



Article

Naturmenschen? Alexander von Humboldt and Indigenous People

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Abstract: In the numerous texts he wrote about his grand voyage to the Americas (1799–1804), the Berlin-born, highly influential, independent scholar Alexander von Humboldt (1769–1859) considers the people in Spanish America time and time again. While Humboldt was trained as a botanist, geologist, and mining engineer, he was nevertheless fascinated by indigenous actors who employed specific competencies as they operated in their natural environments and their own socio-cultural contexts, which were distinctly different from those in Europe. His perspectives on indigenous people are complex and refer back to various current discourses of his day. Although these texts address very different topics across a range of disciplines, they nevertheless clearly testify to his intense interest in Latin American society and culture. Humboldt repeatedly reconsiders his approaches to these topics; in a characteristically Humboldtian manner, he attempts to understand quite diverse phenomena by means of precise, on-site observation, comparison, and contextualization. In so doing, his argumentation oscillated between the poles established and defined by contemporary discourse, namely 'savage' and 'barbarism' on one side of the spectrum, and 'civilization' on the other.

Keywords: Humboldtian science; barbarism; savage; civilization; indigenous knowledge



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1. Introduction

In the numerous texts he wrote about his grand voyage to the Americas (1799–1804), the Berlin-born, highly influential, independent scholar Alexander von Humboldt (1769–1859) considers the people in Spanish America time and time again. While Humboldt was trained as a botanist, geologist, and mining engineer, he was nevertheless fascinated by indigenous actors who employed specific competencies as they operated in their natural environments and their own socio-cultural contexts, which were distinctly different from those in Europe. His perspectives on indigenous people are complex and refer back to various current discourses of his day. Although these texts address very different topics across a range of disciplines, they nevertheless clearly testify to his intense interest in Latin American society and culture. Humboldt repeatedly reconsiders his approaches to these topics; in a characteristically Humboldtian manner, he attempts to understand quite diverse phenomena by means of precise, on-site observation, comparison, and contextualization. In so doing, his argumentation oscillated between the poles established and defined by contemporary discourse, namely 'savage' and 'barbarism' on one side of the spectrum, and 'civilization' on the other.

Both the sources themselves and the current state of research on Alexander von Humboldt resemble either a mushrooming plant or a branching labyrinth—not least in the sense that it is difficult to get an overview of either. Humboldt wrote an immense number of texts, which were available in various editions and different languages even during his lifetime, not to mention today. It would be difficult to find another historical actor about whom a comparable amount of research has been published in recent decades. This is all the more true when one looks beyond the biographies published around the time of the 250th anniversary of his birth in 2019. Beyond questions of science in the narrower sense, Humboldt's work and personality clearly lend themselves to his stature as

a pioneer and a role model. This applies, for instance, to Humboldt's status as the 'second discoverer' of America and an advocate for the continent in the famous "Dispute of the New World", someone to whom the freedom fighters who rallied around Simón Bolivar also paid tribute; it applies to Humboldt as arguably the first ecologist and the founder of a new, future-oriented understanding of nature; as an intellectual who thought in global terms; as the new 'national icon' who, especially in the German culture of remembrance, personifies the 'good' Prussian German, filling the gap left by all those Friedrichs and Wilhelms who have fallen from grace and are no longer worthy of veneration (Gerbi 1973), (Clark and Lubrich 2012), (Sachs 2006), (Wulf 2015), (Ette 2009). With a sly wink, people today nickname Humboldt 'Super Alex' or dub him 'Everybody's Darling' (Osterhammel 2022). In the midst of so much praise, it is worthwhile to consider the critical voices as well. From a decidedly postcolonial perspective, in a 1992 article that is still well worth reading, Mary Louise Pratt criticizes Humboldt's quasi-reinvention of America as first and foremost—in his own words—"the stupendous display of wild and gigantic nature", a view that served both the romantic and the imperialist-expansionist interests of the elite in Europe as well as the up-and-coming creole elites in South America. According to Pratt, indigenous societies are more or less absent from Humboldt's books, and when indigenous actors do appear, they do so only "as instrumental subjects". In this respect, she attributes to Humboldt the idea that "the more savage the nature, the more savage the culture". (Pratt 1992, pp. 111, 130, and 133)³ In German-language research, Oliver Lubrich in particular has emphasized that Humboldt's approach more closely resembles that of a cultural-anthropological 'participant observer' who—with a humanist ethos, already thinking beyond colonial contexts—posed "the question of the 'unity of the human race' (Einheit des Menschengeschlechtes) in all its diversity". (Lubrich 2009, p. 167)⁴

As far as Humboldt's understanding of both nature and culture is concerned, his starting point in empirical field research, his transdisciplinarity, and his focus on 'interdependencies' (*Wechselwirkungen*) of various kinds are all worth emphasizing.⁵ Andrea Wulf's bestselling book about Humboldt and his successors, *The Invention of Nature* (2015), has received much attention in the publishing world. She sketches Humboldt as a modern subject who sought to combine scientific analysis with holistic, romantic experiences of nature in an innovative way. (Wulf 2015). However, the debate over Wulf's thesis has raised doubts, especially in German-language research. On the one hand, in the context of 'Humboldtian Science', there is the question of the extent to which the American traveler's findings are innovative in terms of the history of science. (Glaubrecht 2019b, vol. 10, pp. 376–79; Glaubrecht 2019a). On the other hand, scholars have pointed out that Humboldt's texts go beyond Romantic experience and scientific measurements to show a nuanced understanding of complex human–nature relationships, whereby—in an ultimately postcolonial fashion—local political power relationships were reflected as well. (Eibach and Haller 2021)⁶ My article takes up this point.

Humboldt has left behind an exceptionally extensive and heterogeneous textual corpus. To start with, we should remember that the scholarly discourse of his day developed and propagated new ideas, some of which are still influential today. As an example, we have the following keywords: firstly, the idea of humanity's 'natural state' (*Naturzustand*) in Enlightenment discourse (especially in the work of Jean-Jacques Rousseau); secondly, the Romantic concept of the sublime, 'primordial' (*ursprüngliche*), all-powerful nature; and thirdly, concerning indigenous peoples, especially those who lived in 'primeval forests' (*Urwäldern*), labels oscillated between opposing poles—on one end the uncivilized, 'barbarous maneaters' (*rohe Menschenfresser*), and on the other the 'noble savages' (*edle Wilde*)! In addition to Romanticism's historical imagination, the racial discourse of the Enlightenment—which focused on systematization and typologies—also played a role here: popular and widely read eighteenth-century travelogues describing journeys through non-European countries fed this discourse with new information, views, and opinions. (Nutz 2009), (Peter-Röcher 1998), (Röckelein 1996)⁷

Of course, Humboldt himself was familiar with these opinions, and he refers to them over and over again. Yet had he merely reproduced the dominant discourse of the European 'République des Lettres', then 'Humboldtian Science' would hardly be worth talking about today. In fact, his characteristic style of differentiation is based on empirical methods, personal observation, and direct interaction in the field. Moreover, he takes delight in falsifying widespread stereotypes, and he formulates his ideas accordingly—sometimes emphatically and sometimes with a pinch of irony. From his own perspective, this traveler to the Americas sketches the appearance, knowledge, practices, and means of communication of the people on the Llanos, along the Orinoco River and the Rio Apure, and in the Andes. In the process, he also calls attention to the violence and repression that affected indigenous groups. This is the basis for Humboldt's prestige among intellectuals in Latin America to this day. On top of all this, Humboldt is also interested in the 'theories of the natives', and he tries to explain the thinking and practices of these actors in comparison to other cultures. Whether directly or indirectly, he has no other option but to classify indigenous people's practices in this way. Thus he inherits a basic epistemological problem of the Enlightenment, which raises the question: Does Humboldt construct an insurmountable opposition between 'primitive people' (Naturmenschen) and 'advanced civilizations' (*Hochkulturen*), or between 'nature peoples' (*Naturvölkern*) and 'culture peoples' (Kulturvölkern)? Such assessments, which draw on alterity, are to be expected from the liberal Alexander von Humboldt, who upon his return from America became a key player in the shift from the European 'République de Lettres' to the global 'scientific community', and who remained convinced throughout his life that progress could be achieved through 'discoveries' and through science. This is precisely the point at which Humboldt becomes interesting. In what follows, I will focus on two aspects of Humboldt's writings:

- 1. Conceptual labels and contemporary discourse;
- 2. Observations of indigenous people in their natural environment.

2. Conceptual Labels and Contemporary Discourse

Humboldt understands the power of concepts and, thus, the fact that they are open to question. Nevertheless, he depends on them and has been trained in their use. He sometimes uses them spontaneously and provisionally, sometimes reflectively and critically. A longer quotation from one of Humboldt's published travelogues clarifies this problem from his own perspective:

I use the word 'savage' (*Wilder*) with regret, in that it implies that there exists between the subjugated Indian (*Indianer*) living in the missions and the free, independent Indian a difference in culture which is often disproved by observation. In the forests of Southern America, native tribes live quietly together in villages, obeying their chiefs, planting banana, manioc, and cotton on fairly extensive lands, and weaving their hammocks from it [the cotton]. They are hardly more barbarous than the naked Indians of the missions, who have been taught to make the sign of the cross.

Additionally, according to Humboldt: "It is a fairly common mistake in Europe to think that all non-subjugated Indians are non-sedentary people and hunters. [Yet] agriculture existed in Tierra Firme long before Europeans arrived; indeed, it still exists between the Orinoco and the Amazon rivers, in forest clearings where missionaries have never been". 9

In this passage from his *Reise in die Äquinoktial-Gegenden*, first published in French, Humboldt not only reflects on the problematic nature of labels such as 'savage' and 'barbarian', as well as the questionable, even pointless practices of the missions in South America; he also challenges the model of progressive historical stages, which was much discussed during the Enlightenment. According to this model, hunter-gatherers represented the lowest level of human development, while farmers represented a higher level. According to Humboldt, however, agriculture already existed in South America before Columbus arrived. Yet even a cursory reading of his texts shows that Humboldt quite often speaks

of 'savages' (*l'homme sauvage*), 'wild Indians' (*Indiens sauvages*), or similar terms without necessarily intending these to be pejorative terms.

In order to systematically and comprehensively trace Humboldt's discourse—or more precisely, his use of key terms—below I present the results of a digital full-text search of Humboldt's *Sämtliche Schriften* (*Collected Writings*, Bern edition), edited in 2019 by a team led by Oliver Lubrich and Thomas Nehrlich at the University of Bern. Hence the foundation for this analysis is all the articles, essays, and contributions Humboldt published during his lifetime—that is, all of his published texts, with the exception of his monographs. Thus, the focus of this article is not on one specific field of knowledge, inextricably connected with colonial science and the exploitation of resources, as in Allison Bigelow's seminal study on early modern *Mining Language* (Bigelow 2020). Instead, my focus here is on Humboldt's use of concepts and his perspectives on Amerindian people, which have to be seen in the context of the manifold discourses of his day. Humboldt did not argue as a mining engineer (which he was by profession), but from various disciplinary perspectives in the age of the Enlightenment, Romanticism, liberalism, and colonialism.

Altogether, this corpus spans seven volumes and three supplementary volumes, comprising approximately 750 texts on a wide variety of subjects, all of which flowed from Humboldt's pen between 1789 and 1859. If we add the different versions and the translations into other languages, which are also included in this edition, then this corpus comprises no less than 3600 published texts or documents. 10 The content of these texts encompasses all the topics Humboldt ever addressed as an author, without regard to disciplinary boundaries. Here one could object to the fact that his well-known, longer book publications—such as Views of Nature or the above-mentioned Reise in die Äquinoktial-Gegenden (in French: Relation historique; in English: Personal Narrative)—are missing from this corpus of sources. However, a closer inspection of the Sämtliche Schriften shows that Humboldt repeatedly published excerpts of his major works as spin-offs (something like single songs from CDs or LPs) in academic journals, newspapers, magazines, and other print media—sometimes more than once, and sometimes with variations in content. Humboldt used these as opportunities to respond to requests from and interest among the contemporary academic community as well as the general public. In quite a few cases, no one explicitly asked him for permission to print, and the texts were published without authorization—bootleg copies, in a manner of speaking. Thus, the Sämtliche Schriften corpus encompasses a broader Humboldtian discourse in the 'Age of Humboldt', extending beyond his better-known works. One of the great advantages of the Bern edition of the Sämtliche Schriften, which is published both in print and in digital format, is that it enables full-text online searches. 11 Using individual search terms, researchers can call up thematically relevant passages as well as entire texts, including all the variants published during Humboldt's lifetime. In what follows, I have supplemented these digitally determined quantitative results with readings from Humboldt's diaries and monographs.

This quantitative evaluation of selected terms in the *Sämtliche Schriften* both underscores and nuances the impression I have sketched in the introduction with regard to the term 'savage'—the use of which clearly caused Humboldt some concern. Thus, it becomes apparent that, in his characterizations of indigenous people in South America during the late phase of the Spanish colonial empire, Humboldt reverted to the accepted contemporary terminological arsenal, which is problematic from our perspective today, while at the same time, he wrestled with these very terms—in some cases explicitly rejecting them, searching for alternatives, paraphrasing, or relativizing them by means of argumentation.

Returning to the guiding question of this article, the first finding is that this Prussian-born global intellectual speaks of *Naturmenschen*—or more precisely, "simple, natural people"—in only one of his texts. Entering the terms *Naturvolk*, *homme de la nature*, or *homme naturel* in the database search function yields no results at all. The single exception is found in a text written in 1841, in a preface in which Humboldt, searching for an explanation for the sharp decrease in the water level of a lake in what is now Guyana, not only considers scientific hypotheses but is also interested in the "myths" and "opinions"

that "also present themselves to the simple natural man [Naturmenschen] at the sight of the earth's surface, the colored stripes of the previous water levels, [and] the scattered shells on the nearby hills". 12 It is important to bear in mind the fact that Humboldt's research predates the formation of the discipline of 'ethnology' (Völkerkunde), later 'anthropology' (Ethnologie), when scholars attempted to overcome previous pejorative terms such as 'savage' or 'primitive peoples' by means of the dichotomy 'nature peoples' (Naturvölker) vs. 'culture peoples' (Kulturvölker). The German conceptual construct Naturvolk is attributed to Johann Gottfried Herder. According to Johann Christoph Adelung's Grammatisch-kritisches Wörterbuch der Hochdeutschen Mundart (first published between 1774 and 1786), Naturvolk is defined as: "a people living in the state of nature [Stande der Natur], without a discernible civil constitution; such peoples are commonly referred to as savages [Wilde]". Adelung's Naturmensch entry read similarly: "a person living in the state of nature, without a civil constitution or external constraints". 13 In the meantime, this distinction has long been discarded. Instead, recent ethnological and social-anthropological research is generally interested in forms of socio-cultural organization and ways of life across all human groups, without making hierarchical value judgments, and particularly in the specific ways in which such groups interact with natural resources. (Müller 2005, pp. 380-81).¹⁴ Against the background of the successive formation and differentiation of the modern academic disciplines in the humanities and the social sciences, which only took place over the course of the nineteenth century, this finding is in no way surprising. But what about Humboldt's adaptation of the term 'state of nature'—which, as we well know, had played a central role in eighteenth-century philosophical discourse since the Enlightenment?¹⁵ Here too, we must clarify: Humboldt explicitly uses the terms Naturzustand, état naturel, or 'state of nature' remarkably rarely with reference to humankind. He uses the German term Naturzustand in only two texts, and only once with reference to human society—in passing, in a report on a 'Mexican giant', which appeared in 1806 in the Magazin für den neuesten Zustand der Naturkunde mit Rücksicht auf die dazu gehörigen Hülfswissenschaften. ¹⁶ He uses the term in other languages somewhat more conspicuously but nevertheless judiciously overall. The nine documents in the corpus in which Humboldt comments on an état naturel in French do not refer to human society either, but rather to chemistry, to trees, and to fish breathing in their état naturel, namely in rivers. ¹⁷ More important for our analysis in this article are the three texts—including the textual variants, a total of ten documents—written in English between the years 1816 and 1826, which explicitly though still rather incidentally contain the term 'state of nature' with reference to indigenous groups in South America. In quantitative terms, this finding is no more striking than the others. Overall, Humboldt seems to try to avoid the term, or else he uses it with additional linguistic distancing. In this sense, an excerpt from his travelogue Travels in the Equinoctial Regions of the New Continent, which was published in London in 1826, addresses the practice of tightly swaddling infants, a custom among the Carib ethnic group in Spanish America that educators in Europe also discussed. Humboldt describes Caribbean mothers engaging in this practice in their huts, which he portrays as characterized by "extreme neatness and order", stating: "Our infants when swaddled suffer much less than these Caribbee children, in a nation which is said to be so much closer to a state of nature". 18 The phrase 'which is said to be' is a fairly clear marker of Humboldt's skepticism when it comes to the 'state of nature' theory. It is fitting to note here that Jean-Jacques Rousseau's name is mentioned only five times in the entire Sämtliche Schriften corpus: three of these mentions occur incidentally in texts about the ages of trees, and another occurs in an article on Romantic poetry. Thus, there remains the above-mentioned excerpt from the famous 1826 Travels in the Equinoctial Regions of the *New Continent*. The passage quoted above, about the swaddling of infants in Carib huts, continues seamlessly: "In vain, the monks of the missions, without knowing the works or the name of Rousseau, attempt to oppose this ancient system of physical education" (Ibid.). Clearly, Rousseau's work does not constitute an explicit point of reference for Humboldt. For comparison, Voltaire is mentioned in 15 documents in this corpus; William Robertson, author of *The History of America*, is mentioned 19 times; and the botanist José Mutis, who

worked in Bogotá, is mentioned 87 times; the name Forster (Georg and/or Reinhold) is mentioned in 98 documents; and Charles-Marie de la Condamine, who also traveled to America, is mentioned a total of 147 times.

However, this does not mean that Humboldt did not take specific progressive stages of human history as his starting point or that he did not have the 'stadial theory' model, as circulated by Rousseau and other Enlightenment philosophers, in the back of his mind. In this respect, several times and in various formulations, he refers to the "first" or "prolonged childhood of the human race", the "earliest childhood of its culture", "the human race since its earliest childhood", and "the primordial state of humankind". 19 Yet he does not presume linear, quasi-natural, or ontologically predetermined developments. A recurring theme in Humboldt's argumentation is that once human populations have reached a certain level of culture and civilization, they may fall back again— 'degenerate' or 'become savage' (verwildern)—or be forced to return 'to the forests'. Humboldt published an interesting short article, which has not yet been widely studied, under the title "What are Barbarians?" (Was sind Barbaren?) in the Morgenblatt für gebildete Stände in Stuttgart and Tübingen in December 1817, and again a short time thereafter in journals in Graz and Vienna. In it, Humboldt compares ethnic groups along the Orinoco and in other regions of Spanish America with the Tartars and other peoples in the Caucasus and Asia. Thereby he arrives at the following consideration: "The barbarism [Barbarey] that prevails in these various regions is perhaps due not so much to the primordial lack of all civilization as to protracted savagery [Verwilderung]. Most of the hordes, which we call savages [Wilde], probably originate from people who at one time had advanced in culture; and how can one distinguish the prolonged childhood of the human race [...] from that state of moral degeneration in which segregation, misery, forced migrations, or severe climatic causes destroy all traces of civilization". In the jargon of his time, Humboldt here distinguishes between 'savages' or 'hordes' and 'civilization', although he also critically questions the actual current state of the ethnic groups in the regions he mentions. The so-called 'forced migrations' he mentions would probably be called 'expulsions' or 'land grabs' today.²⁰ In any case, Humboldt emphasizes the coercive aspect when he goes on to state, with reference to sources from India as well as the meaning of the word 'barbarian' in its original Greek-Roman context: "the savages of all tribes of peoples [die Wilden aller Völkerstämme] [...] were cast out of civil society, relegated to the forests" (von Humboldt 2019m).

The explanatory model of regression due to adverse circumstances or coercion occupied Humboldt, both directly and ad hoc, even during his journey to America, as his travel diary testifies: the conquistadors in South America had not promoted "the progress of human culture" in the form of agriculture and cloth weaving; in fact, they had made such progress "even more difficult". For this reason, one must ask oneself who is actually responsible for this cultureless "desolation" (*Oedigkeit*) and "dead silence" on the banks of the Orinoco. Primarily to get a sense of the reality on the ground for himself, Humboldt provides an answer that is nothing if not explicit: "You Europeans, who every night rob the children of the poor, peaceful inhabitants (terrifying them with guns or assaulting them in their sleep like cowards), you who drive the savage from the banks". (von Humboldt 2003c, p. 201).

Despite all of his critical reflection and cultural-theoretical efforts, *wild* or *Wilde(r)* remains a conspicuous term in Humboldt's discourse, and he uses it—quasi-provisionally, apparently for lack of alternatives—quite often. If we include textual variants and repeat publications, then the textual corpus contains no less than 195 documents in which the German term 'Wilde(r)' appears, although this term is used with reference not only to humans but also to plants and animals. The phrases *wilder Indianer* ('savage Indian', which occurs 5 times), *wilde Menschen* ('savage people'; 9 times), *wilde Völker* or *Volksstämme* ('savage peoples' or 'tribes'; 11 times), *wilde Nationen* ('savage nations'; 3 times), and *wilde Horden* ('savage hordes'; 8 times) are revealing. Once again, Humboldt refrains from engaging in rapturous idealization. Entering 'edle(r) Wilde(r)' into the digital search function of the *Sämtliche Schriften* produces no results; the same is true for the English equivalent

'noble savage', and there is just one single result for the French term 'homme sauvage' (von Humboldt 2019f). Moreover, in a comparable way to the contemporary geological debate between Plutonists and Neptunists over the origin of the world, Humboldt, the botanist, makes comparisons here and there between human society and the history and propagation of plants.²¹ Thus his article "Zur geographischen Botanik" (1847, first published in Spanish in 1809) refers to parallels between ethnic groups and plants in terms of the dichotomy between containment and savagery: as with the "human race", the "primordial habitat" (*ursprüngliche Heimath*) of many of the "plants" that serve as food for humans is unclear; once domesticated, plants could also "run wild [*verwildernd*], regaining their old freedom in the forests" (von Humboldt 2019n).

In the mirror of his conceptual practice, Alexander von Humboldt is reflected as a transdisciplinary, interconnected thinker, one who distances himself from the discourse of his time and also criticizes it. One final, brief example from his famous text Das nächtliche Leben im Urwald, an excerpt from Views of Nature (1849), which concerns the Yaruros and Achaguas along the tributaries of the Orinoco river, illustrates this point: "They are called savages in the monks' mission villages because they want to live independently" (von Humboldt 2019e). At the same time, however, we should not overlook the fact that Humboldt himself also uses and perpetuates the prevailing discourse. To be sure, he largely refrains from classifying the ethnic groups in Spanish colonial America as 'peuple primitif' (3 times) or 'primitive people' (not once), but from today's perspective, his frequent recourse to the two terms 'horde' (which occurs in 82 documents in the corpus) and 'barbarism' (Rohheit; 41 occurrences) is jarring. Humboldt uses 'horde' to describe a form of social organization that he contrasts with developed 'civilization'. 'Barbarism' or the phrase 'moral barbarism' (15 occurrences) proves to be a particularly relevant term. Like 'horde', 'barbarism' refers to the assumptions inherent in the evolutionist, progressive-stage theory characteristic of the Enlightenment, which constitutes a reference point for Humboldt's thought in both his early and later works. Thus, in the first edition of Ansichten der Natur (1808), he explicitly mentions the "lowest stage" of human development as "animal barbarism" (thierischer Rohheit). In a less well-known text published in 1857, he refers to "the manifold stages of undeveloped intelligence in the primordial state [Urzustande] of the hordes" (von Humboldt 2019b, 2019i).²²

While the writings of this traveler to Spanish America contain no 'noble savages', they certainly feature 'man-eaters' (9 times) and 'cannibal(s)' (39 times). But Humboldt would not be Humboldt if he did not contextualize these labels and put them into perspective. He is not fundamentally concerned with constructing alterity but rather with pointing out the potential for development. Thus his stated goal is to "trace the slow and at the same time very mysterious course of the moral formation [sittlichen Bildung] of the American indigenous peoples [Stammvölker]" (von Humboldt 2019j). As we have already seen, the theory of evolution is thereby upended several times since Humboldt identifies (forced) regression rather than (steady or successive) progress as an effect of (European) colonialism. From this perspective, the "most primordial state of the human race" was not necessarily characterized by "barbarism and ignorance;" rather, "the wild hordes [could] have descended from people whose powers of understanding, as well as the language in which these were reflected, were both equally developed earlier" (von Humboldt 2019c). Above all, the complexity of the languages spoken among the American ethnic groups as well as the actors' competence in terms of multilingualism constituted indicators of "the awakening of self-actualized intellectual power" as far as William von Humboldt's brother was concerned (von Humboldt 2019b).

Humboldt does not presume a natural, sui generis, or racially conditioned 'barbarism' among humans; instead, he sees the potential for cultural development toward 'civilization' in broad terms across all ethnic groups—even on the level of the 'horde'. Ultimately and with relish, he draws his European readers' attention to the fact that in the past, precisely that portion of humankind that "now enjoys a high flowering of culture, in science, and the fine arts, lived in just such a barbarous manner" (Ibid.). Moreover, Humboldt considers

the 'morality' achieved as a result of educational processes and progress both dubious and debatable. In his popular *Views of Nature*, he admonishes the educated reading public in Europe that not only "on the lowest level of animal barbarism", but also "in the pseudoglamor of their higher education", humankind would only and "always [live] a hard life" (von Humboldt 2019d).

3. Observations of Indigenous People in Their Natural Environment

While Humboldt's published articles, supplemented by his diary entries, stood in the foreground of the foregoing analysis of terms, my focus in what follows is the opposite—it is directed primarily toward the entries in his travel diary, as well as a passage from his famous travelogue *Reise in die Äquinoktial-Gegenden* (in English: *Personal Narrative*). Characteristically, in his travel diaries, Humboldt wrote down his observations in a timely manner and without a purgative round of editing. On the one hand, he draws on his direct experiences, not least his personal interactions with indigenous actors; on the other hand, he draws on reports from local informants, such as monks in the missions along the Orinoco River. The statements in Humboldt's travel diary meander in different directions without demonstrating any compulsion to be consistent in terms of content. Once again, his epistemological interests refer back to contemporary scholarly discourse, but he also repeatedly counters and vigorously contradicts prevailing European opinions and modes of thought regarding 'the savages'.

Humboldt grew up in the enlightened milieu of Berlin and studied in Göttingen under the anatomist and anthropologist Johann Friedrich Blumenbach; as such, he was certainly an inheritor of the—from our perspective today, extremely problematic—racial discourses of the late Enlightenment. Therefore it is not surprising that Blumenbach is mentioned in 59 documents in the Sämtliche Schriften corpus. We do know that Humboldt opposed the racist idea that humankind originated from several different roots. In the first volume of his *Kosmos* (1845), he clearly states: "By asserting the unity of the human race, we also resist any unpleasant assumption of [the existence of] higher and lower human races" (von Humboldt 2014a, p. 187). But his travel diary certainly contains allusions to the anthropological discourse of the day, as the following sketch of the Chaimas ethnic group in present-day Venezuela demonstrates: "Flat Greek forehead. The corners of the eyes are drawn outward, slightly upward (Chinese), with long slits, and long eyelashes. Eyelids are mostly half-closed. Nose long, straight, broader, and wrinkled toward the bottom. Mouth straight; large, thick, not upturned lips [...] Face flat, Georgian, but very broad maxillae. Race small, almost 4 feet 10 inches, broad-shouldered, and fleshy" (von Humboldt 2000b, p. 160). In contrast, Humboldt's description of the Caribe is quite different: "slender, with beautiful symmetry in the limbs, small-headed like the ancient statues, and such beautiful curvature of the muscles that one would think one is looking at the back of a bronze Olympic Jupiter. In all of Europe, there is no tribe of men of equal size or [such] wonderful physical beauty". (von Humboldt 2000a, p. 342)

A basic theme in Humboldt's work is the rejection of the stereotypical simplifications that were common in European scholarly discourse. This is also true with regard to anthropological racial typology. In his diary, for example, he explicitly criticizes the "one-sidedness of the judgment of [the] outer form. Is it not true that all American writers say that all American] Indians have one and the same facial features?" In contrast, he and his French companion, Aimé Bonpland, stated: "One cannot but be astonished at the diversity of facial features among [the] forest Indians. How different are [the] facial features of the Otomaco and Guahibo from the Caribe, how different the Chaimas from the Maravitanos and the inhabitants of the Guainía" (Ibid.). Over and over again, Humboldt emphasizes the difference—yet not at all between the 'civilized', cultured people in Europe and the 'savage', natural people in America, but rather in terms of the physical stature and facial features of various indigenous ethnic groups in Spanish America.

In stark contrast to Mary Louise Pratt's findings, accounts of the knowledge, skills, and practices of indigenous groups struggling to hold their own in a natural environment

defined by scarce resources abound in Humboldt's travel diary—and in other places as well. Humboldt typically analyzes 'Indian' practices in the context of their natural living conditions, even when—like many travel writers of the time and many functionaries of the colonial system on the ground—one might at first glance see only 'savagery' or 'barbarity'. From Humboldt's perspective, such seemingly unavoidable terms proved inadequate and misguided when in close contact with indigenous peoples in the field. Nevertheless, contemporary debates in the 'République des Lettres' were also part of his mental baggage when he wrote his diary on the banks of the Orinoco—he did not manage to leave them behind in Europe when he left.²³ And so, based on his direct observations of the "Sauvages Xíbaros" (Jivaros), he quickly arrives at general conclusions, which also constitute a distant echo of the scorned Rousseau's assumptions about "the man who has not yet degenerated through luxury" (von Humboldt 2003b, p. 198). In order to analyze Humboldt's perspective on the knowledge and practices of indigenous groups, the following discussion is based on three texts: in addition to the section on the 'Sauvages Xíbaros' and a reflection on 'Indiens, Sagacité', both taken from his diary, there is also a detailed account of the indigenous ethnic groups' practice of painting their skin red, which extends over several pages in the published travelogue (Reise in die Äquinoktial-Gegenden; Personal Narrative). When it comes to the social behavior of the 'hordes' as well as their 'pensée sauvage' (Claude Lévi-Strauss), the following observation applies: by investing so much attention, sketching his observations precisely and in detail—and not simply describing allegedly deserted landscapes and plant habitats—Humboldt has already conveyed a certain level of appreciation. Several relevant aspects were essential for him: first, the question of which knowledge, skills, and practices the indigenous actors he and Bonpland encountered on the Llanos, along the Orinoco, and in the Andes used to ensure their subsistence and survival; second, which insights in terms of human anthropology resulted from his on-site observations. Thus his detailed sketches always end with comparisons to other cultures—not least pointed comparisons between the so-called 'savages' along the Orinoco and the 'civilized' people in Europe.

Let us briefly discuss the content of these three sources. The text on the Xíbaros (Jivaros) describes encounters with indigenous people in the remote village of Tomependa (Peru), situated on a tributary of the Amazon river, in August 1802. In this text, which he wrote in French, Humboldt speaks of "Sauvages", "Indiens", and "the wild man of the woods" (le Sauvage des bois). Impressed, he outlines a number of characteristics and behaviors among the Xíbaros, not least in an effort to point out once again the discrepancy between the bright, inquisitive "I'homme sauvage et libre", who is very "different from the man of the missions, [who is a] slave to priestly opinion and oppression" (Ibid., p. 197). Specifically, he makes notes in an ethnological style on skillful swimming with the aid of logs in the river as the customary indigenous mode of travel in this fluvial landscape, on dietary and clothing habits, on the balance between work and leisure, on conflicts with other indigenous groups in the area, on their amazing ability to learn languages by repeating phrases from European languages, and on their reactions when he lets them use his instruments—his telescope, chronometer, and compass. This last aspect also sheds light on the direct contact Humboldt sought in communicating with indigenous actors rather than relying on the information provided by missionaries and other informants.

The second text, which is shorter, was written in Guayaquil (Ecuador) at the beginning of 1803; in it, Humboldt reflects on the "acumen" of the indigenous people, the "very small hordes (Orénoque)" who lived scattered throughout the landscape. This text primarily addresses some of the skills of the people who would later be referred to as *Naturmenschen*, which are surprising for Humboldt and therefore worth emphasizing. Here he is explicitly concerned with "man in his natural state" (von Humboldt 2003a, p. 181). He begins by emphasizing the complete attention the people in the forests along the Orinoco pay to the flora and fauna in their immediate environment: "The savage man is the most faithful, the most exact observer of nature" (Ibid.). This leads Humboldt to mention some of the people's skills, which are difficult to explain but which he notes as "very definite facts". As

it turns out, he is describing concrete events and experiences over the course of his journey. For example, in the sandy wasteland along the Peruvian coast, their guide lost his way and led them around in circles for two hours. At last, by repeatedly bending down and inhaling the sand, the guide had managed to scent the road (*en flairant*) (Ibid.), and thus they found their way again. Some of Humboldt's other experiences point in the same direction: special skills in the use of one's senses. For example, the forest-dwelling indigenous people could determine what kind of tree they had encountered by chewing its bark. In an old Inca palace, an attendant could taste the bricks and thus determine whether or not the stones originated from the time of the Incas. Along the Rio Apure (Venezuela), the inhabitants could distinguish crocodiles that posed a danger to humans from those that did not by observing which ones stretched out their tails while they were sleeping and which curled their tails to the left. Humboldt made a skeptical addition to this report: "The Indians say fabulous things" (Ibid., p. 182).

While Humboldt's diary offered him the opportunity to note various details and draw provisional conclusions on this basis without claiming consistent adherence to a narrative, the publication of his travelogue upon his return to Europe called for a more consistent structure and required him to formulate his notes and ideas. One passage in the *Reise in die* Äquinoktial-Gegenden is particularly remarkable in this respect—in it, Humboldt goes into detail on the indigenous peoples' practice of painting their skin red. For context, I must explain here that many European observers considered the indigenous peoples' nakedness, combined with the pigment they painted on their skin and their resulting designation as 'redskins', to be emblematic of their essential otherness and their frightening savagery. Humboldt himself points this out (von Humboldt 1997, p. 219). Yet instead of dwelling on such labels, he provides a long, precise description of how the paint was made as well as the peoples' reasons and motives for painting their skin. Thus the text reports on the elaborate process of producing the dye ('Onoto' or 'Chica'), which indigenous women made from plant seeds mixed and kneaded with turtle oil or crocodile fat; the different skin-painting practices of different ethnic groups, which were based on historical events; and their various motives for painting their skin. Just as they had experimented with chewing tree bark, Humboldt and Bonpland proceeded to experiment on themselves to find out whether rubbing the dye on their skin helped to deter the plague of mosquitoes. At the end of this passage, as so often in Humboldt's work, he makes brief cross-cultural comparisons and raises the question of "barbarism" vs. "civilization" (Ibid.). Overall, this report is written in an ethnological style, which certainly indicates that Humboldt took the practices he encountered among the ethnic groups along the Orinoco and in other places very seriously and that he wanted to explore their meaning without making snap judgments.

In some passages, Humboldt seems prima facie to emphasize a certain essentialized alterity in his notes on the special skills of 'savages' or 'natural men'. Yet a closer reading repeatedly reveals that he also records ethical and other behaviors, which his readership and he himself—has no choice but to evaluate as 'culture' or as 'civilized' behavior. Thus, he addresses his contemporaries' key moral precepts and values with regard to gender relations, property, intellectual ability, and work ethic. In the text on the 'Sauvages Xíbaros', he describes how they sing and dance in pairs. They refuse to drink wine or brandy. The gender-specific division of labor among the Chaimas, according to which the women take care of the cooking while the men spin the cotton they have grown themselves and weave it into beautiful ponchos, corresponds rather strikingly to the idea of 'separate spheres' in the formation of the bourgeois family in Europe around 1800 (von Humboldt 2003b, p. 198)²⁴. It is true that "these savages" would rather steal bananas than grow the fruit themselves and that they would also steal from each other ("very inclined to steal from other Indians in the village"). But they would never touch anything in the governor's house, so as not to offend his hospitality (pas blesser l'hospitalité). (von Humboldt 2003b, pp. 197–98) Elsewhere in his diary, Humboldt is more explicit and speaks more generally, directly criticizing the judgments other travel writers make, as follows:

How one-sided and miserable, for example, is what Ulloa, La Condamine, Frezier, D[o]n George Juan, and all the missionaries say of [the] Indians. No man is farther from stealing than Chaima und Atures [...]. Additionally, they even wanted to transfer this idiosyncrasy to all savages; in contrast, I can assure [them] that property is nowhere more respected and sanctified than it is among the forest-dwelling Indians from the Orinoco to Marañón. (von Humboldt 2000a, p. 342)

As I have already mentioned, Humboldt is fascinated by the Xibaros' ability to learn Spanish and other European languages quickly. While he laments the fact, as he sees it, that people with "such a great nobility of spirit" and "so many intellectual faculties" are also prone to laziness and indolence ("the most indolent, the laziest when it comes to work"), he immediately qualifies this argument by referring to the "indolence of our grand seigneurs and our scholars" in Europe. These people in Europe would also refuse to cultivate the earth, would not travel on foot, and would prefer to be served (von Humboldt 2003b, p. 197).

The ability to distinguish between placid and ravenous crocodiles did not matter to people in Europe at a time when predators were becoming increasingly scarce. For people who lived along the Rio Apure, this skill was essential to survival. Therefore, Humboldt finds it worth mentioning. However, another aspect was even more important for his report. When the village chief's son was attacked by a crocodile and dragged to the bottom of the river, the "Teniente de Pueblo" gave orders that the villagers dive down and find the crocodile, kill it, and retrieve his son's body. As Humboldt explains, the bereaved father, seeking comfort, wanted to give his child a decent burial. (von Humboldt 2003a, p. 182).

According to a widespread conception in Europe, the 'primitive savages' in America are naked and painted red. Humboldt cannot directly contradict this, at least as far as the indigenous ethnic groups along the Orinoco or in Guiana are concerned. But his characteristic response to this stereotype employs the discursive methods of relativization, contextualization, and historicization, as well as—once again—global-intercultural comparison. Missionaries in Spanish America would be moan the lack of shame among the women. Yet according to Humboldt, "Must we not attribute this indifference, this lack of a female sense of shame among peoples that are not characterized by great moral corruption, to the stupor and slavery with which the female sex in South America has been degraded by injustice and by abuse of power on the part of men?" (von Humboldt 1997, p. 218). Moreover, the "mental powers" of "most of the people of Guiana" are "quite developed". Like sedentary, agricultural peoples, they cultivate food crops and weave cotton cloth, but they are "just as naked" and "just as poor" as indigenous peoples in Australia, for example. The cause of this nakedness, according to Humboldt—no doubt arguing on the basis of his own experience—is quite simply the sweaty, "intense heat" that makes "clothing unbearable". As far as tattoos and other types of skin decoration are concerned, one finds instances of this practice even in Roman times, "also among the white race in the north of Europe". And finally, with regard to present-day customs involving make-up, both in Europe and in colonial American society, he cannot help observing: "After living for some time among people painted with onoto and chica, one is more than a little surprised to observe the remains of an ancient barbarism still present in the midst of all the customs of civilization" (Ibid., pp. 218–19).

4. Concluding Remarks

Alexander von Humboldt employed the terms and—along with them—the intellectual paradigms of his day. At the same time, he struggles with these terms, rejecting some of them outright, paraphrasing others, and repeatedly expressing his skepticism with regard to their explanatory power. My first conclusion is therefore methodological. It is not enough to look at the terms themselves in isolation and analyze them exclusively quantitatively. Rather, one must include the linguistic and argumentative contexts in which they occur. The results of such efforts paint a picture that is quite different in many respects. We should also bear in mind that some of the terms that we consider extremely problematic

today were intended and used differently in Humboldt's time. For instance, from the point of view of the educated person in his day, 'barbarous people' existed beyond the boundaries of the jungle and could be found along more rivers than the Orinoco. In his well-known text "What is Enlightenment?" (1784), Immanuel Kant famously appealed to people to emancipate themselves from "self-inflicted nonage" by employing their "own understanding". (Kant 1784) Kant's text is addressed to the educated general public in Europe, and so his concluding reflection on the question of whether his audience is "now living in an enlightened age" also refers to the situation in European societies. His optimistic verdict is: "When one does not deliberately attempt to keep men in barbarism [Rohigkeit], they will gradually work out of that condition by themselves" (Ibid.)²⁵. Humboldt would certainly have supported Kant's optimistic prognosis; he mentions Kant relatively often in his textual corpus, namely in 23 documents in the Sämtliche Schriften. He would also have immediately endorsed the demand that the free development of the powers of reason, particularly among the 'savage hordes' in Latin America, should not be hindered. Even though he presumes the existence of defined, progressive stages of human development, in the characteristic style of Enlightenment discourse, one of Humboldt's central concerns is to critically reflect on, reduce, and level the gap between 'savagery' and 'civilization'. As a rule, he is not concerned with alterity or the construction of difference, but rather with the potential for development, which he finds in principle among all ethnic groups around the world. European colonialism, as he experienced it on the ground, did not foster but in fact, impeded or even destroyed the potential progress of indigenous societies. Conversely, for instance, Humboldt considered the industriousness of the locals and the quality of cloth production in Amerindian villages in the vicinity of Quito to be on par with advanced European countries. In this comparison, he mentions the Netherlands and Switzerland (von Humboldt 2006, p. 80).

To explain Humboldt's overall approach, we need not necessarily point to the 'humanistic ethos' of someone like Humboldt, who adhered to the ideas behind the French Revolution, nor assert that Humboldt was the 'last liberal' at the Prussian court. Indeed, Humboldt's repeated encounters with 'indigenous knowledge' in different iterations throughout his journey may have been more important to the development of his thought. This applies to his experiences of the ability to orient oneself in impassable landscapes, skill in interpreting natural phenomena, the capacity for survival in an environment inhabited by predators and characterized by limited resources, and not least the daily procurement of food, protection from mosquitoes, and safe places to sleep, among many other things (Daum 2019, p. 51). Beyond these skills, however, indigenous knowledge was also evident in the moral behavior and intellectual capacities of indigenous actors. In Humboldt's work, it sometimes seems that the initial Eurocentric interest in *Naturmenschen* has been reversed: What can 'we' learn from the knowledge of these 'others' in the 'primordial forest'? In this vein, when it comes to explaining the degradation of local ecosystems, such as falling water levels in lakes, Humboldt includes local people's opinions. More generally, he is fascinated not only by indigenous people's skills but, above all, by their storytelling and their wisdom. Today, indigenous knowledge is once again playing an important role in current debates vis-à-vis new challenges associated with the pandemic or the Anthropocene (Lubrich 2004).²⁶

In the debate about 'Humboldtian Science', scholars on several sides have pointed out that Humboldt's thought was open and hypothetical, oriented toward constant verification and improvement. It meandered as the Orinoco River did. (Ette 2009, p. 27) (Eibach 2018, pp. 157–61). He often revised his preliminary findings or followed a train of thought, sometimes in one direction and sometimes in another. In addition, the fact that this prolific writer continued to produce an enormous amount of text up to a ripe old age meant that he was not always able to remember his earlier pronouncements, which is probably one of several reasons why contradictions arose.²⁷ At the end of the day, a certain ambivalence remains with regard to Humboldt's view of *Naturmenschen*, or 'savages' in Latin America. In a somewhat obscure article published in a journal on the occasion of the appearance of

the Prussian Balduin Möllhausen's travelogue from the western United States in 1857, the 88-year-old Humboldt once again criticizes the use of the term "savages (Indios bravos)" as "so imprecise and often so inappropriate;" he expresses himself in a nuanced manner with regard to the "contrast between culture and its opposite" (*Cultur und Uncultur*) in various ethnic groups and refers to the cultural achievements of the Aztecs, the Incas, and other peoples in the western part of the American continent prior to the Europeans' arrival (von Humboldt 2019b). Four years earlier, in 1853, taking up a passage from the first volume of his *Kosmos* (1845), the aging scholar wrote an article on the history of knowledge and the state of research on magnetism. The phenomena of magnetism and electricity had fascinated him since his youth. Here, however, Humboldt not only addresses the recent progress of (Western) science but also references the pioneering knowledge on the subject in ancient China and refers back to his long-ago experiences in South America. He states:

It was not without surprise that I also noted on the wooded banks of the Orinoco, during the games the savages' children played, among tribes that represent the lowest level of barbarism, that they are aware that electricity can be excited by friction. Boys rubbed the dry, flat, shiny seeds of a climbing pod plant [...] until they attracted cotton and bamboo cane fibers. That which enthralls the naked, copper-brown natives is apt to leave a deep and serious impression. What a gulf separates the electric game of those savages from the invention of a metallic lightning conductor in a thunderstorm, [...] a light-generating magnetic apparatus! In just such a gap, millennia of the history of humankind's intellectual development lie buried! (von Humboldt 2019h, p. 98)

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Notes

- Relevant publications since the 250th anniversary of Humboldt's birth in 2019 include Daum (2019); Nehrlich (2021); Lubrich (2022).
- In defense of Humboldt in the face of postcolonial criticism, see Osterhammel (1999).
- As an early critical response to Pratt, see Sachs (2003).
- ⁴ See also Lubrich (2019), vol. 10, pp. 437–62.
- On the term 'Humboldtian Science', see Cannon (1978); Dettelbach (1996), pp. 286–304; with a different emphasis, see also Ette (2018), pp. 106–12; Daum (2019), pp. 40–44; and the contributions in Kviat Bloch et al. (2021).
- ⁶ See also Eibach (2018).
- See also Rousseau's (1755) original, epoch-defining text, published in 1755.
- For further details, see Eibach (2021).
- This and all subsequent citations are taken from the edition of Humboldt's travelogue, *Reise in die Äquinoktial-Gegenden des neuen Kontinents* (first published in French as: *Relation historique du voyage aux régions équinoxiales du nouveau continent*, 1805–34; and in English in various editions under the title: *Personal Narrative of Travels to the Equinoctial Regions of the New Continent*), published in von Humboldt (1997); the citation here is taken from vol. 2/1, p. 308. Alissa Jones Nelson has translated these quotations into English.
- Lubrich and Nehrlich (2019a), vol. 8, pp. 7–76; for a quick overview, see https://humboldt.unibe.ch/editionen.html (accessed on 9 September 2023).
- Accessed at https://humboldt.unibe.ch/text (accessed on 30 September 2023); subsequent citations are taken from the digital edition of the *Sämtliche Schriften*, cited as Lubrich and Nehrlich (2019c).

Lubrich and Nehrlich (2019c), "Vorwort", https://humboldt.unibe.ch/text/1841-Vorwort-1 (accessed on 31 August 2023). See (von Humboldt 2019k).

- Adelung (1811a, 1811b), https://lexika.digitale-sammlungen.de/adelung/lemma/bsb00009133_2_0_618 (accessed on 30 September 2023); https://lexika.digitale-sammlungen.de/adelung/lemma/bsb00009133_2_0_624 (accessed on 31 August 2023).
- On the history of the discipline, see Petermann (2004).
- ¹⁵ See, e.g., Bollenbeck (2007).
- von Humboldt (2019a), "1. Ueber die alten Aturer am Orinoco/2. Ein Mexicanischer Riese", https://humboldt.unibe.ch/text/18 06-xxx_1_Ueber_die-1-neu (accessed on 30 September 2023).
- von Humboldt and Provençal (2019), "Recherches Sur la respiration des poissons", https://humboldt.unibe.ch/text/1809
 -Recherches_sur_la-2 (accessed on 31 August 2023).
- von Humboldt (20191), "Voyage aux Régions Equinoxiales du Nouveau Continent, fait en 1799–1804, Paris, 1825. Travels in the Equinoctial Regions of the New Continent in 1799 to 1804, &c.", https://humboldt.unibe.ch/text/1826-Voyage_aux_Regions-1-neu (accessed on 31 August 2023).
- In order of mention: von Humboldt (2019j), "Ueber die Urvölker von Amerika, und die Denkmähler welche von ihnen übrig geblieben sind", https://humboldt.unibe.ch/text/1806-Ueber_die_Urvoelker-1 (accessed on 31 August 2023); von Humboldt (2019m) "Was sind Barbaren?", https://humboldt.unibe.ch/text/1817-Was_sind_Barbaren-2-neu (accessed on 31 August 2023); von Humboldt (2019g) "Ideen zu einer Physiognomik der Gewächse", https://humboldt.unibe.ch/text/1806-Fragment_aus_der-03 (accessed on 30 September 2023); von Humboldt (2019n) "Zur geographischen Botanik", https://humboldt.unibe.ch/text/18 09-Geografia_de_las-5-neu (accessed on 30 September 2023).
- On this concept, see Bodley (2008); Haller (2019).
- ²¹ Cf. Nehrlich and Strobl (2019), pp. 241–72; Lubrich and Nehrlich (2019b), pp. 273–310.
- see the new translation by Jackson and Dassow Walls (von Humboldt 2014b); see also Mathieu (2021).
- Lubrich and Nehrlich (2019c), "Alexander v. Humboldt über Möllhausens Reise nach der Südsee", https://humboldt.unibe.ch/text/1857-Alexander_von_Humboldt_ueber_Moellhausen-1 (accessed on 31 August 2023); see also Eibach (2018), pp. 153–59.
- For a discussion of gender-specific 'separate spheres', see Vickery (1993).
- On the question of non-European peoples' ability to reason in Enlightenment discourse and in Kant's work, see Carey and Trakulhun (2009).
- For further details on Humboldt, see Eibach (2019), pp. 479–91; Eibach and Haller (2021), chap. 4; on the new interest in indigenous wisdom, see, e.g., Wall Kimmerer (2020); Betasamosake Simpson (2017). My thanks to Maeve Cooke and Martin Sauter for this information.
- ²⁷ For an overview, see Ette (2009), pp. 16–30; idem. 2018, p. 106; Daum (2019), p. 44; Glaubrecht (2019a).

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