

From Thought to Praxis: The Hydrohumanities and Hydrocriticism as Socioenvironmental Approaches in Latin American Studies

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I used to think the top environmental problems were biodiversity loss, ecosystem collapse, and climate change. But I was wrong. The top environmental problems are selfishness, greed, and apathy... to deal with those issues we need a spiritual and cultural transformation—and we scientists do not know how to do that.

—Gus Speth, former dean of the School of Forestry and Environmental Studies at Yale, founder of World Resources Institute, and cofounder of Natural Resources Defense Council

As I write these lines at the end of December 2021, the University of California, Berkeley's Central Sierra Snow Lab, located near Donner Pass, records the snowiest December on record: 193.7 inches, or over 16 feet, with another winter storm coming. Meanwhile, Alaska sets the record-high December temperature of 66.92 degrees Fahrenheit in an unusually warm and rainy spell. The previous year was the hottest one on record for our planet, tied with 2016. Indeed, climate change is hard to ignore nowadays.

In Latin America, where ecological activism can be a deadly business, climate change is increasingly becoming a source of social upheaval. Although water is a human right, explicitly recognized by the United Nations General Assembly on July 28, 2010, through Resolution 64/292, many people still have to give their life to have access to it. Thus, in 2019, Samir Flores, a thirty-five-year-old activist member of the Frente en Defensa de la Tierra

y el Agua (Defense of Land and Water Front) was assassinated by the organized crime group Comando Tlahuica when he was leaving his residence, the day after he protested the construction, initiated in 2012, of a thermoelectric project and pipeline by the Popocatépetl volcano in the Mexican state of Morelos. The project, supported by Mexican president Andrés Manuel López Obrador, had been denounced by academics and residents because of its adverse environmental impact and its overuse of water in an agricultural area where water is urgently needed.

A 2021 report from the environmental rights organization Global Witness described Latin America as the deadliest place in the world for environmental activists. In 2020 alone, there were 165 deadly attacks on land and environmental defenders, with 65 in Colombia (where one-third of the activists were of Indigenous or African ancestry), 30 in Mexico (half of the attacks were against Indigenous communities), 20 in Brazil, and 17 in Honduras. Although most of these deadly attacks were linked to the logging industry, many were also related to water appropriation, including demonstrations against the construction of hydroelectric dams. On September 24, 2020, for example, the thirty-four-year-old Indigenous Mexican activist Óscar Eyraud Adams was murdered in his residence in Nejí, Tecate, Baja California, for fighting for the Indigenous Kumiai community's water rights, as their aquifers were being dried up by large beer and wine companies during a severe drought.

Unfortunately, the Global Witness report (2021) states, these predatory companies' attackers can act with impunity, as 95 percent of these murders in Mexico go unpunished. The report concludes that an increasing number of murders related to climate change are being committed: "We tend to associate the climate crisis with its environmental impacts—unbearable heat, air pollution, rising seas, burning forests, or super-storms. Yet the data on attacks against land and environmental defenders . . . show that the unaccountable exploitation and greed driving the climate crisis is also having an increasingly violent impact on people" (Global Witness 2021, 15). These murders of activists are just the tip of the iceberg, revealing widespread environmental injustice and the increased vulnerability of minorities and the poor to industrial pollution, natural disasters, and the effects of climate change, particularly as they relate to small-scale agriculture and ranching.

This type of violence against environmental defenders is beginning to be reflected in Hispanic cultural production, as evident in the 2010 film *También la lluvia* (*Even the Rain*, dir. Icíar Bollaín, Spain, Mexico, France). In this film within a film, a film crew that travels to Cochabamba, Bolivia, in 2000 to shoot a film about the Spanish conquest of the Americas finds itself in the middle of the Cochabamba Water War. It turns out that an Indigenous actor named Daniel (Juan Carlos Aduviri), who has a significant role in the historical film that Mexican filmmaker Sebastián (Gael García Bernal) is directing, is also leading the demonstrations against the government-supported privatization of the city's municipal water company and the increased water rates after it is sold to a powerful international corporation. Daniel is beaten up by the police during a protest and later he is almost arrested a second time, and his daughter Belén's leg is seriously injured. In the closing scenes, Daniel, grateful for the help he has received from Costa (Luis Tosar), the Spanish executive producer of the film, to save his daughter, presents him with a small container of Bolivian water as a gift. The water war in Cochabamba will reappear in the documentary film *Ríos de hombres* (*Rivers of Men*, dir. Tin Dirdamal, Mexico, Bolivia, 2011), where we hear about the international

corporation's attempt to privatize even rainwater, about a mother who lost her son, and a general who was ordered to attack his own city, among other protagonists of the confrontation. The tragic problem with water access in Bolivia is also addressed in the interactive journalistic "webdoc" *Bolivia's Everyday Water War* (2016), financed by the Bill and Melinda Gates Foundation, which combines data journalism with documentary storytelling.

In the volume *Hydrohumanities: Water Discourse and Environmental Futures* (2021), which I coedited with Kim De Wolff and Rina Faletti, we encourage humanities scholars to take a leadership role in the urgent discussions about an anthropogenic climate change crisis that is threatening the very survival of human beings in this planet. More specifically, we claim that humanities scholars' interdisciplinary, cultural approaches to water sustainability, drought, flood, and other extreme water-related events are a valuable complement to the sciences and other nonhumanities disciplines and can lead their findings. The volume, which tries to bridge ocean-centered scholarship ("the oceanic turn" or "critical ocean studies") and research focused on rivers, works around three different themes: the agency of water ("how water, under its own power, is harnessed by and ultimately confounds human desire and control") (De Wolff and Faletti 2021, 10); fluid identities (connections between water and urban or national imagined communities); and cultural currencies (challenges to the technical and economic logics dominating public water conversations). *Hydrohumanities* emphasizes relationships between water and power, not only focusing on human power over water but also on "how water is itself powerful, not merely a substance to be fought over" (De Wolff and Faletti 2021, 6). It also calls for an activist move into praxis, emphasizing what the hydrohumanities can do to change the world: "Theoretical interventions must be carried into practices. Though concerned with alternative conceptualizations, we build on field-defining efforts to practice environmental humanities by addressing water problems in the world" (De Wolff and Faletti 2021, 8–9).

By exposing environmental injustice and suggesting ways to solve these problems, the hydrohumanities have the potential to contribute significantly to policymaking in relation to water. For example, addressing environmental injustice in Yucatán and, particularly, how groundwater contaminated by carcinogenic, agricultural pesticides is affecting local Mayan women's health (through cancer and toxic substances in mothers' milk and blood), Angel Polanco Rodríguez and Kata Beilin (2019, 183) argue: "the passage of toxins between bodies of water, soil, and human flesh, and the resulting illnesses and struggle for health are deeply significant processes in which culture becomes transformed by an economy in which gain is more important than health and well-being." Later, they add: "On June 5, 2018, while everybody's attention was taken by the World Cup, the Mexican government signed ten decrees that eliminated protection of three hundred water basins containing 55 percent of the available water in the country. From now on, there will be no legal obstacles for concessions to corporations needing water for their industrial ventures such as fracking, mining, soft drink and beer production, and others" (2019, 185).

This type of research lays bare the increasingly inseparable relationship between water and power in Latin America (e.g., the takeover of communal water by international corporations, often in collusion with governmental authority). It also shows the potential connection between hydrohumanities research and praxis, and between water-related concepts or ideas in the humanities and tangible actions focused on water access and environmental justice in general. If hydrohumanities research can truly contribute to rethinking the water economies that continue to destroy the environment in Latin America and to harm the livelihoods of disadvantaged groups, often Indigenous communities, then not only will societies and governments learn to appreciate the social value of the humanities but, more importantly, we may be saving lives, both human and nonhuman. This is the way in which we can, from the hydrohumanities, connect thoughts (reconceptualizing water as well as water-human

relationships) to actions (fixing environmental problems, saving the planet and ourselves), thus turning some of our research into tools for resistance against environmental injustice and health hazards.

Crucial discussions about water and other environmental uncertainties in Latin America have been taking place for decades in the humanities, which also have the potential to lead scholarly research from other disciplines. The hydrohumanities—the term "blue humanities" is almost always specific to the study of oceans—turn our disciplines toward human interaction with oceanic, fluvial, and lacustrine bodies of water throughout history as a significant subfield of interdisciplinary inquiry. Taking aquatic imaginaries—both material and metaphoric—as an analytical framework, hydrocriticism (to use Laura Winkiel's term) explores the entanglement between the anthropogenetic climate crises, sociopolitical instability, and power relations inequalities in their relation to water (Winkiel 2019). These include the tense relationship between water, extractivism, and indigeneity in Latin America. Indeed, Indigenous perspectives, worldviews, and knowledge production on water and the natural world, which often adopt a decolonial outlook on imperialism and modernity, are finally being reconsidered, as they offer cultural meanings of water as something other than a commodity. Regarding water, for example, Polanco Rodríguez and Beilin (2019, 173), referencing Patricia Macías, explain: "For Yucatec Mayas, water is changing and alive, and human consciousness needs to be attuned to water. In Mayan culture, humans communicate with water and recognize that water responds emotionally." Along these lines, in the chapter I cowrote for *Hydrohumanities* (López-Calvo and López Chavolla 2021), we analyze, from the theoretical perspective of new materialism, the Peruvian José María Arguedas's novel *Los ríos profundos* (*Deep Rivers*, 1958) and the Colombian Philip Potdevin's novel *Palabbrero* (2016). Potdevin re-creates the shocking real-life rise in suicide rates among the Indigenous Wayúu community in the Guajira Peninsula of Colombia, after an international mining company contaminated their water and air, dried up the Ranchería

River (*Rainkeriia* in Wayuu language), and turned part of their ancestral territory into a wasteland, thus continuing the historical violence against Indigenous groups since colonial times. Ultimately, the destruction of the local land and aquatic sources becomes inseparable from the historical exploitation of Indigenous people: rivers embody Indigenous suffering and are witnesses to it. Besides the life-and-death significance of water for the Wayúu, we explore the differential relationships with water and the natural world presented in Indigenous worldviews. In Arguedas's novel, water's agency materializes in the symbolic, cultural, magical, and salvational significance of mountain rivers for Peruvian Quechua communities.

For the hydrohumanities, therefore, the trope and cultural metaphor of water becomes the analytical point of departure for the study of cultural production, as well as of sociopolitical and economic events in Latin America. Within the framework of a renewed sensibility toward spatiality, the concepts of space and place, and the connections between geography and history, the imaging of waterscapes in Latin American studies—engaging oceans, rivers, lakes, or wetlands as the axis of the analytical framework—has been gaining increased interest over the last three decades. In my own field of literary and cultural studies, hydrocriticism often addresses environmental injustice and hydraulic practices in connection with race, ethnicity, class, and gender. Echoing decolonial and postcolonial discourses, it critiques the ecocides brought about by Western modernity. The hydrohumanities encourage us to reconsider the relationship between human beings and the environment: water, and nature in general, should not be understood in terms of consumption. In this sense, following posthumanist and new materialist theories that acknowledge the agency of objects, the hydrohumanities recognize the agency of water. Human beings are decentered and presented as another element of the natural world. Interdependence is the key concept: we are one of the species in an ecosystem (Earth) and, since we are interconnected to the other living systems on the planet, we are harming ourselves by damaging them. As a blunt example,

there is what Stacy Alaimo (2010) refers to as a trans-corporeal relationship between humans and the more-than-human: the toxicity that may affect fish in rivers and the ocean will also harm the human beings who eat them.

Water is no longer conceived of as an economic resource or a setting for human interaction; it is, instead, entwined with culture. It is understood that humans are all connected to water and other natural elements, which have agency and a right to share Earth with us. Thinking *with* instead of only *about* water (Blackmore and Gómez 2020), water is no longer seen as just a mere commodity to be contained, managed, and sold. Instead, for example, it may be interpreted as embodying different levels of hegemonic power or resistance, as evoking collective shared memories, or even as representing the survival of an ethnic group under siege by predatory extractive corporations (the case of the Wayúu in Potdevin's *Palabrero*).

As part of the environmental humanities, the hydrohumanities share the same ethical commitment, adopting social politics, environmental justice, and even activism, and conceiving of bodies of water as signifiers of power, resistance, historical memory, and identity. With all their associated symbolic meanings, seascapes, riverbeds, lakes, and wetlands thus become valuable hermeneutic and epistemic tools to interpret national and identitarian discourses, anti-hegemonic writing, or to critique some of the flaws of Western modernity. Within the agenda of water sustainability, the hydrohumanities also study the scarcity or absence of water in certain regions. Two decades ago, for example, Mark D. Anderson examined the sociopolitical ramifications of the cultural construction of risk through drought narratives in Northeastern Brazil in his *Disaster Writing: The Cultural Politics of Catastrophe in Latin America* (2001), a comparative study of the cultural production elicited by natural disasters in Latin America. As he explains, until the 1930s, literary tropes and symbolic abstractions were often a substitute for the use of statistics and scientific measurements in risk assessment. Anderson's chapter analyzes a long list of Brazilian drought narratives, proving that the Brazilian negative

view of the Northeastern drought as a disaster was consistently mediated by cultural production, which, in turn, influenced perceptions of cultural citizenship and politics: Euclides da Cunha's classic *Os sertões* (*Rebellion in the Backlands*, 1902), for instance, depicts the drought-stricken environment as the source of the creation of a rebellious race that cannot adapt to democracy.

The same issue of drought in Northeastern Brazil has been recently revisited in Javier Uriarte's *The Desertmakers: Travel, War, and the State in Latin America* (2020). Exploring, among other texts, Euclides da Cunha's 1901 essay "Fazedores de desertos" ("Desert Makers"), later partly incorporated into *Os sertões*, Uriarte analyzes the connection that the Brazilian author makes between drought and war (the Canudos war, in particular): drought produces starvation and hopelessness, which, in turn, lead to rebellion and war. In this way, this type of hydrocritical research invites us to rethink the relationship between the more-than-human and the human worlds, between the environmental and sociopolitical, which so often go hand in hand.

Beyond oceans, rivers, and lakes, chapter four in Axel Pérez Trujillo's *Imagining the Plains in Latin America: An Ecocritical Study* (2021) offers ecocritical analyses of canonical texts by Francisco Aquino Corrêa, Guimarães Rosa, and Manoel de Barros about the Pantanal wetlands in the southern Brazilian state of Mato Grosso do Sul (the other chapters focus on literature about the Pampas, Altiplanos, and Llanos). Another example of exciting hydrohumanities work is Elizabeth M. Pettinaroli and Ana María Mutis's coedited volume in *Hispanic Issues Online*, *Troubled Waters: Rivers in Latin American Imagination*, which focuses on knowledge production related to rivers in Latin American literature, from utopian to dystopian outlooks: "ordeals of human survival, contested symbols of identity, and complexity that beggars the power of human narrative: emblems of blighted hopes, arteries of future prosperity, and determinants of human culture" (Pettinaroli and Mutis 2013, 14). The different essays examine how writers have found in the representation of flowing waters a locus of contestation of the foundations of Latin American

imaginaries, including the established symbolic value ascribed to national landscapes: connection vs. boundary; life vs. paths to death; identity vs. transformation; continuity vs. change (Pettinaroli and Mutis 2013).

Because water is so often conceived as a source of life, it should be no surprise that it is often a central element in art. Lisa Blackmore and Liliana Gómez edited the essay collection *Liquid Ecologies in Latin American and Caribbean Art* (2020), which considers the place of water, flow, liquidity, and fluidity as tropes, metaphors, and material signifiers beyond the mere concept of resource. In their own words, "*Liquid Ecologies in the Arts* confronts, from the remit of Latin America and the Caribbean, the challenges posed by cultural studies scholars in recent years that involve defamiliarizing water and moving beyond paradigms that objectify or romanticize it as a resource. The ask is not to think about water but with it. Our departure point for positing liquid ecologies as a new critical, theoretical and analytical framework for cultural production was that water is never simply water" (Blackmore and Gómez 2020, 2).

Avoiding presentism, the hydrohumanities and hydrocriticism also study the misguided environmental understandings, water economies, and ideologies of the past that have progressively led to the current hydraulic challenges of the Anthropocene. The hope is that this academic research may guide us to a more conscientious human interaction with water and the rest of the natural world, as well as to more just and sustainable aquatic futures. Socioecological justice, the environmental humanities, and the hydrohumanities (hydrocriticism) are fundamental in a region like Latin America, where economies continue to be fundamentally based on natural resource extraction. Altogether, beyond market theologies, the hydrohumanities seek to incorporate humanities scholars' research into the academic struggle for sustainability regarding water in Latin America, which other disciplinary fields had traditionally led. As the epigraph that opened this essay suggests, it

has become increasingly clear that economists and scientists cannot solve these water problems alone.

References

- Alaimo, Stacy. 2010. *Bodily Natures: Science, Environment, and the Material Self*. Bloomington: Indiana University Press.
- Anderson, Mark D. 2001. *Disaster Writing: The Cultural Politics of Catastrophe in Latin America*. Charlottesville: University of Virginia Press.
- Blackmore, Lisa, and Liliana Gómez, eds. 2020. *Liquid Ecologies in Latin American and Caribbean Art*. New York: Routledge.
- De Wolff, Kim, and Rina C. Faletti. 2021. "Introduction." In De Wolff, Faletti, and López-Calvo, *Hydrohumanities*, 1–15.
- De Wolff, Kim, Rina Faletti, and Ignacio López-Calvo, eds. 2021. *Hydrohumanities: Water Discourse and Environmental Futures*. Oakland: University of California Press.
- Global Witness. 2021. "Last Line of Defence: The Industries Causing the Climate Crisis and Attacks against Land and Environmental Defenders." Global Witness, September 13, 2021. <https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/>.
- López-Calvo, Ignacio, and Hugo Alberto López Chavolla. 2021. "Water, Extractivism, Biopolitics, and Latin American Indigeneity in Arguedas's *Los ríos profundos* and Potdevin's *Palabro*." In De Wolff, Faletti, and López-Calvo, *Hydrohumanities*, 95–117.
- Pérez Trujillo, Axel. 2021. *Imagining the Plains in Latin America: An Ecocritical Study*. New York: Bloomsbury Academic.
- Pettinaroli, Elizabeth M., and Ana María Mutis, eds. 2013. *Troubled Waters: Rivers in Latin American Imagination*. *Hispanic Issues Online*, no. 12. <https://cla.umn.edu/hispanic-issues/online/troubled-waters-rivers-latin-american-imagination>.
- Polanco Rodríguez, Angel G., and Kata Beilin. 2019. "Toxic Bodies: Water and Women in Yucatan." In *Environmental Cultural Studies Through Time: The Luso-Hispanic World*, edited by Kata Beilin, Kathleen Connolly, and Micah McKay, *Hispanic Issues Online*, no. 24: 168–193.
- Uriarte, Javier. 2020. *The Desertmakers: Travel, War, and the State in Latin America*. New York: Routledge.
- Winkiel, Laura. 2019. "Introduction." *English Language Notes* 57 (1): 1–10. <https://doi.org/10.1215/00138282-7309633>. //