Berlin in 1769 and died there in 1859, into three periods of roughly equal length. Although Humboldt could not have known this in 1829, he seemed to have sensed it (see Humboldt 2009a, 184). His life project reflects his scientific plans and vice-versa, and Humboldt himself seems to have been unwilling to separate them.

This does not mean that Humboldt's *vita* can be reduced to the phrase "a life dedicated entirely to science," since, in his case, this formulation also applyies in reverse: "a science dedicated to life." The sixty-year old Humboldt knew that he would not be able to realize other ambitious travel plans.

One Russian Werst corresponds to 1066,78 meters.

Consequently, he sketched in few words a future sighting of the materials, in a sense a transformation of what he had gathered during his travels into a collection, whose place was to be Berlin. We have already seen just how little desire he had to settle down and to accept appointments to museums and committees. But museums were also the places where Humboldt could publicly set up his dynamic knowledge for the benefit of visitors.

Alexander von Humboldt's collections enriched not only the museums of Madrid, Paris, Berlin, and St. Petersburg. He also transferred everything that he had gathered during the course of his long life into a another sort of collection: his *Kosmos*. The opening sentence of the foreword to this *summa*, dated Potsdam, November 1844, projects almost paradigmatically the Humboldtian key concepts of life and movement, emphasizing the inextricable bond between life project and scientific agenda:

Ich übergebe am späten Abend eines vielbewegten Lebens dem deutschen Publikum ein Werk, dessen Bild in unbestimmten Umrissen mir fast ein halbes Jahrhundert lang vor der Seele schwebte. In manchen Stimmungen habe ich dieses Werk für unausführbar gehalten: und bin, wenn ich es aufgegeben, wieder, vielleicht unvorsichtig, zu demselben zurückgekehrt. Ich widme es meinen Zeitgenossen mit der Schüchternheit, die ein gerechtes Mißtrauen in das Maaß meiner Kräfte mir einflößen muß. Ich suche zu vergessen, daß lange erwartete Schriften gewöhnlich sich minderer Nachsicht zu erfreuen haben. (Humboldt 2004, 3; first ed., I.v).

[On the late eve of a restless life, I offer the German public a work whose image had haunted my soul in indistinct shapes for almost half a century. In certain moods, I had thought about this work as unrealizable, and whenever I turned away from it, always returned to it, perhaps blowing all caution to the wind. I dedicate it to my contemporaries with the shyness with which a rightly distrust in the extent of my powers must imbue me. I try to forget that long-anticipated writings do not typically enjoy the benefit of leniency.]

It is fascinating to see how Alexander von Humboldt, at the beginning of his last great work, imbricates his life, his own movements, and his science and invests his words with the historical and autobiographical depths of half a century. At the same time, however, he adds to the motion of his life his emotions, those moods that entered into his writings to a greater or lesser extent during the seventy years of his scientific work. Part of the Humboldtian concept of knowledge production is not only life—which turns Humboldtian science into a life science that includes a cultural dimension—but also, fundamentally, experience. Rather than being stuck science in some sort of autonomous sphere, science becomes a form of

knowing-through-experiencing, making Humboldt's writing an exciting adventure for readers, indeed a revitalizing experience.

Humboldt did not have to worry about the publication of the first volume of *Kosmos*. The work became a bestseller that, even at the beginning of the twenty-first century, can still prove that it has all the makings of what one might call a longseller.

### The Field: Tropics instead of Topoi

In an autobiographical account written in Santa Fé de Bogotá on August 4, 1801, Alexander von Humboldt recalls his initial contacts with science in general and botany in particular:

Kleinlich scheinende Umstände haben oft den entscheidendsten Einfluß auf ein tätiges Menschenleben, und so muß man die Spuren wichtiger Ereignisse oft in diesen Umständen suchen. Der Hofrat Heim, von dem das Gymnostomum Heimii den Namen führt und der mit dem jungen Muzel lange in Sir Joseph Banks Freundschaft gelebt, war unser Hausarzt. Er hatte eine große Sammlung von Moosen und gab sich eines Tages die Mühe, meinem älteren Bruder die Linnéschen Klassen zu erläutern. Dieser des Griechischen schon damals kundig, lernte die Namen auswendig, ich klebte Lichen parietinus und Hypna auf Papier, und in wenigen Tagen war uns beiden alle Lust zur Botanik wieder verschwunden. (Humboldt 1987, 32)

[Seemingly petty circumstances often have the most decisive influence on an active human life, and one must search for the traces of important events in such circumstances. The Hofrat Heim, after whom the Gymnostomum Heimii was named and who lived with the young Muzel in the friendship of Sir Joseph Banks for a long time, was our family physician. He had an extensive collection of lichen and one day tried to explain to my older brother the Linnean categories. My brother, who knew Greek even then, learned the names by heart; I glued Lichen parietinus and Hypna on paper, and within a few days, all excitement about botany had waned for both of us.]

But unlike his older brother Wilhelm, Alexander did not turn his back on botany. Already during his studies of cameralism (see Dettelbach's essay in this collection), which he pursued because of his parents' wishes, Alexander von Humboldt made several longer and shorter trips within Europe, until finally, so it seemed to him retrospectively, during a journey to England with Georg Forster, Humboldt fell into a "melancholy mood" and decided to make plans to visit places that were farther away (Humboldt 1987, 40). It was no coincidence that this happened in the company of