
SPRINGS

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“WE HAVE ALWAYS KNOWN”: ON THE TRAILS OF PEOPLE, PLANTS,
AND HUMBOLDT

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I am trying to focus on my writing, I really am. But my phone buzzes again. This time, the message is difficult to ignore. I see a photograph of my beloved friend Adriana, recently appointed for a high position at the Colombian Ministry of Culture, posing with about 30 other people in what seems to be the nightly ending of a day-long meeting. They are standing under a provisional tent roof installed on a worn outdoor basketball court. About half of them are Indigenous representatives from the Consejo Regional Indígena del Cauca (CRIC), a powerful, belligerent Indigenous organization representing more than 84 *resguardos* (Indigenous lands) from the Andean South of Colombia. That is the image that traveled all the way from the southern Colombian Andes to my living room in Bogotá. I can see that some of them are important leaders, as they are holding batons of command. The others are government officers, also wearing their traditional costumes: dark blue waterproof jackets with emblems of different institutions embroidered on the chest. Among them, I recognize the new Minister of the Interior, the most important minister of the Colombian cabinet. They look tired. They are smiling.



Member of the Indigenous Guard in a protest against the Colombian government. © 2019 Carlos Hernando Tapia Caicedo. All rights reserved.

I listen to the voice message Adriana sent me with the photo. She is moved that she is able to attend this "meeting of two governments," as she calls it, which is taking place in Indigenous territories.

Among other stories, she tells me that they discussed whose hymn to sing first at the beginning of the meeting. They agreed to play the Indigenous Guard's hymn before the Colombian one, and to take turns in future meetings. I imagine those loud words resonating around the government officials: "Guard, guard. Strength, strength! *Totoroes and Paeces, Yanaconas and Guambianos, Coconucos, Siapidaras,*¹ all Colombian Indigenous peoples! Let's go forward, comrades!"

I am interested in examining how boundaries—between ecosystems, organisms, or the researcher and their objects of study—are places where distinct realms merge, where contrasting threads are entangled.

These words make me remember the previous government's brutal repression of the mass demonstrations that took place in 2021. The United Nations Human Rights Office reported 46 deaths, a great majority of them in the same region where this meeting is taking place, allegedly caused by members of the police or the military, and some by civilians protected by the former.² In May, after many days of road blockades by the CRIC, in which they demanded the presence of high-ranking government officials to discuss territorial claims and human rights, the president addressed them on television, stating: "Citizens have suffered a lot because of the blockades. . . . I want to call on the CRIC members to return to their reserves." With these words, the president denied the Indigenous peoples' status as citizens and violently confined them, creating a boundary that separated them from "actual" citizens. The president stayed safely on his side of the boundary, with those that he thought worthy of citizenship.

I force myself not to call Adriana and keep working. I also return to my assignment because, in a way that I have yet to decipher, the image of boundaries between governments being challenged, of the transgression of one domain by a different and willful Other, resonates deeply with what I am doing. I am investigating the dividing lines that constitute the discipline of biology. More specifically, I am interested in examining how boundaries—between ecosystems, organisms, or the researcher and their objects of study—are places where distinct realms merge, where contrasting threads are entangled. As part of this research, I am reading the 1805 *Essay on the Geography of Plants* by Alexander, Baron von Humboldt (1769-1859).

Humboldt's explorations make me see a vegetation that is radically different from the one that I studied in university biology courses, in which my colleagues work today. I feel this difference is related to the fact that Humboldt's science is populated with connections that are lacking in contemporary biology. These are the connections I intend to explore now.

For Humboldt, inspired by Goethe's provocation to transcend the division between subject and object, measuring instruments are extensions of his body, and his body is also a measuring instrument.³ As researchers, we connect with the world we study through our bodies, our imaginations, our fascination, our sensibility.

In the *Essay*, Humboldt dedicates a long paragraph to reflecting on the ways nature affects its observers:

The simple aspect of nature, the sight of fields and woodland, yields a pleasure which is essentially different from the impression received from studying the particular structure of an organized being. In the latter case, it is the detail which interests us and excites our curiosity. . . . What is the moral cause of these sensations? Are they produced by nature, by the size of the arrangements, by the outline of shapes, or by the bearing of the plants? How does this bearing, the more or less wealthy and cheerful nature, influence the habits and particularly the sensitivities of people?⁴

His mentioning of pleasure, curiosity, sensations, and sensitivity brings back a memory of my training as a biologist. When I started my undergraduate studies, an attentive professor heard that I liked to draw and proposed that we make an illustrated guide to the plants of a nature reserve close to Bogotá. I settled in his laboratory with pencils and a stack of white paper and let "the detail" of a pressed, dried, and mounted sample of *Quercus humboldtii* (the Andean oak, named after Alexander von Humboldt) "interest" me and "excite [my] curiosity." I devoted myself to reproducing the reddish-gray fur that covered the sample of the oak, and that had sheltered the petioles, the buds, the knots, the stems, and the branches of that tree when it was still up there in the high, cold mountains. I committed to recreating the shadows of the subtle and irregular folds of the leathery leaves; the blackened-edged bite impression of a wasp larvae that made me uneasy; the light reflected by the smooth, polished acorn; the scales of the cupule in which the nut fit perfectly seemed to be borrowed from a wounded reptile.



(Left) *Quercus humboldtii* in Alexander von Humboldt and Aimé Bonpland, *Plantes équinoxiales* (Paris: F. Schoell, 1808-09). Public domain. (Right) *Quercus humboldtii* Bonpl. Photo by Jhon Alexander Mantilla Carreño, 2022. CC BY-NC 4.0.

After some days of work, the teacher reviewed the assignment and explained that this drawing, full of peculiarities, did not meet the standards of a scientific illustration. He gave me a set of technical pens, and I started again. I then enjoyed the task of reducing what my eyes could distinguish to lines and dots of different thicknesses, to black and white; I dedicated myself to discarding the singular features of this particular branch of this particular oak tree that traveled from the mist of a forest in the Department of Boyacá and ended up pressed in this office of this university. A laborious mental exercise, in which my memory of the touch of the oak in the cold forest and my imagination of the wasp larvae nibbling the leaf had to take refuge in a plane of my mind different from the one dedicated to my training as a scientist. A dividing line was being drawn.

Humboldt's plants not only have the power to affect the researcher studying them but also influence human interactions around the world. He tells us that social plants "restrict the human population of states, separating neighboring nations and posing obstacles to communication and trade even more serious than do mountains or oceans." For instance, "the combination of *Erica vulgaris*, *Erica tetralix*, the *Lichen icmadophila* and *Haematomma* . . . have held imperial control of the region, sterilizing its soils: human efforts to confront this almost indomitable nature have only succeeded in salvaging small patches of land for agriculture."

For Humboldt, plants are willful, creative, and have the power to intervene in human worlds.

According to Humboldt, plants affect and even instigate human societies. Plant nutrients have an influence "that can be more or less stimulating on the energy and character of passion, navigation history and battles disputing the products of the plant realm." And while cultivated plants accompany humans, arouse their passions, and drive their battles, their wild relatives are fugitives that actively "escaped from human use and regained their original freedom."

For Humboldt, plants are willful, creative, and have the power to intervene in human worlds—how different from the plants that we studied in university courses, where humans were mostly absent. The divide extended to the disciplines: Plants appeared in botany physiology and ecology classes, where there was no place for humans. Humans appeared in the evolution classes, where they wandered, lonely, over the recently formed continents. In conservation biology classes, plants and humans coexisted: We learned that some humans caused the disappearance of some forests, and some other humans saved them. The view of plants as passive, helpless objects seemed to reinforce the boundary separating humans and plants.

Humboldt's *Essay* throws light on the boundaries that divide humans and plants in contemporary biology. It allows me to see our connections through mutual affections. Because they have character, because they can be joyful or imperial or accomplices, plants impact and shape our sensations, our imagination, our distribution on the surface of Earth, and the adventures we embark on.

Thinking with Carla Hustak and Natasha Myers, it could be argued that by denying the possibility of such affections, contemporary biology is "irresponsible." They make the case for an affective ecology that "takes seriously organisms [sic]," one in which "creativity and curiosity characterize the experimental forms of life of all kinds of practitioners." Maybe, in order to "challenge the status quo of ecological irresponsibility," our task consists in defying the training we receive as scientists, which includes camouflaging those fundamental fibers that connect us with plants and make it possible for us to listen to them, to let them affect us.⁵

I return to contemplating Adriana's account of the meeting of two governments. Yes, Humboldt's acknowledgment of plants as powerful, heterogeneous, connected to each other and to us in unfathomable ways seems to resonate with what this government is trying to do. Hopefully, maybe even naively, one might dare to paraphrase Hustak and Myers and say that this government is acting responsibly by taking the diverse worlds that coexist in this country seriously as creative practitioners who manufacture worlds, and by allowing itself to be affected by them.⁶

And only then do I see the contradiction in which I am trapped. Yes, Humboldt was able to see, feel, and transmit the multiple reciprocal connections between him and the living beings he studied, beyond reason and abstraction. But he also wrote in the *Essay* that "fishing, the fruit of palm trees, and some small cultivated lands (if the assemblage of such a small number of plants could be

called cultivation) . . . are the sources of nutrition for South American Indians." Ironically, the extraordinary sophistication of Indigenous peoples' connections to their ecosystems, and more particularly their mastery of complex cultivation techniques, seem to be invisible to him.

We need to acknowledge the contradictory, violent exclusion of other humans and their worlds from our understanding of nature.

Although contested,⁷ the affirmations that Humboldt was instrumental to the colonialist understanding of America and the continued European control of it cannot be ignored. Maybe, I think now, if we want to practice a truly responsible ecology, the challenge not only consists of recovering our affective relations with plants, which are part of the roots of our scientific tradition, embodied in Humboldt's observations. Maybe we also need to acknowledge the contradictory, violent exclusion of other humans and their worlds from our understanding of nature, an exclusion that is also part of those same roots.

As I look at the picture again, I realize something that had escaped my eyes before. An Indigenous elder's almond-shaped eyes are looking directly into the camera. He must have heard me say, inspired by Humboldt, that we need to be more responsible, to take plants seriously, to listen to them and let them affect us. I can now see him smiling ironically as he replies, with a voice more powerful and inscrutable than that of the Baron: "We have always known."

¹ These are the names of six of the eight Indigenous peoples represented by the CRIC.

² "ONU asegura que 28 muertes durante las protestas del paro nacional serían responsabilidad de la fuerza pública," *Infobae*, 15 December 2021, <https://www.infobae.com/america/colombia/2021/12/15/onu-asegura-que-28-muertes-durante-las-protestas-del-paro-nacional-serian-responsabilidad-de-la-fuerza-publica/>.

³ Michael Dettelbach, "The Face of Nature: Precise Measurement, Mapping, and Sensibility in the Work of Alexander von Humboldt," *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 30, no. 4 (1999): 473-504, [https://doi.org/10.1016/s1369-8486\(99\)00011-4](https://doi.org/10.1016/s1369-8486(99)00011-4).

⁴ The quoted passages from Humboldt's *Essay* appear in a translation by Anne Buttner in "Alexander von Humboldt and Planet Earth's Green Mantle," *Cybergeo: European Journal of Geography*, no. 616 (2012), <https://doi.org/10.4000/cybergeo.25478>.

⁵ Carla Hustak and Natasha Myers, "Involutionary Momentum: Affective Ecologies and the Sciences of Plant/Insect Encounters," *differences* 23, no. 3 (2012): 74-118, p. 106, <https://doi.org/10.1215/10407391-1892907>.

⁶ Hustak and Myers, "Involutionary Momentum," 106.

⁷ Aaron Sachs, "The Ultimate 'Other': Post-Colonialism and Alexander von Humboldt's Ecological Relationship with Nature," *History and Theory* 42, no. 4 (December 2003): 111-35.



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