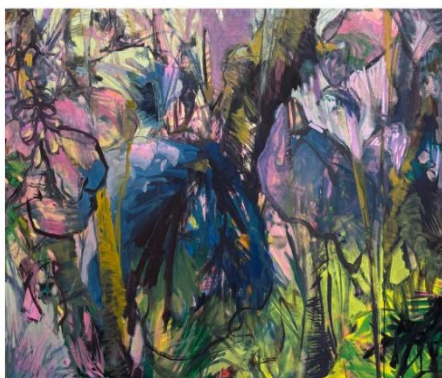
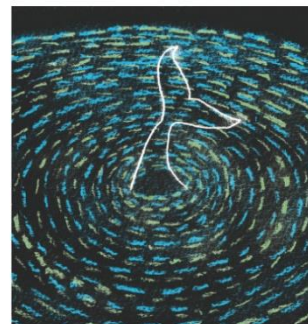


SPRINGS

THE RACHEL CARSON CENTER REVIEW

Issue #10 | 2026

July



Springs

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TABLE OF CONTENTS

Editor's Note: Imagining Environmental Futures

Christof Mauch, Pauline Kargruber, and Haley Snyder

Thank God for the Coal Rollers

Timothy LeCain

One Woman's Waste Is Another Woman's Treasure: A Conversation with Kim
Curtis

Kim Curtis and Regina M. Bichler

Mapped Futures, Vanishing Places: On Inheritance at the Water's Edge

Kumiko Kiuchi

The Future of the Environmental Humanities Is Not in the Seminar Room

Rob Gioielli

The Mangrove Doesn't Forget

Rachel Desiree Felix

Tell Me a Story, Tell Me the World

Jamie Wang

Time After the Hero—Or, in Proposing the Age of the Anthropoiescene

Zana Fraillon

The Futures We Tell

Alexa Weik von Mossner

The Best Is Yet to Come: Latin American Environmental History

Claudia Leal

Whale Fall

Michaela Vieser

Ignoring Religion Is Not an Option

Kate Rigby

Contributing Authors

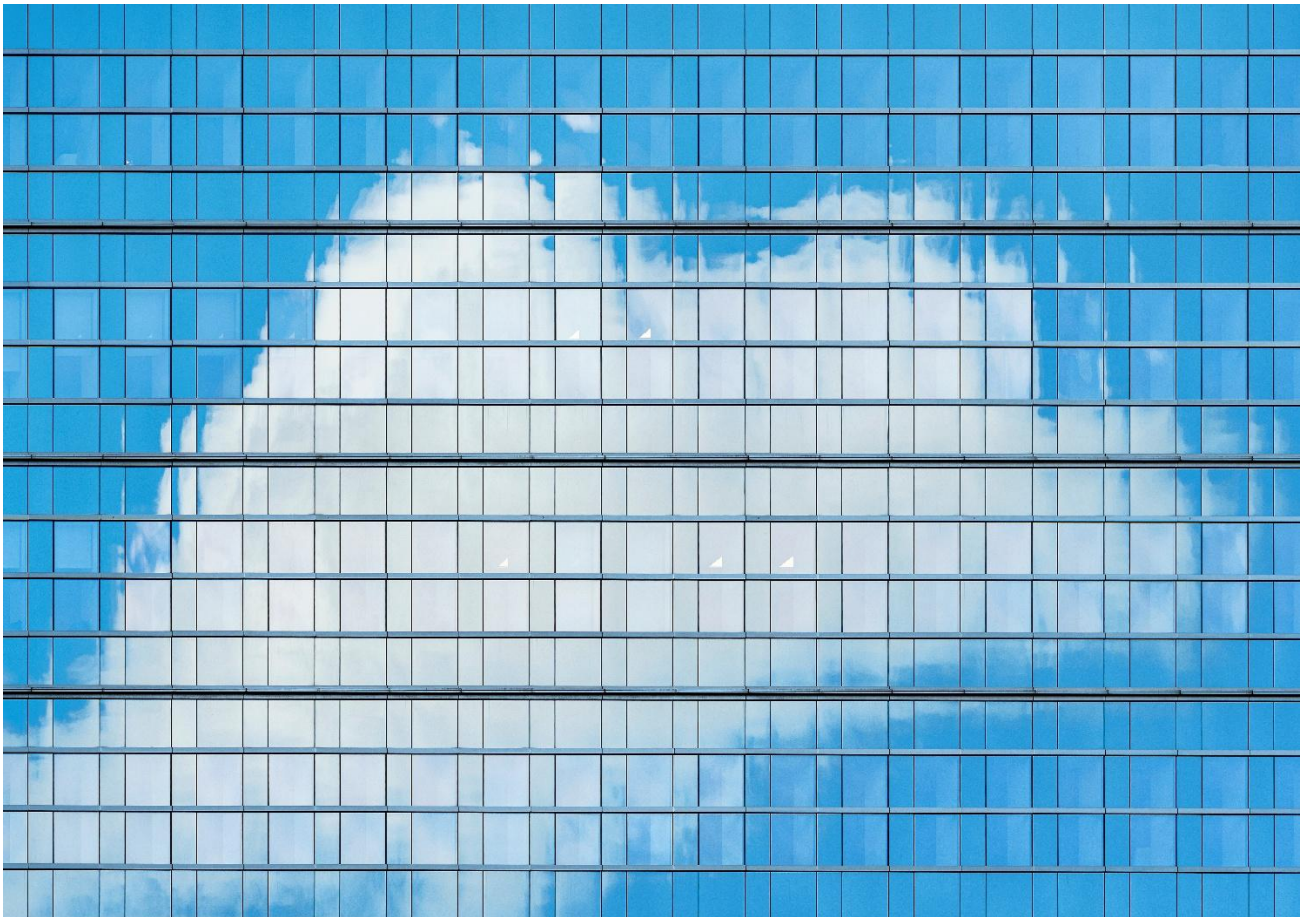
EDITOR'S NOTE: IMAGINING ENVIRONMENTAL FUTURES

Christof Mauch, Pauline Kargruber, and Haley Snyder

Springs
The Rachel Carson Center Review

10 • 2026

Christof Mauch, Pauline Kargruber, and Haley Snyder



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Cars driving, rolling coal. Stories unearthing what was before. Recycled waste reshaping the present. The tenth issue of [Springs: The Rachel Carson Center Review](#) asks: What is the future of the environment? Participants from around the globe were encouraged to address the question as they interpreted it, with answers rooted in their own experiences and scholarship. Responses ranged from contemplations on cultural practices to deeply personal meditations on health as understood through environmental phenomena, reflections on the past and future of changing landscapes, and evaluations of how accessible environmental humanities scholarship is. Among the contributions are the winning texts of the 2025 [“Tell the Untold”](#) writing competition, with illustrations by Jon Gray, Armando Veve, and Alexandra Hochreiter.

As unprecedented conditions require (and inspire) unprecedented imaginations, several authors propose using creative artistic and literary approaches to guide our way through what lies ahead.

Sometimes the link between environmental issues and creative action is a matter of personal expression. In [“One Woman’s Waste Is Another Woman’s Treasure,”](#) Regina M. Bichler, a waste and sustainability researcher, interviews the artist Kim Curtis on using environmental struggles and successes as artistic inspiration. Their conversation spans Curtis’s multimedia artworks, political strategies for minimizing environmental harms, and the roles that individuals must play in crafting ecological futures.

Expanding on Kim Curtis’s argument that individuals must communicate to policymakers what they want, literary scholar Alexa Weik von Mossner’s essay, [“The Futures We Tell,”](#) casts storytelling as a way to effect positive change. Navigating an avalanche of climate change news and related anxiety,

the author proposes that future-focused fiction might inspire individuals to act, thereby strengthening political will and support for much-needed environmental policy changes.

Writer Zana Fraillon builds on this idea in "[Time After the Hero](#)" when she emphasizes the "mythopoetic power" of narrative and imagination in widening our perspectives to include the nonhuman and temporal realities that persist beyond us. Fraillon proposes a new term for the age we currently find ourselves in: the "Anthropoiescene," which is more of a task than a mere description as it invites us to relish "multiple, contradictory visions of our pasts, and by doing so imagines futures that veer away from one of resource extraction."

In close dialogue with Zana Fraillon, urban environmental humanities scholar Jamie Wang, in the essay "[Tell Me a Story, Tell Me the World](#)," extolls storytelling as a relational and ethical practice. In an age where we are saturated with content and consumed by climate injustices, the author explains, it is the thickness of a narrative that ensures both its thoroughness and its stickiness.

The effort to convey complex relationships is put into practice as some of our authors adopt a bird's-eye view, concluding that, in the end, we are unable to escape the crisis but must, in Donna Haraway's words, stay with the trouble.

In "[Mapped Futures, Vanishing Places](#)," literary scholar Kumiko Kiuchi portrays the simple act of walking as an opportunity to inherit shared memory. Her writing takes off from Tokyo's artificial waterfront into a creative space stretching from past generations into imagined futures, reminding us to remain "attentive to what cannot be fully possessed or understood."

As if in conversation with Kumiko Kiuchi's text, "[Whale Fall](#)" by writer Michaela Vieser engages with movement and the corporeal in a world in which our fates often mirror others'. Her deeply personal essay intertwines the bodily experience of breast cancer with the gentle, gradual quietus of a whale. This meditation on the cycles of life reveals a connection between individual and ecological destinies.

The short story "[The Mangrove Doesn't Forget](#)" also explores an emotionally resonant relationship between human and environment. Writer Rachel Desiree Felix draws inspiration from personal and cultural memory to unveil histories of displacement, trauma, and the entanglement of landscape and narrative. Mysterious and atmospheric, the tale takes readers deep into a mangrove forest to a stilted wooden home swollen with river water, tree roots, and remembrance.

Historian Timothy James LeCain is interested in the bridge between humans and materiality. Last year, while driving his SUV home through the mountains of Montana, a large truck pulled in front of him and released a cloud of dense, noxious smoke. Like many cyclists, hybrid car drivers, and "No Kings" protestors, LeCain had been "coal rolled." His tongue-in-cheek essay, "[Thank God for the Coal Rollers](#)," explores the practice's culture, intended victims, and even the unintended good it might enact.

Turning their focus to the future of the environmental humanities, this issue's authors push against norms and illuminate neglected, but much-needed, areas of inquiry.

Whether a culture's creation myth begins with a bang or with a crocodile, environmental humanist Kate Rigby's essay, "[Ignoring Religion Is Not an Option](#)," reminds readers that religion and its related power structures are foundational to nearly every society. As such, the author argues, they should also be foundational to the study and understanding of the environmental humanities.

In "[The Best is Yet to Come: Latin American Environmental History](#)," historian Claudia Leal surveys the status of environmental history written about and within Latin America. Published mostly in English and often behind a paywall, much of Latin America's scholarship remains out of the hands of its scholars and the public. Only if environmental humanities scholarship is strengthened on a global scale, Leal writes, can the promise of the discipline be realized.

Echoing Claudia Leal's advocacy for a more inclusive field, historian Rob Gioielli urges us to reconsider how—and to whom—environmental humanists articulate their findings. As we explain and

understand the complex web of relationships between human and more-than-human worlds, he writes, we must prevent isolation from the general public and our colleagues in more technical and scientific disciplines. His essay, "[The Future of the Environmental Humanities Is Not in the Seminar Room](#)," is a call for engagement and connection outside of the traditional teaching environment.

As our contributors imagine and work toward more ecological futures, so too must the Rachel Carson Center and *Springs* adapt to a period of transition. As new leadership structures are taking shape, the center is well positioned to build on its achievements and will continue to develop its role as a vibrant hub for international environmental humanities research. Yet there is much work to be done. Following the release of issue #10, *Springs* will enter a hiatus. The authors in this issue remind us, however, that this is no time to abandon the work of sharing research, stories, and knowledge. Whatever form that work takes in the years ahead, the conversations fostered by *Springs* will remain an essential part of the Rachel Carson Center's mission.

Cite this article

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THANK GOD FOR THE COAL ROLLERS

Timothy James LeCain

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The Rachel Carson Center Review

10 • 2026

Timothy James LeCain

Last summer, I was driving the family SUV home after a day of mountain biking here in the Northern Rockies of Montana. Although I was going a bit faster than the speed limit, in the mirror I saw a large black pickup truck approaching quickly from behind. A few seconds later the truck roared past me on the left. But then the driver abruptly pulled back in and slowed sharply. Stomping on the brake, I'd barely had a chance to utter a few choice observations of the driver's suspect parentage and intelligence when the truck roared ahead again, now releasing a huge cloud of dense black smoke from its immense twin tailpipes. For a few white-knuckle seconds, I was engulfed and driving blind. When the smoke thankfully cleared, I saw the truck speeding away. I could almost hear the guffaws of laughter fading in the distance as the driver and his likely passengers disappeared around the next corner.

I had been "coal rolled."



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For those of you lucky enough to live in countries that still enjoy some modicum of rationality, the phrase may not be familiar. Let me elucidate. "Rolling coal," to use the somewhat awkward *terme d'arte*, is a technological modification that has in recent decades become popular among a microculture of diesel-truck drivers. For anywhere from several hundred to several thousand US dollars, owners can install a device that briefly modifies their engine to dump more fuel into the cylinders than can be burnt. At the flip of a switch, the driver can release a dense black cloud of sooty smoke reminiscent of an old-fashioned coal-powered railroad engine—presumably the origins of the term.

For anywhere from several hundred to several thousand US dollars, owners can install a device that briefly modifies their engine to dump more fuel into the cylinders than can be burnt.

Thank God for the Coal Rollers

DOI: [10.5282/rcc-springs-22328](https://doi.org/10.5282/rcc-springs-22328)

Coal rollers are rare even in the Wild West of Montana, though you're likely to eventually see one in action if you stay here long enough. In those US states with annual emission inspections and penalties—Montana has none—they are doubtlessly even less common. The practice seems to have first emerged among off-road-vehicle enthusiasts in the United States who were inspired by the Monster Truck shows that gained wide popularity in the 1990s. These spectacles were an outgrowth of traditional County Fair horse-and-tractor pulls—competitions that stemmed from then-still-common and -useful rural skills and technologies. Modern Monster Trucks, however, make no pretense to utility. The trucks run on energy-dense liquid methanol, which generates no visible smoke, though some designers use steam to mimic the fire-breathing dragon effect. A typical truck is 3.5 meters (12 feet) tall, weighs more than 4,500 kilos (about 10,000 US pounds), and can produce an earth-shaking 1,500 horsepower.



Horses pulling concrete blocks at a fair. [Wikimedia Commons](#), [CC BY-SA 2.0](#).

Perhaps this explains why Montana coal rollers gravitate toward the biggest available US pickup trucks, which, judging by their often-spotless appearance and empty truck beds, may also be more about display than utility for some owners. Any diesel engine can, in theory, be modified to roll coal. But I have yet to see a diesel Mercedes or Volkswagen TDI spouting clouds of black smoke—at least not on purpose. No, coal rollers favor iconic US trucks like the colossal Ford F-350 and Chevrolet Silverado 3500. But given that a new Ford F-350 will, depending on options, set you back anywhere from USD 60,000 to USD 100,000, some coal rollers are no doubt forced to settle for the brand's more modest but still massive stablemates.

Regardless, for coal rollers, size clearly matters.



Monster Truck show. Photo by Brian Bustos. [Flickr](#). [CC BY-NC-ND 2.0](#).

How to explain such a bizarre practice? At one level, I suspect “rolling coal” simply reflects a widespread human fascination, or perhaps a closely related disgust, with big, powerful, noisy, smoke-spewing machines. My own two kids loved big diggers, graders, and bulldozers when they were young, and both were fans of the *Dinotrux* books and related Netflix series that created an irresistible [fusion of big dinosaurs and big construction equipment](#).

The US-born Monster Truck show has in more recent years gone international, attracting large audiences from Manila to Riyadh. In some ways, the shows trade in the same kind of [overwhelming noisy excess](#) as heavy-metal concerts and World Wrestling smackdowns. The sheer size and power of these behemoth machines can literally take your breath away. As one *New York Times* columnist recently observed after witnessing a “Monster Jam” in Newark, New Jersey, “Two drivers stomping on 1,500-horsepower apiece for 30 seconds sounds like 10 cars backfiring into your eardrum. It is shockingly, ecstatically loud. That’s the point.”¹

At one level, I suspect “rolling coal” simply reflects a widespread human fascination, or perhaps a closely related disgust, with big, powerful, noisy, smoke-spewing machines.

So far as I’ve been able to determine, few if any scholars have made a serious effort to investigate why a tiny percentage of diesel-truck owners enjoy spewing toxic smoke. A generous observer might conclude that they’re engaged in a sort of performance art—taking the Monster Truck show to the street, so to speak. But there is, of course, a less friendly and more politically motivated explanation. Red-hat-wearing coal rollers frequently [show up to disrupt “No Kings” anti-Trump parades and demonstrations](#) here in Bozeman, often flying a “Make America Great Again” banner.

Based on personal observations and a not very rigorous review of YouTube where some coal rollers like to record and post videos of their attacks, a favorite target is the supposedly archetypal ride of the liberal-progressive environmentalist: the hybrid-powered Toyota Prius.

But a Tesla or any other easily identifiable electric vehicle are also popular, and apparently almost any upscale foreign import will do in a pinch. Despite being a foreign brand, though, a full-size Toyota SUV like mine shouldn't have attracted much interest. But some coal rollers also like to harass pedestrians and bikers with their clouds of smoke. Maybe the mountain bike hanging off my rear rack made me suspect that day?

Regardless, most coal rollers seem to be motivated by some confused amalgam of antienvironmentalism, paleomasculine display, and insecurities (most are youngish men), and an aggressive desire to "own the libs," all mixed in with the long-standing US taste for juvenile vandalism—a sort of modern take on the still-popular practice of cruising rural backroads and [slugging defenseless mailboxes with a bat](#).

I thought of exactly none of this while I was being coal rolled. Whatever their inchoate and quite possibly pathological motivations, the coal roller simply made me angry. This was no doubt the intent. The unexpected cloud of smoke momentarily blinded me while driving at high speed on a narrow mountain road. I might have easily swerved and lost control. Nor did I appreciate the noxious diesel fumes that briefly flooded the cabin, laden as they are with carcinogens and other toxic chemicals. Scoring a cheap laugh by chemically assaulting people would be a fairly serious crime in any reasonably well-run state.²

Still, after I had cooled down a bit, I had the first inkling of a strange and somewhat disturbing thought. It continued to gnaw at me over the next few days, partly because it seemed relevant to the new book I've been working on. I began to realize that a decent case could be made that these smoke-spewing coal rollers were doing me—and you, and maybe even themselves—a sort of backhanded favor.

Of course, I'm not trying to excuse the coal roller's conspicuous and dangerous display of profligate consumption and deliberate pollution. But I had to admit that I'd just driven my own full-size, gasoline-powered "light truck" (as it is bizarrely classified by the US government, even though it is neither light nor a truck) some 32 kilometers (20 miles) into the mountains for no more pressing reason than to enjoy an afternoon of mountain biking in the forest. Sure, my Highlander might get a couple kilometers per liter more than the typical coal roller's absurdly overgrown truck. I couldn't be entirely sure given all the smoke, but I think that my particular coal roller actually drove one of those iconic Ford F-350 pickups. If you need to haul a small house somewhere, the F-350 is the truck for you.

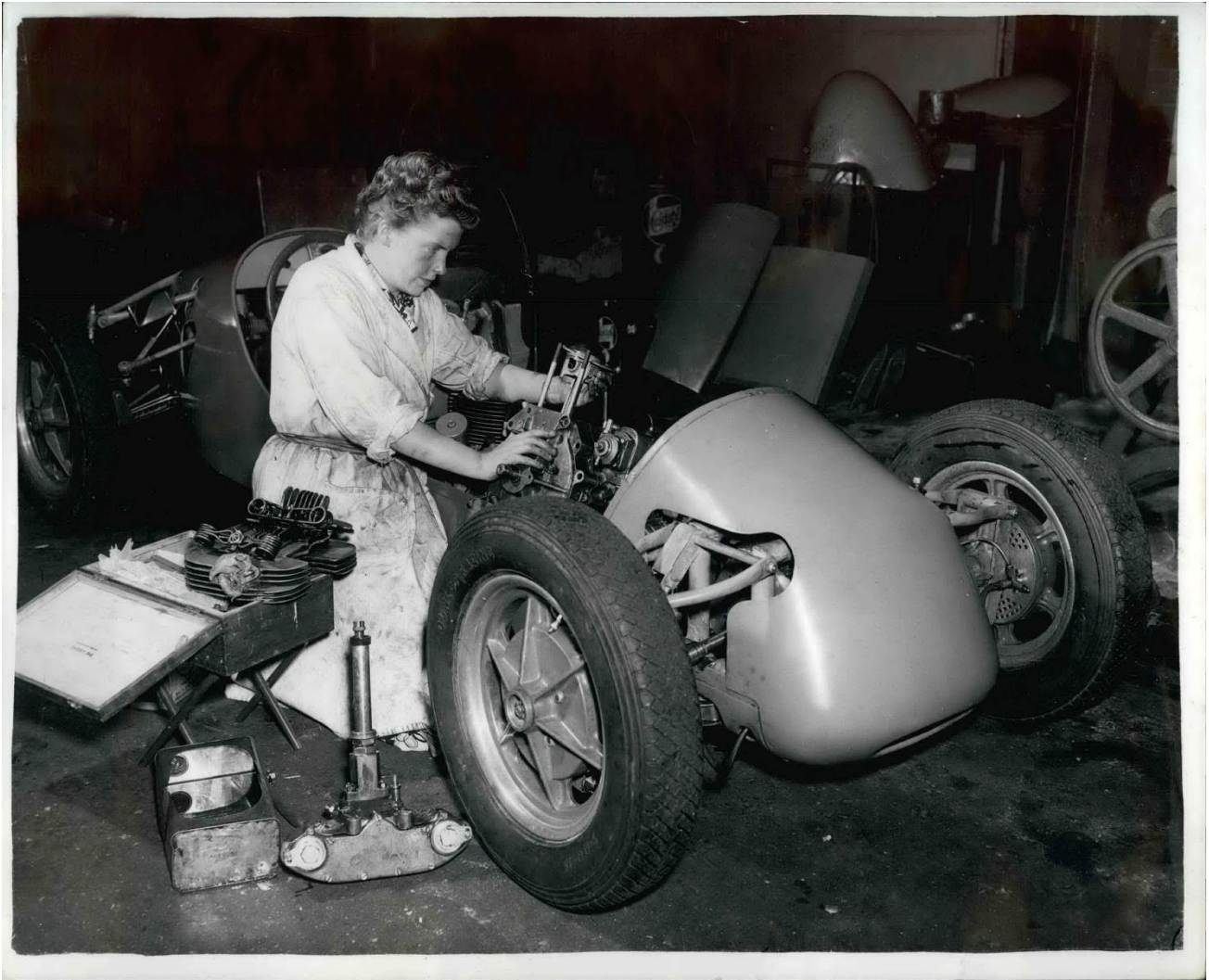
But that my SUV is somewhat less of a gas guzzler than a diesel F-350 hardly qualifies it as an economy car. Like many of my outdoor-sport-loving friends and neighbors here in southwestern Montana, I avoid thinking too much about the obvious hypocrisy of driving an environmentally destructive SUV to get to the very environments I supposedly want to protect. Many of us live in Bozeman precisely because we want to bike, hike, and ski in the nearby mountains. Four-wheel-drive SUVs and trucks are arguably the safest and most effective means of getting there.



The Rusty, Trusty, Steed. Photo by Zach Dischner. [Flickr](#). [CC BY-SA 2.0](#).

But before you dismiss this as just another example of liberal environmental guilt and self-flagellation, let me quickly move on to the more interesting reason we might actually want to “Thank God for the coal rollers.”³ Rather than belabor the obvious point that we all could do more to save the environment, I want to focus instead on *why*, despite all that we know about global warming and carbon footprints, we (and I include myself here) often can’t seem to muster the determination to put our passionately held abstract ideals into effective concrete action.

To understand where my thinking is coming from, you’ll need some background from that new book project I mentioned before, working title: “Out of Touch: How a New Age of Immaterialism is Making Us Dumb, Distracted, and Depressed.” The book’s basic point is pretty straightforward. For most of human existence we have formed deep material partnerships with nonhuman things and organisms. Dawn to dusk, day in and day out, people worked closely with an immense world of things: wood and iron, horses and cows, plants and fabrics, clocks and cars, to name just a few that have come and gone over the centuries. Critically for my argument, people encountered all these things with their hands and bodies as much as their minds. As a result, this powerful and creative nonhuman environment, things and organisms, played an immense role in how they thought about the world and their place within it. A farmer, for example, with their daily engagement with wheat, corn, or other crops, would likely have an embodied sense of the fragile nature of plant life, the capriciousness of weather, and the rhythm of the seasons, that influenced how they saw other aspects of the world. Likewise, the farmer would learn different lessons than someone spinning thread or making shoes, though all would share a close connection to the material world.



Daphne Arnott building a car, 7 July 1953. © Keystone Pictures USA on [Alamy](#). All rights reserved.

Until, in really just the blink of the historical eye, they no longer did. Starting first in Europe and soon spreading around the world, millions of people essentially stopped working with most of the things that had once defined their lives. Of course, they still used a lot of things—cars, ovens, computers. But most of these things were increasingly designed to minimize the demands they made on their users. Convenience, ease, and simplicity were key. Think, for example, of the difference between riding a horse and driving a modern car. The first requires that you negotiate with another sentient creature who has a personality and desires of its own. The second increasingly demands only that we push a button and go. So my point is that today most of us have become much more like “car people” than “horse people.” We are literally “out of touch” with the many things that had helped shape how we understood the world.

Today most of us have become much more like “car people” than “horse people.” We are literally “out of touch” with the many things that had helped shape how we understood the world.

As with many big historical changes, precisely when this happened varied from place to place. Yet what I call the Age of Immaterialism had begun to emerge in much of the European world by the late nineteenth century. After World War II, it reached a critical mass. Millions of farmers,

machinists, welders, seamstresses, and mechanics began to either stop working entirely or found the nature of their work so changed as to be unrecognizable. In their place came people who mostly worked with words, symbols, and ideas, or often simply with other people: what we now call knowledge or service workers.

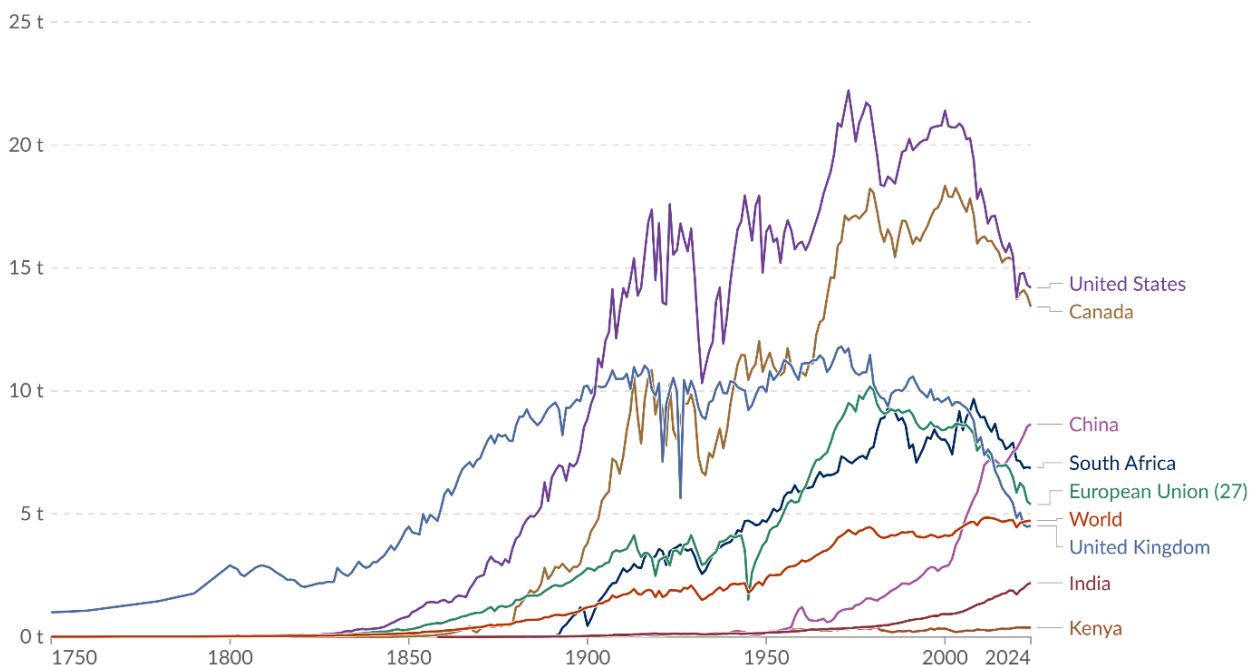
As the name implies, the humanistic disciplines have often been unapologetically anthropocentric—a trend that only deepened with the more recent dominance of the linguistic turn, postmodernism, and sociocultural constructivism. All tended to underestimate or even ignore the influence of nonhuman organisms and things. Environmental historians and humanists offered something of an exception, as many deliberately sought to study the agency of the “more than human.” However, when developing tactics to help solve pressing problems like climate change, even environmental humanists and policymakers still tend to emphasize *rhetorical* persuasion. If more people only knew how big their carbon footprint was, for example, then surely they would make personal, national, and international efforts to reduce greenhouse-gas emissions.

Perhaps not. As the sociologist Peter Wagner observes in his new book, *Carbon Societies: The Social Logic of Fossil Fuels*, despite the many novel and potentially effective ideas and technologies in circulation today to solve climate change, progress has been slow. In the United States, still the largest per capita emitter of carbon dioxide in the world, modest reductions over the past few decades are now threatened by the Trump administration’s renewed push for coal and oil. Globally, the growth in greenhouse-gas emissions has largely plateaued, though most scientists agree that these numbers will need to decline far more rapidly if we are to avoid the more apocalyptic climate scenarios.

CO₂ emissions per capita

Our World
in Data

Carbon dioxide (CO₂) emissions from burning fossil fuels and industrial processes¹. This includes emissions from transport, electricity generation, and heating, but not land-use change².



CO₂ emissions per capita by country, excluding emissions from land-use change. [OurWorldinData.org](https://ourworldindata.org). CC BY 4.0.

In sum, it seems that more people than ever recognize the problems of fossil-fuel consumption and climate change, and alternatives from solar to wind are becoming more practical every day. Yet

the impetus to act, either in terms of individual personal efforts or as part of a larger political push for governmental actions, has often stalled or even reversed. Wagner ends on a pessimistic note, concluding that “the prospect of action against resistance has diminished.”⁴

Wagner’s conclusion is convincing. However, his pessimism may not be entirely warranted. As with many humanists and social scientists in our postmodern immaterial age, Wagner emphasizes the centrality of human agency, ideas, and institutions as both the cause of our problems and the solution. He briefly entertains the possibility that the material power of coal and oil themselves may be a central cause, but in the end finds it inadequate. Instead, he critiques such materially grounded explanations as narrowly monocausal and deterministic.

Wagner is, of course, correct that humans do have significant agency in determining their own personal actions and the policies they choose to support. However, he fails to consider how this human agency emerges in significant part from the agencies of other, nonhuman things. In a typically immaterialist fashion, Wagner overlooks more materially grounded strategies for change precisely because he resists giving any genuine agency to coal, oil, and other material things. If, in the name of preserving human agency, we insist that coal and oil were not a significant cause of our problems in the first place, then it is unlikely we will seriously consider how an alliance with different materials might provide the solution.



Coal mining in Borneo. Photo by [Dominik Vanyi](#), 2018. [Unsplash license](#).

As the influential philosopher of cognition Andy Clark puts it, “environmental engineering is also self-engineering” as material changes reconfigure “our minds and our capacities of thought and reason.”⁵ In this sense, human engagement with a rooftop solar panel, a frequently ridden bicycle, or a home garden, might be recognized as more effective forces for social and political change than rhetorical persuasion. Not solely because these alternative things also offer new technological solutions—if I ride a bicycle, obviously I’m not burning gas in my car—but also because our individual

embodied engagement with these nonhuman things can generate new ways of thinking and acting. In sum, making it possible for more people to easily ride bicycles might ultimately change their thinking about other issues as well, including their political views.

Importantly for my argument here, however, unpleasant or negative material engagements might also generate useful new ways of thinking and acting. As environmental humanists have long recognized, many of the most destructive consequences of our contemporary ways of life are often hidden from us. We may know abstractly that the copper wire in our walls and the electricity it carries are created by destructive open-pit mines and coal-fired generators, but few of us will experience these negative consequences directly. But what if we could consciously seek out ways to provide frequent reminders of these realities?

A concrete example can clarify my point. In 2022, Egypt hosted the 27th meeting of the United Nations Framework Convention on Climate Change (COP27). As the historian On Barak relates in his excellent 2024 book, *Heat, a History*, the conference met not in the bustling megalopolis of Cairo, but in the remote resort town of Sharm el-Sheikh, a location that was difficult to access without using jet planes or cars, and where the delegates were kept cool and sweat free by the prodigious use of energy-hungry air conditioners.⁶ As with earlier such meetings, the policy outcomes of COP27 were mixed. The signal accomplishment was the creation of a fund to compensate developing countries for losses related to climate change. But the delegates once again failed to agree on a concrete path toward achieving significant reductions in global greenhouse-gas emissions.

Barak's account of COP27 left me wondering: Would the results have been any different had the COP27 delegates met instead in some crowded, hot, sweaty, working-class neighborhood of Cairo? Probably not. One meeting, no matter how grittily material, could hardly overcome decades of political, economic, and material inertia. Yet, Barak's point reminds us that the more we erect walls, whether physical or cultural or theoretical, that isolate us from the material realities of the world, the more difficult it becomes to truly grasp the problem and find solutions that the majority might willingly support. To think and act most clearly and creatively, we have to escape the illusions of our increasingly abstract, digital, and immaterial lives, and find novel ways for more of us to experience these problems through our whole bodies, not just our minds.

Which brings me back to those coal rollers and their outlandish fossil-fueled displays. On the one hand, in some highly emotional and atavistic way, the coal rollers are recognizing and celebrating a concrete material reality: the extraordinary power and agency of oil and other hydrocarbon fuels. As Dipesh Chakrabarty famously put it back in 2009, "The mansion of modern freedoms stands on an ever-expanding base of fossil fuel use." True, there may have been other, less energy-intensive and more sociopolitically rooted ways of achieving something like the modern world's expanded affluence and freedom. But that it might have been done differently should not blind us to the reality that the vast energy stored in fossil fuels offered a sort of "Get Out of Malthusian Jail" card. Hydrocarbons helped fuel the tractors and fertilizer production that made it possible to avoid the economist Thomas Malthus' 1798 prediction that rapid population growth would inevitably outstrip the available food supply. If so, it may have been a card that can only be played once. As the Nobel Prize-winning chemist George Olah puts it, "Nature's petroleum oil and natural gas are the greatest gifts we will ever have."⁷

We should recognize the irony that these smoke-spouting dinosaurs might do more to motivate progress in combatting climate change than a hundred rhetorical appeals for action.

I suspect we can safely assume that few coal rollers have read Chakrabarty or even heard of Olah. But however uninformed their thinking or malicious their motivations, the coal rollers are correct in sensing that oil is, in some mysterious, almost occult manner, the architect of an individual freedom

and wealth so abundant they can squander it with extravagant displays of black smoke. Theirs is the modern “barbaric yawp,” a diesel-fueled roar of unfettered individual freedom powered by millions of years of buried sunlight. The future may well go to the soft electric hum of the Tesla and other all-electric cars, machines whose power bears no trace of its origins. There is simply no way to tell whether the electricity that powers them came from a dirty, greenhouse-gas-emitting coal plant, or a green-energy wind or solar farm. By contrast, the source of the coal rollers’ power is on full display for all to see. This doesn’t mean we should abandon electric vehicles, of course. But rather that we should recognize the irony that these smoke-spouting dinosaurs might do more to motivate genuine progress in combatting climate change than a hundred passionate rhetorical appeals for action. That the coal rollers would surely despise the very thought that in trying to be bad they might instead be doing some good, to me, makes the realization all the more satisfying.

As I drove down the canyon that day, the greenhouse gases spewing from my own tailpipe were all but invisible. Like a glutton with impeccable table manners, I conceal my own ravenous appetites and destructive pollution behind a veneer of technical and social responsibility. But for just a few seconds, the coal roller’s smoke gave me a literally stinking and noxious taste of a truth that our bizarre new Age of Immaterialism constantly conspires to make us forget: Hidden beneath the seductive lure of my own freedom, comfort, and affluence lies a black fire-breathing monster that is more lord than servant.

So yes—thank God for the coal rollers . . . the god-damned bastards.

Notes

¹ Paul McAdory, “Rising from the Dead at Monster Jam,” *The New York Times*, 6 February 2024, <https://www.nytimes.com/2024/02/06/style/monster-jam-trucks.html>.

² California, Oregon, and at least eight other states do explicitly prohibit rolling coal with penalties of varying severity.

³ Many will recognize my debt here to a famously provocative essay: Paul Fussell, “Thank God for the Atom Bomb,” *The New Republic*, August 1981, 28–30.

⁴ Peter Wagner, *Carbon Societies: The Social Logic of Fossil Fuels* (Polity Press, 2024), 241.

⁵ Andy Clark, *Supersizing the Mind: Embodiment, Action, and Cognitive Extension* (Oxford University Press, 2008), xxviii.

⁶ On Barak, *Heat, a History: Lessons from the Middle East for a Warming Planet* (University of California Press, 2024), 230.

⁷ Bernadette Bensaude-Vincent and Sacha Loeve, *Carbon: A Biography* (Polity Press, 2024), 132.

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ONE WOMAN'S WASTE IS ANOTHER WOMAN'S TREASURE: A
CONVERSATION WITH KIM CURTIS

Kim Curtis and Regina M. Bichler

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*Kim Curtis is a fine artist whose work explores the history of landscape. In moments of insomnia, in order to guarantee herself a positive story, she searches “comeback species” wherever she is located at the time (i.e., “comeback species Puerto Rico”), and always learns something exciting and pleasant enough to allow her to fall back to sleep. Regina M. Bichler is a PhD candidate researching zero-waste cities in Germany and Japan. When travelling Japan, she often takes photos of the creatively and colorfully designed manholes that each city uses to present its characteristics. Together, they discuss the role that waste and the environment play in Kim’s art, how her recent project *Regeneration* celebrates environmental victories including “comeback” species, and how success stories motivate us to keep fighting for a better future.*



Kim Curtis, *Regeneration: Early Summer Prairie*, 2025, oil and flashe on canvas, 189 x 155 cm (detail). © Kim Curtis. All rights reserved.

REGINA M. BICHLER (RB): As a researcher on waste and an art lover, it is a real pleasure to look at your works! I admire the deep, bright colors you use in the *Regeneration* series, and how you balance them with darker tones. Could you say a few words about this newest project?

KIM CURTIS (KC): Sure! My new series *Regeneration: Painting the Prairie's Renewal* amplifies environmental success stories, particularly in the US-midwestern prairie where restoration has led to agricultural benefits as well as species comeback. We're in a fugue-state of environmental distress, and I think it's crucial to remind ourselves that many of the investments we've made are paying off. A quick search of “comeback species” in any region yields inspiring results, from salmon

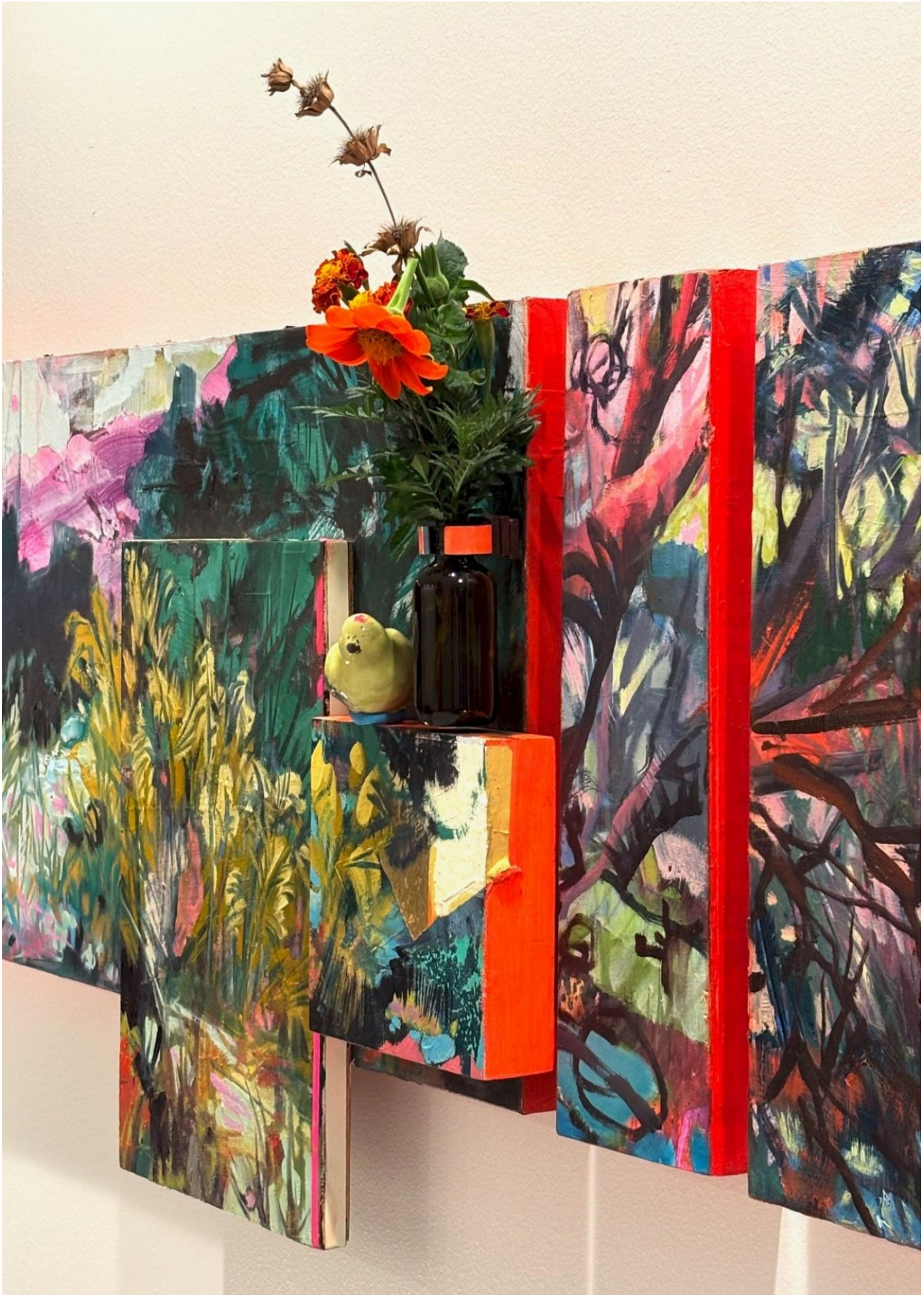
making their first run in 60 years up the unblocked Klamath River, to India doubling their tiger population in a decade. There is much more to do, but *Regeneration* reminds us that our systems do revitalize when allowed and encouraged to do so.



Kim Curtis, *Regeneration: Madison PrairieScape*, 2025, mixed media on multiple panels, 38 x 330 cm. © Kim Curtis. All rights reserved.

RB: My favorite in the *Regeneration* series is *Madison PrairieScape*, which blends the typical two-dimensional oil-on-canvas picture with three-dimensional elements and experiments with spatial arrangement. Could you explain the idea behind this work?

KC: I think what you may be responding to is the game I play with forced adaptation. That particular piece is made up of many irregularly sized and shaped panels, with some sculptural elements added in. The composition and color systems are dictated by the constant introduction of new materials. From the very beginning of the process, I use whatever materials I have at hand: leftover house paint, scrap materials including litter, media I haven't tried before, and I apply them in dis-abled ways: using my non-dominant hand, holding my tools awkwardly, pouring, spraying, layering, erasing.



Kim Curtis, *Regeneration: Madison PrairieScape*, 2025, mixed media on multiple panels, 38 x 330 cm (detail). © Kim Curtis. All rights reserved.

Then I edit whatever happened in that first pass: looking for areas I want to preserve while eradicating others, duplicating marks or passages, finding ways to create tension or harmony. As the imagery starts to develop into a legible landscape, I disrupt its evolution by making more changes: panels may be turned upside-down, re-positioned, or removed, areas are scraped out, things are pried off or nailed on. Then these actions are assessed for visual interest: Should the spill be cleaned up? Should I continue scraping into pristine areas? Should the adjacent areas cohere or remain apart? As an example, if I nail a bright yellow piece of corrugated plastic over what looks like a field of prairie grass, I then need to decide how that synthetic yellow affects the surrounding landscape: Does it spread through the adjacent grass, or will the grass overgrow the new material? At the same time, I'm also playing with rhythm: How do the differently sized panels line up as the landscape travels across the wall? All of these experiments and decisions create the colors you see in the final, oddly formatted piece. Again, this is akin to the way our natural world is transformed by human activity and how landscapes are marked by oddities, both intentional and unintentional. I will say though, that I do have a strong bias: I'm pursuing a story of hope and of beauty in the complexity of destruction and reconstruction. So, my decisions are made from that perspective.

RB: And it works! Despite the use of dark colors, your seemingly impenetrable forests and wild landscapes emanate a sense of hope to me—maybe reflecting the local successes that you just mentioned. Yet in a time of persisting global environmental crises, how can there be hope that we will still swing the wheel around on a global scale?

KC: I don't think we have any choice but to hope. And hope inspires action: It mobilizes investment, and when we truly invest, we succeed. I agree, the overall environmental picture right now is grim, but, for example, when I glance through my inbox, I consistently open one newsletter. It's from *Grist* magazine and the lead is always something positive like, "It's January 14th and Native Americans Are Getting Their Land Back." I open it because I'm immediately curious: What happened? How did they do it? Conversely, the deluge of negative emails overwhelms me, and I start to feel helpless. As a visual storyteller, I want to be part of a campaign that inspires people to move forward—to get outside, explore what we have, and commit to protecting it.

RB: Don't these "small hopes" encourage us to rest on our laurels of such tiny, local successes, suggesting that we are already doing enough for nature?

KC: I think people want to know their investment is paying off. Legions of individuals and organizations work every day as volunteers, climate lawyers, researchers, teachers, artists, activists. . . We need to recognize this painstaking, ongoing labor and celebrate its victories. I don't think celebration encourages people to relax. To the contrary, I think it inspires people to keep going and to go bigger. Wallowing in the negative is the actual danger because situations start to feel futile.

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Yes, we need to be realistic about what we're facing, and I very much appreciate the people who are giving us the hard facts. Those facts lead to specific changes, for example with the US Farm Bill where the federal government, recognizing habitat loss and ecosystem destruction, began paying farmers to restore prairie and wetlands where their fields were unsuitable for row-cropping. Farmers benefited and the immediate environmental recovery (if isolated) should be widely and loudly celebrated: Wildlife returned, drainage improved, soil and water quality increased. Paired with comprehensive agricultural and ecosystem information, these successes give us positive data to fight for more elaborate projects, create stronger partnerships, and to experiment with new approaches.

RB: But if we want more of the good news and successes, shouldn't we be the activists out in the field fighting for the improvement of the environment?

KC: Amplifying well-researched information is key to mitigating any crisis. You and I are using our particular skills to both create our work and help disseminate the work of others. A few years ago, I decided to quit "everything" and dedicate myself to environmental justice and protection. Then I strategized how: What can I bring to an environmental organization? I have baseline office skills and no expertise in law or science. However, I've spent my entire life refining my ability to research and tell stories through visual arts and craft.

Each of us has had the experience of enduring a dry explanation during which important information is lost. This is where the humanities are crucial: persuasive writing, compelling images, dramatic storytelling through music, dance, theater—it's how we move people, both emotionally and physically. Artists and writers are turning research data into exciting and compelling stories. These stories then reverberate through countless retellings. The research you're doing now is instrumental in this process. For example, when I discovered—through your work—the existence of zero-waste cities in Japan, I immediately wanted to know more: Whatever rabbit holes your research sends me down filter into my work, but also into conversations with friends, family, colleagues, and—to your original point—the thousands of people I join in streets and capitals during rallies and protests.

Lastly—and perhaps most tangibly—I donate 10 percent of my sales to an environmental organization ([Prairie Rivers Network](#)) full of lawyers, scientists, and more storytellers who produce concrete results: energy companies forced to responsibly remove toxic coal ash from our floodplain, legislation that protects an aquifer serving over a million people, or collaboration with farmers to reduce fertilizer and pesticide use. Hopefully, both my donation policy and the conversation promoted by my artwork—built on research like yours—inspire more people to invest and mobilize.



Kim Curtis, *Regeneration: Prairie Bouquet*, 2025, mixed media on canvas, 70 x 70 cm (detail). © Kim Curtis. All rights reserved.

RB: It's nice to hear that someone is interested in my research! Coming back to your art, among the materials you are using, there are discarded items that have been classified as waste by others. How do you find value in these items?

KC: I began inserting bright, anomalous items into my paintings many years ago not out of a conservation effort *per se* but because I'd been searching for a way to describe our landscapes as they *truly* are: a layered history of interactions between humans and our environment. Increasingly, I was struck by the marks we humans make and the adaptations we force, many of which we don't recognize because we automatically edit them out: We either don't want to see the spray-painted construction zones and expanded, mismatched structures, or we simply don't appreciate the startling contrast between plastic-wrapped haybales and green farm-fields. I wanted to create a similar process in my work: to force the developing landscape to either adapt to or reject an intrusion and then require myself to manage it. Should I repair it? Ignore it? Remove it and expose the scar? Or should the entire painting shift to absorb it? What can that process and the resulting work reveal to us about what we actually see out in the world, what we know about our histories, and how we

appreciate what we discover when we look closer? For me as an artist, the addition of synthetic “human-made” artifacts brought me to an enhanced depiction of our environment and made for a much more interesting process of challenge, frustration, changing expectations, and discovery of new artistic vocabulary.

RB: The integration of synthetic “human-made” artifacts into your art makes me think of your plastic waste sculpture *Harvest*. What was the process of creating this artwork like?

KC: Sure! About a decade ago here in the US, we had a disturbingly violent cultural moment during which white supremacists terrorized the community of Charlottesville, Virginia due to the planned removal of monuments erected to the slavery-aligned Confederacy. It prompted a national debate over commemoration, and I began examining my own ideas around heroism and public contribution. Researching the history of monuments, I learned that the Greek and Roman roots of the word itself actually translate not to “commemoration” or “celebration” but rather as “to warn” or “to advise.” The plastic waste crisis was becoming increasingly urgent, and the idea of a monumental admonition took hold. Coincidentally, I’d been paging through some hunting magazines, thinking about plastic in forest animals, when I realized the discarded Christmas reindeer I’d found along the road years prior would be an excellent central hero: its cavity an ideal container for brightly colored detritus and blinking lights. It still functioned, swaying its head back and forth, making it a compelling ambassador for the concept of *Harvest*.



Kim Curtis, *Harvest: A Monument to Plastic*. 2022, reclaimed Styrofoam, wood, plastics, lights, solar panel, and battery. © Kim Curtis. All rights reserved.

At our Styrofoam recycling center, I scavenged piles of packing material to build that fluted pilaster and oddly cobbled columns. I continued litter-collecting and dumpster-diving for the rest: Those silver Corinthian capitals are the linings of coffee bags, surrounded by all sorts of colorful toys, party favors, sushi grass, vegetable netting, and so on. The idea was to make it celebratory enough

to attract viewers who would then engage further: A QR code still links to a page on my website where people can register to vote, contact their legislators, and read more about plastic and the fossil fuel industry's reliance on it as their "Plan B." The monument was placed in front of a last small portion of prairie savanna and then again in two different commemorations of Earth Day. It elicited a lot of curiosity and proved a useful landmark for toy-trading, art workshops, and discussion. And the whole thing ran on a solar panel with a portable battery!

RB: Do you think it would be possible to prevent the degradation and disposal of the discarded items you use to create arts in the first place?

KC: My conclusion from *Harvest* was that it really comes down to governments and corporations to make changes at the scale required to solve our environmental problems. That said, *individuals* move legislation and organizations through public pressure. To that end, my monument links to a webpage that shows visitors options to act.

In the meantime, there are plenty of artists and businesses promoting reuse of materials that would otherwise require hundreds of years to break down in a landfill. Pressure exerted by all of us results in legislation, international treaties, and at the business level, new approaches such as Benefit Corporations (B Corps) or resale/rental platforms for clothing and other goods, etc. To be sure, we're still at the mercy of immensely powerful interests and presently here in the US, an exceedingly destructive and corrupt government. If, however, you believe Bill McKibben's research,^{viii} the massive conversion to solar and wind power remains unstoppable because huge numbers of people across the globe demand it and businesses are profiting from its delivery. Data centers (the next energy gobbler no one asked for) are increasingly being fought and forced to conform to budding legislation. It's a constant battle, which is again why we need researchers, scientists, journalists, activists, and all creative thinkers on the case.

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RB: What kind of regeneration do you think we now need most for an ecological future?

KC: Well, at the risk of sounding US-centric, I'd say, first and foremost we need a political regeneration. Unfortunately, the US has an outsized influence on so many global issues, starting with our destructive support of wars and their tragic costs to human life, culture, and the environment. This particular "regeneration" is already underway, I think, as evidenced by Democrats having flipped 28 Republican-held seats since the current administration came to power, even in districts most heavily in favor of Trump.^{ix} It's imperative we oust these horrifying "leaders" and return to policies that promote peace, compassion, and "the general welfare," as described in our constitution. We must reinstate funding for international relief, science-based medical research, quality education, environmental policy, investment in the humanities, and so much more. If we want positive, widespread progress, we need to do it at scale, with the full force of the US government behind us. In the meantime, we still have our individual state policies and can make significant progress at that level.

RB: From what you said before, do you think there are explicit responsibilities on the individual–person and business–level?

KC: Plenty of individuals and businesses are attempting to make a difference, but we can only work with what's available to us. For example, it's clear now that plastic recycling—at least in the US—just isn't really happening. I, personally want to cut down on plastic but when I walk into a grocery store, I only have the packaging choices provided to me. We need legislation and corporate structures that compel governments and companies to set standards for large-scale solutions. Our responsibility as individuals is to tell them—relentlessly—what we want.

RB: . . . which we try to do with writing and art. You talked about your art as aiming to "describe our landscapes as they *truly* are," with its human interventions. Would you call your art "environmentally friendly," considering the landscape transformations it shows?

KC: I don't think much that we humans do is "environmentally friendly," especially at the scale of our population and consumption. What I'm trying to convey through my work is a sense of reality and curiosity—bringing back into view the things we don't see or that we ignore. And with this most recent work, *Regeneration*, to call attention to places that aren't well understood or might be considered "worthless." Wetlands and grasslands aren't as dramatic or breathtaking as mountain ranges, but they are beautiful in a subtle and complex way. They are some of the most diverse ecosystems on the planet and they support us in irreplaceable ways.



Kim Curtis, *Regeneration: Regal Fritillary*, 2025, mixed media on canvas, 70 x 70 cm (detail). © Kim Curtis. All rights reserved.

In the US, most of our tallgrass prairie was eliminated by the mid-1900's and now with hybrid seed technology, even the grasslands further west, which were always considered poor farmland, are being quickly destroyed for row-cropping. We need to stop converting these crucial ecosystems into industrial farms, and we can do that in part by amplifying successful, convincing strategies. I just finished reading an incredibly thorough, entertaining book called [*Sea of Grass* by Dave Hage and](#)

Josephine Marcotty. They've compiled decades of stories and data from the American Midwest into a fascinating narrative that describes "the conquest, ruin, and redemption of nature on the American prairie."

RB: And how about "sustainable"? Would that be a fitting description for your art?

KC: As far as "sustainability" in my studio goes, our old paint, rags, and toxins are recycled into fuel, and our fantastic landlord has converted the entire complex to solar and geothermal heat-pumped power with low-energy LED lighting. We're also surrounded by restored prairie: lots of birds, animals, and buzzing insects to help mitigate the presence of industrial farming throughout the region. Again, the larger system needs to promote these interventions to a wider population and thankfully, Illinois is currently considering legislation that addresses the confusion and complication involved with switching to more efficient—and economical—energy sources. The "Clean and Healthy Buildings Act" not only provides funding for modernizing energy in homes and rental housing but also establishes an online state-wide resource to help people understand their options. These are actionable policies that can make a huge difference in energy consumption. We Illinoisans need to ensure that bill gets signed into law.



Regeneration series in gallery. © Kim Curtis. All rights reserved.

RB: Last but not least, what future projects do you have in mind?

KC: I like to immerse myself in experiences and research, then watch what emerges when I get back to art-making. Right now, I'm looking into art residencies where I can prioritize learning and observation. I prefer to study areas that are mysterious to me: where I can discover what makes an ecosystem tick. I'm still very interested in "comeback" stories and inspired by people working to re-establish broken systems.

One thing I've loved about studying the prairie is the utter chaos: it's out of control. So much is going on simultaneously and it's constantly changing because our seasons are so drastic. I hope to

keep exploring these kinds of overwhelming and confusing places, while meeting the people working in them who have so much fascinating information to share. It's really what gets me excited.

And of course, there's my fantastic job at the University of Illinois Department of Theatre, where we're currently working on a play called "Radium Girls" about the young American girls poisoned by radium during the 1920's-40's as they worked their exciting and patriotic new jobs painting radium on watch dials. Then in May, our family will travel to Japan where I'll convince my son to leave the Ghibli park early to visit one of your zero-waste citie

Notes

^{viii} Chris Hayes, host, *Why is This Happening? The Chris Hayes Podcast*, "'Here Comes the Sun' with Bill McKibben," produced by Simplecast, 30 August 2025.

^{ix} Natalie Fertig, "Democrats Are Trouncing Republicans in State Elections Since Trump Took Office," *Politico*, 3 December 2026, <https://www.politico.com/news/2026/03/12/dems-flip-28-state-legislature-seats-in-trump-2-0-00827125>.

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MAPPED FUTURES, VANISHING PLACES: ON INHERITANCE AT THE
WATER'S EDGE

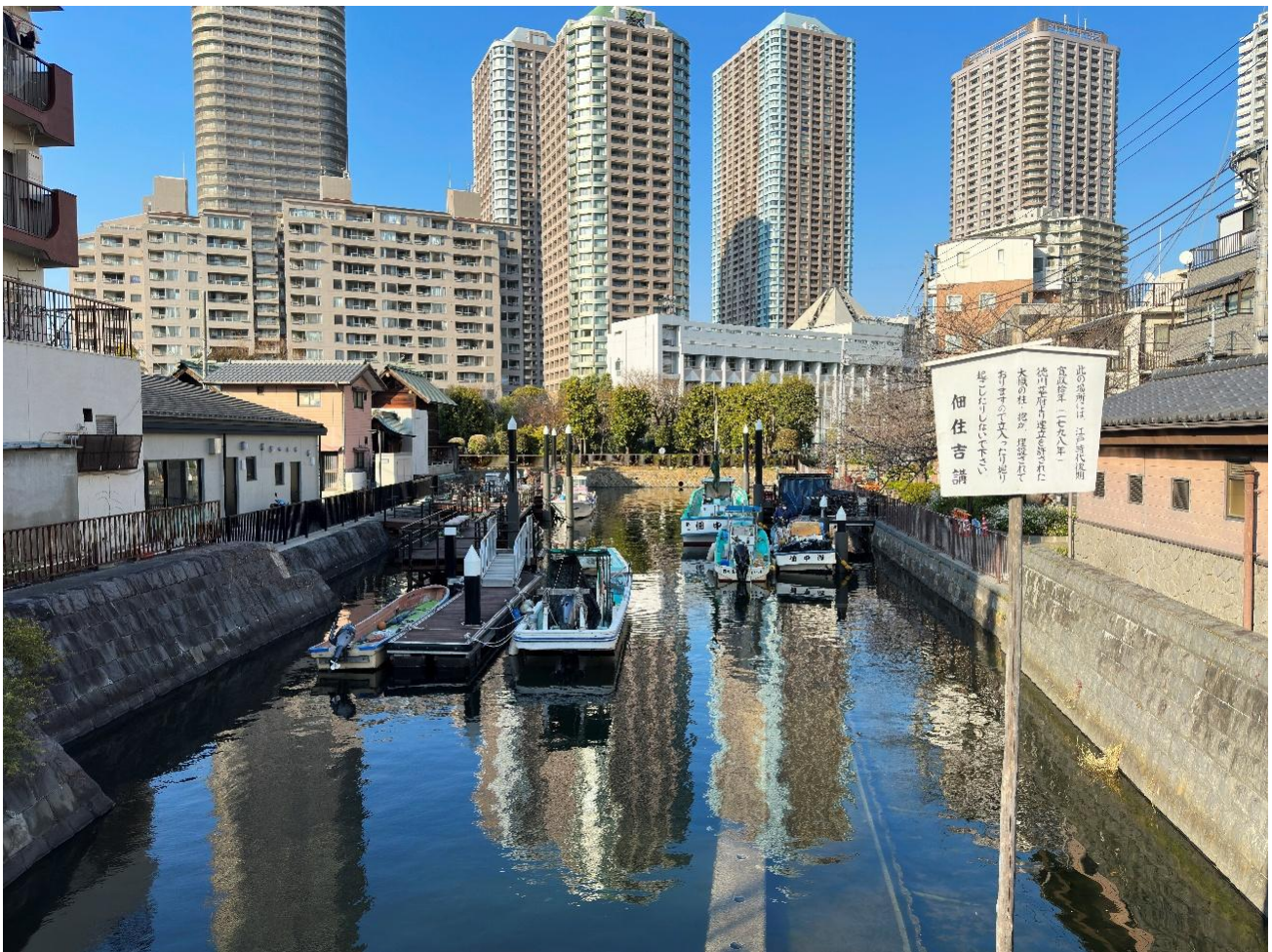
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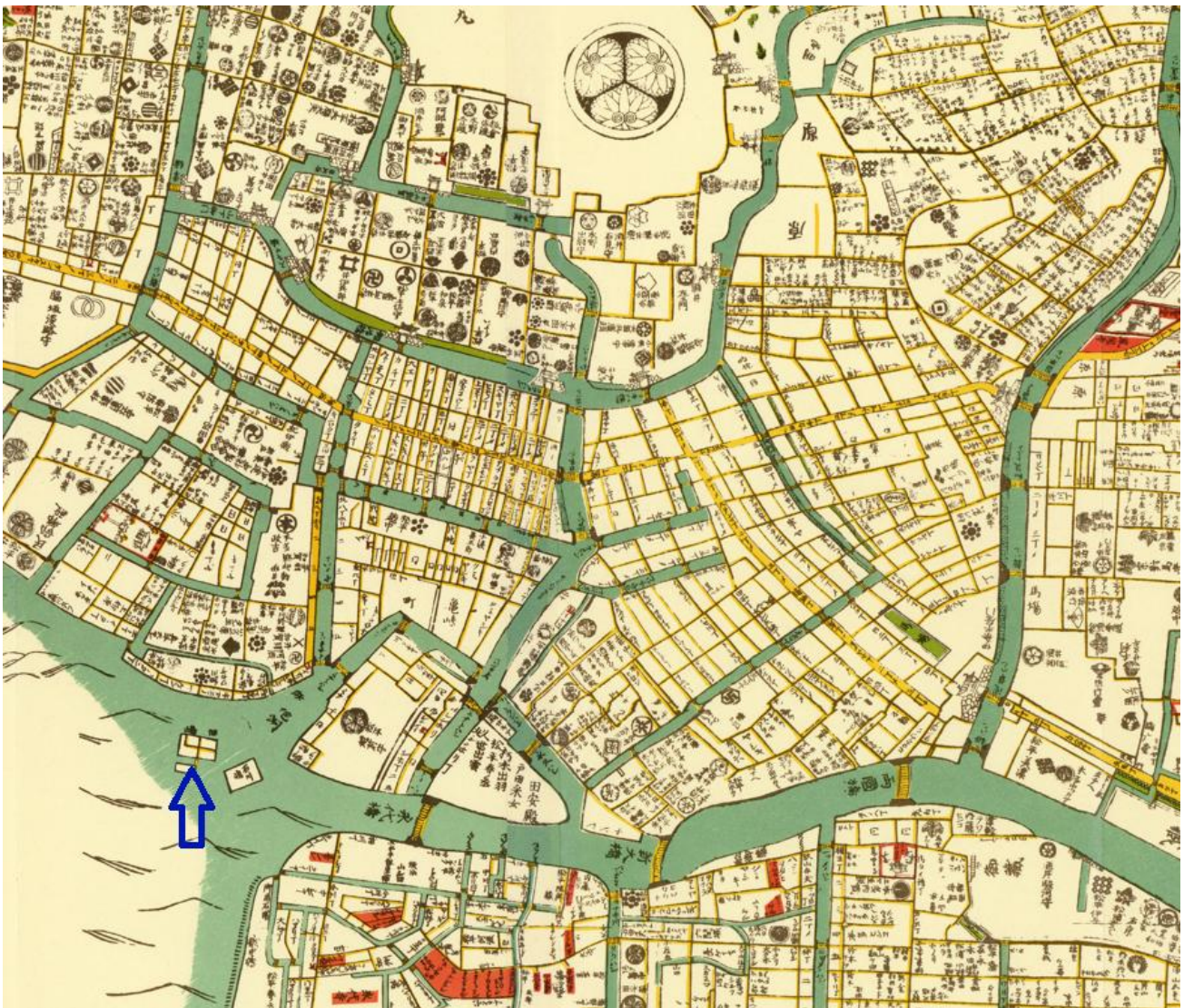
I began thinking about the inheritance of memory not in a classroom or a library, but at the edge of a half-closed moat on Tsukudajima, an artificial island in Tokyo. Some might imagine a concrete island with few signs of life, but, in fact, it is rich in colors, activities, and species. I walk by the moat every day. Before dawn, it remains plunged in a muted Maastricht blue, sharpening a shrine's silhouette under a slowly waking sky. In rush hour, a couple of boats sail out through a water gate almost as narrow as their width. During the day, people gather along its edge, fishing, waiting for a friend, talking, playing Pokémon Go, or dozing on a bench. In the evening light before dusk, the water mirrors a scarlet-mackerel sky as crows, starlings, cormorants, and egrets hasten away for the night, sensing the rain the next day.



Tower buildings with the moat and the sign indicating the location where the wooden segments are buried on Tsukudajima.
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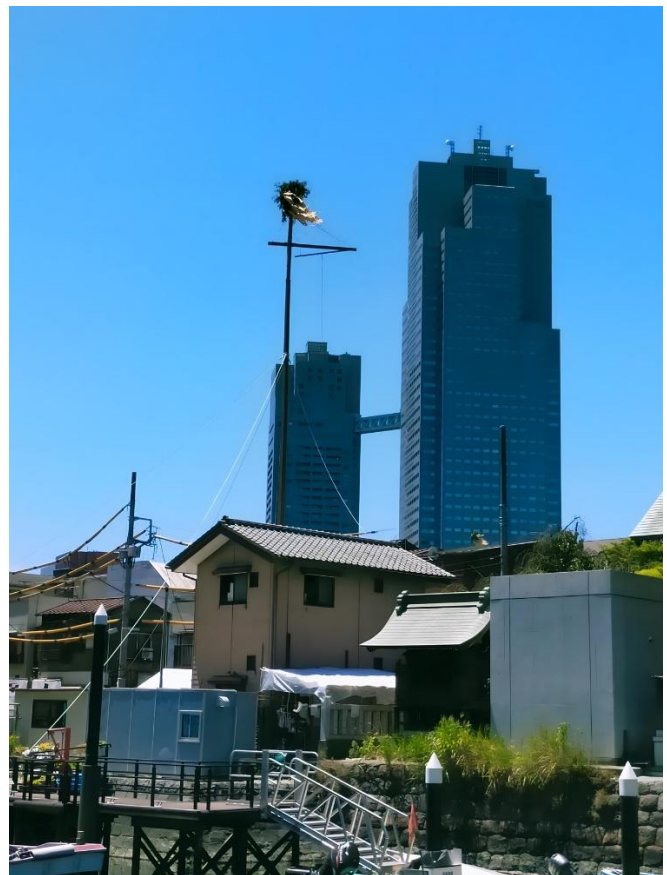
The moat is where both the fluid and the solid, life and death, intersect. Flotsam and the color of the water tell us the weather conditions of the previous days upstream by the river to which the moat is connected. The smells at the water's edge carry traces of the life and death of plankton and their relationship with urban water infrastructure. In the old times, human bodies were among that flotsam more often, and people downstream would have an altar for spirits with no identifiable kin and pray for them. Every summer during the week of Obon when it is believed the dead cross the water and return to this world, local families on the island burn incense by the moat to welcome their ancestors and entertain them with a local prayer dance. The dance is also meant to appease

the unfortunate spirits believed to drag the living into the water during their crossing. Even today, some boats remain moored to avoid such hazardous encounters during *Obon*.



Mouth of the Sumida River in the new revised facsimile edition of *Meiwa Edo Zu* (1771/2020) [enlarged]. The square island quartered by lines at the mouth of the Sumida River (marked by the author with a blue arrow) is Tsukudajima, the artificial island where the moat is. © Kochizu Shiryō Shuppan. All rights reserved. Data provided by the International Research Center for Japanese Studies.

On Tsukudajima, summer is also the season of the local Shinto festival, which dates back to the island's construction in the early seventeenth century. The first shogun of the Edo period, Ieyasu Tokugawa, summoned 33 fishermen from Osaka to settle at the mouth of the Sumida River. Granted exclusive fishing rights, they reclaimed this sandbank and founded a branch shrine of their homeland. The festival was originally held on occasions of a bountiful catch of fish. Today, it takes place every three years. A month before the festival, the moat becomes a stage: The members of the shrine's confraternity wade into the water at low tide to dig the mud and retrieve heavy wooden segments. These are assembled into six 19-meter poles that carry long banners during the festival period. Listening to the unique "squeak" of these poles in the wind, some elders boast about their family's legacy as if they were still fishermen. These ritual practices do more than preserve tradition. They give the island a circular sense of time that cannot be easily translated into the linear time of planning and the projected future.



(Left) Woodblock print showing one of the six poles and banners of the festival. Hiroshige Utagawa, "Sumiyoshi Festival, Tsukudajima" (1857), from the series "One Hundred Famous Views of Edo" (Tokyo National Museum). [ColBase: Integrated Collections Database of the National Institutes for Cultural Heritage, Japan](#). [Public domain](#). (Right) A pole awaiting its banner before the festival. © 2026 Kiuchi Kumiko. All rights reserved.

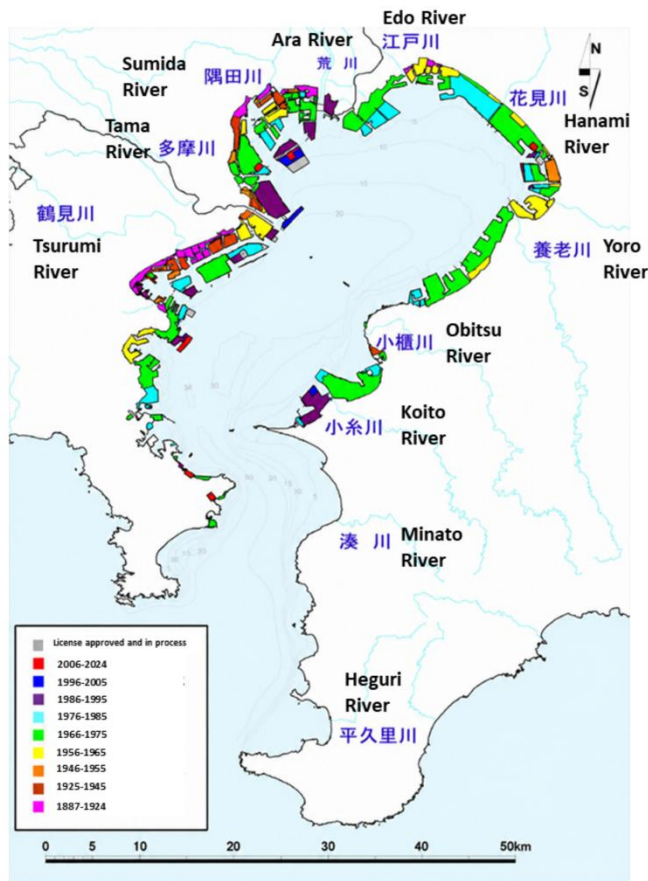
I first came to know this landscape through walking with a friend from Tsukishima, a modern artificial island constructed in 1892, adjacent to Tsukudajima. Her family house was a prewar building with a unique billboard-style façade, but a redevelopment plan replaced the narrow alleyways dotted with small low-rise houses with a 32-story tower building. Through walking, her memories appeared not necessarily as a coherent history, but as fragments: a shop that had disappeared, a room where she had played with friends, and the Kachidoki Bridge, which once opened three times a day and showered pedestrians with dust and litter. What mattered was not only what she remembered, but how memory surfaced in the act of walking—by retracing old routes and everyday scenes, in conversation, and in response to small details in the landscape.



Map indicating the location of Tsukudajima, Tsukishima, Kachidoki, and Kachidoki Bridge. Made with the Vector application and a map provided by [Geospatial Information Authority of Japan](#). © Kumiko Kiuchi. All rights reserved.

Moving through the same paths, I found myself walking at different paces, sometimes in haste, other times more slowly, more attentively, becoming aware of the multiple, uneven temporal scales that shape this place. Interconnections between rhythms and scales have become more apparent to me. If the daily rhythms of activities around the moat constitute a human scale, the time of the three-year ritual is cyclical, binding this community together across changing times and generations. Tides are cyclical, but when high tide coincides with earthquakes or severe weather, water levels can rise and lead to floods, which have reshaped Edo and Tokyo several times throughout history. Redevelopment also has different rhythms in different phases. During construction, the pace is brisk and driven by deadlines. Once a tower block is complete, it is expected to have a lifespan that exceeds one hundred years, outliving a human generation. This also assumes that the artificial ground the building stands on lasts even longer, and, for that, the land requires constant maintenance of embankments, drainage, and dredging. Most of these artificial pieces of land were part of a vast tidal flat in the inner Tokyo Bay only about 150 years ago, and when it teemed with sea creatures. These multiple layers of time are a disquieting reality. The moat is the frontline of different times and competing claims on the future.¹

In Tokyo, urban waterfronts are areas where high-rise buildings are concentrated, not only for the good views of the sky and the sea, but also because of the land's history. Most modern artificial islands were constructed by the Tokyo Metropolitan Government, which, in the late nineteenth and early twentieth centuries, sold or leased large plots of land to factories and warehouses to secure assets for the construction of a modern capital. As a result, the land-rights issues are less complex, and the economic benefits are easier to justify. In redevelopment, the future is treated as a profitable set of calculable assets rather than something uncertain in time. It is an example of what Simone Abram describes as the "spatialization of time" in urban-planning practice.² To minimize risk and achieve planned profits, the redevelopment project is conducted within a short and tightly planned timeframe.



The map shows the construction of artificial islands and coastal reclamation from the late nineteenth century to 2024, color-coded by construction periods. Map labels and legend text translated by the author into English. About 20 percent of Tokyo Bay is now reclaimed. As of 2026, the gray area has been extended further south to accommodate treated waste from the Tokyo metropolitan area. This patch of land, called New Surface Disposal Site, is expected to serve that function for the next 50 years. There is no prospect of constructing another artificial island in the inner Tokyo Bay. Published in: Kanto Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism, "Process of Land Reclamation," in *Tokyo Bay Water Environment Restoration Plan (Third Phase)*, revised March 2025, 10, <https://www.ktr.mlit.go.jp/ktr-content/content/000909347.pdf>. © Ministry of Land, Infrastructure, Transport and Tourism, Yokohama Port and Airport Technology Investigation Office. All rights reserved.

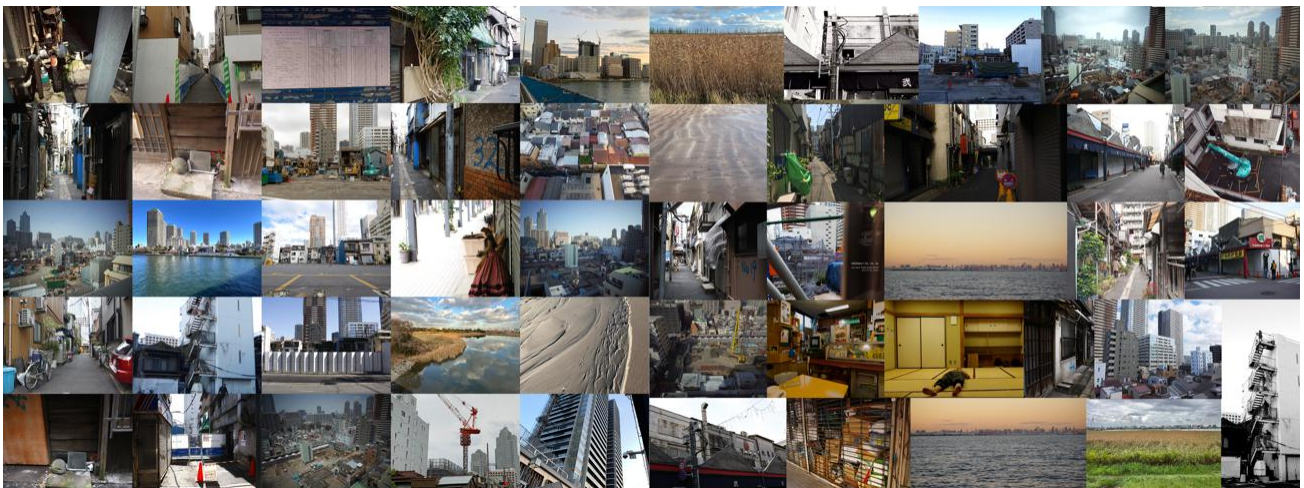
As Tsukishima became subject to three redevelopment plans in the late 2010s and the early 2020s, I noticed how this way of structuring time also affected the residents' sense of place. Suddenly, their familiar living space became a target of criticism. The streets were too narrow for rescue vehicles; residents were aging; old, vacant houses were increasing in number; the houses were vulnerable to fire. The area was becoming a burden on the next generation, and redevelopment was presented as necessary on the grounds of safety and efficient land use in central Tokyo, and sound investment in the future. At the planning meetings I attended, time took on a particular form. The developers' draft, dense with technical language, laid out a schedule that seemed to move forward on its own. It was described as adjustable, but its tone carried a sense of inevitability, which put residents under pressure. Despite their uncertainty and lack of time to consider different options, they soon faced several deadlines, including a deadline to decide whether they would commit to the redevelopment project or accept compensation and leave. Some agreed without fully grasping what the commitment entailed. Their automatic enrollment in the project's urban-redevelopment association, the body officially responsible for carrying out the redevelopment, made them financial stakeholders. Their future was tied to fluctuations in construction and material costs, meaning that rising costs could reduce the value of what they expected to receive. Later, in the completed building, monthly management and maintenance fees would also rise—sometimes tripling over 15 years. For many, staying would prove temporary: Over the years, several long-term residents would sell their property and leave. What troubled me was

not only the material loss of houses and alleys, but the way redevelopment converted an uncertain future into an apparently inevitable sequence of administrative steps.

Those rare few who actively sought information from similar redevelopment cases across Japan came to recognize the injustice they were forced to face. Despite the peer pressure in the neighborhood, these residents, believing their right to reside was being disregarded, sued the municipality, demanding that the plan be halted. They pursued the case for eight years, even though they knew defeat was likely, because no resident had ever won this type of lawsuit in Japan. In 2022, a redevelopment proposal came ashore on Tsukudajima, calling for the replacement of the low-rise houses around the moat with tower blocks. I was surprised by the residents' shared sense of

resignation. They said they would not be able to do anything about it when “it” came, which revealed how thoroughly the future had already been accepted as inevitable. I informed some residents of what I knew about the redevelopment. A week later, I heard that the residents had opposed and managed to halt the project in the first meeting. Their concern was not only the financial risk but also narrowing the moat as was proposed in the plan. They resisted the prospect of a future without the festival and the boats, at least for now.

My daily walk along the moat now feels different—more bodily and unsettled. With a premonition that the narrow alleyways in Tsukudajima may one day be replaced by high-rises, my walk has become a quiet patrol, almost territorial in feeling, a discreet declaration that this place surrounding the moat is still alive.



Collage of photos from walks with friends and research colleagues from 2016–25 in Tsukudajima, Tsukishima, and other tidal flats. Before and during the demolition of the houses, I invited people to Tsukishima to walk through alleyways together. I am grateful to all who visited the site. For this collage, I thank Daniela, Daniel, Kasia, Keiichi, Kimiko, Makoto, Matthew, Mitsuru, Sanae, and Tsubasa. © 2026 Kumiko Kiuchi. All rights reserved.

While this episode suggests that ritual practices can still safeguard collective and individual memories, the abstract temporal force of redevelopment often redirects lived experience away from the concrete past toward an anticipated future, placing situated knowledge at risk of erosion. What disappears in such transformations is not only the visible fabric of a place, but also the memory carried in repeated paths, habits of attention, and long attachment to it. Environmental memory, then, is not limited to flood, contamination, or species loss. It also inheres in inhabited and transformed environments: artificial ground, waterside life, neighborhood ties, and practical forms of knowledge that vanish when a place is remade.

Yet the problem extends beyond place. A neighborhood can be mapped, photographed, archived, and narrated, and still something essential may fail to pass on. What is lost is not simply information, but a way of inhabiting a world. The same difficulty emerges wherever inheritance depends upon experiences that cannot be directly transferred: a landscape remembered through walking, a ritual sustained through bodily participation, or a historical event known only through the testimony of others. In each case, records may survive, but inheritance remains uncertain. It depends upon whether later generations develop a relation to something they did not themselves live.

Seen from this perspective, the challenge facing a disappearing urban landscape is not entirely different from the challenge of transmitting historical memory. Both involve the question of how traces endure once the people who carried them are gone, and whether those who come later can remain attentive to experiences that are no longer immediately accessible. The question becomes particularly pressing when the continuity of living memory itself begins to break down.



Himeyuri Cenotaph (*Himeyuri-no-Tou*), Itoman City, Okinawa. Himeyuri ("morning star lily") refers to the female students who served as nursing aides at a local military hospital. The memorial is dedicated to 227 people (136 female students and 91 others) who lost their lives during the Battle of Okinawa in 1945. The cave in front of the cenotaph was used as a shelter, where 80 people were killed in the bombardment. © 2016 Kumiko Kiuchi. All rights reserved.

In 2025, Japan marked the 80th anniversary of the end of the Pacific War, and public attention turned once again to how its remembrance is carried forward, with particular emphasis on Okinawa Prefecture alongside the cities of Hiroshima and Nagasaki. While the seamless memorial events from 6 to 15 August may appear to be a coordinated national effort, Hiroshima and Nagasaki launched their respective memorials independently in the immediate aftermath of the war and continue to host them today. The same applies to Okinawa. Okinawa's Memorial Day receives less media coverage because it falls on 23 June, when the Japanese military ended their deployment there and departed. The Okinawans who experienced the war have carried their own suffering and protected the lineage of inheritance of memory even during the US occupation by incorporating it into their everyday lives and their peace education. There is a history of those in a fragile position seeking, with great perseverance, a platform to make their voices heard, when collective efforts to conserve memory were still lacking.

However, we are now at a turning point in history. Direct witnesses are in their late 80s or older, and the transition must be made from live interaction to transmission in their absence.³ The question needs to shift from how testimony is expressed to how it is received and carried forward. Yet this does not mean that those who listen to the witnesses can inherit their experience as such. As Marianne Hirsch argues in the context of Holocaust memory, the listeners' relation to the past is necessarily mediated, shaped not just by recall but by imaginative investment, projection, and desire. The ethics of inheritance lies not solely in claiming proximity to the past, but in remaining attentive to what cannot be fully possessed or understood.⁴

One response to this challenge has been to create situations in which younger generations do more than passively receive testimony. A project in Hiroshima, for instance, has emphasized careful

listening through sustained encounters with digitally colored photographs to prompt survivors' recollections. The locals also run a workshop for survivors' family members to retell their experiences and hold sessions with city residents to paint scenes from survivors' memories. What matters in such practices is not only preserving information but also cultivating intergenerational connections through which memory is inherited as a form of responsibility.

Yet even such practices do not resolve the challenge of transferring lived experience across generations. Chikako Yamashiro's video work *Your Voice Came Out of My Throat* (2009) gives such difficulty a striking form. First, Yamashiro's face appears on the screen: She is listening to a male voice recounting his childhood on Tinian Island and how his entire family committed collective suicide to follow the nationalist motto, "never live to experience shame as a prisoner." Yamashiro's mouth gradually starts moving in pace with the man's voice, and after a while, tears stream down her cheeks. While her mouth stops moving for a while, the man's face is slowly overlaid on hers: The woman lends him her throat and demonstrates the difficulty of inheritance through her physical presence. The artist reflects on the production, recalling the first recording of the footage: "I understood his words, but I couldn't visualize the content as concrete images."⁵ She transcribed his words and read them aloud repeatedly, and on the tenth reading, a single tear fell. The work does not claim that another's suffering can be possessed through empathy, nor that concrete, sensual knowledge can be gained. On the contrary, Yamashiro emphasizes the fleeting and unstable character of an "unintellectual grasp" that moved her. She states her determination to keep trying and to hang on to hope, "to cultivate a sense of coexistence and shared life with the victims who experienced war."⁶



From Chikako Yamashiro's video work *Your Voice Came Out Through My Throat* (2009). Courtesy of Yumiko Chiba Associates. Data provided by the Tokyo Photographic Art Museum. © Chikako Yamashiro. All rights reserved.

What Yamashiro's work helps bring into focus is that inheritance does not become easier once it moves beyond the horizon of lived human continuity. On the contrary, its possibility becomes even more fragile. We may imagine a world a century from now, when the tower blocks that stand today may no longer signify the same luxury or economic prosperity. Those who live among them may no longer share the values through which these towers were built. They will inherit not our intentions, but the consequences of plans made under different symbolic conditions.

Onkalo, Finland's final repository for nuclear waste, constructed within geologically stable bedrock formed 1.8 billion years ago, pushes the same problem beyond that horizon, into a future where language, institutions, and even the meaning of warning may no longer survive. Michael Madsen's documentary *Into Eternity* (2010) sheds light on this paradox. The facility is designed to store nuclear waste for one hundred thousand years, until the material becomes harmless, and to remain completely untouched during that time. The greatest uncertainty in this scenario is humanity itself: No other species is likely to break open the site. Debates surrounding Onkalo in the film reveal the limits of human attempts to convey its danger to future generations far removed from our own. In the film, humanities scholars collaborate with scientists and propose warning markers, archival systems, legal obligations, and symbolic forms of communication that may maximize the possibility of continuity between the present and the future, knowing that no such continuity can be guaranteed. Even if signs survive, future generations may not understand them; even if they do, they may not obey. Deep time exposes the fragility of inheritance by showing that language itself is historically contingent, and that the future inheritor remains radically unknowable.⁷



From Michael Madsen's film *Into Eternity* (2010). © Magic Hour Films. All rights reserved.

Compared to the deep time of Onkalo, the issues facing Tokyo's artificial land may appear more limited in time scale. Artificial ground is often assumed to endure indefinitely, yet its long-term durability remains uncertain because it has not been tested over truly extended periods. What is certain, however, is that its stability depends on continuous maintenance. In discussions of urban redevelopment, one rarely hears sustained reflection on this maintenance-dependent condition, or on the future it presupposes: one in which human institutions continue to monitor, repair, and stabilize the ground. That silence seems telling. To speak openly of this dependence on ongoing care would unsettle the certainty and predictability on which planning time depends. And where such questions are not publicly taken up, the work of inheritance becomes far more difficult.

If language cannot secure inheritance, the question becomes whether responsibility can still be cultivated through bodily practice. I came to reconsider this question through the work of dancer Namiko Kawamura, whose practice has long treated walking not as an ordinary act, but as a medium of attention. Since the 1970s, Kawamura has developed performances centered on slow

walking in outdoor spaces in the nude, often with the hope that those watching might “feel nature and notice something” through their bodies as a “medium” or a “sentient body.” In her work, walking becomes a way of sensing relations that remain difficult to capture in explanatory language alone.⁸



From Toshiko Takashi's film *Walk Slowly: Kawamura Namiko Dances at 84* (2023). Courtesy of Here&There. © Toshiko Takashi. All rights reserved.

This way of sensing relations is especially palpable in Kawamura's live performances. In *Walk Slowly*, presented in December 2025 and dedicated to the eightieth commemoration of the end of the war, the extraordinarily fragile slowness of her walk and the soundless placement of each foot seemed to suspend linear time, opening a space in which past, present, and future fold into one another. Her walk did not present history as a narrative. Instead, it altered the temporal conditions of perception. Kawamura asked the audience not only to watch her slow walk but also, eventually, to walk with her, to step slowly with attention to our inner feelings. As I joined this mode of walking, I began to feel I was moving not only as a person in the present but also as someone who would one day be absent from this world. Would future residents, none of them kin to me, accept my spectral visit, knowing I had belonged to a time when humans were still worsening the conditions on Earth? This thought was not the result of abstraction. It emerged through the slow act of walking. In that moment, walking became a mode of inhabiting time otherwise.

What mattered in that experience was not the recovery of a lost past in any full sense. Nor did walking provide access to the clear imagination of a future. Rather, it brought into awareness the fragile position of the living in relation to those who are gone and those who are yet to come. Walking made it possible to sense responsibility toward a future I will not live to see, by drawing me into the discontinuities of time rather than reflecting on time from a distance.



Banzu tidal flat, the only remaining coastal tidal flat in the inner Tokyo Bay. © 2025 Kiuchi Kumiko. All rights reserved.

The water's edge welcomes one of the four moments of slack tide. Small waves cease, and the surface stills. The reflection of the sky appears without distortion, and the passage of a waterbird draws an unshaken arc across it. Before that trace fully disappears, a small whirl forms, and the tide begins to turn again. A blink of these nonhuman times brings into view an invisible image of tidal flats buried underneath our feet, and rhythms of waterbirds, plants, and moss on the stone embankment come to the fore. This is not merely a passing moment of beauty, but something I want to retain as an orientation for living: to remain humble, for the future cannot be fully mastered, and stay close to places where different times meet, if only for a moment.

Acknowledgements

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Notes

¹ The "idea" of walking that unfolds in this essay has a number of reference points ranging from Tim Ingold's 2011 book *Ways of Walking: Ethnography and Practice on Foot* (Routledge) to Matthew Gandy's 2024 essay "Attentive Observation: Walking, Listening, Staying Put" (*Annals of the American Association of Geographers* 114, no. 7: 1386-1404, <https://doi.org/10.1080/24694452.2024.2353841>). Tim Edensor's edited volume on rhythm, *Geographies of Rhythm: Nature, Place, Mobilities and Bodies* (Routledge, 2016), <https://doi.org/10.4324/9781315584430>, also offers valuable insights into the subject of walking. As for the concept of the environmental humanities, among several introductions to the subject, Christof Mauch's interview concisely summarizes it and outlines its future direction: see Diana Villanueva-Romero, "Humanities in Transition in the European Context: Interview with Christof Mauch," in *Imaginative Ecologies*, ed. Diana Villanueva-Romero, Lorraine Kerslake, and Carmen Flys-Junquera (Brill, 2021), https://doi.org/10.1163/9789004501270_004.

² Simone Abram, "The Time It Takes: Temporalities of Planning," *Journal of the Royal Anthropological Institute* 20, no. S1 (2014): 129-47, <https://doi.org/10.1111/1467-9655.12097>.

³ Jan Assmann, "Communicative and Cultural Memory," in *Cultural Memory Studies: An International and Interdisciplinary Handbook*, ed. Astrid Erll and Ansgar Nünning (De Gruyter, 2010).

⁴ Marianne Hirsch, *The Generation of Postmemory: Writing and Visual Culture After the Holocaust* (Columbia University Press, 2012), <https://doi.org/10.7312/hirs15652>.

⁵ Quoted in Keiko Okamura, "Land, Mind, Body-Scape in the Works of Chikako Yamashiro," in *Chikako Yamashiro, Reframing the Land/Mind/Body-scape*, ed. Tokyo Photographic Art Museum, bilingual ed. (Mizuosha, 2021), 93.

⁶ Ibid. Yamashiro's subsequent works in the 2010s and 2020s explored the relationships among people, memory, landscape, and environment.

⁷ *Into Eternity*, directed by Michael Madsen (Magic Hour Films, 2010).

⁸ The quotations of Kawamura's words are from her interview recorded in the following documentary film: *Walk Slowly: Kawamura Namiko Dances at 84*, directed by Toshiko Takashi (2023).

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THE FUTURE OF THE ENVIRONMENTAL HUMANITIES IS NOT IN THE SEMINAR ROOM

Rob Gioielli

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Rob Gioielli

Don't get me wrong. I love a good seminar room discussion. Properly structured, with the right group of students or colleagues, a good text or topic to discuss, and a patient discussion leader, the seminar can be the wellspring of humanities knowledge that we all often romanticize.¹ But it is, by its nature, a closed space. Not necessarily an elitist space. The pursuit of complex and challenging forms of knowledge should be open and available to all, and a truly democratic education system can also be intellectually rigorous. A good seminar is usually based on a common set of assumptions or understandings, background information, and generally cohesive orientation. It is a space for a certain group, at a certain time.



One of the first formal “seminars” in US academia. Herbert Baxter Adams, John Hopkins University’s first professor of history, speaking to students and faculty, ca. 1895. Courtesy of Special Collections, Sheridan Libraries, Johns Hopkins University. [Public domain](#).

I worry that the environmental humanities and related fields of critical inquiry around human-more-than-human relationships are stuck in the seminar room. My knee-jerk explanation for this is that we are too enamored with jargon. Not with complex terms per se, but how we use them, strung together in sentences that become obstacle courses rather than openings for others to join the conversation. There is also the constant coining of new terms. The occasional neologism can help drive analytical precision, but too many prevents us from speaking to people outside our field.

But our language is just a symptom of an approach to our intellectual work that has led us to fruitful and creative ways of thinking about our relationships with the nonhuman world, as well as isolated us from the general public and many of our colleagues. As an urban environmental historian, I am grateful for scholars in urban political ecology, environmental anthropology, and related fields who have provided a set of tools for thinking through city environments that I could not have imagined 20 years ago. Yet these concepts and ideas are often difficult for me to translate to colleagues in the natural sciences or technical and practical disciplines like engineering and

planning. They take a knowledge accrued over years, sometimes decades, through reading, discussion, and active research.

This is a common problem with interdisciplinary research. Contrasting disciplinary conventions, training, and knowledge bases can make even related disciplines feel opaque, even impenetrable, to a non-specialist. Moving between the humanities and the STEM fields (science, technology, engineering, and mathematics) makes the gaps even bigger and more noticeable. But how do we break out of the seminar room—to make our research not just translatable, but useful, for colleagues in other disciplines and the general public? How do we develop research questions with them, so that the social, cultural, and ethical approaches that form the bedrock of the environmental humanities are a core part of the investigation?

Contrasting disciplinary conventions, training, and knowledge bases can make even related disciplines feel opaque, even impenetrable, to a non-specialist.

I write this sitting at the Division of History of Science, Technology and the Environment at the KTH Royal Institute of Technology. We are, even by the standards of humanities departments at technical universities, a weird beast. Unlike in the United States, we are not responsible for core liberal arts classes for students who then go on to study things like liquid mechanics or applied physics. We do not have chaired professorships like at the technical universities in Germany, which embed humanities within the research culture in concrete institutional ways. We have traditionally been a research division, focused on interdisciplinary approaches to historical study in three related subfields. Funding for this work comes from government agencies and foundations within Sweden and Europe.

We don't historically do significant research with our colleagues in engineering or the other "applied" disciplines within KTH (including architecture, urban planning, real estate, and industrial economics). There are several reasons for these divisions, some of which are specific to KTH and Sweden, but many are common across universities, and are primarily a combination of structural (funding) and research culture divides that create and reinforce silos. These are not changing any time soon.² But one thing we can do as environmental humanities scholars is to prioritize building approaches that move us out of the seminar room.

This does not mean "dumbing down" or unnecessarily simplifying our scholarship. We should maintain rigor but also reimagine what a research practice would look like that was more outward facing, and not solely oriented toward the nodding approval of colleagues. It is a difficult needle to thread and will look different depending on the context.

One area to look for inspiration is what has been called the "public environmental humanities." This includes efforts that run the gamut from public talks and lectures to intricately designed community research projects—they have at their center connecting the environmental humanities with a diverse set of publics. These approaches, and their increasing sophistication, offer an important set of lessons for how we can imagine a methodology outside the seminar room.³ Some projects I would consider more traditional forms of *public engagement* that are common among many humanities centers include lecture series, panel discussions, film screenings, and artistic activations. But other more involved research that looks to build knowledge with and from community members, that sees them as partners in the research process, and ideally produces scholarship that has direct benefit to them, or addresses their concerns, we can call *community engagement*.⁴

The "public environmental humanities" include efforts that run the gamut from public talks and lectures to intricately designed community research projects.

This sort of work does not just require effective translation, but a rethinking of how we conceptualize and structure our research, and what its value is. The output is not necessarily a peer-reviewed article or monograph, it won't necessarily lead to a massive shift in public opinion, and to do it well requires time and infrastructure that most universities are not set up for. In my current and former positions, I have organized and hosted many public engagement events, lectures, and exhibitions. I have also done just enough community engagement work to know how challenging and time consuming it can be, especially to do it effectively and ethically. But one of the primary benefits of this type of practice can be forcing us, as environmental humanities scholars, to place ourselves firmly in a place beyond the seminar room, where we are uncomfortable and, perhaps most importantly, where nobody cares about our theory, ontology, or epistemology.

I think that many of us know that this type of shift in our approach and thinking is important when we are dealing with students, the broader public, and even friends and family members who are non-academics. But it can also be key to interdisciplinary work, especially across those greater divides between the humanities and the natural sciences or technical disciplines. How a mechanical engineer or computer scientist understands the world might feel just as foreign to us as a community member who works as plumber or a nursery school teacher.

As I have worked to develop more interdisciplinary collaborations, I have faced down the challenges of connecting with colleagues whose world is completely different from my own. This requires humility, patience, the willingness to ask questions as well as to answer them in a language that is clear and concise. It can also be quite revelatory. Trying to explain what I actually "do" as a historian forces me to reflect on my discipline and knowledge making in ways that I haven't necessarily done since graduate school. I consider it almost as an inverse form of boundary work. Clearly defining my method and approaches as a historian, in many ways my scholarly identity, opens me up to seeing connections and collaborations with colleagues in new ways.⁵

This challenge of disciplinary explanation and explication, especially within the evolving field of the environmental humanities, actually emerged in the seminar room the week right before I am writing this.

At KTH we teach a doctoral class on the environmental humanities, and for the first session Sverker Sörlin led a discussion on the history of the field and how it is part of the broader scholarly project of the "integrative humanities." We assigned students a number of introductory texts in the environmental humanities, most from the earlier years of the field, from 2012-20.⁶ During the discussion a number of students noted how the readings were optimistic that the environmental humanities could help shift research, policy, and public opinion on climate change and other environmental challenges. For example, when discussing the potential for new types of humanities scholarship, Joni Adamson argued in 2016 that "the narrative and networking possibilities for an environmental humanities that seeks creatively to shift public imagination towards a 'future we want' begins to emerge."⁷

Clearly defining my method and approaches as a historian, in many ways my scholarly identity, opens me up to seeing connections and collaborations with colleagues in new ways.

From the perspective of a seminar room in Stockholm a decade later, that hopefulness we saw from Adamson and the other readings was striking for many of the students. In Sweden the belief that working toward the "green transition" would be a unifying social project has ebbed significantly. Post-COVID, with multiple wars in Ukraine, Palestine (and as of this writing, one in Iran), and the continued surge of authoritarian governments across the globe, there has been a rapid decrease in the confidence that we can "solve" the environmental crisis through an attainment of new knowledge, that research will lead the way.



Freedom of Access. © Leslie Herman. All rights reserved.

Many of the students pointed out that these pieces seemed to be *politically* optimistic, but I was thinking that they were also *disciplinarily* optimistic. And this was an optimism I shared a decade ago. I think many of us believed (maybe quite naively) that natural scientists and

engineers would come to us if we were working on similar topics, or would be more open to our perspectives. This has not been the case. So we need to take the initiative and push ourselves to be in uncomfortable places and spaces on our campuses. These are often literally laboratories, offices, and seminar rooms where many of us have never been before, where we might be unwelcome. This will be a significant challenge for many of us, but I think it is also the future of our field.

Notes

- ¹ Klara Müller, "Seminars as 'Quality Sites' in the Making of Scholars: From Professors to Peers to Plurality," in "Quality and the Humanities: Negotiating Research Quality in Swedish Humanities, 1980s-2020s" (PhD diss., KTH Royal Institute of Technology, 2025).
- ² Verena Winiwarter, "The Other Kind of Research: On the Ambivalent Ties Between Disciplinary, Multi-, Inter-and Transdisciplinary Scholarship," *European Review* 26, no. S2 (2018): S85-98, <https://doi.org/10.1017/S1062798718000303>.
- ³ For a good introduction see Thom Van Dooren, Drew Rooke, Zoë Sadokierski, Natalie Osborne, Bethany Wiggin, Marco Armiero et al., "Developing the Public Environmental Humanities: Challenges, Opportunities, and Lessons," *Resistance: A Journal of Radical Environmental Humanities* 11, no. 2 (2024): 6-44, <https://doi.org/10.1353/res.2024.a953845>.
- ⁴ This conceptualization of the differences between "public engagement" vs. "community engagement" comes from the work of the [Melting Metropolis project](#) based at the University of Liverpool. Also, Anna Ravenscroft, email message to author, 12 March 2026.
- ⁵ Julie Thompson Klein, *Beyond Interdisciplinarity: Boundary Work, Communication, and Collaboration* (Oxford University Press, 2021).
- ⁶ Deborah Bird Rose, Thom van Dooren, Matthew Chrulew, Stuart Cooke, Matthew Kearnes, and Emily O'Gorman, "Thinking Through the Environment, Unsettling the Humanities," *Environmental Humanities* 1, no. 1 (May 2012): 1-5, <https://doi.org/10.1215/22011919-3609940>; Joni Adamson, "Humanities," in *Keywords for Environmental Studies*, ed. Joni Adamson, William A. Gleason, and David N. Pellow, vol. 3 (NYU Press, 2016), 135-39; Robert S. Emmett and David E. Nye, "The Emergence of the Environmental Humanities," in *The Environmental Humanities: A Critical Introduction* (MIT Press, 2017); Sverker Sörlin, "Humanities of Transformation: From Crisis and Critique Towards the Emerging Integrative Humanities," *Research Evaluation*, 27, no. 4 (October 2018): 287-97, <https://doi.org/10.1093/reseval/rvx030>.
- ⁷ Adamson, "Humanities."

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THE MANGROVE DOESN'T FORGET

Rachel Desiree Felix

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Rachel Desiree Felix

Short Fiction Prize

Rachel Carson Center | "Tell the Untold" Writing Competition 2025



Illustration by [Alexandra Hochreiter](#). All rights reserved.

The boat nudges against a half-drowned jetty, its wooden planks swollen and soft from the rains. Mira hesitates before stepping off. The tide is low, but the brackish water creeps across what used to be a footpath, licking at the roots of trees that have grown taller, thicker, hungrier.

The house is still there. Or rather, what remains of it.

Perched at the edge of the mangrove forest, the stilted wooden home leans ever so slightly to one side, as if tired. One half is veiled in vines, the other wrapped in the knuckled grip of mangrove roots that have pushed their way through the veranda, curling like fingers through old floorboards. A fig tree sprouts from the roof. The entire house hums faintly, as if it's breathing.

She hasn't been back in nearly fifteen years—not since her grandmother's funeral. When the news came that a recent flood had left much of the old village underwater, Mira felt something shift inside her, as if part of her spine had remembered where it began. She booked the ferry that same evening, packed light, and told no one.

The air here smells of salt and rot and something sweeter—guava, maybe, or overripe mango. The sky is slate grey, heavy with another storm. Her boots sink slightly into the mud as she makes her way up to the house. Every step feels like a question: Why? Why return? Why now? At the base of the stairs, she pauses. The wooden steps are worn smooth by time, and something else—there are patterns in the wood along the edges, small indents as if animals have been pacing back and forth. She climbs anyway.

Inside it's quiet. No birdsong, no creaking, only the muffled rush of distant water. Dust has settled thickly on the windowsills. A broken mirror leans against the wall, its surface fogged over. But the space is not entirely abandoned by life. In one corner, a potted plant has survived—half-dead but still clinging to the cracked wall, its leaves trailing towards the light.

Then she sees it: a root, thick and dark, splitting the floor in the centre of the room. It has burst through the boards as if claiming the house from beneath. Her breath catches.

Outside, the mangrove forest rustles—no breeze, yet the leaves tremble. Mira steps closer to the root and crouches. She touches it gently. It's warm.

And then, faintly, she hears it.

A whisper. Not in any language she knows, but rhythmic. Like the tide pulling memory from mud.

. . .

She moves through the house slowly, like someone walking through a museum where the artefacts are her own. The shutters creak when touched, and cobwebs brush against her arms, fine as silk. The walls, once painted a faded blue, are now weathered grey, streaked with salt and mould. Yet despite it all, there's no feeling of abandonment. The air inside doesn't carry the chill of long silence—it feels watchful.

Mira pauses by the old kitchen. Her grandmother's enamel teapot still rests on the stove, lid missing, rust curled along the rim. A tin of dried cloves lies toppled, the scent ghosting through the room. She touches the countertop, worn smooth in the exact spot where her grandmother used to roll dough for *kuih*. The grooves of memory are still here, embedded in wood.

In the living area, a low cabinet remains untouched by the passing of time. Mira kneels and opens it. Inside is a small brass trunk—one she hasn't seen since childhood. The lock is rusted, and it yields with a soft snap. Inside, everything is wrapped in plastic and old newspaper. She lifts the layers carefully.

First, a faded batik sarong, neatly folded. The smell of it startles her: lemongrass, sweat, and age. Then a glass oil lamp, its wick coiled and blackened. A stack of black-and-white photographs tied with string—most featuring faces Mira doesn't recognise, though one woman wears the same pendant her grandmother never took off. At the very bottom, wrapped in yellowing parchment, is the same pendant. The chain is broken. The back bears an engraving: "S.R. / Langkawi / 1943."

Mira frowns. Those initials mean nothing to her.

She hears it again—the whispering. Faint, coaxing. Like a hand on her shoulder. She turns sharply. Nothing. But the sound doesn't stop. It rustles through the floorboards. Through the roots.

The main room has changed. The floor now tilts ever so slightly, bowing towards the mangrove. The thick root she touched earlier has split into several limbs, creeping under the wooden walls like veins. She realises then: The house isn't resisting the mangrove's grip—it's merging with it. The timber seems softer near the roots, less human-made, more bark than beam.

And in the middle of the room, a hairline crack has formed where there once was none.

She remembers being six years old, crouched at the river's edge after tossing leftover rice into the water. Her grandmother's voice behind her—stern, almost afraid: "Don't waste food near the trees, girl. They don't forget."

She hadn't understood it then.

Now, the truth comes back like a tide.

. . .

That night, Mira can't sleep.

The air hangs heavy with humidity, and the windows won't shut properly. Insects drone outside in a chorus that never quite settles into a cadence. She lies on the floor in her grandmother's room, beneath a net full of small holes, watching shadows shift across the ceiling. The root in the main room creaks as the tide rises, as if the house is sighing in its sleep.

Just past midnight, the whispers return. Softer than before, but unmistakable.

She rises and walks barefoot to the door. The wooden planks beneath her feet feel warmer now, as if the earth itself is running a fever. Outside, the night is blue black. The mangrove trees shimmer faintly under the moonlight, their prop roots casting long, spindly shadows. Mira steps into the grove.

Each step squelches. The ground is slick with brine and fallen leaves, yet the path through the trees opens naturally, as if it's waiting for her. She moves without a torch. The moon is enough. Insects pause as she passes. Even the wind stills.

Then it comes—the voice.

It's her grandmother's. But not quite. It sounds older, rounder. Less human. As though the forest has learnt to imitate her speech.

"Child . . ."

The voice rolls out low and slowly, like the lapping of water against stone.

She freezes.

"Who's there?" she whispers.

The leaves tremble. The voice returns—not in sentences this time, but in fragments: "salt . . . land . . . taken . . . forgotten . . ."

Images flash through her mind like old film reels: a small canoe drifting near limestone cliffs, a pair of hands planting a sapling beside a shrine, a man in colonial khaki pointing at a map. Then the sound of trees being cut—violently, steadily—like a heartbeat, cracking open. She grips the nearest trunk for balance. Its bark pulses under her palm.

The voice continues—not as narrative, but as sensation. Regret. Rage. Grief carried through mud.

Her grandmother's stories had always stopped just before the truth. There were gaps Mira was never allowed to question. "Too complicated," they'd said. "Too long ago." But here in the mangrove, the pieces rearrange themselves. A broken story trying to tell itself.

She drops to her knees and lets her hand trail along the ground. The earth is warm and wet, and something below is shifting—like breath.

A new phrase rises from the canopy.

"The trees remember what people choose to forget."

Mira blinks back tears. Not from fear—but recognition.

The story is still alive. And it wants her to listen.

.

The next morning, Mira wakes to the sound of dripping water. The tide has receded, but puddles gleam in the corners of the house like forgotten mirrors. The root in the main room has swollen overnight, splitting a wider crack in the floorboards. A small crab skitters past her feet before

disappearing into the dark.

She doesn't speak. There's no need. The house is awake now.

Mira kneels by the split and peels back the broken boards. Beneath them, instead of soil or stone, she finds packed layers of earth and cloth—fabric so old it crumbles at her touch.

Carefully, she lifts what remains. Hidden beneath: a rusted tin box wrapped in plastic and string.

Her fingers tremble as she unties the knot.

Inside are several items:

- a folded map, browned at the edges, with red lines drawn in a hand she doesn't recognise

- letters written in English and Malay, some stamped with official seals, others unsigned

- a yellowed land deed, bearing her family's surname and dated 1946, witnessed with a British officer's signature

- a smaller note, handwritten in Jawi script, barely legible but sealed with wax

She reads slowly, piecing together the fragments. The land had once been tended by a coastal Indigenous community. Her great-grandfather, it seemed, had struck a deal—trading access rights in exchange for “development assistance,” only to sign the land fully away in English, while the community was told otherwise in Malay. The British administration had sealed the transaction. Her family prospered. The others vanished.

She sits back, the paper wilting in her damp hands.

Her grandmother had tried to return the land decades later—there are letters in the box, returned and unsent, addressed to lawyers, ministries, even the local imam. None of the envelopes include replies. The last letter is different. It simply reads:

“If no one will listen, the forest will.”

A soft groan runs through the walls.

Mira stands and looks around. The house is no longer just wood and nail. The mangrove has taken it in—sap staining walls, vines curling through cracks, the scent of brine thickening the air. It's not a home anymore.

It's an altar.

She kneels again, this time with reverence. In silence, she places the deed back into the tin, folds the wax-sealed letter beside it, and presses them into the hollow beneath the floor.

Then, for the first time, she speaks aloud:

“I hear you.”

And the mangrove exhales—deep, slow, forgiving.

. . .

That night, the storm returns. Not with the fury of the last flood, but a quieter, more deliberate rain—steady, soaking. Mira lies in her grandmother's bed beneath the sagging mosquito net, her clothes damp, her thoughts knotted. The deed, the letters, the voice in the trees—they circle in her mind like birds too restless to roost.

She doesn't sleep. Not in the usual way.

Instead, she slips into something deeper.

In the dream, the house is gone. In its place stands a grove, young and wild. A girl—her grandmother when young—moves barefoot through water, planting saplings with mud-stained hands. There's laughter. The tide is low. The community gathers around a fire, voices interwoven like pandan mats.

Then, time shifts.

She sees boats arrive. White shirts. Shiny shoes. Hands pointing at maps. Words in English.

Men shake hands. Women watch from doorways. The laughter fades.

Another shift.

The trees fall—slow, like surrender. The girl becomes a woman, then older still, her back bent but her voice strong. She holds a deed in one hand and a broken necklace in the other. She stands at the water's edge, speaking to no one—and to everything.

"This was never ours," she says.

The tide takes her words.

Mira wakes with a start. The air smells of seaweed and ash. She sits up, heart pounding, unsure what was dream and what was memory inherited. Outside, the rain still falls. A branch taps against the window like a knuckle.

She rises and steps out onto the veranda. The mangroves glisten in the half-light, silvered by rain. The house behind her creaks—not in warning, but in rhythm.

She walks barefoot to the edge of the grove and kneels. In her palm is the broken pendant. She doesn't speak a prayer. She doesn't have to. The act is enough.

She presses it into the earth, into the hollow where the water pools after each rain. Over it, she places her hand.

The bark beneath her fingers feels like skin.

From somewhere deeper than roots, the voice returns—not loud, not urgent, but certain.

"You listened."

It is not absolution. It is something more ancient.

Witness.

. . .

By morning, the rain has stopped.

Mira walks through the grove barefoot, mud clinging to her ankles, hair damp with salt. The air is thick but quiet, as if the forest is resting after speaking too long. The roots glisten under a grey sky. Crabs scuttle across her path. The tide is rising again, but she's not in a hurry.

She could leave. Take the next boat back to the mainland. Seal the house. Walk away. That's what everyone expects—an efficient clearing-out, a signature or two, and the end of a story. Instead, she returns to the house with a bucket of water and a cloth. She begins to clean.

Not everything—just enough. She scrubs the mould from the windowsills, wipes the mirror that hasn't reflected anyone in years. She lays out the sarong on the veranda railing to let it breathe. The photos remain in the trunk, wrapped again in paper and care. The oil lamp she fills with what little kerosene she finds in the kitchen cupboard, and lights it as dusk begins to fall.

It is not restoration. It is remembrance.

She doesn't sleep inside anymore. At night, she lays a mat on the veranda and listens to the sounds of the mangrove—roots shifting, leaves rustling, water rising and falling like breath. She begins to speak aloud: stories she remembers from childhood, names she was never taught to pronounce properly, memories that don't solely belong to her.

Each morning, she clears weeds from mangrove roots. She picks up litter washed in by the tide. She leaves offerings of rice and cut fruit under the tree where she buried the pendant. Small gestures. Rituals without instruction.

The villagers are gone, but not completely. She sees them in flashes—an old woman fishing knee-deep in mud, a boy gathering shells, someone metrically hammering tin. Not ghosts. Imprints.

Some days Mira writes. She scribbles lines onto fallen leaves, presses words into bark softened by the tide, and tucks messages gently between roots—offerings the forest might one day answer. She doesn't yet know what she's writing for. Only that something needs to be said.

On the seventh night, the tide comes in higher than before. The water brushes the first step of the house.

Mira stands on the veranda and watches it rise. The roots do not resist. They hold.

The house does not sink. It bends, breathes, and settles.

And somewhere, beneath the roots and rot, her grandmother's voice rests.

Still telling.

Cite this article

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TELL ME A STORY, TELL ME THE WORLD

Jamie Wang

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Jamie Wang

Amid an unprecedented socioenvironmental crisis, we continue to invent new words and concepts in an effort to respond to geological transformation and environmental destruction. In his proposition of “slow violence” Rob Nixon refers to gradually unfolding, attritional, unevenly distributed environmental catastrophes such as climate change, pollution, and deforestation.¹ Such forms of “pervasive but elusive” violence and their insidious effects, as Nixon notes, pose a profound representational challenge and therefore often fail to capture much-needed attention.² Meanwhile, scholars have worked on lexicon projects to collect a new vocabulary that helps to imagine ecological futures—describing a transformed world that is still livable.³ Yet, how might we take on the seemingly impossible task of making sense of climate change and contemporary environmental crises? In this time of myriad losses, there is an imperative need for renewed, multiplicitous stories and narrative forms.



The Flower Dome and the Cloud Forest, two conservatories in the Gardens by the Bay, Singapore. © CEphoto, Uwe Aranas. All rights reserved. [Wikimedia Commons](#).

My work has often involved listening, collecting, and telling stories shaped by climate change, urban imaginaries, and environmental injustice. I have employed storytelling as “a mode of inquiry into the act of imagining and reimagining, drawing us into ways of creating possible futures and relations of humans and nonhumans.”⁴ I traced the genealogy of tap water through infrastructures, examining how it is captured, cleansed, desalinated, monetised, and taken for granted (figure 1). I have written about organic farms and high-tech farms with no soil in sight, attempting to tease out how various modes of growing enable or limit more-than-human care.⁵ Working on and with these stories has taught me that storytelling demands patience, attentiveness, and time, and is itself an

ethical work.⁶ Crucially, the process requires drawing insights from other researchers, practitioners, environmentalists, and other-than-humans to craft thick and textured descriptions.



Fig. 1. Section of the Marina Barrage—an urban dam in Singapore. On the one side is seawater, and on the other side is freshwater, collected to be treated for drinking water. © Jamie Wang. All rights reserved.

To address complex environmental issues—which are always social, cultural, and political—stories must account for divergent multispecies ways of knowing and relating. If a story manages to attend closely to the wider more-than-human world, it helps to unveil unevenly distributed impacts of environmental issues, reveals what has been erased to give rise to certain types of futures, and shifts our focus as to what we see. Examining the multifaceted consequences of intense urbanisation, from ongoing demolition of nature-culture heritages to the displacement of multispecies communities, I sought to map and capture a process of “double erasure,” which “reveals first the literal removal of the built and natural environment, along with the subsequent erasures of culture, memory, and ways of life rooted in these places.”⁷ Telling such stories of entwined displacement provides a fuller sense of landscape and urban transformations, including biocultural loss.

Following Karen Barad’s insight that ways of knowing are inseparable from ways of being, storytelling can be understood as an “ethico-onto-epistemological” practice.⁸ In other words, it is itself a form of commitment—a way of participating in and shaping the ongoing making of worlds.⁹ Building on this, my approach to storytelling goes beyond the traditional understanding of narratives as literary or cultural representation. Rather, I position story and storytelling as *discursive, practical labour and efforts* that shape and are shaped by lived experience.

My recent project traces Singapore's pursuit of an ecomodernised sustainable future and to a large extent explores the disappearance of complex relations and worlds. In one instance, I look at the demolition of villages, the exhumation of graves, and the clearing of surrounding secondary forests to make way for various development projects. Here, storytelling is a practical method that allows me to layer in the different understandings and values of humans and nonhumans while holding onto "multiplicity," and to make the relationship of the living and the dead visible.¹⁰ These stories seek to invite readers in and help them get a sense of what is at stake, highlighting the asymmetrical power relations that underpin such nature-culture erasures.

Simplified stories risk orphaning entities without their webs of historical, social-ecological, and political relations.

Of course, stories and storytelling also carry limitations and risks. We are in a time of an explosive number of stories, and there is, to some, a crisis of narration in an information-overloaded digital age.¹¹ Others have warned against the instrumentalisation and commodification of "easily shareable narratives" that ignore systemic issues.¹² In many ways, storytelling treads a tender and fragile line. Simplified stories risk orphaning entities without their webs of historical, social-ecological, and political relations. Such reductionism may perpetuate the same dominant discourse rooted in the separation of nature from culture and humans from the environment.

To resist this radical reduction, we need thicker accounts of life and death, relation and care, fear and hope. More specifically, questions such as who benefits (or loses) from the stories, who is and who is not in the stories, and who we story with, must be of central concern. For instance, in the case of a supposedly sustainable railway line that may impact a highly ecologically sensitive area, the Singapore Land Transport Authority has foregrounded the narrative and certainty of science and engineering solutions as mitigation measures. This way, the potential ecological impacts and the disruption of complex more-than-human relations are overshadowed, while the environmental, social, and cultural questions surrounding urban sustainable transportation are reduced to techno-managerial concerns.¹³ Yet, around the world, these often overlooked more-than-human stories are not only about hypermodernised, land-scarce cities. They also speak more broadly to how we live with one another, what kinds of futures are prioritised or foreclosed, and who or what is displaced in the name of progress.

On the one hand, careful and grounded storytelling helps transform individual and localised lived experiences of "environmental injustice into public knowledge."¹⁴ At the same time, scholars have warned that, in the context of political storytelling on social media, the platform logic allows the story of personal experience to gain "disproportionate representativeness and normativity through affective sharing."¹⁵ One of the key issues I see with platform-attuned narratives—as with the rise of artificial intelligence (AI) in story composition—is the loss of embodied efforts, labour, the desire to know the origins, or more broadly, the agential way of storytelling. If stories have the potential to promote understandings of "embodied, relational, contingent ethics,"¹⁶ the unrooted and unsituated descriptions of AI may disorient and distort a relational world.

Questions such as who benefits (or loses) from the stories, who is and who is not in the stories, and who we story with, must be of central concern.

It becomes increasingly clear that stories and storytelling must be approached as a relational and ethical process. This requires us not only to consider who we are storying with, but also how stories cultivate more caring and curious readers and give rise to transformative actions. It is critical to ask, borrowing Ursula Heise's words, "[W]hy, how, and under what circumstances certain readers

produce particular readings of texts.”¹⁷ In a flood of content that repeats, paraphrases, and diminishes, such agentic and circular relations between storytelling and story reading may be lost.

To avoid a singular, dangerous utilitarian lens, we need stories grounded in a diverse mode of meaning making and knowledge systems. In practice, this may involve initiating an interdisciplinary enquiry and incorporating more-than-human relations to redescribe something “so that it becomes thicker than it first seems.”¹⁸ When I explored urban mobility, in addition to human and automobility I also attended to nonhuman-animal movement, which I understand as a process of world making. In one case, this involved crawling in the bushes, imagining myself a civet looking for a path across a fragmented nature reserve. These explorations form a part of the multidimensional approach that guides storylines. In a more systematic way, learning from various scientists, activists, artists, and related community members, as well as nonhuman beings and entities, constitutes an approach of “passionate immersion,” one described and deployed by Anna Tsing and Thom van Dooren as a kind of new science study and multispecies storytelling practice, grounded in “inter-species curiosity” and genuine interest in the lives of nonhumans.¹⁹



Fig. 2. Bukit Timah Nature Reserve. This important green area has been separated from its adjacent Central Catchment Nature Reserve—Singapore’s largest remaining reserve—by a six-lane expressway since 1986. © Jamie Wang. All rights reserved.

As many of us attempt to adjust to the new normal—living in a climate-changed world and a climate-changing future—we urgently need new modes of storytelling. Creative work helps to defamiliarise taken-for-granted tropes and does some of the translation work as we seek to trace and immerse ourselves in relations among diverse biotic and abiotic beings. Such work may also act as a

speculative counterpoint to the dominant technocratic mode of sustainable narrative, reflected, for example, in a growing attention to solarpunk and multispecies ethnography.

Creative work helps to defamiliarise taken-for-granted tropes and does some of the translation work as we seek to trace and immerse ourselves in relations among diverse biotic and abiotic beings.

To pluralise our understandings, it is crucial to experiment with ways to engage a range of nonhuman storytellers. Here, multimodal storytelling gives a glimpse of the possibility of further decentring an anthropocentric way of thinking and offers hope of evading algorithmic logic to some extent while better storying the complex forms of life. The recent interdisciplinary project “[Learning Endings](#)” examines stranded marine mammals, their untimely deaths, and interspecies care through necropsies conducted by scientists.²⁰ Moving across and articulating diverse forms of media, from filmmaking to literary work, exhibitions, public workshops, and witnessing of scientific practices, these diverse modes of storytelling create a space and an archive for the dead marine mammals, documenting and recalling of their once-vibrant lives and the resplendent sea. The stories also mourn for their untimely and slow deaths while revealing unethical fishing practices and environmental pollution. As the performative narrative allows for readers’ and viewers’ multisensory and kinaesthetic engagement, it illuminates the labour and effort of scientists as they strive to care for marine animals, thereby expanding the possibilities and understandings of what constitutes caring for one another and a good death.

Ultimately, storytelling is an ethical, laborious work. In a time of environmental unravelling, it is all the more important to create and centre transformative stories informed by a rich interdisciplinary repertoire and a wide range of storytellers. Stories alone do not resolve environmental crises, nor do they attempt to contain the worlds they describe. But they teach us to notice relations, wonders, absences, and forms of life and death otherwise obscured. To story, then, is also to ask how worlds are made (in)visible, how they are shared, and how they might be remade in a different way. Tell me a story,

tell me the world.

Notes

¹ Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Harvard University Press, 2011), 2–3, <https://doi.org/10.4159/harvard.9780674061194>.

² Ibid.

³ For example, see Matthew Schneider-Mayerson and Brent Ryan Bellamy, eds., *An Ecotopian Lexicon* (University of Minnesota Press, 2019), <https://doi.org/10.5749/j.ctvthhdbm>.

⁴ Jamie Wang, *Reimagining the More-Than-Human City: Stories from Singapore* (MIT Press, 2024), 8, <https://doi.org/10.7551/mitpress/15189.001.0001>.

⁵ Ibid.

⁶ See Thom van Dooren, “Story (Telling),” *Swamphen: A Journal of Cultural Ecology* 7 (2020), <https://doi.org/10.60162/swamphen.7.14359>; Thom van Dooren and Deborah Bird Rose, “Lively Ethnography: Storying Animist Worlds,” *Environmental Humanities* 8, no. 1 (2016): 77–94, <https://doi.org/10.1215/22011919-3527731>.

⁷ Wang, *Reimagining the More-Than-Human City*, 25.

⁸ Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Duke University Press, 2007), <https://doi.org/10.2307/j.ctv12101zq>.

⁹ Ibid.

¹⁰ See Tom Griffiths, "The Humanities and an Environmentally Sustainable Australia," *Australian Humanities Review*, no. 43 (2007), <https://australianhumanitiesreview.org/2007/03/01/the-humanities-and-an-environmentally-sustainable-australia/>. See Wang, *Reimagining the More-Than-Human City*.

¹¹ Byung-Chul Han, *The Crisis of Narration*, trans. Daniel Steuer (Polity, 2024).

¹² Maria Mäkelä and Hanna Meretoja, "Critical Approaches to the Storytelling Boom," *Poetics Today* 43, no. 2 (2022): 191–218, p. 210, <https://doi.org/10.1215/03335372-9642567>.

¹³ Wang, *Reimagining the More-Than-Human City*, 101–3.

¹⁴ Donna Houston, "Environmental Justice Storytelling: Angels and Isotopes at Yucca Mountain, Nevada," *Antipode* 45, no. 2 (2013): 417–35, p. 417, <https://doi.org/10.1111/j.1467-8330.2012.01006.x>.

¹⁵ Maria Mäkelä, Samuli Björninen, Laura Karttunen, Matias Nurminen, Juha Raipola, and Tytti Rantanen, "Dangers of Narrative: A Critical Approach to Narratives of Personal Experience in Contemporary Story Economy," *Narrative* 29, no. 2 (2021): 139–59, p. 155, <https://dx.doi.org/10.1353/nar.2021.0009>.

¹⁶ Deborah Bird Rose, "Slowly ~ Writing Into the Anthropocene," *TEXT* 17, no. 20 (2013): 1–14, p. 9, <https://doi.org/10.52086/001c.28826>.

¹⁷ Ursula K. Heise, "Empirical Ecocriticism and the Future of (Eco)Narratology," in *Empirical Ecocriticism: Environmental Narratives for Social Change*, ed. Matthew Schneider-Mayerson, Alexa Weik von Mossner, W. P. Malecki, and Frank Hakemulder (University of Minnesota Press, 2023), 311.

¹⁸ Donna Haraway and Thyrza Nichols Goodeve, *How Like a Leaf: An Interview with Thyrza Nichols Goodeve* (Routledge, 2000), 108.

¹⁹ Anna Tsing, "Unruly Edges: Mushrooms as Companion Species," *Environmental Humanities* 1 (2012): 141–54, <https://doi.org/10.1215/22011919-3610012>; Thom van Dooren, "Multispecies Storytelling in Catastrophic Times," *Thom van Dooren: Blog*, 24 June 2025, https://www.thomvandooren.org/2025/06/24/multispecies-storytelling-in-catastrophic-times/#_edn7; Thom van Dooren, Eben Kirksey, and Ursula Münster, "Multispecies Studies: Cultivating Arts of Attentiveness," *Environmental Humanities* 8, no. 1 (2016): 1–23, <https://doi.org/10.1215/22011919-3527695>.

²⁰ "Learning Endings" is an interdisciplinary, collaborative project led by Patty Chang, Astrida Neimanis, and Aleksija Neimanis.

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TIME AFTER THE HERO–OR, IN PROPOSING THE AGE OF THE ANTHROPOIESCENE

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Zana Fraillon

Reflective Essay Prize |

Rachel Carson Center - "Tell the Untold" Writing Competition 2025



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Anthropo—forming terms relating to humanity or human beings; of multiple origins, borrowing from Latin, *anthrōpo*, and Greek, *anthrōpos*, “man; human being,” as opposed to the gods.

Poiesis—from Ancient Greek: *ποίησις*; the activity in which a person brings something into being that did not exist before. A making. A forming. A creation. A genesis. The process of production; creativity; culture.

Cene—forming adjectives designating epochs and strata of the Tertiary and Quaternary periods, and nouns denoting such epochs.

Anthropoiescene: You are here.

If our species does not survive the ecological crisis, it will probably be due to our failure to imagine and work out new ways to live with the earth, to rework ourselves and our high energy, high consumption, and hyper- instrumental societies adaptively . . . We will go onwards in a different mode of humanity, or not at all.¹

Val Plumwood

Time After the Hero—Or, in Proposing the Age of the Anthropoiescene

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So. Here we are. Faltering on the cusp of extinction. Living in a world profoundly shaped by colonialism, by capitalism, by empire and its disparities.² Living in an epoch neither caused nor experienced equally by all humans. A time in which a minor elite has sought success at the expense of Earth's vitality with calculated and deliberate acts of cultural and environmental aggression,³ while others are, functionally, barely more than witness to the ecological and sociopolitical violence that such agency has produced.⁴ From 1751 until now, it has been 90 corporations, primarily oil and coal companies, that have produced two-thirds of anthropogenic carbon emissions.⁵ Research conducted by the Stockholm Environment Institute and Oxfam notes that over the past 20 to 30 years, it has been the richest 10 percent of the world's population who have been responsible for 52 percent of the cumulative carbon emissions, while the poorest 50 percent of the global population contributed only 7 percent of total emissions. Furthermore, the world's richest 1 percent alone were responsible for 15 percent of the cumulative carbon emissions.⁶ Or, to put it differently, the 63 million people who hold the most wealth are responsible for more than double the cumulative emissions than the 3.1 billion people who hold the least wealth. "The two groups that suffer most from this injustice are those least responsible for the climate crisis: poorer and marginalized people already struggling with climate impacts today, and future generations."⁷

However, despite the inequity of causal responsibility, this crisis affects us all, and it affects more than just us humans. Life on Earth may continue, but if humans do not continue with it, we will take countless species with us as we go.

... and just like that there were rivers and streams, and the medium-size god smiled, and all the animals clapped. And then the smallest god scattered rocks and boulders around the place and squeezed waterfalls into the rivers and squished up the mud into volcanos, just for fun. You don't want it to be boring, do you? the smallest god asked, and the animals shrugged and mumbled that boredom was kinda nice too, and definitely easier, but sure, if the smallest god thinks that "fun" is needed, then sure, make things fun. Go ahead. And the biggest god added flowers for a bit of colour and gaiety, and trees all along the land, for climbing and swinging and stuff, and the animals shuffled their feet and nodded, a little bemused perhaps, but no one complained. And when the gods stuck their heads together and muttered under their breath and waved their godly hands around and around and made humans, the animals peered at the humans, and one or two snickered, and the rest circled the humans and sniffed, and all of them quietly questioned the distinct lack of mattering that these humans possessed. They don't even have flippers for swimming, the frogs commented, and the biggest god said, Sure, but they'll watch you and learn. They don't even have feathers for flying, the birds noted, and the medium-sized god said, Yeah, but you know, they'll make do coz their hands have these opposable thumb thingies—see?—so they'll figure something out. And the wolves and bears and foxes and rabbits said, But they don't even have fur to keep them warm! They won't survive the winter! And the gods looked at each other a little guiltily but didn't say anything at all. Are you sure we want these in our world? the bees questioned, and the rest of the animals agreed. I mean the forests and the mountains and rocks and all that, okay, we'll manage, but them? Are you sure they aren't going to be a problem? And the three gods shook their heads, and, Don't worry, they said. You guys will get on like a house on fire. There was a pause. And then the ducks said, What's a house? Oh, it's a thing that some humans will live in, the biggest god said. Like a nest, or a burrow. Ohhhhh, the animals all said. And what's fire? the dolphins asked. Oh. That, the medium sized god said. Yeah, that's a land thing. We probably should have mentioned it before. It's like a great big hungry greedy burning sun-hot wave that eats wood and, you know,

forests and animals and other stuff and it burns it all up so there is nothing left but sm oke and ash ...

What's that now? the gopher asked. The animals shuffled and cast sideways glances at each other. But, the smallest god added, the rain will stop it getting too big and travelling too far. And when it has gone, new things will be born from the ash. You'll see. It's all very Zen. The squirrels fluffed themselves up a little and shrugged. You win some; you lose some; and,

Ahhhh, the pigs mumbled, it's all about Balance. We get it now. Deep. And then the animals thought a little more about what the gods had said. About how humans and animals would get on like . . . a house on fire. And, Um, the dodo raised his little dodo claw, just checking, he said, in that house and fire scenario, which exactly are we?

Oh yes. We are all in this together, and those of us who are able have a responsibility to protect those populations—both living now and in the future; both human and more-than-human—most vulnerable to its effects.

The responsibility of the human as a collective has evolved as a key attribute to conceptualising the Anthropocene,⁸ but perhaps it is not so much the results of a human collective worth of damage that should be guiding how we live, but the power of a human collective worth of imagination instead. “Life,” Merlin Sheldrake writes,

is a story of collaboration and interdependence: a shimmering tale of community and interrelation from which we are inseparable, and in which we belong. The social and environmental challenges that swirl together at this complex moment invite us to pay attention to new patterns, connections and relationships. Our imaginations are essential.⁹

Yes. We are standing on the cusp. Living in the Edge Times. Teetering on the cliff. Things have to change. But the future is still ours to create. “Now” is always liminal. From the first dust of star that grew this little planet, We—and I am using the biggest We I can here, the We of everything that has ever come—have been creating futures. We are made of our ancestors just as we are making those yet to come and the very world that will hold us. And the stories we choose to tell now are vital to our success. “We are at a critical point,” Kathleen Dean Moore says:

We have a very narrow window of opportunity to get it right, and to get it right, we first have to imagine a new world, story by story . . . stories to describe who we are in relation to the land, to honour what's been lost, to help us understand our kinships, to affirm what we care about, to explore the difference between right and wrong, moral and immoral.¹⁰

And it is this act of deliberate creation, of imagination, of fiercely playful exploration of collaborative idea formation *within* deep time, that the term Anthropoiescene seeks to invite. Seeks to drip from tongues and lurk in murky pools of mud. Swamplands where the human and not-so-human more-than-human once-may-have-been-human dwell. For the more we are connected to our communities—both here and now, then and there, when and always—the more those systems of power that refuse to acknowledge such connections are revealed as inadequate—their ancestorship called into question.

The Anthropoiescene is a term that acknowledges the mythic task ahead of us and recognises the mythopoetic power of imagination and storytelling as a means of self-understanding, both individually and collectively, insisting on truths beyond populations and data—it is a term born from recognition of collaboration, from stories, from tellings, from noticings, and attendings. The time we are in requires arts of reimagination to transform the imaginaries of culture to ones that embrace collaborative and sympoietic tanglings *with* the ghosts of deep time, both past and future, both human and more-than-human.

The Anthropoiescene celebrates the re-cognition that when the first human painted the first image onto the rock of a cave, it was the rock of the cave that lured that image into being and promised its survival. It was the animal bones ground into paint that enabled the animal to be brought again into being. The shuddering light that allowed the animal to once again run, and the dark that led the future into hearing the story retold. That image is not the story of the human but the story of the human existing within a more-than-human community of being, and a telling that presupposes

the future. A telling given to the future. A telling of the future. A way of being, permeated with the presence of ancestral spirits and the weaving together of the living, the dead, and the not-yet-born into a unified temporal fabric.¹¹ The Anthropoiescene demands approaches that offer alter-tales that engender curiosity, that twist and trouble many dominant narratives and understandings. It is a term that above all recognises the vital importance of *poiesis*—a process of creation, consciously evoked, bringing something into being that did not exist before. A threshold moment when something moves away from its standing as one thing to become another. We are all balanced on the threshold. The only question that remains is, *what will we become?*

The “anthro” is not used here to stress our species exceptionalism but rather to trouble the distinctions and binaries between human histories and those of the natural world by reminding those of us who need reminding of how deeply entangled humans are within the geologic, just as the geologic is utterly knotted through with us.

It is an invitation to see the world, and our place within it, with a deep-time gaze. To relish those more-than-human connections and those hauntings from the pasts, and to see ourselves as delightfully situated in the “space-time-matter of the planet.”¹² Living in the Anthropoiescene then becomes a time of intentional and deliberate transformation, of recognising our entangled actancy in a creation of worlds and futures that honour, reinforce, and celebrate the agency and creativity of the more-than-human world, and the infinite ways of being, of knowing, of living that emerge within an entangled deep-time geologic existence. It is a time of turning towards others, of reaching towards others with a willingness to be changed.¹³ It is a term that seeks to speak to the depth of kin-making entanglements and temporal imagination that swirls pasts, presents, and futures in an entangled multispecies web of cocreation. It is to acknowledge the ruptures that some humans have caused, and to recognise that the world was here long before humans—we are the ones who must adapt, who must actively seek change, vital to the continued survival of many more species than just our own.

This time we are entering is a time of earthly worlding and unworlding,¹⁴ in which we need to make that which is often invisible visible through our imaginative and creative responses to the voices and ghosts of those that have come before, and to those yet to come. It is a time to scatter germs of ideas so they may take root and grow.¹⁵ The Anthropoiescene invites and demands us to cultivate wonder, to be led and bound by our curiosities rather than capitalist notions of progress, by our interconnections and collaborative entanglements rather than false binaries and boundaries. It is a term that calls for uncontainability, for a disruption of commercial privilege, and that activates resistance in a world ruled by economists.¹⁶ It is a way of being that troubles regimes of power, that actively calls for us to attend more consciously to those “submerged perspectives”¹⁷—the artistic imaginaries and forms of perception and material practices across a multitude of disciplines that are “organised below the modern colonial order, and that go undetected by the regime of state power.”¹⁸ The whispered voices. The forgotten voices. The absent voices. The dismissed voices. The future voices. The voices that howl and yelp, croak and roar, dance and weave and click and hum and rummmmmble, because it is in collaborating with those voices that the creation of our futures lies. It is to recognise the forests tumbling into fables, tumbling into politics.¹⁹ It is a call to embrace the wild weediness of entangled living that these Edge Times call for. To plant seeds in the humus, detritus, and rot. To not only “stay with the trouble” but to get filthy dirty and play in it. To stomp in it. To dance with it. To tumble-roll in it and dig. To tell it. *Sussurussuussuussuussuussuurrus*.

The Anthropoiescene calls for myriad responses and perspectives and provocations and explorations that offer old/new/forgotten/dismissed, and othered ways of ancestor-ing. Of creating. Of seeing. Of telling. Of knowing. Of being. Of imagining and attuning ourselves to Earth. The Anthropoiescene relishes multiple, contradictory visions of our pasts, and by doing so imagines futures that veer away from one of resource extraction, providing a path—many paths—out of the crisis we are in. For the more adept we become at recognising different pasts, of imagining different types of world, the more comfortable we will become inhabiting those worlds.²⁰ This then is a call not to turn from our responsibilities, but to creatively, playfully, collaboratively delight in them. If narrative precipitates social change,²¹ then imagining the futures may just be the most important, the most radical act we can do. For “being imagined is the first stage of existence.”²² We may be in

times of crisis, but the word crisis is derived from the Greek *krisis*, meaning decision.²³ These then are times of deciding. What kind of ancestor are you going to be?

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THE FUTURES WE TELL

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Keeping up with climate news has been hard recently, and not only because it is often buried beneath the screaming headlines of seemingly more immediate threats. Those who still do manage to pay attention to the climate news face another layer of anxiety as they are trying to make sense of a barrage of frightening graphs representing a world on the brink of what UN General Secretary António Guterres has called “the era of global boiling.”¹ In an article on “the risk of a hothouse Earth trajectory,” climatologists warn of an imminent “point of no return,” and a member of the European Scientific Advisory Board on Climate Change alerts Europe to prepare for three degrees of warming by the end of the century.² In my mind, these words conjure images of punishing rainstorms, scorching heat, and blazing forests—conditions even more extreme than what we already experience, and perhaps impossible to live in. Meanwhile I learn that the Trump administration decided to “erase” the scientific finding that climate change endangers human health and the environment.³ While this doesn’t come as a surprise, I find myself staring at my laptop with something like numb panic as I try to imagine the future cost of that erasure. Then I get up and go to the kitchen for a calming cup of tea with an urgent desire to dream up a less threatening scenario.



Graffiti artwork in Wisła, Poland. [Wikimedia Commons](#). CC BY 4.0.

“You can never really see the future,” writes journalist David Wallace-Wells in a 2022 article entitled “Beyond Catastrophe” in the *New York Times*, “only imagine it, then try to make sense of the new world when it arrives.”⁴ This may be true, but the role such imaginings play in shaping the future we are creating deserves closer attention. Even if they are grounded in peer-reviewed research, imaginations of the future are bound to be idiosyncratic and unstable, producing different mental images and related emotional states over time. Wallace-Wells’s own shifting imaginations of the future are a prime example, ranging from the apocalyptic, in his popular science book *The Uninhabitable Earth*, to the cautiously utopian in more recent publications—in part fueled by the “astonishing declines in the price of renewables,” and in part a response to the criticism he received for disheartening people with his doomsday visions of a ruined planet.⁵

It is not only journalists like Wallace-Wells who have been judged by the affective register and supposed psychological impact of their narrative evocations of potential future environments. Novelists and filmmakers, too, have been confronted with the expectation that their speculative

worlds should be useful in the fight against climate change.⁶ In order to cut through the noise, the argument goes, we need more engaging, hopeful, and solutions-driven storytelling, the underlying idea being that the stories we tell about the future matter because they shape people's imaginations—and ultimately, their ability to act.⁷ Although rarely spelled out, this idea rests on our innate capacity to simulate what we read, hear, or see, in both mind and body. These embodied simulations, as the neuroscientist Vittorio Gallese calls them, engage our emotions and might thus have the power to shape attitudes and behavior.⁸ Empirical research provides some evidence for such impacts but also suggests that the effects are culturally dependent and more complex than often assumed.⁹ As the calls keep multiplying for more diverse, more positive, more effective, and better imaginations of the future, we must therefore keep in mind the different modes, aims, and intended audiences of such speculative storytelling.

Imaginations of the future are bound to be idiosyncratic and unstable, producing different mental images and related emotional states over time.

A novelist is first and foremost committed to telling a compelling story. "The danger of using a story to broadcast my own politics or treating it like propaganda or argument," explains Karen Russell, "is that it can wind up sounding like a very bad Op-Ed."¹⁰ Omar El Akkad, author of *American War*, insists that literature is *art* and that "trying to take a fundamentally rational approach to . . . writing the perfect climate novel that's going to cause people to change their minds and fix the climate crisis, is nonsensical."¹¹ Moreover, raising awareness or instigating climate action may simply not be the primary motive for writing fiction. Some novelists create dystopian visions of future environments—and their utopian alternatives—to better understand the climate crisis or to process their own emotions by immersing themselves in such imaginary worlds and sharing them with readers.¹² In El Akkad's *American War*, that future environment takes the form of a United States that has lost the entire state of Florida to sea-level rise. Russell's story "The Ghost Birds" is set in a severely degraded future environment in which the only birds that can be seen during a bird-watching trip are apparitions.¹³ Such distant echoes of the avian-extinction scenario in Rachel Carson's *Silent Spring* can also be found in James Bradley's *Clade* and Charlotte McConaghy's *Migrations*.¹⁴ Other climate fiction imagines environments with a more utopian bend, such as Kim Stanley Robinson's glittering skyscrapers soaring above a flooded Manhattan in *New York 2140* and the green urban landscapes found in much of solarpunk.¹⁵ While the latter has an overtly activist dimension, it is important to recognize that—as the novelist Jeff VanderMeer puts it—sometimes fiction just "reacts or reflects."¹⁶ This does not mean that it cannot have measurable impacts.¹⁷ But it explains why writers who are confronted with expectations that telling the *right* story will help societies tackle climate change often balk at what they perceive as an implied instrumentalization of their craft.¹⁸ VanderMeer pointedly argues that "we don't need fictional extrapolation . . . to do better—we need better strategic planning, more political will, and strict regulation to avoid the worst of climate change."¹⁹

While the latter is true, the capacity to imagine human life in a future affected by climate change may nevertheless be crucial in bringing about such political will and much-needed policy changes. It can also be helpful in supporting the population adapt to the impacts of climatic changes that are already locked in for the coming decades. Many disaster-risk-reduction campaigns use storytelling to promote risk reduction in the context of climate-related disasters as well as recovery efforts.²⁰ Fictional extrapolation—a narrative technique that takes current risks and extends them into the future to imagine plausible scenarios—can be useful in such efforts. Examples of this include the comic book series *L'attimo decisivo* (Italian Civil Protection Department) as well as the educational video games *Max und Flocke* (German Federal Office of Civil Protection and Disaster Assistance) and *Disaster Master* ([US Department of Homeland Security](#)), all of which aim to help children and young people prepare for future disasters in a playful way without scaring them.²¹



Page 4-5 from *L'attimo decisivo* (Italian Civil Protection Department) narrating of an earthquake. Courtesy of the Italian Civil Protection Department. CC BY 4.0.

What is often absent from these communication tools is an overt link between disaster resilience and mitigation efforts as we increasingly find it in another mode of climate storytelling: documentaries. Early films such as Davis Guggenheim's *An Inconvenient Truth* were mostly focused on mitigation as they tried to make audiences aware of the devastating future consequences of the world's unchecked carbon emissions.²² As nonfiction modes of storytelling, these films struggled to illustrate future environmental impacts, simply because no factual footage can be acquired or produced.²³ Nevertheless, their creators were convinced that such depictions could support mitigation efforts by making scientific projections perceivable through the senses. For this reason, Guggenheim uses simple animations in *An Inconvenient Truth* to show future coastlines submerged underwater, accompanied by somber music. More recent films have not only embraced the necessity of climate adaptation without losing sight of mitigation, but they have also found creative ways to use fictional extrapolation as a tool to bridge the imaginary gap between present and future environments.²⁴ Franny Armstrong's *The Age of Stupid* and Damon Gameau's *2040* are both such drama-documentary-animation hybrids; however, their affective strategies are diametrically opposed.²⁵ Chronicling global oil culture in its five interrelated documentary strands, *The Age of Stupid* foregrounds failed climate mitigation and a resulting fictional future environment so severely degraded that it resists adaptation, leading to the extinction of humanity. *2040*, by contrast, mostly avoids fear appeals and instead showcases mitigation and adaptation initiatives around the world in its documentary portions.²⁶ The fictional part of the film shows the "aged" director-protagonist and his now grown-up daughter (played by an actress) in the year 2040 as they are enjoying the benefits of a utopian environment, including decentralized solar power and large-scale reforestation introduced earlier in the film.



A still from 2040 showcasing the view from one of many wind turbines in a green landscape. © Regen Studios Pty Ltd. All rights reserved.

Despite their different affective registers and visions of the future, both films were successful in engaging viewers. After conducting a survey at a screening of *The Age of Stupid* in Edinburgh, sociologist Rachel Howell reports that “respondents emerged from the film with an increased motivation to take action, and an increased belief that they could do something to prevent climate change getting worse, along with the sense that they are not already doing everything they can.”²⁷ A survey that my colleagues and I conducted at a screening of *2040* within the context of our “Visions of Sustainability” project in Freiburg, Germany, illustrated that viewers also responded to Gameau’s affective strategies, which aimed to instill hope in them.²⁸ Ninety percent of respondents did feel hope in response to the film and 68.3 percent a “drive to action,” with some viewers stating that the utopian extrapolations had made them feel hopeful. We also observed an attitude shift toward more hope regarding ongoing climate-mitigation efforts, and the vast majority of respondents (85 percent) said watching the film had encouraged them to do more to protect the climate.²⁹ While the results cannot be generalized due to the exploratory nature of our study, they offer further evidence that imagining future environments in response to storytelling can—at least in the short term—impact attitudes and action intentions.

Imagining future environments in response to storytelling can—at least in the short term—impact attitudes and action intentions.

As I struggle to stay atop of climate news without becoming submerged by my emotional responses to it, storytelling thus not only helps me envision future environments and ways to live in them. I also appreciate the role it can play in improving how we communicate on climate change and related risks and opportunities. In one of his recent speaking engagements, David Wallace-Wells appeared to acknowledge as much as he wondered whether the world has “given up on fighting climate change” only to tell an “encouraging story” about Pakistan where people started installing rooftop solar panels from China during the global energy crises caused by Russia’s invasion of Ukraine, thereby doubling their country’s electricity capacity within a year. It is a factual story that might be called a sequel to the one—also about microgrids in Bangladesh—that excited viewers who watched Gameau’s *2040*, and Wallace-Wells similarly upscales and extrapolates it into the unknown future when he speculates that other developing countries are “poised to embark on exactly the same path . . . a rapid expansion of their green electricity.”³⁰ By themselves, such stories cannot save us from political failures and their effects on environments, lives, and livelihoods. But their ability

to engage the imagination is nevertheless a valuable tool in climate-change adaptation and mitigation efforts. We cannot see the future. But how we imagine it shapes how we prepare for it—and perhaps even what it becomes.

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THE BEST IS YET TO COME: LATIN AMERICAN ENVIRONMENTAL HISTORY

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Claudia Leal

We humans are animals, our bodies teem with microscopic life, and our societies have developed in constant interaction with a material world that we call nature—a term that sustains the illusion that we are separate from it. In telling stories of our past we were often guided by that division, treating human history as largely self-contained: shaped almost exclusively by people and affecting just us. Other consequences were long placed outside the domain of history and were relegated to the margins of our narratives. Examining the human past as intertwined with the rest of nature has gained traction in recent decades, leading to the formation of a flourishing academic field called environmental history.



Lourdes Grobet, *Rosarito, Baja California Norte* from *Olmayaztec* series, ca. 1990–95, Getty Research Institute, Los Angeles, 2022.R.6. © Lourdes Grobet. All rights reserved.

In Latin America—my region of the world—this kind of research began to pick up pace a quarter of a century ago. Thanks to the efforts of scholars based both in Latin America and North America, joined by a small number of Europeans, it has gained variety, depth, and growing influence. For all its vitality, however, our scholarship has not yet achieved its ultimate goal: to change the broader understanding of Latin American history—both within and beyond academia. Plus, it could benefit from being more global in scope.

Along with India and South Africa, Latin American countries play a leading role in contributions from the Global South to environmental history. Within the uneven global landscape, some regions are still warming up to the field, whereas in others its influence has extended into other areas of inquiry, plus historical syntheses are now unthinkable without an environmental dimension.¹ That is the case in North America, where success has paradoxically raised concern that what once was

cutting edge has become a tent so big that it now accommodates views for which the environment is incidental rather than central.²

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Far from such worries, the body of research on Latin American environmental history is growing, though dispersed across geography and outlets. The region has the significant advantage of Spanish—and, to a lesser extent, Portuguese—as lingua francas; yet many of the most influential monographs have been published in English in the United States rather than in Latin American countries. These works are produced mostly by North American scholars, though some Latin Americans—working in the United States and in our home countries, including myself—have also contributed. The pressure to produce such work to secure a permanent position in US universities helps explain this imbalance.

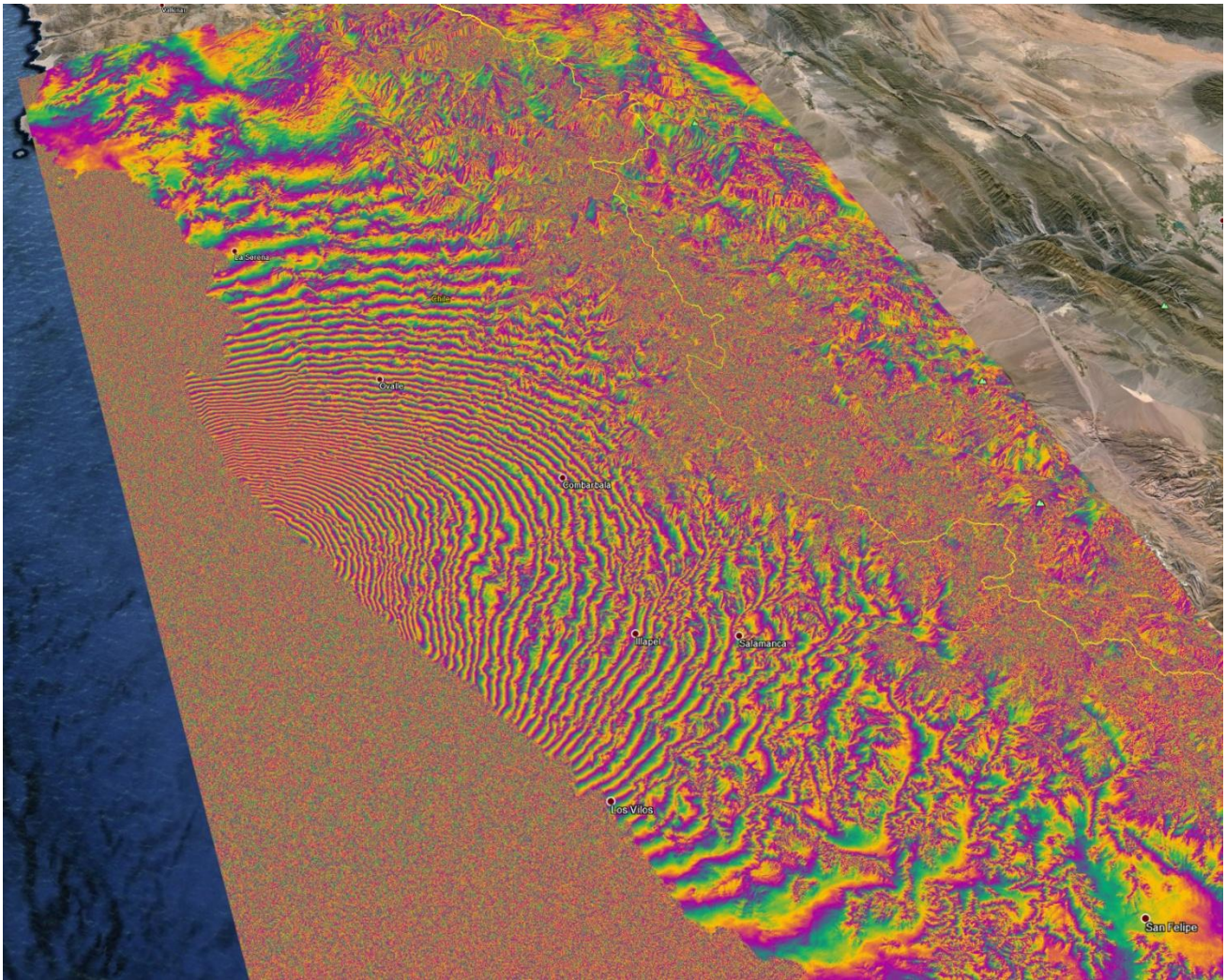
These books don't travel easily, but pirated copies can often be found online. Still, unauthorized sharing has its limits. The online [Oxford Research Encyclopedia of Latin American History](#) is an excellent resource, with around 50 environmental history entries by some of the field's leading scholars. Its reach, however, is constrained by the paywall, which excludes most scholars and students affiliated with Latin American institutions—even though some authors are based there.

Monographs in Spanish and Portuguese face even greater obstacles to circulation and tend to move through personal networks. Most Latin American production, however, takes the form of theses (from undergraduate to doctoral) and, more importantly, of articles published in a wide range of venues. These include edited volumes—some available to download for free—and journals of Latin American history, all of which are open access, in marked contrast to the situation in the Global North.

Among these journals [Historia Ambiental Latinoamericana y Caribeña \(HALAC\)](#), stands out, highlighting the importance of community building in the field. Founded in 2011 as the journal of the Latin American and Caribbean Society for Environmental History, [SOLCHA](#), HALAC has grown substantially since around 2020. However, the publication relies on the support of a local university and the leadership of one visionary individual, Sandro Dutra e Silva, which may threaten its long-term success.

HALAC's centripetal pull, which counteracts the field's inevitable dispersion, could be reinforced through syntheses of its innovative research, presented in an accessible format for nonspecialists. Following Shawn Miller's pioneering overview of Latin American environmental history in 2007 and the edited volume on the nineteenth and twentieth centuries published in 2018, it is time for fresh assessments that would strengthen the field's influence and show how it can reshape our understanding of the region's past.³

I don't mean just contributing to a more complete past, as if adding pieces to a puzzle, but something larger: understanding that the social world develops through continuous interplay with the natural world. This transformative potential is especially powerful in two trends that have gained momentum within and beyond environmental history globally. The first is the rise of more-than-human approaches. Most historians of Latin America readily acknowledge that, for instance, deforestation is part of the region's shared past. But they are far less comfortable treating animals, minerals, rainfall, and other entities and forces as makers of history in their own right. A recent essay by sociologist Magdalena Gil—within a book that pushes in this direction—shows how earthquakes helped shape the Chilean state, illustrating how such approaches can mold understandings of social change.⁴



On 16 September 2015, a three-minute long, 8.3 magnitude earthquake struck the coast of central Chile. By combining Sentinel-1A radar scans from 24 August and 17 September, the rainbow-colored patterns in the image show how the surface has shifted as a result of the quake. Courtesy of the European Space Agency (ESA). Contains modified Copernicus Sentinel data (2015)/ESA SEOM INSARAP study PPO.labs/NORUT. [CC BY-SA 3.0 IGO](#).

The second trend—deep history—connects the history of societies, measured in centuries and a few millennia, to that of life and Earth and in this way can alter profoundly the way we conceive of our place as humans on this planet. However, we don't need to go back that far for environmental history to thoroughly impact Latin American studies by modifying notions of time. It is enough that it stretches historical time beyond 1492—a revolution, I believe, that is already under way, which can bring us closer to the “Old World,” where history has always been longer.

Another way for Latin American environmental history to expand its reach is by embracing broader dialogues, particularly those promoted by the environmental humanities, which bring together different disciplines to explore how “diverse human cultures have made themselves at home in a more than human world.”⁵ While these fields have converged in some regions, in Latin America this sister area is still barely recognizable. In Australia, the two emerged together as anthropology, literary studies, and others joined efforts to integrate the environment in thought and action—history was part of this larger shared arena. In Europe, institutions have been pivoting in this direction, partly due to funding for large, multidisciplinary projects.⁶ In the absence of a critical mass to jumpstart a chapter of environmental history, Nigeria too has moved to create a Pan-African umbrella under that integrative banner.

This convergence fosters deeper understanding, greater impact, and might point to a future path in Latin American studies. Ecocriticism—an area of literary and cultural studies that examines how the natural world is represented—has recently taken the lead to try to carve out a space known as the environmental humanities for this region.⁷ Within this specialty, a popular topic for Latin America has been how forests and jungles have been portrayed in novels and fiction and how these texts in turn have shaped environmental imaginaries.⁸



Frank George Carpenter, *Chile—Aconcagua Valley*, Frank and Frances Carpenter Collection, between 1890 and 1930, Library of Congress Prints and Photography Division Washington, D.C., LOT 11356-19, <https://www.loc.gov/pictures/item/2001704585/>. Public domain.

Film and visual culture have also been interrogated to explore how rivers, minerals, plants, and animals are conceived, valued, and treated. Various voices—among which those of Indigenous cultures figure prominently—are considered within these inquiries. While environmental history remains largely separate from ecocriticism, some of its best works establish meaningful connections between material processes and ideas and perceptions.

Political ecology—a field where anthropologists, sociologists, and geographers play a central role—shares interests with environmental history and is sometimes subsumed within the environmental humanities, although not in Latin America. In this region, the field enjoys a solid development, based on topics such as deforestation in the Amazon, struggles over mining in the Andes, and agribusiness expansion in Brazil and Argentina. These studies look at the roles played by capital, state, and local

communities, and ask who benefits and who loses from economic and environmental transformations. Some of the articles published in *HALAC* fall into this realm and the work of socially and politically engaged environmental historians—such as Manuel González de Molina and his collaborators—demonstrates how these fields can be brought into dialogue. In this kind of research, the past sheds light on contemporary issues of sustainability, inequality, and justice.

While both ecocriticism and political ecology help to make us acutely conscious that we humans belong to a broader and complex natural world, environmental history does so by using a historical lens that opens our eyes to the dramatic changes in how societies and social groups have interacted with their environments, transforming everything: the air, the biome in our guts, and what we think a good life is.

While entrenched academic silos remain a significant obstacle to integration, as do often-limited disciplinary perspectives, broad views that combine cultural meanings, material processes, historical trajectories, social justice, and environmental ethics are highly desirable in these times of global change and deepening inequalities. Whether or not the environmental humanities consolidate as a distinct field, the confluences that define it are already taking shape.

However, more important than academic partnerships is the engagement with the world beyond academia—something that part of the environmental humanities actively promotes and in which environmental history in Latin America has made advances.⁹ Although both fields are largely based in universities, their role of changing worldviews and practices is inherently social. It is therefore vital that they forge connections with museums and grassroots movements, with schools and policymakers, and with the many publics who can contribute to and benefit from their insights. Engaging in public debates, taking part in or illuminating social struggles, and shaping more sustainable futures are necessary engagements for environmental history in Latin America.

Its expansion should also be geographical. As in the world at large, environmental history has an uneven presence within the region: Brazilians and Mexicans stand out, followed by Colombians, Chileans, and Argentinians; Costa Ricans, Panamanians, Cubans, and Ecuadorians have also made important contributions; while Uruguayans and Venezuelans, among others, have been much less represented. Our aspiration is to thicken the network—both by expanding geographies and constituencies—so that taking nature into account when considering the past becomes the norm everywhere.

Unlike several European countries and the United States, Latin American nations did not develop an imperial gaze that reaches beyond the oceans.

Hopefully, doing so will come with a more global perspective. Unlike several European countries and the United States, Latin American nations did not develop an imperial gaze that reaches beyond the oceans. For that and other reasons, we have mostly tended to focus on our own realities, drawing on our own archives, within national or even local frameworks and giving limited attention to the wider world. While this is changing, there is still ample room for perspectives that situate the region within broader global contexts.

This limitation is related to the place of Latin America and Latin Americans in the global environmental-history landscape. The region stands out through SOLCHA—a robust network and community—which organizes biannual congresses and graduate schools in alternating years. Without any funds of its own, it welcomes anyone who wishes to join and collaborate, plays crucial roles in supporting young scholars, and builds bridges with the global community of environmental historians. But there are limits to what this society can achieve.

To start, the emphasis on Latin America and the predominance of Spanish, Portuguese, and Portuguese in SOLCHA's regional congresses provide focus and cultural cohesion but limit their appeal

for outsiders. Furthermore, Latin Americans are underrepresented at the US, European, and world congresses, where those studying or working abroad—along with Brazilians—make up the majority of the small contingents. To give an example, in the last world congress (Oulu, Finland, 2024), Latin Americans made up only six percent of attendees—and half of them came from US and European institutions. Restricted funding for travel is the main obstacle to broader participation, but language poses another barrier. Although most scholars read English, some are less comfortable speaking or writing in it.

In the last world congress, Latin Americans made up only six percent of attendees—and half of them came from US and European institutions.

As a Latin American who works in her country and is the current president of the International Consortium of Environmental History Organizations (ICEHO), I am well aware of these imbalances. The global community is dominated by people from the United States first and Europeans second, with British and German scholars at the forefront and additional strongholds in places such as Scandinavia and Australia. A rapid expansion is occurring in China and East Asia, benefiting from the presence of an organized network. India and South Asia have a substantial and influential body of scholarship but lack a comparable organizational structure; Southeast Asia lags behind on both fronts; and southern Africa stands out within its continent.

Both the makeup of this community and the asymmetries in the way it comes together in international congresses make exchanges among people from the Global South, or between unusual partners such as Latin America and any part of Asia, less likely than others.¹⁰ The Rachel Carson Center for Environment and Society (Munich, Germany), which greatly helped me gain a place within this community, has done more than any other institution to expand this network throughout the globe. But these exceptional undertakings don't last forever. In their absence, and through more specific efforts, much can be achieved.

Stronger integration of Latin America could both be accomplished by and result in much-needed comparative studies. These could focus on a range of topics, starting with the subject that marked the field's origins in this region: forests. As the most extensive vegetation cover and given the global alarm over tropical deforestation in the 1980s (especially in Amazonia), the first major and influential works traced this issue back in time, two hundred years for Cuba and five hundred for Brazil.¹¹ In India forests were also a starting point, despite being much less predominant, with scholarship emphasizing the impact of colonialism. This emphasis contrasts with Latin America, where colonialism lasted much longer but ended well before direct British rule took hold over all of India. Over time, research on Latin American forests took a more social and political turn, bringing it closer to Indian concerns.¹²



Forest, Rio Grande do Sul, Brazil. © Felipe Meneses on iStock. All rights reserved.

Other disparities could also be explored. While water and irrigation were relevant in Indian scholarship early on, they attracted less attention in Latin America, except for Mexico, where the arid north makes water management critical for agriculture.¹³ Having other realities as references reveals convergences and idiosyncrasies, and allows for narrating stories that are more amenable for nonconnoisseurs and more exciting for the local public.

They also make better histories, as the case of the study of export commodities, another early topic, shows. After following a trajectory that stems from economic history of concentrating on the producing countries, these studies soon evolved into connected histories that explored not only production within the region but also consumption in North America. Bananas grown in Central America became an item of mass consumption across the United States, while henequen, a fiber extracted from a tropical plant grown in Mexico, served to tie the wheat harvested in the Great Plains. Not surprisingly, it was North American scholars who took this step.¹⁴ Meanwhile, others moved to explore conservation, cities, rivers, agriculture, and animals, topics that are still expanding and enriching our understanding of the past. They have led to intraregional studies, comparisons, and collaborations, which point to the way ahead.¹⁵

Strengthening both Latin American and global networks will continue to realize the promise of environmental history and its ally, the environmental humanities.

The literature on climate and energy has also gained advocates. Studies show, for example, how the energy transition in Mexico came later than in Europe and the United States, and almost skipped the coal phase, as well as how environmental transformations of the first two centuries of colonialism were not only a product of the European invasion but of the cooler temperatures and increased rainfall brought about by the Little Ice Age.¹⁶ The three hundred years of colonial rule will probably never be the main focus of Latin America's environmental history, but studies on this period have multiplied as part of the general momentum. Some lines of inquiry merit more development, such as oceans and imaginaries, to name just a couple examples.

There is, therefore, ample room for expansion—not only in terms of themes and approaches, but also in collaboration and geographical scope. Strengthening both Latin American and global networks will continue to realize the promise of environmental history and its ally, the environmental humanities. They both open our minds by underscoring that human affairs cannot be surgically pulled apart from the broader natural world in which they are embedded. History provides depth to this insight by revealing changing entanglements since time immemorial. It is indispensable in an age of crisis, helping us to move forward in promising directions. Thus, even if what we have achieved so far is remarkable and exciting, the best is yet to come.

Notes

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⁸ See, for example, Victoria Saramago, *Fictional Environments: Mimesis, Deforestation, and Development in Latin America* (Northwestern University Press, 2021), <https://doi.org/10.2307/j.ctv18phht8>.

⁹ See section "Historia pública y cotidianidades" in Pedro Urquijo, Adi Lazos, and Katerine Lefebvre, eds., *Historia ambiental de América Latina: Enfoques, procedimientos y cotidianidades* (Centro de Investigaciones de Geografía Ambiental, National Autonomous University of Mexico, 2022).

¹⁰ A pioneering example of what can be achieved is the publication of *The Great Convergence: Environmental Histories of BRICS*, eds. S. Ravi Ranjan and Lise Sedrez (Oxford University Press, 2018).

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¹² See, for example, Christopher R. Boyer, *Political Landscapes: Forest, Conservation, and Community in Mexico* (Duke University Press, 2015), <https://doi.org/10.1215/9780822375876>.

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¹⁵ Two good examples are Netzahualcóyotl Luis Gutiérrez Núñez, Diana Alejandra Mendez Rojas, and José Alfredo Pureco Ornelas y Pedro Urquijo Torres, eds., *La Revolución Verde en América Latina: Debates, perspectivas e interdisciplina* (Universidad Nacional Autónoma de México and Instituto Mora, 2025), <https://doi.org/10.22201/ciga.9786075878140e.2025>; and Regina Horta Duarte, *Genealogia dos zcos na América Latina: civilização, ciência e sensibilidades, 1875-1939* (Fino Traço, 2025).

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WHALE FALL

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Michaela Vieser

Creative Nonfiction Prize

Rachel Carson Center | "Tell the Untold" Writing Competition 2025

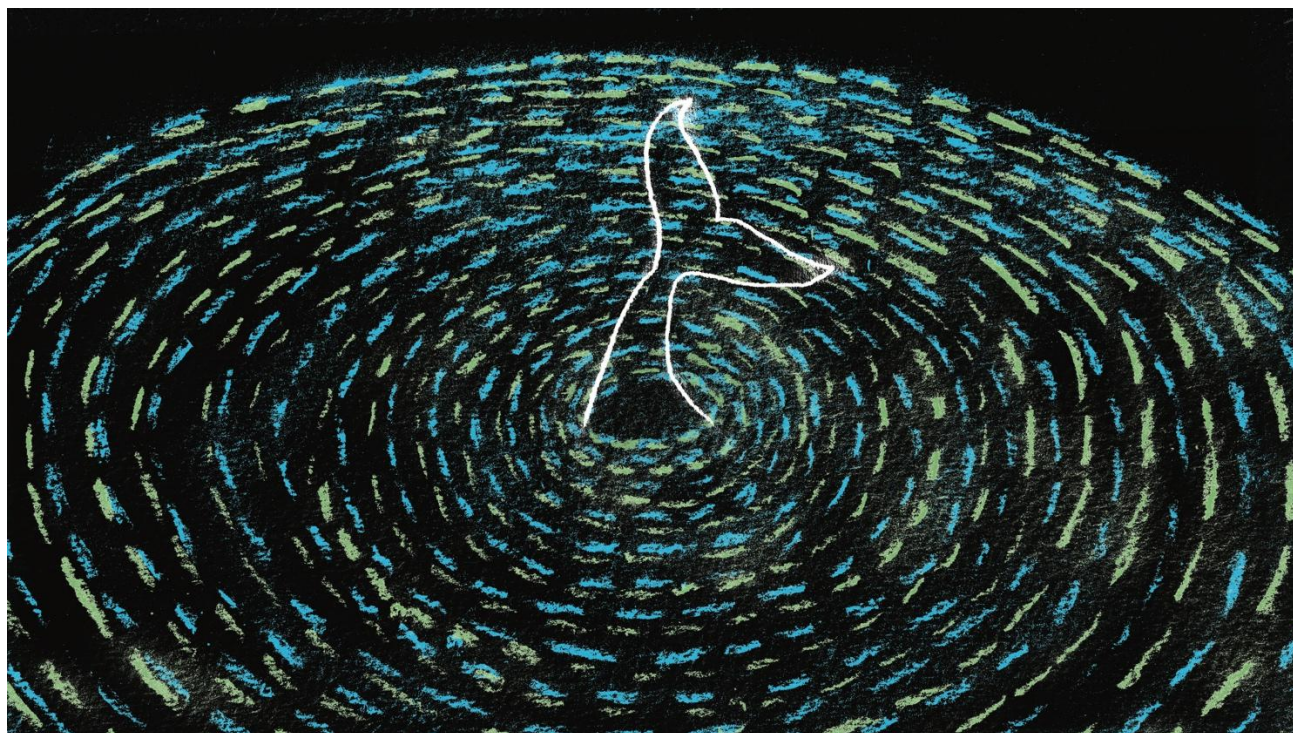


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When a whale dies, it starts a slow sink to the bottom of the sea. What arrives and remains is called a whale fall. Unlike the carcasses of most aquarian beasts, which lack rich lipids in their bones—or, lack bones in the first place, like sharks—a whale fall is full of life when it reaches its resting place. On its long trail down it becomes an ecosystem that nourishes mussels, clams, limpets, sea snails, bacteria, and other organisms. Hence, despite the darkness of this far-away sphere, biologists compare a whale fall to a sudden blooming of spring.

The abyssal zone at a depth of 2000 to 6000 meters is named after the Greek term *abyssos*, a bottomless, unfathomable place and the abode of the dead or rebellious spirits. In evolutionary terms, one has to be rebellious to make a living down here. Absolute darkness, intolerable pressure, numbing coldness, and a cacophony of sounds, crackles, and crimples convey an aching of deep Earth.

Anything beyond here is called the hadal zone. Here, V-shaped trenches terminate the bedrock of the sea, the deepest running around 11000 meters. Until a few years ago, only two manned dives reached this terra incognita, and most of it remains unmapped, a void, a mystery.

The namesake of this zone is Hades, the ruler of the underworld in Greek mythology. Hadal also refers to his realm, the unseen. They say there is no way back from here for the living, at least not in the way we think about coming back. Things transform on the long journey down. To sink here means to leave behind. To be undone. It is not a choice. Gravity pulls.

Whale Fall

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I was 41 when I experienced my own whale fall. I was still breastfeeding my third child when I felt a lump in my right breast tissue, this soft and tender flesh that thrills under the coarse hands of a lover and billows when fondled by the tiny hands of my children, their dear fingers stroking for milk to flow.

The process of a whale fall begins in an orgy of violence. Scavenging sharks and hagfish pull the whale's flesh away and apart, dig holes, creep in, devour. Orcas go for the tongue first. Then the blubber. Muscles, tendons, organs. Mounds of flesh to be nipped and tucked.

The decision to amputate my breast was an easy one. Cutting the cancer out would leave the rest of the body intact. I remember walking into the first diagnosis when it still seemed something that was not happening to me but to someone else, whom I was enacting for the day. "So, now you will turn me into an Amazon," I joked after the first mammography, thinking about the ancient Greek heroines who are said to have cut off their right breast to become more competent archers. The doctor looked up from the scans, straight into my eyes: "We might just have to do that."

Stage one of a whale fall is characterized by the removal of soft tissue at the rate of 40 to 60 kilograms a day. It can take up to two years for a big whale to be fleshed out. The carcass of the whale sinks and sinks. Downward and inward.

There were decisions to be made. Right after the diagnosis, when it was still unclear whether I would live through this, everything was about the flat landscape my breast would leave behind. Would I have fat and muscles from my thighs and lower belly removed and put there to replace the void? How about, as the cherry on the cake, a new nipple, shaped by rolling the skin cut from a not-yet-sagging eyelid? These procedures would leave me handicapped for at least six months from many kinds of physical exercises and with butcher-like scars not only on my chest, but across my belly, the inside of my thigh—and, on the positive side, a lifted eye. But breastfeeding had left me with little excess meat to sculpt with. The doctors suggested a silicone implant, a placeholder that would keep options open for later. They objected leaving me an Amazon. I was a woman, and women are defined by two breasts. One would not do. Others would need the harmony of two to stand the sight of me. Even the female doctors opinionated this. Meanwhile, I bought terry-cloth pajamas for the hospital stay. The lymph nodes hadn't been checked yet.

Whales do not cry in the way we do. They have no lacrimal gland. Their eyes are the color of a midnight sky, the color of the ocean.

I started noticing people's eyes. How rare, how precious, that spark within them. Faced with the possibility of death, the improbability of every encounter became a beacon amidst the vast sea of eternity.

Stage two in a whale fall is for the opportunists. Snails, bristle worms, and hooded shrimp will claim whatever is left on the carcass.

My stage two began with chemotherapy. First the hair, then the eyebrows. The eyelashes fell off

Whale Fall

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last.

I lost some friends, too. When I looked up from below to the water's surface, I saw their feet kicking strongly, swimming back to shore. Not everyone has stamina to watch someone dear through this. Others held their breath for as long as they could. But this journey is not one of return.

There is something calming about sinking. Of letting go. Even if the bottom of the sea is located at a distance that I could not fathom, still there is the assurance that it has to be there. Somewhere. A seabed to lie upon and to rest. To sleep, for a while or forever. To regenerate, I dared to think.

The difference between hope and trust lies in the direction toward which aspirations are oriented. Trust is a rooting, a grounding, into someone, an idea. Hope on the other hand is a fickle escape. A mercury trail of smoke rising up and dispersing into ever thinner air. We look up into the night and hope. Yet, isn't starlight but an echo of an eruption long gone?

Hope can unlock the portal for disappointment. Was I disappointed with life for establishing the cancer in my body? I was surprised and the shock wave that came with the tectonic shift of the diagnosis burst the ground open beneath my feet. While all my life I had been striving to reach up and high and higher even—this time, for the first time, the direction was downward.

"Down, down, down. There was nothing else to do." When Alice falls to Wonderland, she accepts her fate. All around her familiar things emerge on the sides of the rabbit hole but appear strange, meaningless, and devoid of context. "She took down a jar from one of the shelves as she passed; it was labelled 'ORANGE MARMALADE,' but to her great disappointment it was empty: She did not like to drop the jar for fear of killing somebody, so managed to put it into one of the cupboards as she fell past it."

When one tumbles into the unknown, new elements and entities one did not think possible drift by. The world is full of wonders beyond the wildest imagination. Take the Portuguese man o' war. A shimmering nacre-amphor-filigree-sort-of-porcelain-glass-bowl creature with medusa-like tentacles trailing under its thick kidney-shaped body. A life form made of colonies of organisms, asymmetrically shaped like me now. Stranger than strange, alien and bizarre, the man o' war teaches me new ways of living and being. Some parts of this siphonophore take care of reproduction; others are in charge of feeding. Things can be thought and lived differently, I realized, after encountering this colonial creature and others. A body can live life alone, or with others. It can remain distant or become intimate. It might even achieve symbiosis as many merge to become one. Who makes up the context of who we are? What are the energies that make us feel alive? How many invisible threads are drifting through our world every day, ready to be captured and woven into new beginnings? And when all is gone, who is left? What am I? A will-o'-the-wisp kind of thought trailing off into the ever-darkening waters. One question stands out: What remains?

"Our roots are in the dark; the earth is our country. Why did we look up for blessing—instead of around, and down? What hope we have lies there . . . Not in the light that blinds, but in the dark that nourishes, where human beings grow human souls," voices the late American writer Ursula K. Le Guin in her commencement address at Mills College in 1983. In it she deconstructs the hegemony of the human-made world, its culture for success, the competitiveness that makes heroes of those who rise above and leave behind those who raised them up in the first place. Women, animals, nature. Le Guin's speech is about making a proud living in darkness, of finding a role in the negative space: to inhabit where our rationalizing culture of success and competitiveness denies.

Had I not fallen, I would have never found such a place.

Stage three in a whale fall lasts 50 to 100 years. During this time, sulfophilic bacteria anaerobically break down the lipids embedded in the bones. So-called zombie worms with no mouths, digestive systems, or anuses will slowly disintegrate whatever remains. Due to the toxicity of hydrogen sulfide, only resistant chemosynthetic bacteria can survive.

The chemo entered my body like no medicine ever did before. I felt it seep into my veins, into the arteries, and then into my very cells. It found its way; I felt it act.

They say it takes five years to live a normal life again, to not constantly think of the cancer, to not define oneself through the trauma of it, to feel one's body whole again. By the end I had lived at the bottom of the sea for a while. What was left of the me I was before? When did I realize that an invincible me was forever gone? I am vulnerable, very vulnerable. But so is the world and its ecosystems, all life on Earth. When we understand that things can change and not come back the way they were, how do we keep on living? First we might lie scared, unable to move, with utter darkness all around. We might try to listen. Are there voices down here, murmurs, songs of solace? Eventually we may reach out. Seek connections. Hold on. One must be rebellious to forge a living in the hadal zone. From where life as we know it does not return.

Whale falls are islands of biodiversity, not unlike monasteries of secluded life. Every five kilometers or so a whale fall lies on the bottom of the sea. At this moment, roughly 700,000 are scattered along the migrating routes of the giant mammals. Transformation is always happening in the depths, out of sight. What once was a dead whale and inert matter changes into teeming life, filling the oceans. And in and around whale falls adaptation and radiation take place. Creatures mix with one another to become new species, sparking new beginnings.

"She fell like a maple seed, pirouetting on an autumn breeze. A column of light streamed from a hole in the Skyworld, marking her path where only darkness had been before. It took her a long time to fall." In *Braiding Sweetgrass* US botanist Robin Wall Kimmerer evokes the Native People's story of Skywoman, who fell from the sky and shaped our relationship with the world. Wall Kimmerer asks whether "the Skywoman story endures because we too are always falling . . . Despite our fears of falling, the gifts of the world stand by to catch us."

After all these years I came to define myself not by my missing breast, but by something else. Something new. Something old.

Once, the ancestors of whales lived onshore. No one knows exactly what made them turn their backs on the land and return to the sea. They must have endured something along the evolutionary spiral that made them choose this place over the other. One, under the sun and the stars and the moon, the fresh breeze in the riffling leaves and the fragrant soil. The other, a world with no edges, no limits, where up and down are traversed by fluid movements. It must not have been an easy process. They had to adapt, change in almost every possible way, every habit and habitat.

When beaked whales dive, part of their lungs collapses, and their heartbeat goes down from forty to four beats per minute. For three and a half hours they dive down to a place so deep, so alien to us, that the pressure would crush almost any human-made vessel. Then they come up to the sun, the weather, the air, as visitors, before returning to their realm. They no longer belong to the surface;

Whale Fall

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they have become creatures of the world below.

Today we know that whales are phenomena much grander than their size. Scientists believe that they might play an essential role in tackling the climate crisis. During its life an average whale will store 33 tons of carbon dioxide. When it dies and sinks, the whale will release carbon not into the atmosphere but into the bodies of all the entities that fed on it. Even more impressive are the giant dung clouds living whales leave behind near the surface, spurring the growth of phytoplankton, which produces oxygen and absorbs carbon dioxide. In this way, the same amount of CO₂ is sequestered as by 1.7 trillion trees—four times the Amazon jungle.

I wonder what that number would be without the systematic slaughter of whales by humans.

They say there might possibly be a fourth stage to a whale fall, the “reef stage.” When the organic compounds have been exhausted and only minerals remain within the bones, what once was whale, too, becomes foundation.

Neolithic people recorded their imaginings with chalk, a mineral derived from the fall of countless oceanic microorganisms. Far back in the depths of time, it settled as sediment of the ocean floor, eventually rising again to break the surface, forming reefs, atolls, islands, cliffs. Chalk writing becomes readable only when rendered on a dark surface. While it might seem monochromatic, it’s full of shades and glow. It doesn’t flow like an ink brush; it etches and crumbles.

Stage four is different than I expected. The seabed isn’t as soft as I would have imagined. The floor rises only an inch every thousand years. It will take a very long time to become an island. But there is no need to hurry. I have accepted the place where I have landed. And so I continue to write about the land in the shadows, about vulnerability and loss, about the playfulness of all things alive.

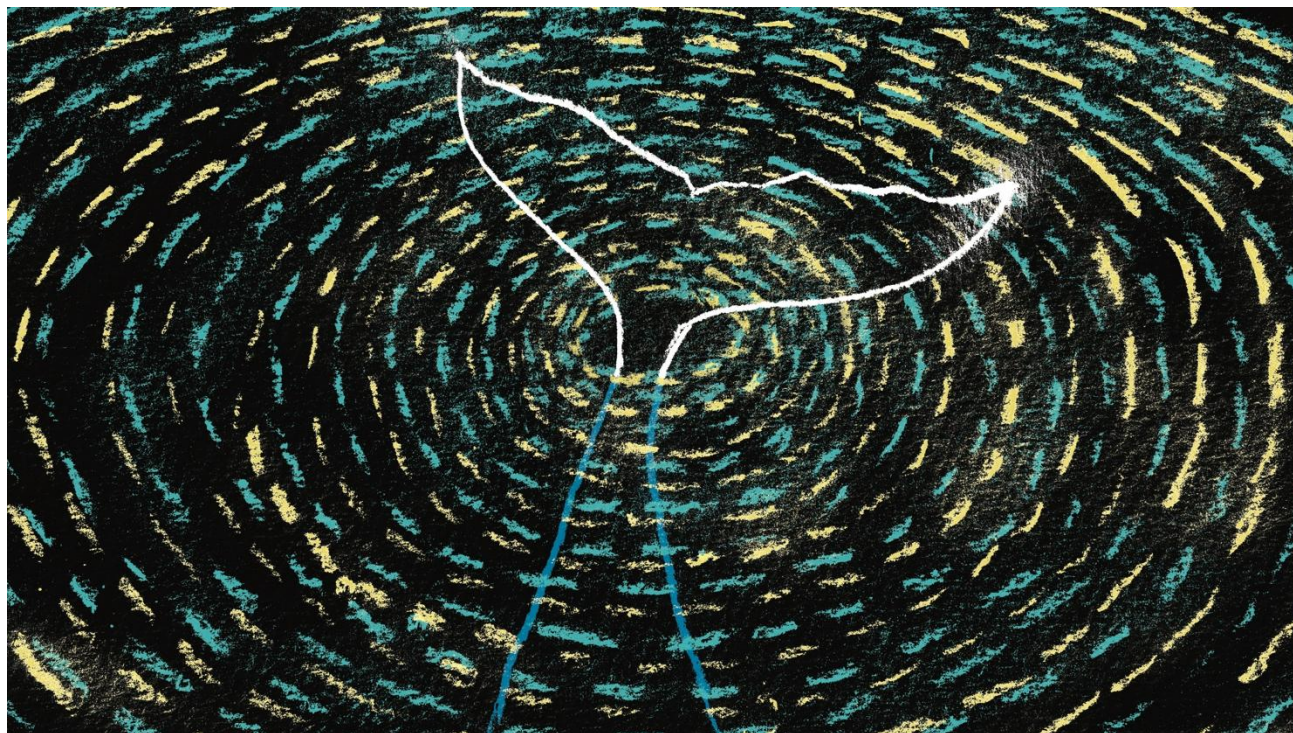


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IGNORING RELIGION IS NOT AN OPTION

Kate Rigby

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Kate Rigby

It is high time that the environmental humanities got religion. Don't worry. This is not a call for conversion. At least not to any one faith tradition. It is a call to pay attention. We need to take religious beliefs, values, and practices more seriously. Not just within the environmental humanities, but also among those pushing for sustainability transformations. Why? Because religion has always mattered.



Michael Wolgemut, *Lot and his Family Leaving Sodom*, ca. 1493-1500, ink on paper, 3.62 x 4.88 cm. Published in the *Nuremberg Chronicle* (*Liber Chronicarum*) by Hartmann Schedel (Anton Koberger, 1493). [Public domain](#).

Across human history—and still today for the great bulk of humanity—religion has shaped how people understand the world and how they live with everything else on Earth. Religious texts and traditions convey narratives, symbols, beliefs, and practices that inform what it is to be human and how we should relate to other beings and our shared environs. Even within modern largely secular societies, some dominant notions about nature have religious roots. Take the modern Western idea that the Earth should be valued primarily as a storehouse of “resources” and provider of “ecosystem services” for human use. This instrumental view is derived historically from the biblical creation narrative in Genesis 1 that accords humans “dominion” over other creatures. The secularisation of this notion of human supremacy—stripped of the theological qualification that the entire natural world was to be honoured as God’s primordially good creation, and that all creatures are beloved by God and should not be wantonly mistreated—opened the way to that wholesale exploitation of the Earth, which has been so conducive to capitalist industrialisation.

Within modern largely secular societies, some dominant notions about nature have religious roots.

The role of religion in shaping environmental attitudes and interactions suggests that religious studies should be a core component of the environmental humanities as an inter- and transdisciplinary research area that examines the “underlying cultural and philosophical frameworks that are entangled with the ways in which diverse human cultures have made themselves at home in a more than human world.”¹

This definition comes from the editorial introduction to the first issue of the field’s flagship journal, *Environmental Humanities*. And yet, there is a gap. When that same introduction lists the disciplines that make up the field—environmental history, philosophy, anthropology, sociology, political ecology, posthuman geographies, ecocriticism—religion is missing. Environmental religious studies are not even mentioned. This is not a small oversight. It reflects a broader pattern.

Look at the evidence.² Among the major introductory anthologies in environmental humanities published between 2015 and 2020, only one includes a chapter on religion and ecology.³ Even Emmett and Nye’s widely cited “critical introduction” to the field only touches on religion in passing.⁴ It does not treat the study of religion as a research area in its own right. Only recently have religious studies begun to feature more centrally in introductions to the environmental humanities, notably in Hubbell’s and Ryan’s textbook, which includes an excellent chapter on “Ecological Religious Studies.”⁵ Recognition nonetheless remains patchy.⁶

Only recently have religious studies begun to feature more centrally in introductions to the environmental humanities.

This neglect is surprising, especially when we look at the field’s origins. One of its most influential early texts, now seen as a forerunner of the environmental humanities, is Lynn White Jr.’s “The Historical Roots of Our Ecologic Crisis,” published in *Science* in 1967. It is a short, speculative essay, but it had enormous impact. White argued that it was a particular variant of Christianity that took shape in the Middle Ages—in response to contingent environmental conditions, technological changes, and economic shifts—that produced the particularly aggressive form of human-centred thinking in Western modernity. That essay became foundational. It was even reprinted in the first anthology of environmental literary and cultural studies.⁷ But White’s conclusion is often misunderstood. He did not call for rejecting religion. He did not even call for rejecting Christianity. Instead, he suggested something more constructive. He invited readers to develop more ecological forms of religious imagination. For him, that meant moving toward something like animism. Still, the message has not fully landed. As recently as 2025, the prominent US ecocritic George Handley felt the need to restate the case. In his book *On Literature and Ecotheology: From Chaos to Cosmos*, he explains in detail “why ecocriticism needs to get religion.”⁸

The consideration of ecology in religious studies itself is not new. Important work goes back to the 1960s, but the field really took off in the 1990s. A key moment came with a series of conferences at Harvard Divinity School between 1996 and 1998, which led to the creation of the Forum on Religion and Ecology, now based at Yale University. The Forum has sister organisations across the globe. Since 2006, it has been joined by the International Society for the Study of Religion, Nature, and Culture. From the beginning, this has been a lively, multidisciplinary space, bringing together history, theology, anthropology, sociology, comparative studies, hermeneutics, and the arts—reminiscent of the environmental humanities’ trajectory. This academic work has developed alongside something equally important: faith-based environmental activism.



Faith for the Climate protesters at The Time Is Now protest. © Eleanor Church. All rights reserved.

One early turning point came in 1982. The United Church of Christ organised a grassroots protest in Warren County, North Carolina. The issue was toxic waste. The plan was to dump it in a poor, predominantly African American community. The protest changed things. It was here that the term “environmental racism” was first used, contributing to the emergence of the environmental-justice movement.⁹ Around the same time, religious leaders began speaking out more strongly on environmental issues. In 1986, representatives from Buddhist, Christian, Hindu, Muslim, and Jewish traditions met in Assisi with the WWF and other conservation organisations. That meeting generated a joint statement on why conservation matters to people of faith and eventually led to the creation of the international Alliance of Religions and Conservation in 1995. Many religious environmental organisations were already active, and others formed soon after. Several religious authorities have also issued major environmental statements. Two prominent examples are Pope Francis’ 2015 encyclical *Laudato Si’* and the 2024 Islamic *Al-Mizan*.¹⁰ Care for what Pope Francis calls our “common home” is also creating common ground for interfaith dialogue and activism ranging from small-scale local initiatives through to major global associations, such as [GreenFaith International](#).

Secular global institutions have taken note. In 2017, the United Nations Environment Programme launched the [Faith for Earth coalition](#). More recently, it produced *Faith for Earth: Call to Action*, a collection of materials from 13 religious traditions.¹¹ The project was coproduced with the Parliament of the World’s Religions, the oldest and largest interfaith movement. Its aim is to encourage faith communities to align their beliefs with ecological goals, including those of the Earth Charter.

At the same time, there has been a slow but important shift in recognising Indigenous knowledge within ecoreligious studies. Many Indigenous communities understand the sacred as present within the world. They also hold deep, adaptive ecological knowledge. For generations, they have defended their lands and lifeways against (neo)colonial extractivism. That knowledge is finally gaining

recognition in global policy. It appears in the 2022 report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services titled *Diverse Values and Valuation of Nature*.¹² And it is also acknowledged—at least in part—in the 2023 Kunming-Montreal Global Biodiversity Agreement.

Of course, not all forms of religion support ecological care. Research in religion and ecology makes that clear.¹³ So does recent politics. The Trump administration's alignment with a particular form of procapitalist, far-right nationalist, and strongly millenarian Christianity is one example. Some religious expressions actively work against the kinds of transformations we need: transformations that are socially just, economically viable, culturally sensitive, and ecologically sustainable.

Religion cannot be ignored. It must be understood.

But that is precisely the point. Religion cannot be ignored. It must be understood. Environmental scholars and activists need stronger religious literacy. We need to understand the histories involved. We need to grasp the emotional and symbolic power of religious traditions. And we need to pay attention to the power structures and economic interests that shape how religion operates in the world—for better and for worse. The numbers alone make this unavoidable. At least 75 percent of the world's population identifies with a faith.¹⁴ Religion shapes how people see other beings. It shapes how they relate to their environments. And in turn, everyday ways of life shape how religious texts and traditions are interpreted. This is especially true in the Global South. There, religion and spirituality are especially vibrant and diverse, frequently playing a central role in conservation efforts.¹⁵

So, what does it mean to “get religion”? It means taking religion seriously as a force in the world. It means bringing it fully into the environmental humanities. And it means shifting perspective. So far, the field has largely developed in the secular academic contexts of the Global North—including, somewhat paradoxically, the geographically southern continent of Australia—which may be one reason why religious studies have been sidelined. “Getting religion” helps to decentre that starting point. It opens the field to a wider range of ideas, practices, and collaborations. And ultimately, this is not just about academic debate. It is about how we live on this planet. It is about how we respond to ecological crisis. And it is about how we protect—and where necessary restore—the shared habitability of our deeply interconnected, more-than-human world.

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Notes

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