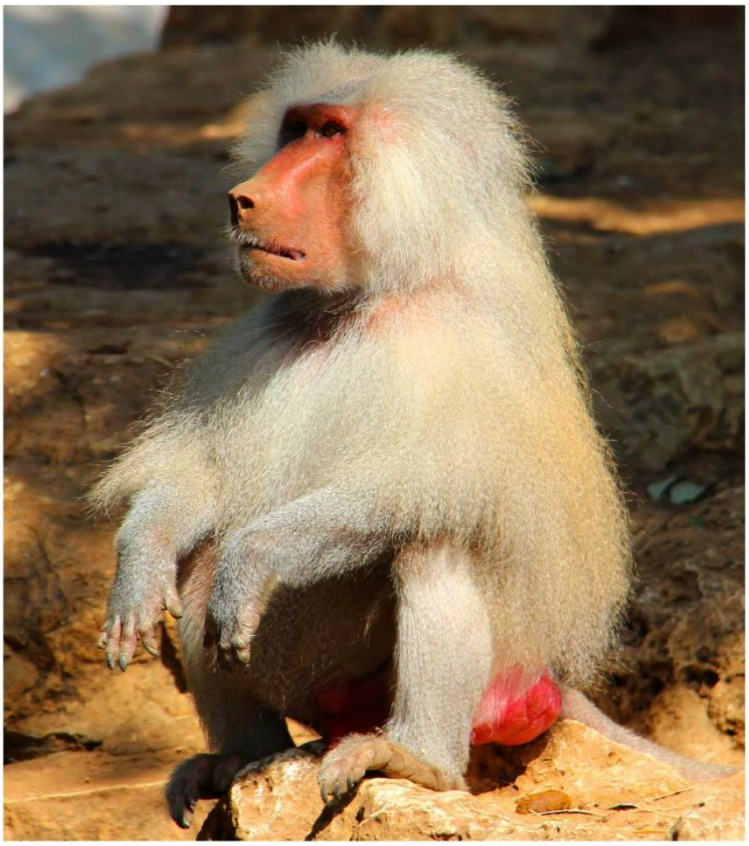
SPRINGS

THE RACHEL CARSON CENTER REVIEW

Issue #7 | 2025

May



Springs

The Rachel Carson Center Review

Issue #7 | 2025

May

Issue Editors

Christof Mauch, Editor-in-Chief
Pauline Kargruber, Senior Editor
Brady Fauth, Editor
Haley Snyder, Editor
Annika Stanitzok, Editor
Christopher Steil, Editor

Images on cover page:

(upper left) Wikimedia Commons. CC BY-SA 4.0.
(upper right) © 2016 Bob Sacha on Getty Images. All rights reserved.
(upper middle right) Photo by Judith Bopp. CC-BY NC 4.0.
(lower middle right) © Luka Dakskobler. All rights reserved.
(lower right) Photo by Paolo Gruppuso. CC-BY NC 4.0.
(lower left) © Wirestock on iStock.

TABLE OF CONTENTS

Note from the Editors

We read the news about torrential rain in some distant place, separated from it by our screens. We add a grating of fresh nutmeg to our food, in ignorance of the spice's cultural history. We walk along a riverbank and see water, little water, only to find that there used to be more. The new issue of *Springs: The Rachel Carson Center Review* ponders on emplacement and visibility, takes us through the centuries, and echoes an urgent call to attend to nonhuman sentience.

In "Rain, Carson, Art, Salt: A Venetian Matrix," novelist Catherine Bush walks the streets of Venice, seeking art that engages with Rachel Carson at the Biennale Arte 2024. Haunted by an approaching storm, she asks, "How can I look, ecologically, through art, back at the world?," and performs the artist's "ecological labour of relationship-making."

While Catherine Bush is caught up in a storm, human geographer Mike Hulme looks at sociotechnical developments that have changed the climate and, at the same time, the way we experience the weather. This experience, he contends, becomes increasingly detached from our local place-markers, resulting in an "Unbearable Weight" that challenges our sense of place, order, and well-being.

Writer and anthropologist Amitav Ghosh takes us to the Banda Islands to unravel "The Nutmeg's Curse." Narrating the violent history of the spice trade in the area and the nutmeg's power to "decide the fate of human beings," Ghosh advocates for the acknowledgement of "humanity's ever-increasing servitude to the earth."

"Walking a Sicilian River" by anthropologist Paolo Gruppuso and geographer Erika Garozzo ruminates on the life of Sicily's largest but now disappearing river—the Simeto. On a walk in a nature reserve established to protect the river mouth, the two scholars observe the marks of twentieth-century infrastructure projects, recent "green" energy facilities, and intensive agriculture. Yet they leave us with a trace of hope when they eventually encounter "the river speaking through birds and the sound of flowing water."

Processing the horrid February 2025 "Killing [of] a Baboon" by a group of schoolchildren in Delmas, South Africa, Sandra Swart looks back at history and examines the role of superstition and the occult in the ongoing violence against these primates. She emphasizes "the power of public outrage in triggering social change" and the weirdly unexpected potential of the popular press and social media in putting an end to intentional cruelty to animals.

In the final contribution, anthropologist and STS scholar Mascha Gugganig and cultural geographer Judith Bopp discuss "Organic Farming in Thailand" and prevailing narratives about agriculture. In their conversation, Bopp finds that many Thai farmers "describe their farming practices or their relationship to nature in a very sensitive way"—a way of seeing the world that could inspire farmers in the West to attend more to the intricate relationships between health, nutrition, and ecology.

Beyond these exciting additions, *Springs* continues its efforts to assemble writing from other open-access RCC publications. Our *Springs* archive curates articles from the online and print journal *RCC Perspectives* (2010–2020), the peer-reviewed online journal *Arcadia: Explorations in Environmental History*, and publications from RCC's multigenre ecopedia, *Seeing the Woods*.

Munich,
27 May 2025

RAIN, CARSON, ART, SALT: A VENETIAN MATRIX

Catherine Bush

Springs
The Rachel Carson Center Review

7 • 2025

Catherine Bush

Early September 2024: When, on the morning of my third day in Venice, I wake and grab my phone to check the weather app, I am met by the same orange band of trouble as the night before. There are severe thunderstorm and rainfall warnings for the entire Veneto region. Up to 86 millimetres of potential rainfall. I lie in bed in the small ground-floor apartment that I've rented not far from the Arsenale and the Giardini, sites of the Venice Biennale. I'm here to see art but am distracted by the weather. The air conditioner grinds away, the air thick with heat and humidity, the smell of the room touched with sulphur. The windows, shrouded by curtains, don't open. I think of the flash floods that recently hit my home city of Toronto, submerging highways; the flash floods in Montréal that inundated neighbourhoods, including a friend's basement; the flash floods in Wolfville, Nova Scotia, where my sister lives, which swept away my niece's teenaged neighbour, drowning him. There were spring floods in Bavaria, where I have lived for six months, rising river waters overtaking Regensburg. In July, torrential rainfall in Kerala brought on massive landslides.

An aerial view of the Venice Lagoon. © Luka Dakskobler. All rights reserved.

I wonder: How do I calibrate the weather warnings to calculate emergency at this moment? Do I shrug them off and continue undeterred with my cultural itinerary? Or do I consider my potential vulnerability? Venice is particularly flood-prone. If the apartment were to flood overnight, I could be trapped inside, with no exit other than the single street-level door. Surely, I'm catastrophizing. This apartment has stood for centuries. Yet I'm a visitor here, making my first return to the city in 30 years. The Biennale's title, *Stranieri Ovunque*, becomes "Foreigners Everywhere" when translated into English. As a foreigner, I don't know how to read the local weather. In *Fire Weather*, his book about the colossal 2016 forest fire that incinerated the town of Fort McMurray, Alberta, Canadian writer John Vaillant describes the Lucretius Problem: We judge current dangers based on those

DOI: 10.5282/rcc-springs-15128

we've experienced in the past. Yet our past experience may no longer be a useful guide to what lies ahead.[1]

> *Rachel Carson urges us to pay ecological attention to the world—tuning ourselves to networks of relationship and consequence.*

I've come to the Biennale looking for Rachel Carson. Although Carson, the renowned twentieth-century US environmentalist, has been dead for 60 years, her work provides a living reference point, not just for environmentalists and social-justice warriors, but culturally. I'm working on a novel that fictionalizes Carson's life, largely focused on her shifting relationship to the sea. When a friend told me that John Akomfrah's installation, occupying the Biennale's British pavilion, explicitly references Carson, I determined to see it, curious to discover how a contemporary visual artist engages with Carson's legacy. In *The Guardian*, I stumbled upon an interview with theatre artist Sophie Hunter describing her new piece, *Salt of the Earth*, which evokes the imperilled salt marshes of the Venetian Lagoon and elsewhere. To be mounted in an old salt factory on the Venetian island of Giudecca during my stay, Hunter's piece was inspired by Carson's writing, in particular her insistence on the place of wonder in our engagement with the natural world. I manage to snare a ticket to the show.

In *Silent Spring*, her 1962 manifesto attacking the ruinous use of pesticides in the post–Second World War United States, Carson wrote out of a sense of emergency, calling attention to the ecological webs of relationship that bind humankind to the rest of the living world. It's Carson's ability to give lucid, penetrating voice to these connective webs that draws me most powerfully to her work. She urges us, in turn, to pay ecological attention to the world—tuning ourselves to networks of relationship and consequence. Spurred by Carson, I've brought questions with me to Venice: What does it mean to pay ecological attention not only to the world but to art? How can I look, ecologically, through art, back at the world? Only now I'm also trying to figure out how to pay attention to the weather.

. . .

DOI: 10.5282/rcc-springs-15128

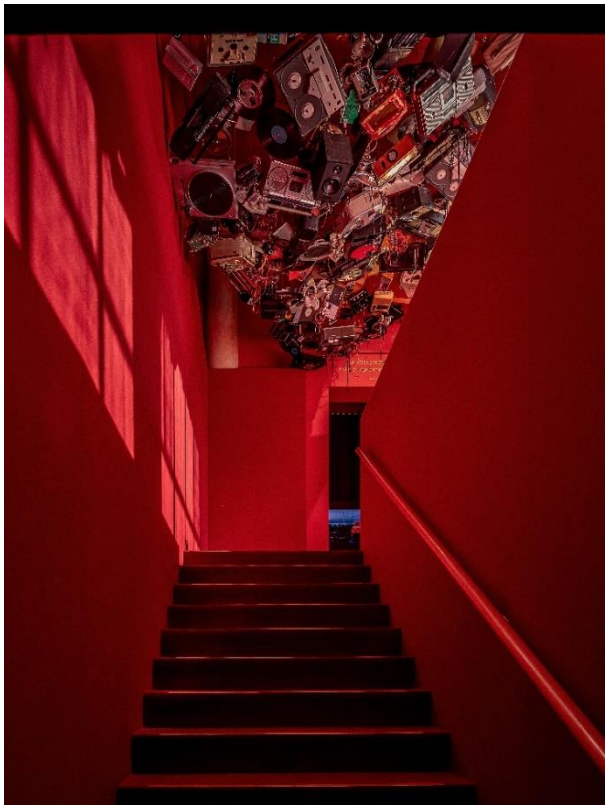
John Akomfrah, *Listening All Night to the Rain*, commissioned by the British Council for the 60th International Art Exhibition – La Biennale di Venezia, 2024. © Jack Hems. All rights reserved.

Two days before, in hot sunlight, I approach the neoclassical British pavilion in the Giardini, where many of the Biennale's national pavilions are situated, to find the front steps leading up to the portico roped off. Large panels hang in the spaces between the columns, each a screen split into two panels, filmed images in continual motion upon them. White or black cards bearing phrases such as "European Ladies" or "For Coloureds Only" float beneath shifting water; a rush of small rubber ducks, no doubt made of PVC plastic, tumbles down a creek, past the submerged dial of a clock whose one visible hand points almost to midnight. Watery babbles and melancholic ringing notes lace the exterior air. This is my opening encounter with Black British artist John Akomfrah's remarkable multichannel visual and sonic installation *Listening All Night to the Rain*.

DOI: 10.5282/rcc-springs-15128

John Akomfrah, *Listening All Night to the Rain*, commissioned by the British Council for the 60th International Art Exhibition – La Biennale di Venezia, 2024. (Left) © Jack Hems. All rights reserved. (Right) © Taran Wilkhu. All rights reserved.

Listening takes its title from a poem by the eleventh-century Chinese poet Su Dongpo, meditating from political exile on the transitory nature of life: "I'm like a little boat / sensing an expanse of endless water . . . listening all night to the rain."[2] Each room of the pavilion, painted a different, darkly saturated colour, houses one of the installation's eight cantos, a word that recalls Dante's visionary journey through the underworld and the work of US Modernist poet and Fascist-sympathizer Ezra Pound, once a Venice inhabitant. Together the cantos accumulate to create a tissue of racial, colonial, and ecological history from the twentieth through the twenty-first centuries, symphonic and oceanic in scope, asking us not only to look but to listen. Entering on the lower level, I find myself in a darkened room panelled with screens. On several, a river of water rushes over photographs of Black men and women in nineteenth-century clothing. Images and sounds of water pervade Akomfrah's installation. Human presences, Black, Brown, white, male, female, characters, and guides, appear across a range of landscapes, often outdoors in anoraks, some turned towards the viewer, others away, our sense of the world simultaneously expanding beyond the human.



Canto V. John Akomfrah, *Listening All Night to the Rain*, commissioned by the British Council for the 60th International Art Exhibition – La Biennale di Venezia, 2024. © Taran Wilkhu. All rights reserved.

I locate Carson on the upper level in a small, umber-red room, past Canto III, an agglomeration of old pieces of sound equipment that hang from the ceiling and issue voices, including that of Malcolm X. On one of six screens mounted on one wall, an older Black man lies outstretched on a swath of satiny fabric, blue as the sea, wearing a yellow anorak, hood surrounding his face. His closed eyes and clasped hands give him a funerary air, as if his body has been laid to rest surrounded by talismanic memorial objects: photographs, antique computer

DOI: 10.5282/rcc-springs-15128

consoles, a small, boxy TV. More rubber ducks surround him, along with an image of the chemical makeup of DDT, a photograph of Rachel Carson's face, her books—*Under the Sea Wind*, *The Sea Around Us*, *The Edge of the Sea*. I spot *Silent Spring*. The air swells with a texture of sound out of which single tones ring like bells. Water bubbles. The images shift, the prone man multiplying onto other screens, accompanied by different objects, Carson titles, the extended legs of another prone figure. The rubber ducks reappear atop a shining depth of water, the same blue as the fabric beneath the humans, as ducks like this were famously released into the Pacific in a 1992 container spill, borne by ocean currents across the world.

I spend perhaps an hour in this room, more in the pavilion. People wander past, often with the same speed as one might scroll through images on a phone. Akomfrah's work asks for time from us, time and the ecological labour of relationship-making: that we undertake the work of creating our own version of his epic from its vast storehouse of connections.

Canto VI. John Akomfrah, *Listening All Night to the Rain*, commissioned by the British Council for the 60th International Art Exhibition – La Biennale di Venezia, 2024. © Taran Wilkhu. All rights reserved.

As I enter the largest room, Canto VI, archival footage of anticolonial rebellion on the African continent and India in the mid-twentieth century surges across the screens: Patrice Lumumba, Congolese independence leader, orating to crowds; Lumumba, forced onto the back of a truck by soldiers, weeks before his execution. All this occurred, I realize, during the years in which, across the Atlantic Ocean, Carson was writing *Silent Spring*, condemning the human hubris that sought mastery over the natural world, deploring the technological shifts that meant even the vast ocean was no longer safe from destruction wrought by humans. Woven into Akomfrah's web, Carson becomes part of this broader, planetary fabric of encounter, peril, domination of both human and nonhuman, and resistance. In retrospect, I find myself applying the words of the Palestinian writer Isabella Hammad from her brief, powerful polemic *Recognizing the Stranger* to what I witnessed amidst Akomfrah's matrix: "In today's crisis of climate destruction, there will be moments—maybe

DOI: 10.5282/rcc-springs-15128

they are happening already—that will later be narrated as turning points, when the devastating knowledge hits home to a greater and greater number that we are treating the earth as a slave."[3]

. . .

On the day of the storm, I'm at the Palazzo Grassi on the Grand Canal, viewing the extraordinary, large-scale paintings of US, Ethiopian-born artist Julie Mehretu, when I pull out my phone. The palm-like shape of the Veneto region has gone from orange to red on the weather app: "Red Rain Warning . . . extreme weather events expected . . . expect significant disruption to daily routines. Only travel if your journey is essential." What is essential in this context?

Mehretu's work grapples with contemporary states of emergency. In this show, entitled *Ensemble*, the paintings are shown alongside work by artists with whom Mehretu has ongoing relationships. The sculptural presences of Huma Bhabha, Paul Pfeiffer's disembodied wooden limbs and torso of Justin Bieber (tattooed and smoother than skin), and the body prints of David Hammons foreground the necessity of bringing the body—Black, white, otherwise racialized, corporeal—into relationship, a dance, with Mehretu's more abstract art.

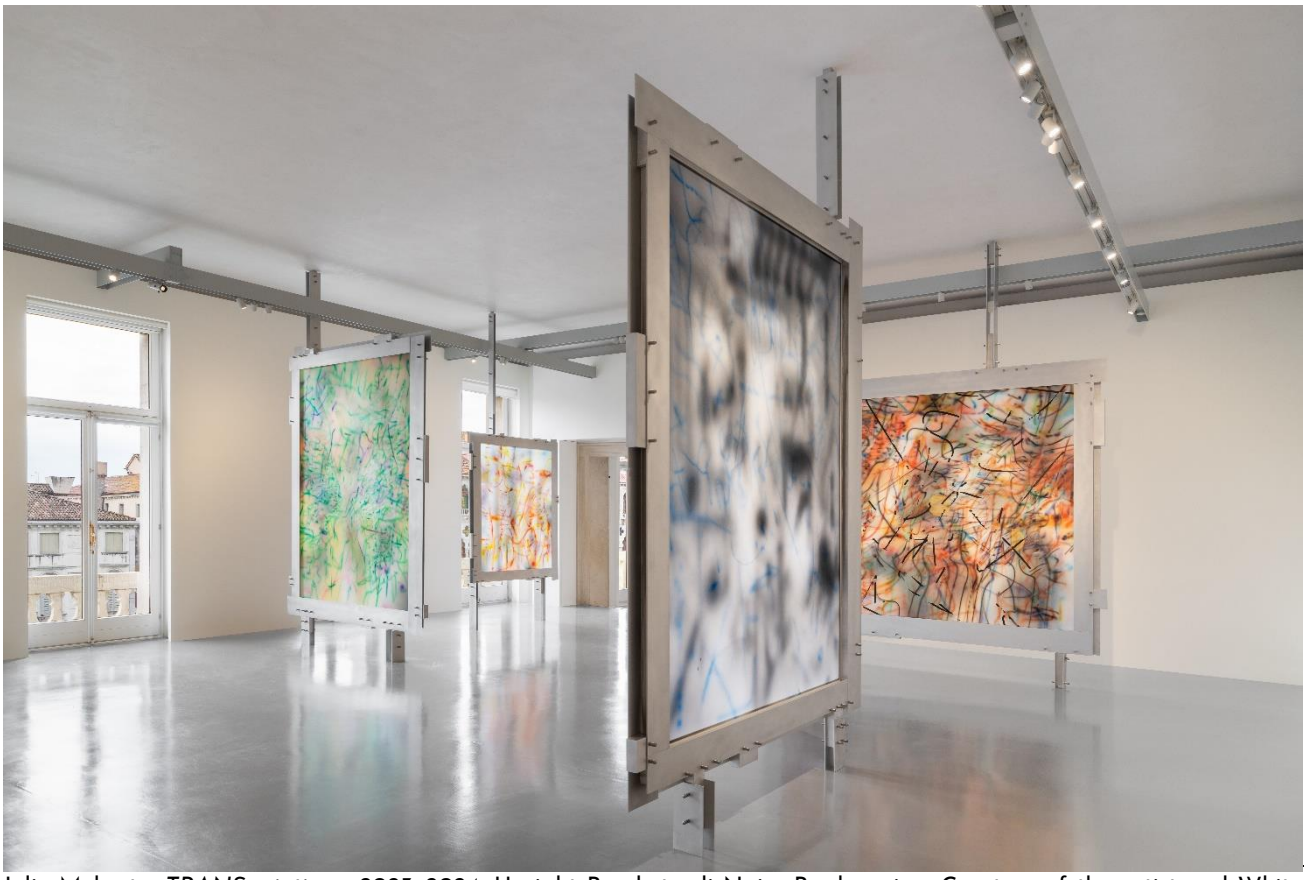
(Foreground) Huma Bhabha, *New Human*, 2023. Courtesy of the artist and David Zwirner; (Background) Julie Mehretu, *Invisible Line (collective)*, 2010–2011, Pinault Collection. Installation view, "Julie Mehretu. Ensemble", 2024, Palazzo Grassi, Venice. Photo by Marco Cappelletti © Palazzo Grassi, Pinault Collection. All rights reserved.

Whether black and white or brash with colour, her canvases are dense with palimpsests of lines, architectural diagrams, gestures that demand we look closely and engage in an intensity of connection-making. At moments, Mehretu's paintings' exploding movement provokes an intense

DOI: 10.5282/rcc-springs-15128

vitality or a stir of disturbance in my encounter with them; their kinetic density opens up a corresponding depth of response, also awe at the time-consuming deliberation and labour involved in the paintings' layered creation.

Some of the paintings bear traces of their origin in political or societal disasters. In *Maahes (Mihos) torch* (2018–2019), mounted alone in the first room, a smear of orange radiates from the bottom left-hand corner, counterposed with a flare of green in the upper right while black markings flicker or smudge the entire canvas. The artist began with a photograph of the massive 2018 fire that destroyed the National Museum of Brazil and its vast cultural heritage, an origin obscured unless you read the notes on the painting. I want to know this narrative trace—just as when, weeks earlier, in Berlin's Neue Nationalgalerie, I stood in front of Gerhardt Richter's four massive abstract paintings *Birkenau* (2014), which originated as responses to four black-and-white photographs of the concentration camp Auschwitz-Birkenau, the only surviving images taken by inmates themselves, knowing this origin allowed me to enter into charged lines of otherwise inaccessible meaning.



Julie Mehretu, *TRANSpaintings*, 2023–2024, Upright Brackets, di Nairy Baghramian. Courtesy of the artist and White Cube. Installation view, "Julie Mehretu. Ensemble", 2024, Palazzo Grassi, Venice. Photo by Marco Cappelletti © Palazzo Grassi, Pinault Collection. All rights reserved.

I've just passed the emergency-orange, flame-like billows of Mehretu's *Hineni (E. 3:4)* (2018), which draws on an image of the 2017 California wildfires, when I see the red stain of the heightened weather warning on my phone, its extreme alert. I can't bring my broken concentration back to the art. Two well-dressed women wander through the rooms ahead of me. The grey sky is not yet foreboding. The worst of the rain is supposed to arrive with evening. Before leaving my small rental apartment that morning, I have, though I can barely afford it, made another booking—for a room at a small hotel. There I would be above ground level, have access to more than one exit, be in the company of others. If nothing terrible happens, I tell myself, I will have done this as insurance. So that nothing terrible happens. Again, I wonder if I should simply shrug off the warnings. Only now

DOI: 10.5282/rcc-springs-15128

every painting I look at is permeated by my anxiety about the weather, by a sense of emergency. So I flee the palazzo, hop onto a vaporetto, grab my bag from the small and sulphurous apartment and wheel it through bumpy alleys to the hotel, where, in the wake of the morning's brief torrential thunderstorm, the stone entranceway has already seen some flooding, and I must make my way across the damp remains of flattened cardboard boxes on my way to the lobby.

. . .

A locus for arrivals from the world over, Venice is known as a city of water, situated in the Venetian Lagoon, islands threaded through with canals, slowly subsiding. It's less often thought of as a city that exists in relationship with the lagoon's salt marshes, essential carbon sinks and flood-protection buffers, which are disappearing at an alarming rate—from 180 square kilometres two centuries ago to 43 today[4]—losing sediment and drowning in the extremely and increasingly high tides. You can easily travel to Venice and not see its salt marshes or think about the vital role they play in preserving the life of the city. These days, ongoing reclamation projects are fortified by cultural projects that bring attention to the marshes. Sophie Hunter's *Salt of the Earth* sprang from her expeditions into the Venetian marshes with environmental engineer Andrea D'Alpaos. During its creation, she and her creative team collaborated with, among other groups, The Tidal Garden, which cultivates glasswort and other halophytes that grow naturally in salinated marshland soil.[5]

Wanting at least to see the salt marshes, I reach out to salt-water activist Pietro Consolandi, part of the collective Barena Bianca (*barena* means salt marsh in Italian), which seeks to highlight ocean-based ecological issues through hybrid projects. "Head out by vaporetto into the northern lagoon," Consolandi urges me. "Go to the island of Torcello. Climb the eleventh-century, Romanesque bell tower." The tide is halfway between high and low when I do so, the day after the storm. Nevertheless, the flat expanses of mud and maroon-brown grasses winding through the water are enough of an encounter for the reality of the marshes to press themselves upon me.

DOI: 10.5282/rcc-springs-15128

View from bell tower on the island of Torcello, Venice. Photo by Catherine Bush. CC-BY NC 4.0.

. . .

Along with storm flooding, *aqua alta*, the tides that sometimes flood low-lying parts of the island city, are a regular phenomenon of Venetian life, most common in winter or spring, particularly in the Piazza San Marco, a place even more frequently flooded by tourists. On the day of the storm warnings, I set out from the small hotel, attempting to make my way on foot across town to the Palazzo Franchetti, where the off-site Portuguese pavilion, *Greenhouse*, is located. I have a few hours, it seems, before the rain begins. Yet my GPS insists on guiding me through the flooded Piazza San Marco where the water is at least ankle-deep, the *aqua alta* of 5 September unusual enough that photos of it make the international news, which I discover when friends and relatives message me to say they've seen them.

Along the waterfront of vaporetto stops and moored gondolas, tidal water slops and spreads over the stone lip of land. The Bangladeshi shopkeepers put away the small electric fans and sundresses of yesterday, replacing them with disposable plastic rain ponchos, raincoats, plastic boots to be pulled on over your footwear. They adapt, as we, the visitors, adapt, our temporary adaptations drowning us in a sea of plastic. People such as these stallkeepers will not identify as climate migrants, according to writer Amitav Ghosh,[6] even though flooding or other disruptions to the land, leading to economic upheavals, may be what has uprooted them and propelled them here, across the Mediterranean Sea.

DOI: 10.5282/rcc-springs-15128

Photo by Catherine Bush. CC-BY NC 4.0.

The tourists around me, swaddled in bright pink, blue, and yellow plastic, echo the colours of the anoraks and floating rubber ducks in Akomfrah's filmed images. At this moment, across northern Italy, torrential rains are flooding Milan, although I do not know this yet. When I arrive at last at the Palazzo Franchetti, the sky over the Ponte dell'Accademia is split in two: half blue, swirled with white tufts of cloud, half incoming, ominous rolls of grey.

. . .

Greenhouse, a collaboration between a researcher, a visual artist, and a choreographer (Mónica de Miranda, Sónia Vaz Borges, Vânia Gala), brings a profusion of greenery into an interior usually reserved for human activities. Tropical plants, growing in small islands of planters, soil binding together disparate species, occupy the wood-panelled rooms. While they upend our sense of how these rooms should be occupied, I long to feel more disoriented, more unhumaned in their presence, for there to be more wildness in the intervention than perhaps is possible when importing plants and small trees into the rooms of a palazzo.

DOI: 10.5282/rcc-springs-15128

Mónica de Miranda, Sónia Vaz Borges, and Vânia Gala, *Greenhouse*, Portugal Pavilion, Biennale Arte 2024. © Matteo Losurdo. All rights reserved.

The installation combines the sculptural with a site for performance and educational events. There's a session in progress when I arrive, a conversation with noted Indian scholar, activist, and seed preservationist Vandana Shiva, who advocates that seed and soil care are essential for our planetary survival. A young man raises a hand to ask a question, his English laced with a French accent: How can his generation find hope amidst the ongoing extinctions, the destructions? In response Shiva speaks of "climate havoc," but tells her youthful interlocutor that the earth can be regenerated, and we can be regenerated, too. We can grow hope, she says. I sense—not impatience from her, but the recognition that hope can't simply be given as one might pass a plate across a table. She can offer the young man a generative metaphor and mode of action, but he and others must grow their own hope, which will take care and labour. It is a practice that requires attention: *their* attention, *their* labour.

When I step outside again, fat drops of rain are falling.

. . .

I'm waiting with others outside the old salt factory on the island of Giudecca, on the southern outskirts of Venice, to enter the second of three performances of *Salt of the Earth*.

What can art do in response to the threatened world in which we find ourselves?, I wonder. Maybe the better question is: What can art be? What I seek is aliveness—sensed in the artist's act of creation, aroused reciprocally in me, so that I'm brought, body and mind, into a suggestive, sustaining exchange of connection-making. I'm weary of the dystopic. And I don't want to be told how to respond. Much of the art I've seen in Venice has been responsive to our contemporary existential crises: climate and biospheric breakdown, the punishing legacies of colonialism. Much

DOI: 10.5282/rcc-springs-15128

touts its collaborative, even ecological bona fides, seeking participatory engagement from audiences and drawing on relationships that extend beyond the art world.

Salt of the Earth, trailer, performance and installation created by Sophie Hunter, premiering in Venice in September 2024, https://saltoftheearth.earth/trailer. © *Salt of the Earth* team. All rights reserved.

At the salt factory, we are ushered into a black-curtained anteroom in which three plinths hold bronzed bowls, each containing earth, salt, or water. Once gathered, we proceed through a curtained corridor into a much larger chamber filled with an undulating terrain of salt—tons of it. Small hills of salt press against the towering brick walls. Female figures in white roll across the mounds or move among us as we assemble, still standing. The oldest of them, white-haired, begins to speak. Novelist Megan Hunter, who has scripted the work's monologue, gives voice to Lot's wife, the nameless Biblical figure who, when she defies Lot and God by looking back at her homeland, the burning cities of Sodom and Gomorrah, is turned into a pillar of salt. Here, slipping through time and space, Lot's wife becomes a maternal devotee and denizen of the salt marsh; it's from her beloved marsh that she cannot bear to look away.

As *Salt of the Earth* ends, the walls of the old salt factory light up with filmed images of a salt marsh, as if we are spirited outdoors. A chorus of singing voices rises from amidst the audience, an embedded choir. The moment is both intimate and sacral, the hall full of beauty. Nevertheless, I yearn for the language of the piece to offer more gritty, sensory details of squelching mud, grass flecked with wind, the biting smell of salt, and most of all a sense of the ongoing tidal shifts, in and out, in and out, that shape and transform the vanishing marshes. I want to be transported imaginatively so that I'm not just told to pay attention to what is being lost but transformed, inhabiting, and inhabited by marshland.

. . .

Late in the afternoon, on the day of catastrophic warnings, the rain sweeps across the lagoon in a great sheet, obliterating the horizon. As the downpour begins, I make it back to the hotel where the young woman at the front desk keeps repeating to guests, "Don't go outside." One woman, insisting that she has to meet a friend for dinner, sets off through the flood. Others return soaked to the skin. A young woman, who arrives with her rolling suitcase, tells of the horrors of travelling from

DOI: 10.5282/rcc-springs-15128

flooded Milan. From the high-ceilinged salon of a lobby, I observe all this, as rain, lashed by wind, drowns the small piazza outside.

> *What I discover is this: I can't write about the art without writing about the weather. Everything around me must be woven together into a matrix that makes up the world we breathe in.*

Is it an anticlimax to note that the rain wasn't as catastrophic as predicted? There will be greater storms, greater, perhaps, than we can yet imagine. Storm Boris, which will bring an unprecedented deluge, inundating parts of central Europe with a month's worth of rain in 24 hours, is only a week away.[7]

What I discover is this: I can't write about the art without writing about the weather. Everything around me must be woven together into a matrix that makes up the world we breathe in. This is my ecological lesson from Venice, from Carson. How do we collectively convince ourselves to be alive at every instant to these cascades of connection and consequence? How do we turn the reciprocal acts of making and recognizing relationship into the heart of our art of attention? How do we narrate these connections? Embody them? In the hotel lobby, I listen. Is it raining where you are? What, or who, asks you to listen to them right now? Somewhere rain is falling. All this is happening everywhere.

Notes

[1] John Vaillant, *Fire Weather: The Making of a Beast* (Knopf Canada, 2023), 179.

[2] Su Dongpo, "Seeking Lodging on a Rainy Night at Pure Life Monastery," in *Listening All Night to the Rain: Selected Poems of Su Dongpo (Su Shi)*, trans. Jiann I. Lin and David Young (Pinyon Publishing, 2020), 201–2.

[3] Isabella Hammad, *Recognizing the Stranger: On Palestine and Narrative* (Black Cat, 2024), 53.

[4] Andrea D'Alpaos, quoted in Catherine Bennett, "Why Salt Marshes Could Help Save Venice," *MIT Technology Review*, 22 August 2023, https://www.technologyreview.com/2023/08/22/1077661/venice-salt-marshes/.

[5] "The Tidal Garden Project," The Tidal Garden, accessed 9 April 2025, https://thetidalgarden.earth/The-Project-1.

[6] Stephanie Bernhard and Amitav Ghosh, "Amitav Ghosh on Literature and Climate Coincidence," *Orion*, 27 November 2019, https://orionmagazine.org/article/ghosh/.

[7] Martina Igini, "Storm Boris: Record-Breaking Rainfall Floods Central Europe After Continent's Hottest Summer on Record," *Earth.Org*, 16 September 2024, https://earth.org/record-breaking-storm-boris-floods-central-europe-after-continents-hottest-summer-on-record/.

Cite this article

Bush, Catherine. "Rain, Carson, Art, Salt: A Venetian Matrix." *Springs: The Rachel Carson Center Review*, no. 7 (May 2025). https://doi.org/10.5282/rcc-springs-15128.

THE UNBEARABLE WEIGHT OF DISPLACED WEATHER

Mike Hulme

Springs

The Rachel Carson Center Review

7 • 2025

Mike Hulme

"Taking the Weather with You"

In 1992, the Australian-New Zealand rock band Crowded House released their successful single "Weather with You." The song reached the Top 50 charts in 10 countries, including in the United Kingdom where it got to number seven. The refrain goes,

> Everywhere you go, you always take the weather
>
> Everywhere you go, you always take the weather[1]

Fig. 1. A train is parked at the central station after heavy snowfall in Munich, Germany, Saturday, 2 December 2023. © picture alliance / ASSOCIATED PRESS / Matthias Schrader. All rights reserved.

These words, written by lead singer Neil Finn, are an apt description of the ways in which many people of the twenty-first century now experience the weather. Through apps, webcams, and other forms of digital mediation, the weather is always with us. Yet, more significantly, it is not just "our" weather that we carry with us; we now have continual access to other people's weather too. The experience of weather, especially extreme weather, is becoming increasingly cosmopolitan. The weather we encounter in our daily lives is losing the immediacy of its place-based character. As we observe weather beyond borders, we become voyeurs of other people's weather misfortunes, and I believe the psychological effects of this phenomenon are profound.

DOI: 10.5282/rcc-springs-15145

An Abundance of Weather

Decades of scientific research have made clear that human presence on the planet is changing the world's climates. Making them warmer on average, yes. But climate and weather are not the same thing, so as climates warm, the thermodynamics of regional weather and ocean systems are also changing. This means that some of the characteristics of local weather—heat, storm, rain, ice—are changing in frequency or severity. Yet it is not only the *physical* weather of the atmosphere that is in flux. The way that many people now *experience* the weather is also changing.

This change is for several reasons.[2] One is because of increased physical mobility. The world has become smaller as air travel has become more widely accessible. Many of us now experience multiple climates within a single year. We are no longer bound to the weather of one locality or several adjacent localities. For example, the English public may encounter Mediterranean climates on summer holiday, the climates of the Gulf States whilst supporting the England football team, or the climates of eastern Europe during a weekend stag party. This is not a wholly new phenomenon, of course, although now much less the preserve of the affluent or the migrant.

Fig. 2. (Left) Tornado in southwest Texas. © Wirestock on iStock. All rights reserved. (Centre) Summer thunderstorm near Rastatt Plittersdorf, Germany. © Markus Semmler on iStock. All rights reserved. (Right) Thomas Fire, December 2017, seen from a beach in Santa Barbara. © Carsten Schertzer on iStock. All rights reserved.

And our experience of weather has recently become more cosmopolitan through other ubiquitous technologies. It is now possible to experience the many varieties and extremes of weather on offer around the world vicariously and instantly through webcams, phones, and other digital media. We are increasingly obsessed with weather records, as evidenced for example in *The Financial Times*' Climate Tracker, an online platform that "keeps watch on extreme events around the world," tracking temperature rises and other extreme and record-breaking weather events.[3] Through our screens we encounter violent weather, we follow storm chasers and imagine for ourselves what it may be like

DOI: 10.5282/rcc-springs-15145

to be buffeted by hurricane-force winds. And through webcams, we can track the changing weather conditions at the extremities of the world—at the poles, on mountain tops, in tropical islands—or in those distant familiar places—where our relatives live, where we holidayed last year, where our neighbour has emigrated to. The threatening weather hazards of the world are all available for us to view: drought in Somalia, torrential rain in Spain, extreme heat in India, violent storms in the Philippines. This is a new experience for us. As we see all types of weather extremes through digital media, so too do we "feel"—we bear the weight of—all of the world's wild weather in synchronised time.

Timothy Morton deduces from such evidence that phenomena such as global warming should be thought of as "hyperobjects"—objects that are "massively distributed in time and space relative to humans." Global warming exists in no specific location, and it transcends our familiar temporal horizons. Morton asserts optimistically that, as we glimpse such hyperobjects through an abundance of digital and visual data, they "compel us to think ecologically."[4] Of course it is possible, conversely, that "thinking ecologically" is what attunes us to recognise hyperobjects rather than them imposing themselves on us; in other words, believing is seeing rather than seeing is believing. Yet however we might explain our changing sense of a climate in flux, what is not in doubt is that the world's weather in all its most extreme manifestations is now accessible to (nearly) all of us, all the time. As Crowded House sang in 1992, we do indeed "take the weather with us."

The Displacement of Weather

What does this weather overload do to us? In some of my earlier work I observed this excess of weather and associated it with Ulrich Beck's idea of "banal cosmopolitanism."[5] For Beck, this term captures the mundane discourses that enact globalisation in the everyday, the flattening of diversity and the eradication of difference in a borderless world. As he describes in relation to cuisine, "The result . . . is a banal cosmopolitan culinary eclecticism." For Beck, "world society has taken possession of our kitchens and [the world's food] is boiling and sizzling in our pans."[6] I had concluded back then, more than a decade ago, and in line with Morton's optimistic prognosis, that the move towards borderless weather might enhance social and ecological solidarity. That it might develop into a more conscious and responsible sense of the global.[7] But now I'm not so sure.

DOI: 10.5282/rcc-springs-15145

Fig. 3. Damaged road and buildings in Bahrain, Pakistan, October 2022, in the aftermath of severe flooding. © Anita Schneider on iStock. All rights reserved.

Rather than enhancing solidarity or transferring our sense of place attachment from the local to the global, I fear this surfeit of weather may be doing something quite different. In her 2004 bestseller book *Watching the English*, anthropologist Kate Fox observes the function of weather talk in English culture.[8] For Fox, such talk is a form of social grooming, a way of recognising, greeting, and identifying with "the other"—the near neighbour or cohabitant—through a shared quotidian experience of the weather in place. This primacy of the shared immediacy and intimacy of our own emplaced weather is lost as we experience the weather of ever more distant and numerous places. Our weather talk is of the drought in Somalia or the violent storm in the Philippines and less of the daily shared weather we encounter in our own place. We transpose someone else's extreme weather into our own. This virtual displacing of weather undermines what Fox sees as the ritualistic function of weather talk and dilutes the one circumstance of daily life we share with nearby others. Our virtual worlds overwhelm us with other people's weather, and so we find it harder to cultivate an intuitive shared sense of what the weather in "our locality" should be.

The Unbearable Weight of the World's Weather[9]

Crowded House member Neil Finn wrote another song about the weather, titled "Four Seasons in One Day," also released in 1992. The song was written in his flat in St. Kilda East, a suburb of Melbourne, and he explained in a later interview:

> "Four Seasons in One Day" was a common Melbourne phrase, coz you go from a blazing hot, sunny day to raining and then it'd be hailing that night. [My brother Tim] and I were riding in emotional roller coasters

DOI: 10.5282/rcc-springs-15145

> a lot of the time and there was a lot of angst around that period. So it was a good description of the many moods of us, collectively and individually.[10]

The Finn brothers sought to express their moods by describing the changeable weather of Melbourne. For many of us today, rather than the weather reflecting our moods, the increasing weight of weather we bear becomes their cause. We find ourselves psychologically burdened by bearing the weight, moment by moment, of *all* the world's seasons, not just Melbourne's.

Fig. 4. © Met Office. All rights reserved.

Fig. 5. Poster from a public EU climate-change campaign from 2006 to encourage people to adapt their behaviours in order to "control climate change." "You Control Climate Change," European Commission, 2006, https://op.europa.eu/en/publication-detail/-/publication/2012ad2a-0fa7-11e8-966a-01aa75ed71a1. © 2007 European Union. All rights reserved.

With weather displaced, what we now experience vicariously has become imaginatively "heavy" to us. It becomes unbearable, it makes us anxious. Let me explain why. The processes I describe above mean that we increasingly experience weather as virtual, vicarious, and sensational, rather than as real, embodied, and sensual. We become disoriented through this surfeit of unfamiliar weather. Other people's weather appears threatening to us since it is detached from the well-founded rhythms and anchors of our everyday routines. We increasingly sense that weather is "out of place," and in a virtual sense it is. We begin to question whether the idea of "regular" or "normal" weather—which is the very essence of the idea of a natural climate—any longer has meaning. As historian of science Lorraine Daston explains in her essay exploring the boundaries of nature, "without well-founded expectations, the world of causes and promises falls apart."[11] The experience of a world without the ordering and stabilising power of the idea of "a climate"—an atmosphere without reliable causes and promises—becomes unbearable.

This virtual displacement of weather amplifies our sense of how much and how rapidly the world's climates may be changing. It provokes neologisms such as "weather weirding" and "weather scrambling." The stabilising psychological power of our idea of "a climate"—that the weather is contained within certain familiar boundaries, the idea that puts weather "in its place" so to speak—is weakened. We all feel less secure and more anxious.[12]

This displacing of weather is also unsettling because it challenges another instinct of our humanity, intensified by modernity, which is to seek control (see figure 5). We desire to control, or at least to manage, the inconvenient discomforts of our immediate

DOI: 10.5282/rcc-springs-15145

experiences of weather by implementing technologies of climate control in our cars, homes, offices, cafes, patios. But our vicarious encounters with the weight of the world's weather undermine this modernist project of control. If I live in Munich, I can do nothing to accommodate myself to India's heat; if I live in Nairobi, I can do nothing to escape Spain's floods. This begins to explain the growing attraction of inventing new, last-resort technologies of climate control, whether marine cloud brightening or solar geoengineering. It seems to us that only megalomaniac schemes such as these could possibly operate at the scale commensurate with the unbearable weight of our weather anxieties.

Notes

[1] "Weather with You," Neil Finn's official website, accessed 7 March 2025, https://www.neilfinn.com/weather-with-you.

[2] Mike Hulme, "Cosmopolitan Climates: Hybridity, Foresight and Meaning," *Theory, Culture & Society* 27, no. 2–3 (2010): 267–76, https://doi.org/10.1177/0263276409358730.

[3] "Climate Tracker: Keeping Watch on Extreme Events Around the World," *Financial Times*, 13 December 2024, https://on.ft.com/3ZsMatC.

[4] Timothy Morton, *Hyperobjects: Philosophy and Ecology After the End of the World* (University of Minnesota Press, 2013), 1, 48.

[5] Mike Hulme, "Interview with Mike Hulme on Climate Change and Consumption," interview by Souvik Mukherjee and Josi Paz, *Theory, Culture & Society*, 10 February 2011, https://www.theoryculturesociety.org/blog/interview-with-mike-hulme-on-climate-change-and-consumption; also see Hulme, "Cosmopolitan Climates."

[6] Ulrich Beck, "The Cosmopolitan Society and Its Enemies," *Theory, Culture & Society* 19, no. 1–2 (2002): 17–44, 28.

[7] This is along the lines explored by Ursula Heise in her 2008 book *Sense of Place and Sense of Planet*: Ursula K. Heise, *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* (Oxford University Press, 2008), https://doi.org/10.1093/acprof:oso/9780195335637.001.0001.

[8] Kate Fox, *Watching the English: The Hidden Rules of English Behaviour* (Hodder, 2004).

[9] I derive the idea of "unbearable weight" from Milan Kundera's 1984 novel *The Unbearable Lightness of Being*. Kundera describes the life of his central character in the book as "a lightness of being," a life so lacking in commitments or moral responsibility to anyone or anything else that it becomes "unbearable" for the woman concerned. From this, I develop the idea that the detachment of our experience of weather from the situatedness of everyday life imposes not a lightness on us, but a "weight," one that becomes unbearable.

[10] Quoted in John O'Donnell, Toby Creswell, and Craig Mathieson, *The 100 Best Australian Albums* (Hardie Grant Publishing, 2011).

[11] Lorraine Daston, "The World in Order," in *Without Nature? A New Condition for Theology*, ed. David Albertson and Cabell King (Fordham University Press, 2010), 15–34, 32, https://doi.org/10.1515/9780823293568-003.

[12] See Mike Hulme, "Climate and Its Changes: A Cultural Appraisal," *GEO: Geography and Environment* 2, no. 1 (2015): 1–11, https://doi.org/10.1002/geo2.5.

Cite this article

Hulme, Mike. "The Unbearable Weight of Displaced Weather." *Springs: The Rachel Carson Center Review*, no. 7 (May 2025). https://doi.org/10.5282/rcc-springs-15145.

THE NUTMEG'S CURSE

Amitav Ghosh

Springs
The Rachel Carson Center Review

7 • 2025

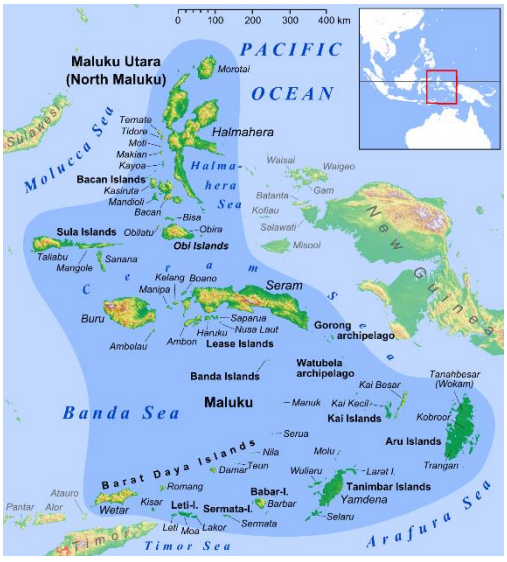
Amitav Ghosh

Red mace surrounds the nutmeg seed. © 2016 Bob Sacha on Getty Images. All rights reserved.

The story of *The Nutmeg's Curse* (2021) begins almost exactly 400 years ago, in a very faraway place—so far away that very few of you are likely to have heard of it. That place is the Banda Archipelago, a tiny cluster of islands in the far southeastern quadrant of the Indian Ocean. The largest of these islands is only two-and-a-half miles in length and half a mile in width—so minuscule are the Banda Islands that on most maps they are marked only as a sprinkling of dots.

The Banda Islands are the offspring of the Ring of Fire, which runs all the way around the rim of the Pacific Ocean. A still-active volcano, Gunung Api ("fire mountain"), towers above the Bandas, its peak perpetually wreathed in plumes of swirling cloud and upwelling steam.

Gunung Api is one of a great number of volcanoes in this stretch of ocean; the surrounding waters are dotted with beautifully formed, conical mountains that surge majestically out of the waves, some of them rising to heights of over a thousand meters or more. The very name of the region, Maluku (which gave birth to the English toponym Moluccas) is said to derive from *Molòko*, a word that means "mountain" or "mountain island."[1]



Location of the Banda Islands in the center of the Maluku Islands. Wikimedia Commons. CC BY-SA 3.0.

DOI: 10.5282/rcc-springs-14636

The mountain-islands of Maluku often erupt with devastating force, yet there is also something magical about these convulsions, something akin to the pain of childbirth. For the eruptions of Maluku's volcanoes bring to the surface alchemical mixtures of materials, which interact with the winds and weather of the region in such a way as to create forests that teem with wonders and rarities.

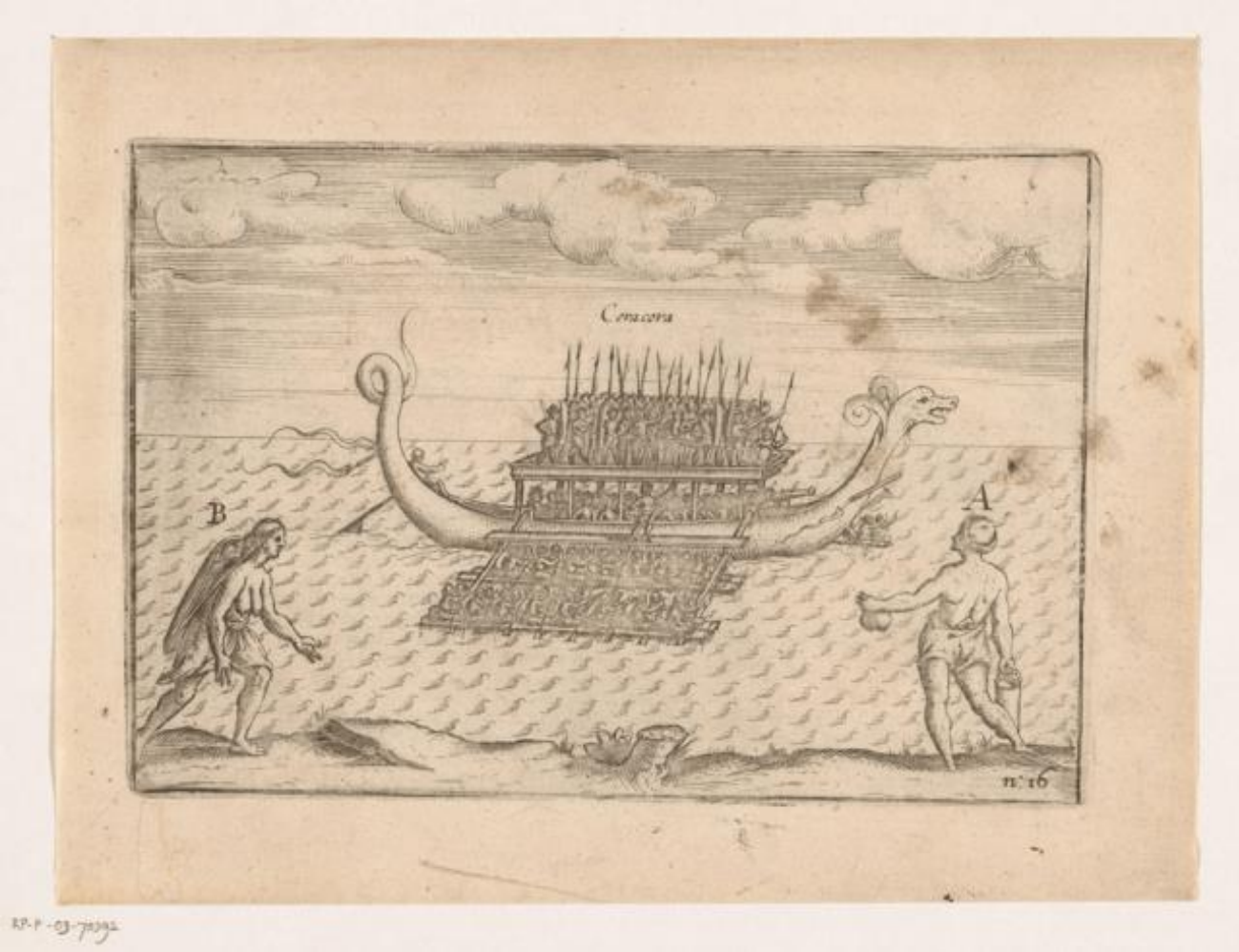
View of Gunung Api. 1870–1900, unknown photographer. Courtesy of Tropenmuseum archives. Public domain.

In the case of the Banda Islands, the gift of Gunung Api was a botanical species that has flourished on this tiny archipelago like nowhere else: the tree that produces both nutmeg and mace. Before the eighteenth century, every nutmeg and every shred of mace came from the Banda Islands. From textual sources and archaeological materials it can be established that nutmegs and mace have been in circulation around Asia, Africa, and Europe since antiquity—so despite their remoteness, the Banda Islands have been connected to the world through trade for thousands of years.

Over the centuries these spices became extremely valuable; in the fifteenth and sixteenth centuries a handful of nutmegs could buy a house or a ship in Amsterdam or Lisbon. On what was their value founded? The idea that they were used to preserve food is a myth: The commonest of household ingredients, salt, is actually a far better preservative. Why then did these culinary condiments come to be so greatly valued? The answer is simple: Because spices connoted luxury; because only the affluent could afford them.

DOI: 10.5282/rcc-springs-14636

In the late Middle Ages nutmegs reached Europe by changing hands many times, at many points of transit. The latter stages of their journey took them through Egypt, or the Levant, to Venice, which ran a tightly controlled monopoly on the European spice trade in the centuries before the voyages of Christopher Columbus and Vasco de Gama.[2] Columbus himself was from Genoa, where Venice's monopoly on the eastern trade had long been bitterly resented; it was in order to break the Serene Republic's hold on that trade the navigators set off on the journeys that led to the Americas and the Indian Ocean. Among their goals, one of the most important was to find the islands that were home to the nutmeg. The stakes were immense, for the navigators and for the monarchs who financed them: the spice race, it has been said, was the space race of its time.



Anonymous artist, *Coracora van de Banda-eilanden, 1599* [Coracora from the Banda Islands, 1599], 1600–1601, print, 14.5 x 21.5 cm. Rijksmuseum, Amsterdam, object no. RP-P-OB-75.392, https://id.rijksmuseum.nl/200488769. A coracora (traditional canoe from the Maluku Islands) from the Banda Islands, 1599. Moluccan warship with rowers and inhabitants of Banda in the foreground. Public domain.

The Portuguese were the first Europeans to reach the Banda Islands, in 1511, but others followed hot on their heels, first the Spanish then the Dutch and the English. What the Europeans had in common was that they all wanted to impose a monopoly on the trade in nutmegs and mace. The Dutch were the most relentless of all, sending fleets to the islands again and again, with the intention of forcing treaties on their inhabitants. The islanders were few in number—there were only about fifteen thousand of them altogether—but they resisted so stubbornly that in 1621 the governor general of the Dutch East Indies, Jan Pieterszoon Coen—who is remembered today for coining the aphorism, "No war without trade, no trade without war"—decided that the Banda problem needed a final

DOI: 10.5282/rcc-springs-14636

solution: The islands needed to be emptied of their inhabitants. Once the Bandanese were gone, settlers and slaves would be brought in to create a new plantation economy in the archipelago. So in February 1621 Coen led a Dutch fleet to the Banda Islands and issued orders to the inhabitants to abandon their villages and leave their homes. Naturally they did not comply, so in April 1621 Coen implemented his final solution: On his orders, in a period of a few weeks, the Dutch effectively eliminated the entire population of the islands—several thousand were killed, several thousand died of starvation or disease, and the rest were enslaved and deported.

Unknown artist, *Massacre of Banda*, Rumah Budaya museum, Banda Neira. Japanese mercenaries hired by Dutch traders in the seventeenth century killed the most influential Bandanese leaders. Public domain.

In short, within a few months the Bandanese, once a proud and enterprising trading community, had ceased to exist as a people. Their world had been brought to an end in a span of less than ten weeks. The Bandanese were thus among the earliest victims of a scourge that now threatens to engulf the entire planet—the "resource curse."

How should the story of the nutmeg be told and does it even matter? After all, what happened on the Banda Islands was merely one instance of a history of colonization that was then unfolding on a vastly larger scale on the other side of the earth, in the Americas. It might be said that the page has been turned on that chapter of history; that the twenty-first century bears no resemblance to that long-ago time when plants and botanical matter could decide the fate of human beings; that humanity has freed itself from the earth and the soil and is now in an era when human-made goods take precedence over the products of the earth. What possible bearing could this centuries-old story have on our times?

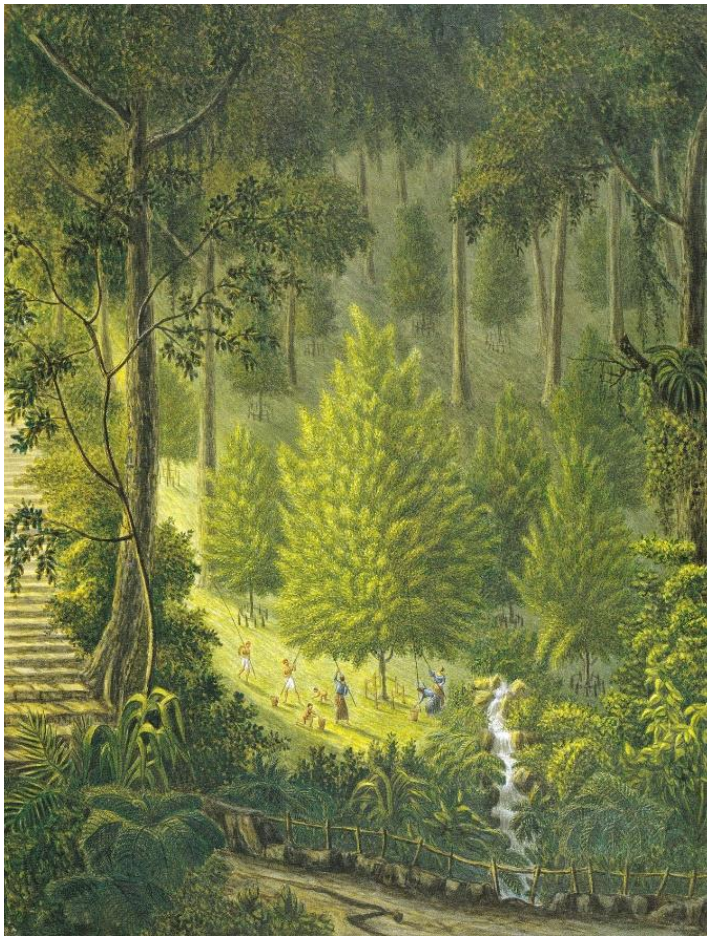
DOI: 10.5282/rcc-springs-14636

The trouble is that none of the above is true.

Humanity is today even *more* dependent on botanical matter than it was three hundred, or five hundred, or even five millennia ago, and not just for food. Most people in the world today are completely dependent, in every aspect of their lives, on energy that comes from long-buried carbon—and what are coal, oil, and natural gas except fossilized forms of botanical matter?

The sales of this fossilized botanical matter amount to over ten trillion dollars annually, and the trading and transporting of fossil fuels generates another three trillion dollars. No human-made commodity comes even close to commanding so large a share of global trade and shipping. If anything, it was in the premodern era that manufactured goods, like textiles and porcelain, accounted for a greater share of global trade.

The truth is that human beings have never been more dependent on the earth's provisions—botanical matter, most of all—than they are today. The idea that modern Man has freed himself from the planet is not just absurd; it is a dangerous delusion.



Quirijn Maurits Rudolph Ver Huell, *Calha Boca. op het Eiland Lonthoir. en Noten-muscaat Oogst. Banda.* [Nutmeg harvest on Lontor, Banda Islands], c. 1830, watercolor 54.3 x 38.1 cm, Maritiem Museum, object no. P2161-31, https://mmr.adlibhosting.com/ais6V50/Details/collect/98927. Public domain.

Once the reality of humanity's ever-increasing servitude to the earth is acknowledged, the story of the Bandanese no longer seems so distant from our present predicament. To the contrary, the continuities between the two are so pressing and powerful that it could even be said that the fate of the Banda Islands might be read as a template for the present, if only we knew how to tell that story.

Notes

[1] Frans S. Watuseke, "The Name Moluccas, Maluku," *Asian Profile* 5, no. 3 (June 1977).

[2] Michael Krondl, *The Taste of Conquest: The Rise and Fall of the Three Great Cities of Spice* (Ballantine Books, 2008), 907.

Cite this article

Ghosh, Amitav. "The Nutmeg's Curse." *Springs: The Rachel Carson Center Review*, no. 7 (May 2025). https://doi.org/10.5282/rcc-springs-14636.

WALKING A SICILIAN RIVER

Paolo Gruppuso and Erika Garozzo

Springs
The Rachel Carson Center Review

7 • 2025

Paolo Gruppuso and Erika Garozzo

On the sandy shoreline of eastern Sicily, the Simeto River meets the Ionian Sea against the dramatic backdrop of the volcano Etna. Groves of reeds surround small seawater coves nestled among the dunes. Seagulls fish and ducks hide in reedbeds along the riverbank. Walking on the beach accompanied by the sound of the waves makes us feel part of that windy and solitary landscape. We are here as researchers on the EU-funded project "BIOTraCes: Biodiversity and Transformative Change for Plural and Nature-Positive Societies." Our branch of the project, based at the University of Catania, aims to work with local communities to facilitate social change that may enhance socioecological relationships with the Simeto River.[1]

Not a trace of the river in sight. It flows to the left of the path, between deep artificial banks. Nature reserve Oasi del Simeto. Photo by Paolo Gruppuso. CC-BY NC 4.0.

Our perspectives on this landscape differ markedly. Erika, a geographer, was born and bred in Catania, some 15 kilometers north of the river's mouth. As she walks, she feels both in and out of place, with a persistent question on her mind: Shouldn't this landscape be familiar? She gradually realizes that, until she started working on this research project, she had only seen this place through car windows while crossing the highway bridge. Paolo, a social anthropologist, has only lived in Catania for a few months and before that, had never been to Sicily. This is the first physical encounter with the Simeto River for both of us.

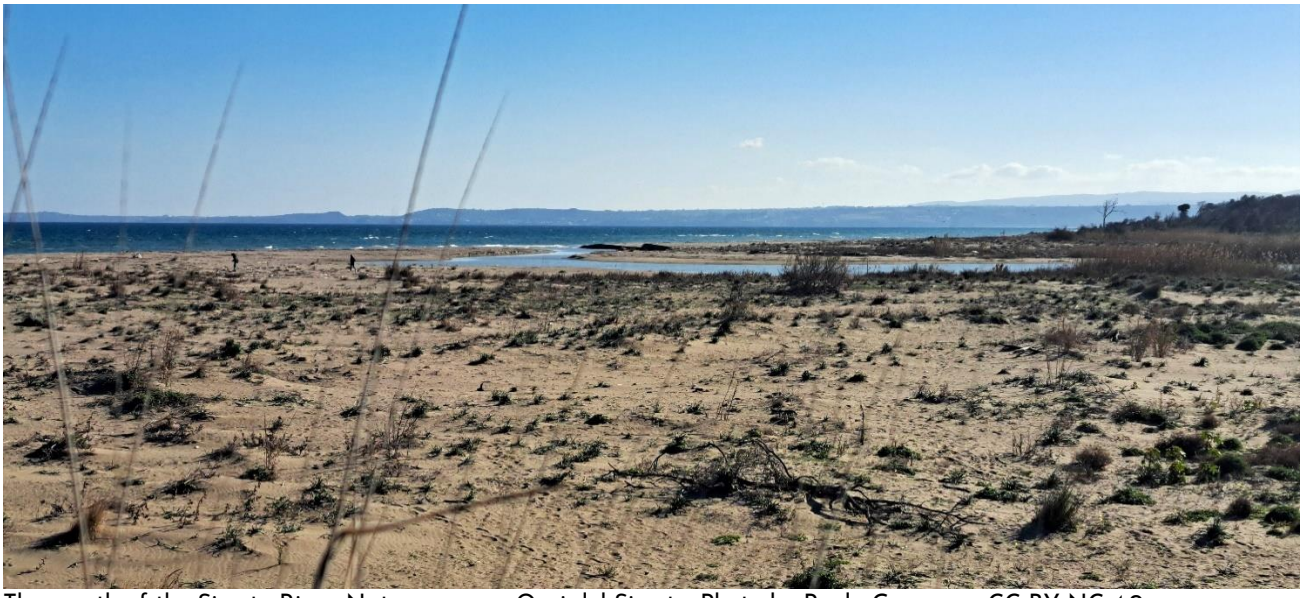
We are walking within the Oasi del Simeto, a nature reserve established in 1984 to preserve the river mouth as a stopover site for migrating birds and a nesting area. The reserve is the lowest part of the Simeto's hydrographic basin, the largest in Sicily, which flows from the Nebrodi Mountains to the Ionian Sea, south of Catania. Before the process of embankment construction and channelization began in the twentieth century, the Simeto River found its way through the mountains, brushing the west side of Mount Etna and entering the Plain of Catania.[2] There, it meandered between low banks, flooding the surrounding land and providing rich hunting and fishing grounds for local people.[3]

DOI: 10.5282/rcc-springs-15268

Mount Etna, as seen from the mouth of the Simeto River. Nature reserve Oasi del Simeto. Photo by Paolo Gruppuso. CC-BY NC 4.0.

As we approach the calm water of the river on the beach, the sight of fishing lines tied to sticks in the sand makes us realize that we are not as alone as we thought. Fishing is now prohibited in the reserve, and yet someone has cast lines in these waters. This scene makes us recall the conversations we had while conducting fieldwork in Paternò, a town some 30 kilometers upriver, where elders still remember the muddy taste of carp from the Simeto. Archival material tells us that the Simeto River played a crucial role in the local economy until the 1950s, especially in relation to fishing—and that it was also central to social life, shaping community relationships along its course. Fishers would strategically slow down the water flow near the river's mouth, using fixed fishing structures that obstructed water movement to ensure a more fruitful catch. In the early twentieth century, these practices generated tensions with upstream fishing communities, which regularly demanded the removal of these structures to allow fish—particularly eels (*Anguilla anguilla*) and river herring (*Alosa fallax*)—to swim upstream, lay eggs, and sustain local fishing economies.[4] The Simeto thus was not only a source of sustenance but also of rivalry between communities—a fitting manifestation of the etymological root of the word "rival," derived from the Latin *rivalis* meaning "one who uses the same stream." These documents, together with our conversations in the field, portray the Simeto River as a dynamic ecosystem and a living presence in the landscape, one that could both sustain and divide the people who depended on its waters.

DOI: 10.5282/rcc-springs-15268



The mouth of the Simeto River. Nature reserve Oasi del Simeto. Photo by Paolo Gruppuso. CC-BY NC 4.0.

While walking in the burning Sicilian sun, we realize that the reality of the present differs drastically from what we found in the archives. Despite being the largest river in Sicily, the Simeto now looks like a stream. It flows into the sea with a mouth only a few meters wide—which is doubly surprising since it is March, and at the end of winter, rivers in Sicily would usually have a larger mouth. Likewise, the plain, once the largest marshland in Sicily, is now ravaged by warehouses, factories, coastal resorts, and the Catania–Fontanarossa Airport, which besiege the nature reserve. Indeed, rather than being in an oasis, as the name of the reserve suggests, we feel like we are walking through a wasteland. The Simeto, in its current state, is the materialization of what James Scott would term "high modernism": the belief that engineering the world, by making it simpler and more "legible," would improve the human condition.[5] Such a process of simplification has turned the river into a water conduit that, at times, completely disappears under concrete and steel, deprived of its natural flow and swallowed by water infrastructure designed to feed hydropower plants and agroindustry.

DOI: 10.5282/rcc-springs-15268

Traversa di Santa Domenica, Contrada Manganelli, Adrano, one of the main water-infrastructure features in the Simeto River. It was built in the 1960s to divert water from the river to the Contrasto hydropower plant, owned by ENEL Green Power. Since then, the environmental flow of the Simeto River has been compromised. Photo by Paolo Gruppuso. CC-BY NC 4.0.

This modernist approach has produced profound social, ecological, and economic disruptions since the nineteenth century. Carlo Afan de Rivera, the general director of the Corps of Bridges and Roads, Waters, Forests and Hunting of the Kingdom of the Two Sicilies, epitomized this perspective. This institution, critical for the early industrialization of southern Italy, was established in 1826, setting up standards and practices for infrastructure development and natural-resource management in the Kingdom of the two Sicilies. By describing these lands as a place "from which modern civilization could extract extraordinary wealth," Afan de Rivera foreshadowed the land-reclamation projects of the Fascist era a century later, when the regime launched a "war against water" that aimed to turn marshlands, perceived as disorderly wastelands, into productive fields for agriculture.[6] Though these projects were implemented with limited success in Sicily, draining only part of the coastal marshlands on the island, they triggered irreversible transformations that contributed to the ecological degradation of the landscape we are walking through today.[7]

Like many rivers in Italy, the Simeto has undergone significant hydraulic modifications since the 1950s. These interventions were funded by the Cassa per il Mezzogiorno, a state agency created in 1950 to promote development in southern Italian regions through infrastructure projects. Along the lower and middle course of the Simeto, the agency constructed diversion wokrs and artificial embankments designed for hydropower production and to support the expansion and modernization of the orange-growing industry in the Plain of Catania.[8] This industry, along with hydropower production—also highly dependent on water—has profoundly transformed the Simeto River and the surrounding landscape.

DOI: 10.5282/rcc-springs-15268

Unknown photographer, water-arrangement works on the Simeto River, 1963, gelatin silver print. Courtesy of historical archive Touring Club Italiano. Wikimedia Commons. CC BY-SA 4.0.

We observed the outcome of these transformations while following a path that, from the river mouth, unfolds upstream, crossing the Plain of Catania for 13 kilometers. Despite our different backgrounds, we both approach the river as an unfamiliar landscape, from which we don't know what to expect. For us, walking serves as both a research methodology and a form of environmental engagement. It allows us to become familiar with this landscape and to gain unexpected insights into the social and ecological lives of the river while bringing its recent history of environmental degradation to the surface.

A century of modernist water infrastructuring turned the Simeto into a ghost river, a lingering shadow of its former self. Eels and birds, after traveling thousands of miles across the sea, nowadays arrive at the Simeto only to find a hostile environment of high artificial banks, dams, and diversion weirs. Across the communities that once thrived along its banks, a shared sentiment prevails: The river, once the lifeblood of the area, is now widely perceived as a sewer, entirely marginalized from social life.

Walking along the riverbanks we experienced this marginality. It is a disorienting walk; a form of wayfaring that allows us to explore, reflect on, and engage with environmental change, while feeling the hostility of a landscape consecrated to waste and shaped by new "green" energy-production chains.

DOI: 10.5282/rcc-springs-15268

Solar panels along the path. Nature reserve Oasi del Simeto. Photo by Paolo Gruppuso. CC-BY NC 4.0.

From the beach, as we walk upstream, we begin to grasp the dimensions of the artificial embankments, as the river vanishes behind a high curtain of castor oil plants (*Ricinus communis*), Mediterranean shrubs, and reeds. A few hundred meters from the river mouth we encounter a faded sign reading "Welcome to the Simeto Oasis." Above us, dozens of cars speed by on the Primosole Bridge. Not a trace of the river is in sight: Our path seems to run in the opposite direction, through what seems to be an empty, postindustrial meadow. A sense of solitude creeps in, while the forces of capital, far from being dematerialized, emerge and shape this nearly desolated terrain. To the right, a fence guarded by security cameras surrounds one of the many solar farms that are now replacing agricultural areas. Solar panels reflect the scorching sun, making this dusty landscape even more alienating.

DOI: 10.5282/rcc-springs-15268

Tarp-covered landfill of Grotte San Giorgio-Bonvicino seen from the path along the Simeto River. Nature reserve Oasi del Simeto. Photo by Paolo Gruppuso. CC-BY NC 4.0.

Alongside hydropower and "green" energy projects, waste infrastructure marks the local landscape. On the left side of the plain, the largest private landfill in Sicily looms over the river from afar, blending into the surrounding hills. As the sunrays hit the surface of the tarp cover, it sparkles like silver. During most of our silent walk those silvery hills made of garbage were looking at us. It is the landfill of Grotte San Giorgio-Bonvicino, established in 2009, which is constantly drawing closer to the perimeter of the Oasi del Simeto—by a few hundred meters each year. Four other large waste-disposal plants have been established since the landfill has become active. A project to build a waste incinerator right outside the reserve is advancing while we write this piece. It is a wasted landscape, sacrificed to the interests of industrial and extractive development, where even orange trees appear as ghosts in a burial ground.

DOI: 10.5282/rcc-springs-15268

Orange orchard along the path. Nature reserve Oasi del Simeto. Photo by Paolo Gruppuso. CC-BY NC 4.0.

The cemeterial silence of our walk is infringed upon by the sound of cars, which becomes stronger as we get closer to the bridges of the state highways that run across the trail and the river. Yet the silence persists; it is an eerie sort of silence. Just below the second bridge, another faded information plaque announces another entrance to the trail and the protected area. It reads: "Welcome. Here nature is protected." Beside the sign lies garbage. In front of it, a farm that has seen better days blends in with the landscape. Behind the sign is an unfinished and rusty bridge. Cracks on deteriorating asphalt make the river visible. To reach the water, we cross the rusty bridge via an underpass. Fresh mud reveals traces of sheep. Then, a steep path through tamarisk and shrub, sprinkled with rabbit footprints, leads us to a narrow access way to the river, possibly a landing place for illegal fishers. In the background, the songs of blackbirds and warblers seem to counterpoint the pervasive noise of cars and the earlier silence of the meadow. They dwell in the thick shrubs along the riverbanks, just under the bridge, where concrete amplifies the voice of the river speaking through birds and the sound of flowing water, which were not audible before.

DOI: 10.5282/rcc-springs-15268

Informal path under the highway bridge. Nature reserve Oasi del Simeto. Video by Paolo Gruppuso. CC-BY NC 4.0.

We are tired and sweaty, and walk back deeply immersed in thought. Along our path, we have seen hydraulic infrastructure that fragments the river, creating a hostile environment for both humans and more-than-human beings. We feel the violence of modernity while witnessing how its forms of development have disrupted the river and the web of relations it once sustained. Agroindustry has turned orchards into industrial plantations that resemble graveyards. A new crop—green capitalism—is now colonizing the land, fueling new forms of accumulation that transform agricultural fields into photovoltaic plants. Nevertheless, sonic and visual traces of birds, rabbits, and sheep make us think that the river is still inhabited, and its voice can still be heard by those willing to approach its murky and sludgy shores. This is a radical standpoint from which to look at the socioecological crisis. From that uncomfortable position, the river looks like a margin, a profound edge, a risky place. As social critic bell hooks reminds us, "locating oneself there is difficult yet necessary."[9] Our act of walking this landscape then becomes a "politics of location" and a defiant political gesture.[10] A gesture of care toward a landscape that nobody wants to see. Walking has made visible what was previously invisible to us. It pushed us to look amid a ruined landscape to discover that a river runs through it. Spring is coming, and it is not entirely silent.

DOI: 10.5282/rcc-springs-15268

Life thrives in the hidden meanders of the river mouth, despite eutrophic waters. Nature reserve Oasi del Simeto. Photo by Paolo Gruppuso. CC-BY NC 4.0.

. . .

Acknowledgements

This work is supported by the European Union's Horizon Europe framework program within the BIOTraCes project under agreement n. 101081923. The writing of this piece has also been supported by the German Research Foundation (DFG) as part of the project "Rethinking Wetlands: An Environmental Anthropology" (project number: 528547179).

Notes

[1] "BIOTraCes: Biodiversity and Transformative Change for Plural and Nature-Positive Societies" project's official website, accessed 11 April 2025, https://www.biotraces.eu/.

[2] The largest coastal plain in Sicily (430 square kilometers).

[3] Roberto De Pietro, *Un paradiso siciliano ritrovato* (Cavallotto Edizioni, 2013).

[4] Historical Archive of Paternò, folder: *Caccia e Pesca. Regolamenti 1888–1940*.

[5] James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (Yale University Press, 1998).

[6] Carlo Afan de Rivera, 1842, quoted in: Luca Ruggiero, "Le opere di bonifica nella Sicilia sud-orientale: la Piana di Catania e il Biviere di Lentini," *Memorie della società geografica italiana* 92 (2013): 163–87, p. 169; Piero Bevilacqua, "The Distinctive Character of Italian Environmental History," in *Nature and History in Modern Italy*, ed. Marco Armiero and Marcus Hall (Ohio University Press, 2010), p. 18; Paolo Gruppuso, "In-Between Solidity and Fluidity: The Reclaimed Marshlands of Agro Pontino," *Theory Culture & Society* 39, no. 2 (2022): 53–73, https://doi.org/10.1177/02632764211038669.

DOI: 10.5282/rcc-springs-15268

[7] Ruggiero, "Le opere di bonifica nella Sicilia sud-orientale"; Francesco Di Bartolo, *Terra e Fascismo. L'azione agraria nella Sicilia dopoguerra* (XL Edizioni, 2009); Maria Sorbello, *Irrigazione e bonifica nella Piana di Catania* (Università di Catania, 1992).

[8] Salvatore Lupo, "Tra società locale e commercio a lunga distanza: la vicenda degli agrumi siciliani," *Rivista Meridiana*, no. 1 (1987): 81–112; Giuseppe Barbera, *Agrumi: Una storia del mondo* (Il Saggiatore, 2023).

[9] Bell Hooks, "Choosing the Margin as a Space of Radical Openness," *Framework: The Journal of Cinema and Media*, no. 36 (1989): 15–23.

[10] Ibid.

Cite this article

Gruppuso, Paolo, and Erika Garozzo. "Walking a Sicilian River." *Springs: The Rachel Carson Center Review*, no. 7 (May 2025). https://doi.org/10.5282/rcc-springs-15268.

KILLING A BABOON:
APPLIED HISTORY AND THE ANTHROPOCENE APE

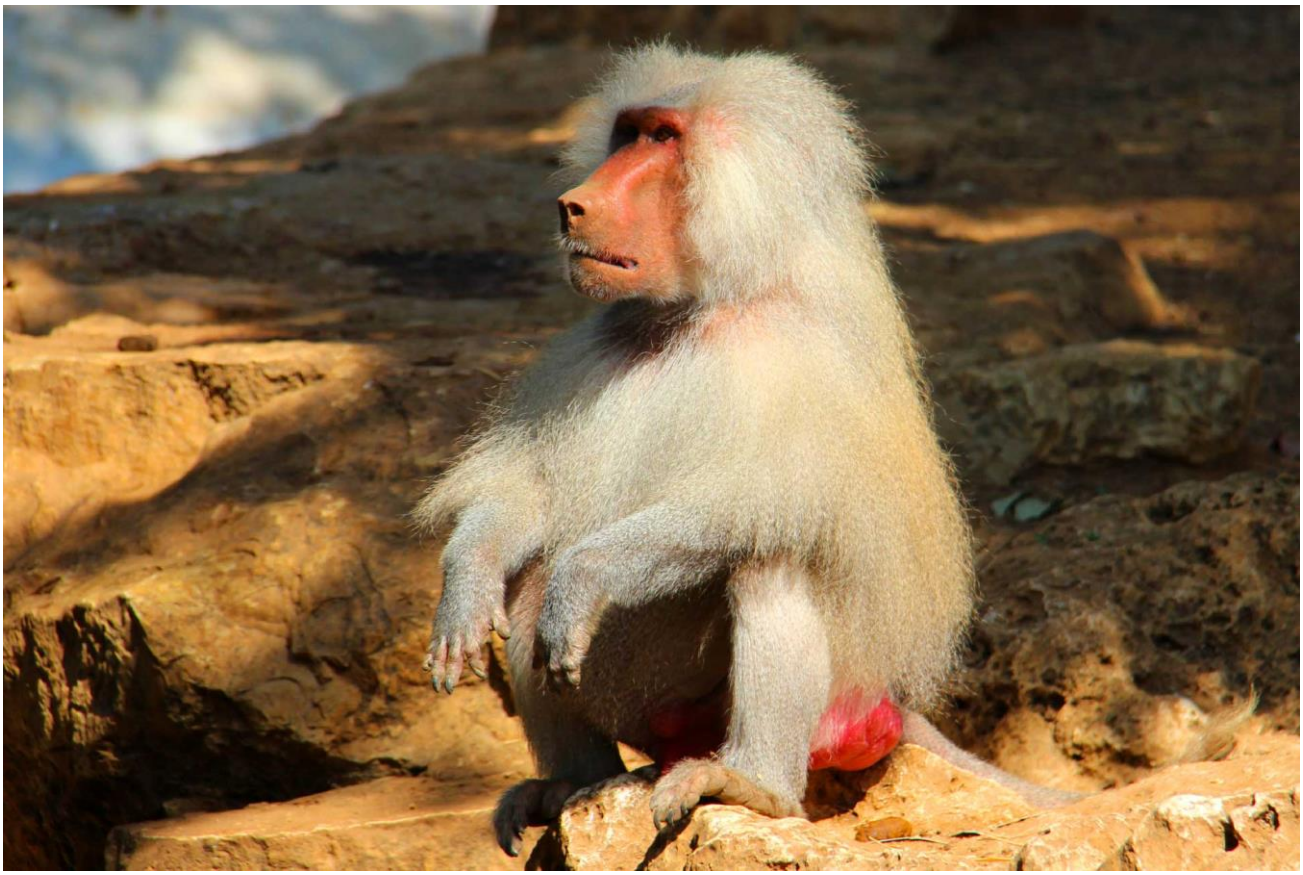
Sandra Swart

Springs
The Rachel Carson Center Review

7 • 2025

This article is peer reviewed

Sandra Swart



Hamadyas baboon (*Papio hamadryas*). Photo by Moataz Tawfik Igbaria. Wikimedia Commons. CC BY-SA 4.0.

#JusticeForRaygun is trending in South Africa. He was a young male baboon who had left his mother's troop and set off, on a journey to adulthood. This meant he had to navigate the urban hazards of South Africa's administrative capital Pretoria. No one remembers how he got the name Raygun, but his moniker became well-known; across the nation people were talking about him. Indeed, Raygun had many people cheering for him. Ordinary people shared WhatsApp messages and phone calls to shepherd him through the urban hazards in early February 2025. Aided by a local NGO, civic society rallied to guide him to safety. Within a mere five days, the little teenage baboon had travelled over 50 kilometres, navigating roads, dogs, and other perils. Towards the end of his travels, many people were already celebrating his escape into the "wild." Social media lit up with the thought of his survival and the possibility of his finding a new troop of baboons.[1] It was a moment of hope.[2]

Pretoria, South Africa. Wikimedia Commons. CC BY-SA 3.0.

Raygun almost made it. But just as he reached the safety of the wild spaces, he unwisely doubled

DOI: 10.5282/rcc-springs-15920

back and entered the grounds of a high school in Delmas. Once spotted on the roof of the school, he was pelted with objects by scores of teenagers. He ran back and forth on the roof, evidently bewildered and frightened. Then the schoolchildren climbed onto the roof. They captured him, beat him, kicked out his teeth. Then they tied him with wire to a tyre, poured petrol on him, and finally set him on fire.

To outsiders the ritual is chilling: They were "necklacing" him. This method of public execution originated in the 1980s in the townships of South Africa, inflicted by mob justice upon suspected Apartheid collaborators and Black policemen—it then spread to being used on suspected witches. Like other victims, Raygun died in agony. The schoolchildren chanted and danced as Raygun burnt. They posted his violent end on social media. No adult intervened. Apparently, the school principal did run into the melee but only to move her own car to a safe place.[3] It was reported that several teenagers had "fainted" at school earlier in the day, perhaps as a result of witchcraft. They blamed the little baboon for being an envoy of the occult, sent to bring them harm. The monster had needed to be despatched. After the schoolchildren had dispersed, Raygun's body remained on the smouldering tyre.[4] As darkness fell, a local medicine man came to remove his head, hands, and heart for *muthi*, the name for traditional or vernacular medicine in southern Africa.

What was shocking about this killing was how unshocking it was. South Africa grieved but shrugged. Some saw it as the "new normal," yet another killing in a violent country with one of the highest murder rates in the world.[5] Others perceived it through a poisonous racialised lens: Social media was brimming with accusations of savagery and irredeemable superstition. Many saw the "necklacing" as a uniquely horrifying outcome of a monstrous present.

> *Baboons were long legally labelled "vermin" and, while patchily protected today, are still killed in suburbia or on farms.*

But it is important to know that this kind of event is not new. Baboons were long legally labelled "vermin" and, while patchily protected today (as it is illegal to shoot or kill baboons without a permit), are still killed in suburbia or on farms.[6] Such killings of baboons are almost impossible to trace historically, but over the last 60 years they appear regularly as small oddities in newspapers and marginalia in state commissions of inquiry. Below, I contend that even such a scattered, fragmentary record shows consistency in why the killings happen and how they are thought about—and it opens a lens into the historical contours of human–animal relationships.

How can the death of an animal help us understand their lives? And their entwinement with human lives, past and present? Histories of animal killings come to us from different time periods and cultures: Robert Darnton's *The Great Cat Massacre* in Europe; in Asia, Ying-Kit Chan's "The Great Dog Massacre in Late Qing China" and Michael Vann's "The Great Hanoi Rat Massacre"; and in southern Africa, Nancy Jacobs's "The Great Bophuthatswana Donkey Massacre."[7] In fact, there are a wealth of thoughtful studies of animal killings, including an early first-person interrogation: George Orwell's 1936 "Shooting an Elephant."[8]

Darnton set the tone in the subsequent socio-political studies of the public slaughter of animals for nonfood purposes, suggesting that the most useful entry point in understanding a culture exists where it seems most opaque. He used what he termed his "little narrative" about a cat slaughter as a lens to try to make sense of an event from 1730 that was very hard to understand in modern terms. Essentially, an alienated group of men—all journeymen printers in Paris—beat to death some alley cats at their misguided boss's behest. Darnton was trying to fathom both motive and emotion in his sources. He was trying to figure out why the cat killers found it both wild fun and wildly funny. He wanted us to be discomforted by such culture shock: to face strangeness head on. He said if we manage to find the radically unfamiliar then we have at least found the beginning of

DOI: 10.5282/rcc-springs-15920

understanding.[9] Similarly, I hoped that by exploring the baboon killing, I would start to unravel the entangled emotions and motive behind the murderous act.

Edward Winslow Martin, *A Dog Fight at Kit Burn's*, Kit Burns's Saloon, New York. Published in James McCabe, *The Secrets of the Great City: A Work Descriptive of the Virtues and the Vices*, the Mysteries, Miseries and Crimes of New York City (National Publishing Company, 1868). Public domain.

As a historian, intentional cruelty to animals offered that shock. If there was no solace in the past (full of cockfighting, bear-, boar-, and dogbaiting), there was also little relief in the present. Tracing the genealogy of this particular vein of violence offered an entry point into the opacity—and maybe a solution.

Genealogies of Violence

In one of the earliest cases I have found on record, in 1963, villagers stoned a baboon to death. To everyone's surprised horror, a *ngaka* (traditional healer) then appeared and harvested the baboon's body. It was whispered that the baboon was his servant, and that he had removed body parts so that he could reawaken the creature as a monster. In 1996, a baboon popped up in the village of Majembeni, near the Kruger National Park. The creature was clearly supernatural. For one thing, he was massive and was sporting a plastic shopping bag. The villagers set upon him with iron bars and finally "necklaced" him. The woman who had first incited the crowd explained: "There was definitely witchcraft here. Just look at how long [he] took to catch alight and at how small its body

DOI: 10.5282/rcc-springs-15920

is now that we have . . . killed it."[10]

In March 2003, schoolchildren in Bushbuckridge, Limpopo Province, boycotted classes after several student deaths and a lethal brawl about the results of a soccer match. Parents raised money to hire a *sangoma* (healer, sorcerer) from Eswatini to sniff out the witch. But the villagers were warned by police not to try to find the witch responsible—so they resorted to killing a baboon, believing him to be a witch's familiar, sent to curse the school.[11]

In 2008, in Nzhelele, Limpopo Province, rumours spread of a baboon deployed as a tokoloshe[12] (a supernatural baboonesque man-beast who acts both independently and as a kind of witch's familiar) to harass women, especially widows.[13] Villagers caught and killed the baboon and then blamed an elderly woman for controlling him. She feared for her own life when the crowd brought the body of the baboon to her house, singing that she too deserved to be necklaced as a witch. She lamented: "U tshinyiwa dzina zwi a vhavha u fhira wo tou fa, ngavhe vha tou mmbulaya khathihi" (My good name has been ruined, and people will never trust me again. It is painful and it would have been better if they had killed me). We can see how violence to baboons is interwoven with violence to humans.[14] Such brutality must also leave an indelible mark on those who participate in it or even witness it, in the already violent society of South Africa.

> *We can see how violence to baboons is interwoven with violence to humans.*

In 2024, in Ndwedwe in the Valley of a Thousand Hills on the east coast, a baboon wandered into a village.[15] Baboons are normally never seen in Ndwedwe, and the village dogs barked until a crowd of people gathered. The villagers captured, slaughtered, and skinned the baboon. Then a breakaway group ate him. Some worriedly reminded the community of the obvious folly of this act, as the baboon was almost certainly a servant of darkness.

The Professors of Witchcraft?

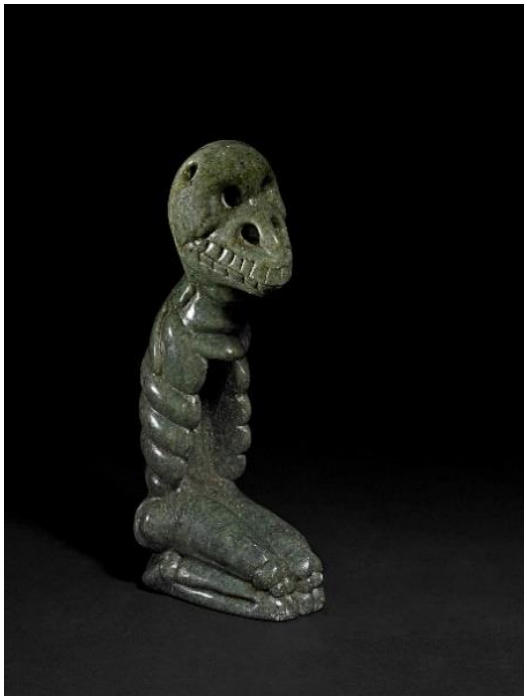
Until the 1970s, in most parts of South Africa, killing a baboon was not illegal, and belief in witchcraft was the norm, so such stories would not warrant newspaper coverage. It simply was not "news." It is thus difficult for a historian to track whether such killings are waning or increasing as time goes by. There are occasional eruptions of public concern over baboon killings to create *muthi*, coupled with killings of suspected witches or witch's familiars by vigilante groups. The colonial state had long outlawed some aspects of Indigenous healing and spiritual practices. This was entrenched under Apartheid by the Witchcraft Suppression Act 3 of 1957, which prohibited both witchcraft and witch hunting.[16] To many it seemed that, with the latter prohibition, the state had actually aligned itself with witches.

The post-1994 new democratic government has fretted over the 1957 act for three decades, first setting up a 1996 commission of inquiry into Witchcraft Violence and Ritual Murder (called the Ralushai Commission after its chairman Victor Ralushai).[17] This commission recommended that

DOI: 10.5282/rcc-springs-15920

instead of focusing on accusations and fraudulent claims of occult powers, the act should be replaced by a "Witchcraft Control Act" that would criminalise the actual practice of witchcraft. In other words, the commission assumed and therefore affirmed the reality of the occult. A more recent proposal is that the act should be replaced by a "Prohibition of Harmful Witchcraft Practices Act" illegalising both accusations of witchcraft (which remain rife) and some specific practices of harmful witchcraft (like *muthi* murders).[18]

What is clear is that belief in the occult cannot be dismissed as the mere residue of tradition that will become increasingly shed by new generations. Cosmologies shift with shifting contexts, of course. Who can forget the baboon cruising around Nzhelele like a gangster, ostensibly eyeballing women while carrying a condom and wearing a golden necklace?[19] Nevertheless, such beliefs still have enduring salience: Credence in the supernatural persists and the persecution of perceived witches and occult baboons continues.[20] Baboons are not only killed by terrified people for their role in the occult, but are also killed and harvested for their body parts by Indigenous healers.[21] Indeed, the Ralushai Commission referred to baboons as "professor(s) of witchcraft."[22] They meant—in a wry acknowledgement—that the baboons were agentic beings, not mere body parts in *muthi*, but actively involved as agents of supernatural evil.



Sylvester Mubayi, *Skeletal Baboon Spirit*, c. 1969, serpentine, 31.5 x 8 x 14.5 cm, The British Museum, object no. Af1996,18.27, https://www.britishmuseum.org/collection/object/E_Af1996-18-27. © The Trustees of the British Museum. CC BY-NC-SA 4.0. The work was part of Frank McEwen's collection, which he donated to the British Museum. Mubayi worked in a rural sculpting community in the Nyanga district, established by Frank McEwen.

> *Credence in the supernatural persists and the persecution of perceived witches and occult baboons continues.*

How do we explain the exaggerated violence to baboons in South Africa—and how do we fix it? Can our discipline of history play a role in a current crisis?[23] After all, from its inception, history has sought lessons from the past. So perhaps we can use applied history, which endeavours to understand current challenges by looking at historical precedents and analogues.[24] Normally we historians begin with an event and then explain what happened and why. Applied historians flip this process: They start with an in-progress predicament and then scour the historical record to offer precedent, perspective, and probable consequences. Or to simply inspire our imaginations about possible solutions.

This sense of exigency to learn from the past animated some of the very earliest historians, like the Athenian Thucydides (c. 460–400 BCE), who used his history of the Peloponnesian War as a cautionary tale for future generals.[25] Two and a half thousand years later, his legacy looms large.[26] Yet, with the post-Rankean rise of history as a university discipline, the past was supposed to be only apropos itself—not to be mined for present-day use. The historian was ostensibly only an objective observer: a time traveler forbidden to meddle. There was thus an epistemic rupture between past and present. Essentially, the past had been rendered, as L. P. Hartley put it, a "foreign country."

But slowly the idea that the past might still be helpful in today's problems found traction. It may have been that historians became weary of interlopers—politicians and pundits—using historians'

DOI: 10.5282/rcc-springs-15920

material. Intellectually, the stimulus towards applying a longer time span was consequent to a loss of faith in relativism and calls to embrace long-term perspectives.[27] Politically, further impetus derived from perceived "big threats" like 9/11 and the COVID-19 pandemic, which pushed historians to find analogous precedents. Economically, the academic job-market crisis catapulted many excellent scholars out of academia into the public-history sector. All of this stimulated a new hunger for the oldest way of doing history. *A historian might still find the past to be a foreign country, but applied history opened the borders.*

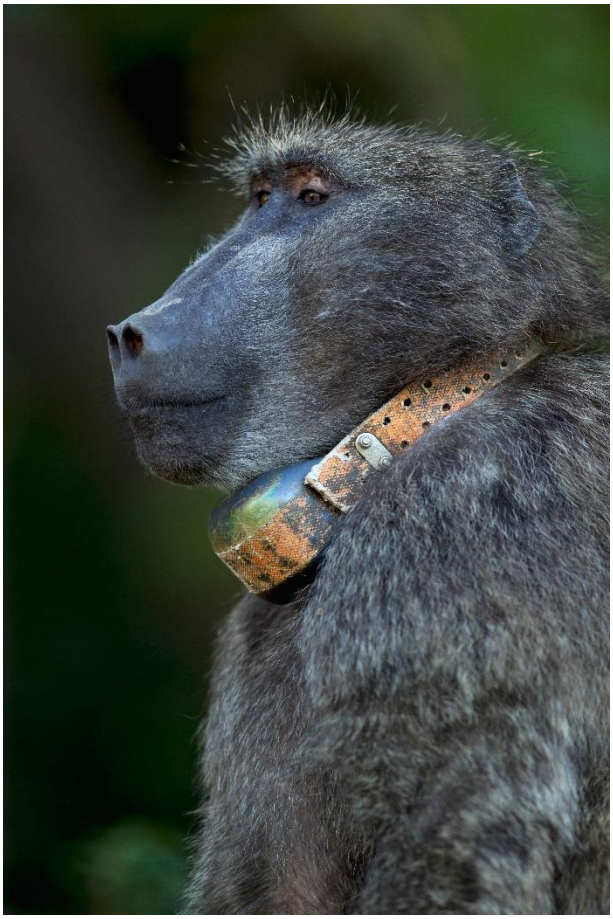
> *In unpacking a relationship between people and other primates we need to understand the entangled histories of both.*

Environmental historians, perhaps more than those working in other subdisciplines, are increasingly applying history to present concerns. Maybe the burning ecological crises draw academics more inclined to activism. Historical perspectives, for example, increase our understanding of the dynamic nature of landscapes, ecological systems, and multi-species assemblages. They are seldom easy to reconstruct. Records are absent, ephemeral, or fragmentary. These challenges, however, do not diminish the value of history. Instead, they highlight the need for deeper and comparative histories.[28]

While some historians work with big data sets, I have focused on finely detailed cases and thinking about how lessons from these studies might be relevant to today's debates. My work here is interdisciplinary as I draw on research from ethology, biology, and conservation science. This kind of applied animal-sensitive history is intended to be not only *about* animals, but *for* them. They appear here not only as subjects in their own pasts but for their futures. In unpacking a relationship between people and other primates we need to understand the entangled histories of both.

DOI: 10.5282/rcc-springs-15920

Burglar Baboons



Chacma baboon (*Papio ursinus*) alpha male wearing collar so the troop can be tracked to try and avoid human conflict, South Africa. © picture alliance / Minden Pictures / Cyril Ruoso. All rights reserved.

Crucially, we must not forget that baboons are victims for many reasons, frequently casualties of middle-class suburban possessiveness of secure spaces. Public outrage and violence towards baboons are both disproportionate to the damage these primates wreak. Deeper study of the rhetoric and discourse behind the outrage suggests that it is not simply about the baboons. Instead, it is a reflection of societal anxiety more generally, with baboons acting as proxies for humans. Baboons are characterised in the press and on social media as burglars and as intruders. A frightened and frustrated citizenry create their own secure spaces behind high walls, razor-wire fences, and expensive security systems. This kind of perception of a specific species as a security threat is not unique—only contoured by context. In South Africa, people fear burglars, they fear those who intrude on suburban safety, and they want them removed. But this proves impossible—so they take their frustration out on the baboons.[29]

Of course, baboons are complex agential beings whose culture is closely entwined with ours. They are synanthropes, evolved to be able to live near and benefit from human society. Thus, baboons also enter "human spaces"—either as troops or individuals. This is a consequence of their ecological and behavioural flexibility (and a deep history of close coexistence with our species) in being able to survive in our anthropogenically modified habitats. So, unlike most other animals, baboons "intrude" easily into human spaces—which already feels "unnatural" to people used to the shy, human-averse smaller wildlife surrounding urban settlement.

Moreover, the ways in which baboons mirror us permit their close proximity to us. Like us, they are inquisitive, socially complex, and flexible, with enough manual dexterity to raid kitchens, gardens, orchards, and dustbins. Because of our shared deep history, some baboons lose their usual suspicion of humans and deploy scare tactics and even violence (although this rarely) to acquire food. This precipitates human–baboon conflict even before the added cosmological factor of the occult baboon.

DOI: 10.5282/rcc-springs-15920

Baboons raiding a City of Cape Town municipal bin. South Africa, 4 August 2024. © picture alliance / Matrix Images / Alan van Gysen. All rights reserved.

There are some who refuse to even name the baboon or ever utter the vernacular names for baboons like *imfene*, *tshwene*, and *mfenhe*. Some adults rather use the euphemism *selo sa thabeng* ("the thing from the mountain"). We need to ask why it is mainly the baboon—out of all the other animals—who has come to play this role in our popular imagination.

Digging Deeper

The answer may be both psychological and historical. The roots are deep: An interdisciplinary analysis that pushes back into deep time, drawing on palaeontology, palaeoecology, archaeology, and rock art offers evidence humans and baboons have shared a prolonged sympatry, living closely for hundreds of millennia. There was arguably a mutualistic relationship between us with advantages for both species (including the shared utility of alarm calls warning both primate species about communal predators like leopards and snakes). This resulted in coevolution for the close sympatric living we see today (and that appears so "unnatural" or even supernatural). Baboons were "people" in the cosmology of some hunter-gatherer groups and shape-shifting between human and baboon was common. Some groups (the Ncube, AmaTola, or VhaLaudzi) chose baboons as totem animals. Baboons were associated in Indigenous belief systems with the use of root medicines.[30] These medicines offered protection against enemies, ailments, and supernatural evil.[31]

> *Humans and baboons have shared a prolonged sympatry, living closely for hundreds of millennia. There was arguably a mutualistic relationship between us with advantages for both species*

DOI: 10.5282/rcc-springs-15920

The breach in the affiliative and amicable deep history of the baboon–human relationship accompanied the shift from hunter-gatherer lifeways (or transhumant livestock herding) to sedentary crop farming. Crop farmers suffered the baboon depredation of their harvest (they still do). Baboons are omnivorous, and they devour a variety of crops. In fact, they tend to feed off plants throughout their maturation cycle (from seedling to harvest time).

Moreover, as baboon-eating predators (like leopards) have been historically extirpated near farmland, baboons have flourished unchecked, thus intensifying the threat to food security. To make matters worse, baboons do not finish eating one thing before moving onto the next, leading to losses that are disproportionate to troop size.[32] While raiding is encouraged by natural-forage paucity in the dry season, baboons actually prefer some crops like maize and beans over wild food.[33] Commercial and subsistence farmers respond to such pillaging with lethal reprisals against baboons. In conflict over crop raiding, people fear and even suffer attacks from baboons, especially women and children (who are responsible for field-guarding) and whom baboons seem to fear less.[34]

But baboons came to be more than a threat to food security—they became a threat to psychological security. They have remained linked with the occult or witchcraft (a flawed term that imperfectly captures local nuances), which is usually interpreted as malign and remains part of the cosmologies of most South Africans.[35] It may be loosely defined as "illegitimate action engaging capacities of human persons to cause harm or accumulate wealth and power by mysterious means."[36]

Farm worker during a day of fending off baboons on the Buitenverwachting Wine Farm in the wine-growing area of Costantia, Cape Town. They wear leopard-print clothes and lion masks in an attempt to scare off the baboons. © picture alliance / AP photo / Halden Krog. All rights reserved.

Historically, baboons became wrapped up in these "illegitimate actions," understood to work as witches' familiars (as tokoloshes or as themselves) or, occasionally, to be witches themselves.[37] Witches ride baboons backwards, approach homesteads in reverse, and are nocturnal, so they

DOI: 10.5282/rcc-springs-15920

disrupt all that is "normal." The baboon familiar fits in the logic of this cosmology as a creature who is "out of place," escaping the boundaries of the normal system of meaning. Being in the wrong place at the wrong time is entirely normal for baboons: Young males tend to leave their natal troops when they are aged about seven or eight to seek mates in other troops (which ensures genetic diversity).[38] Today, these young males end up perceived as "out of place" because they follow historic dispersal routes that are now human spaces thanks to rapid urbanisation.

This is the greatest challenge that a baboon will face in his life: He must navigate a new world entirely alone, travel long distances through unknown territory, where food and safety are elusive. Modernity exacerbates this ancient problem in a new way: Baboons now occupy fragmented territories. The increased use of land for agricultural and urban purposes has displaced baboons from their historical patterns of distribution. Baboons on the urban edge are under severe human pressure, with 50 to 70 percent of them dying human-induced deaths (hit by cars, poisoned, or shot).

These suddenly solitary wanderers face the loss of old friendships and alliances, the threat of unpredictable predators and hazards, and, finally, rejection from unfamiliar baboons when they try to join new troops. These pressures precipitate physiological changes, increased testosterone and cortisol, which in turn suppress their immune systems if kept at high levels for long periods.[39] It is a perfect storm: an exodus from his family and his community, a forced flight through an unknown landscape, coupled to a hormonal hurricane in his own body. At the same time, he appears in a landscape where people are unused to solitary baboons or baboons at all. He is primed to become a being terrifyingly "out of place."

Winelands in Western Cape, showing agricultural fields of planted vineyards. © THEGIFT777 on iStock. All rights reserved.

As humans become alienated from them, and as it becomes statistically rarer to see a dispersing baboon (as baboon numbers drop), it will appear ever more "unnatural" and become more difficult for the baboons themselves, in an increasingly vicious cycle. The baboon "out of place" is interpreted through an existing cosmological and experiential lens. *What is natural appears unnatural in an alienated world.*

This is exacerbated by a psychological factor: Baboons engender discomforting cognitive dissonance in us. They provoke sympathy, indeed empathy, by coming into focus as almost-us. Then, with the final click of the intellectual collimation, they are in complete focus and are revealed as *not us at all*. This is integral to the "uncanny": the familiar made strange, described by Sigmund Freud as *Das Unheimliche*. *They are us and not us.* A frisson stems from this ambiguity: a shiver and a laugh,

DOI: 10.5282/rcc-springs-15920

a strangeness and a familiarity—in essence, coupled with the shock of recognition is the shock of unrecognition. Historically, the uncanny creature has been used as a proxy or scapegoat to account for anything unsettling or unlucky. The uncanny might also be what unconsciously reminds us of ourselves—the dark side of ourselves, the "animal side," the "almost-human" side—own illicit and repressed impulses. So we project these upon the uncanny thing, which we can then blame for any inexplicable troubles that befall us. This is the nature of scapegoats.[40]

> *Baboons engender discomforting cognitive dissonance in us.*

Thus, the supernatural baboon remains enduringly an instrument to explain the inexplicable and offer a community catharsis. Moreover, given the long shared evolutionary past and concomitant synanthropy, baboons can cross into urban and suburban spaces—unlike other wild animals—and retain an unsettlingly humanoid. Most of all, is their "humanness"—they are unsettlingly *almost-us*: satyr and satire in one. They are in our spaces, unlike other animals. They offer an inverted mirror to ourselves. The familiar and the unfamiliar therefore becomes—literally—a witch's familiar.

Anthropocene Apes? The Value of Applied History

The image of the "supernatural baboon" perpetuates hostility towards baboons in a way that is very different to suburban outrage and different also to the ancient agriculturalist antipathy towards baboon crop raiders. Far more baboons die by accident (hit by cars) and by design on farms and in suburbia than those killed as witches' familiars or agents of supernatural evil.[41] But the spectacularly cruel natures of the latters' deaths warrant much public attention in recent times. To understand the history of both these traditions of conflict is vital in combatting them—and also important in understanding why we need to combat them.

Baboons are classified as "Least Concern" by the International Union for Conservation of Nature. It is important to understand statistically the killing of occult baboons discussed in this essay is no threat to them on a species level, but it does terrible damage to (human) society, polarising people in an already fractious and fractured country. And, of course, it results in the deaths of these social, smart, and sentient creatures. Because of their resilience and flexibility, they have the ability to survive in our nature-depleted domesticated spaces. This makes baboons one of the quintessential "Anthropocene apes"— just as we are. Apart from us, they are among few large primates who thrive in the modern world. Their ability to flourish alongside us in a world hostile to biodiversity and headed to a mass extinction, offers some fragile and friable hope. How to recover the hope felt when Raygun nearly made it back to the wild?

> *Their ability to flourish alongside us in a world hostile to biodiversity and headed to a mass extinction, offers some fragile and friable hope.*

Hope lies not in furious, racially inflected outbursts on Twitter/X but in a two-pronged approach: law-enforcement buttressed by education. Several brave NGOs focus on rescuing the individual animals themselves—we should support them. The National Council of SPCAs (NSPCA) and local SPCAs already do a heroic job, with very limited resources but unlimited courage. They focus on criminal prosecutions, under the Animals Protection Act 71 of 1962, as well as animal rescues. The NSPCA has posted a 20,000 South African rand reward for information leading to a successful conviction of Raygun's persecutors.

In simple individual cases of animal cruelty, rigorous law enforcement is both vital and sufficient.

DOI: 10.5282/rcc-springs-15920

But in dealing with community cosmology and societal supernatural belief, education initiatives may be just as useful.[42] The NSPCA is set to embark on a broad programme of education about animal legal protection and how to respond to an animal "out of place" like Raygun.[43] This is laudable but not enough: We *all* need to be part of this. Educators, traditional and church leaders, community leaders, and the media need to promote knowledge about animal sentience and behaviour. Grief at Raygun's killing should channel into fundraising too, just as other high-profile animal deaths have.[44] If something may be salvaged from the tragedy it is the power of public outrage in triggering social change. Everyone can be an activist in supporting the NSPCA and its provincial branches—they need us. Hope lies in action.

> *We all need to be part of this. Educators, traditional and church leaders, community leaders, and the media need to promote knowledge about animal sentience and behaviour.*

The best thing is such education initiatives that emphasise baboon sentience and our shared cross-species characteristics, that encourage curiosity and—eventually—fondness for fellow primates. But there is also hope in a weirdly unexpected place, a place normally full of doom and gloom: the tabloids. Tabloids have become enormously popular, creating a space for the supernatural to be discussed openly (rather than in secret). The *Daily Sun* is read by five million people each day. Their pages overflow with sensational supernatural stories. This has filtered into popular understanding and worked in tandem with a growing tabloidisation of the baboon as witch's familiar, which has produced memorable headlines like: "Ghost baboon terror!"; "Baboon trashes Gogo's furniture"; "Villagers fear hairy tormentor"; "Curse of the baboon hand"; and, hauntingly, "Ghost baboon farts outside every night."[45]

Some take the reports seriously, but it is clear that many people both write and read the articles tongue in cheek.[46] In fact, the *Daily Sun* reported Raygun's death with some sympathy and a slight challenge to the occult's credibility: "Baboon Horror: R20k Reward up for Grabs!"[47] Overall, the tabloids increasingly writing of the occult baboon with ribald humour might stimulate another transformation in the baboon–human relationship. It might create more "sympathetic monsters": The tabloids' satirical satyr and the burlesque baboon are creatures of almost endearing caricature. It must be conceded that there is a risk that when the monster is rendered ridiculous, it might precipitate (in people) an even more callous view of baboons exacerbated by contempt and untempered even by cautiousness.[48] This would still be bad, but nevertheless better. While contempt can lead to passive callousness, fear leads to active cruelty.[49]

At least some of the action-inducing horror would be removed. As Freud observes: "Even a 'real' ghost . . . loses all power at arousing . . . any uncanny horror in us as soon as the author begins to amuse himself at its expense and allows liberties to be taken with it." Maybe the reimagined baboon of the tabloids might help conquer the terror of the supernatural baboon. Reinvented into a creature of Rabelasian ribaldry and ridicule by the tabloids, the monster becomes as powerless as once it was powerful. *The threat is neutralised when the witch's familiar becomes merely familiar.* The popular press and social media might effect a move from shock to schlock. Remove the fear, remove the violence.

RIP Raygun

Notes

[1] "Baboon Beaten and Burnt to Death by School Children," *George Herald*, 10 February 2025, https://www.georgeherald.com/News/Article/National-News/baboon-beaten-and-burnt-to-death-by-school-children-202502100415.

DOI: 10.5282/rcc-springs-15920

[2] This essay draws on Sandra Swart, "Little Grey Men? Animals and Alien Kinship", *Global Environment* 16, no. 1 (2023): 12–39, https://doi.org/10.3197/ge.2023.160102; "Beasts of the Southern World: Multispecies History and the Anthropocene," in *History Beyond Apartheid: New Approaches in South African Historiography*, ed. Thula Simpson (Manchester University Press, 2023), https://doi.org/10.7765/9781526159083.00008; "The Beast That Never Forgot? Baboon Conservation and the Role of Multispecies History," *Anthropology Southern Africa* 47, no. 2 (2024): 118–32, https://doi.org/10.1080/23323256.2024.2325986.

[3] Se-Anne Rall, "NSPCA Investigates the Brutal Killing of Beloved Baboon Raygun," *IOL*, 10 February 2025, https://www.iol.co.za/news/south-africa/gauteng/nspca-investigates-the-brutal-killing-of-beloved-baboon-raygun-83c73806-4ec9-41d5-ade2-d7f02320b612.

[4] Kristin Engel, "Brutal Death of Chacma Baboon Sparks Outcry and Call for Urgent Wildlife Education Initiatives," *Daily Maverick*, 14 February 2025, https://www.dailymaverick.co.za/article/2025-02-14-brutal-death-of-chacma-baboon-sparks-outcry-and-call-for-urgent-wildlife-education-initiatives/?utm_source=facebook#Echobox=1739531631.

[5] David Bruce, *Murder Trends in South Africa's Deadliest Provinces* (Institute for Security Studies, 2023), https://issafrica.org/research/policy-briefs/murder-trends-in-south-africas-deadliest-provinces.

[6] In South Africa, shooting baboons is illegal without a permit, but they can still be shot if they pose a threat to property or human safety, according to the National Environmental Management and Biodiversity Act, 2004.

[7] For an analysis, see Jonathan Saha, "A Historiography of Great Animal Massacres," in *Animals as Experiencing Entities: Theories and Historical Narratives*, ed. Michael J. Glover and Les Mitchell (Palgrave Macmillan, 2024), https://doi.org/10.1007/978-3-031-46456-0_7.

[8] George Orwell, "Shooting an Elephant," The Orwell Foundation, https://www.orwellfoundation.com/the-orwell-foundation/orwell/essays-and-other-works/shooting-an-elephant/. Originally published in *New Writing* 2, Autumn 1936.

[9] Robert Darnton, *The Great Cat Massacre and Other Episodes in French Cultural History* (Basic Books, 1984).

[10] Goodenough Mashego and Sydney Mashego, "Villagers Kill 'Witch Disguised as Baboon,'" *Sunday Times*, 17 March 1996; "South Africa 'Necklace' Kills Pet Baboon," *New York Times*, 18 March 1996.

[11] Riot Hlatshwayo, "'Bewitched School': Kids Return," *News24*, 10 March 2003, https://www.news24.com/bewitched-school-kids-return-20030310.

[12] Sometimes called *u-tikoloshe* or *thikoloshe* in Xhosa, *thokolose* in Sotho, and *tokkelos* or *tokkelossie* in Afrikaans.

[13] Elmon Tshikhudo, "Tokoloshe Baboon Killed," *Zoutnet*, 9 May 2008, https://www.zoutnet.co.za/articles/news/6360/2008-05-09/tokoloshe-baboon-killed.

[14] Those making witchcraft accusations often seek a baboon familiar for the elusive evidence of witchcraft. Willie Mbhele, "Ghastly End for Suspected Witches in Thokoza," *City Press*, 14 May 1995; Harry Mchunu and Zoubair Ayoob, "Accused Witch Killed in City," *The NatalWitness*, 11 March 1997; *Truth and Reconciliation Commission, Amnesty Hearing*, 28 February 2000, Hendrik Rakgotho, application AM0647/97 (matter: killing of Violet Masomela).

[15] Mbali Dlungwana, "Villagers 'Feast' on Troublesome Baboon!," *Daily Sun*, 18 August 2024, https://www.snl24.com/dailysun/news/baboon-slaughtered-by-villagers-in-ndwedwe-kzn-20240818.

[16] It is grounded on the Witchcraft Suppression Act 1895 of the Cape Colony, which was in turn based on Britain's Witchcraft Act 1735.

[17] *Report of the Commission of Inquiry into Witchcraft Violence and Ritual Murders in the Northern Province of the Republic of South Africa* (s.n., 1996).

[18] *Muthi* murders are slaughtering people, usually children, for their parts to use in potions. *The Review of the Witchcraft Suppression Act 3 of 1957: Revised Discussion Paper 158* (South African Law Reform Commission, 24 June 2022), https://www.justice.gov.za/salrc/dpapers/dp158-p135-Revised-Review-WitchcraftSuppressionAct.pdf.

[19] Tshikhudo, "Tokoloshe Baboon Killed."

DOI: 10.5282/rcc-springs-15920

[20] Jean Comaroff and John L. Comaroff, "Occult Economies and the Violence of Abstraction: Notes from the South African Postcolony," *American Ethnologist* 26, no. 2 (1999): 279–303, https://doi.org/10.1525/ae.1999.26.2.279.

[21] "Mutilated Baboons: Approach to Healers," *The Argus*, 25 May 1995; "Business Looks up for Jozi's Muti Vendors," *Sunday Independent*, 5 December 2014; "Severed Hands Belonged to Baboon, DNA Results Show," *The Witness*, 29 March 2016, https://witness.co.za/news/2016/03/29/severed-hands-belonged-to-baboon-dna-results-show-20160328/.

[22] *Report of the Commission of Inquiry into Witchcraft Violence and Ritual Murders*, 22.

[23] Jack L. Albright, "History and Future of Animal Welfare Science," *Journal of Applied Animal Welfare Science* 1, no. 2 (1998): 145–66, https://doi.org/10.1207/s15327604jaws0102_5; J.L. Harfeld, "The History of Animal Welfare and Its Connection to Ethics," in *EurSafe2024 Proceedings: Back to the Future—Sustainable Innovations for Ethical Food Production and Consumption*, ed. Mona Giersberg, Franck Meijboom, and Bernice Bovenkerk (Wageningen Academic, 2024), https://doi.org/10.1163/9789004715509_032.

[24] Landmark exemplars of political applied history include Ernest May, *"Lessons" of the Past: The Use and Misuse of History in American Foreign Policy* (Oxford University Press, 1973); Richard E. Neustadt and E. May, *Thinking in Time: The Uses of History for Decisionmakers* (Free Press, 1986).

[25] Sandra Swart, "Dangerous People or How I Learned to Stop Worrying and Love Being an Historian," *South African Historical Journal* 68, no. 3 (2016): 249–66, https://doi.org/10.1080/02582473.2016.1239966.

[26] Indeed, see the paradigm adopted by one of the founders of Harvard University's Applied History Project, Graham Allison, "The Thucydides Trap: Are the U.S. and China Headed for War?," *The Atlantic*, 24 September 2015, https://www.theatlantic.com/international/archive/2015/09/united-states-china-war-thucydides-trap/406756/.

[27] Sandra Swart, "History Eats Its Young: The Perils of Short-Termism in Understanding the Past," in *At Nature's Edge: The Global Present and Long-Term History*, ed. Gunnel Cederlöf and Mahesh Rangarajan (Oxford University Press, 2018), https://doi.org/10.1093/oso/9780199489077.003.0006.

[28] Thomas Swetnam, Craig Allen, and Julio Betancourt, "Applied Historical Ecology: Using the Past to Manage for the Future Ecological Applications," *Ecological Applications* 9, no. 4 (1999): 1189–1206, https://doi.org/10.1890/1051-0761(1999)009[1189:AHEUTP]2.0.CO;2.

[29] Animals become part of people's idea of safety and space. See Rosemary-Claire Collard, "Cougar: Human Entanglements and the Biopolitical Un/Making of Safe Space," *Environment and Planning D* 30, no. 1 (2012): 23–42, https://doi.org/10.1068/d19110; Radhika Govindrajan, "Monkey Business: Macaque Translocation and the Politics of Belonging," *Comparative Studies of South Asia Africa and the Middle East* 35, no. 2 (2015): 246–62, https://doi.org/10.1215/1089201x-3139024. My thanks to reviewer one.

[30] W.D. Hammond-Tooke, "Divinatory Animals: Further Evidence of San/Nguni Borrowing?" *The South African Archaeological Bulletin* 54, no. 170 (1999): 128–32, https://doi.org/10.2307/3889291.

[31] For modern medicinal uses, Willem A. Nieman, Alison J. Leslie, and Anita Wilkinson, "Traditional Medicinal Animal Use by Xhosa and Sotho Communities in the Western Cape Province, South Africa," *Journal of Ethnobiology Ethnomedicine* 15, no. 34 (2019), https://doi.org/10.1186/s13002-019-0311-6; Sam Challis, "Binding Beliefs: The Creolisation Process in a "Bushman" Raider Group in Nineteenth-Century Southern Africa," in *The Courage of ǁKabbo: Celebrating the 100th Anniversary of the Publication of Specimens Bushman Folklore*, ed. Janette Deacon and Pippa Skotnes (University of Cape Town Press, 2014).

[32] Leah Findlay, "Human-Primate Conflict: An Interdisciplinary Evaluation of Wildlife Crop Raiding on Commercial Crop Farms in Limpopo Province, South Africa" (PhD diss., Durham University, 2016), https://etheses.dur.ac.uk/11872/1/PhD_Thesis_Leah_Findlay.pdf.

[33] Govan Pahad, "Social Behaviour and Crop Raiding in Chacma Baboons of the Suikerbosrand Nature Reserve" (master's thesis, University of the Witwatersrand, 2010), https://wiredspace.wits.ac.za/server/api/core/bitstreams/b1f511b4-41fa-4feb-999a-de01d22126cc/content.

[34] Claudio Sillero-Zubiri and David Switzer, *Crop Raiding Primates: Searching for Alternative, Humane Ways to Resolve Conflict with Farmers in Africa* (People and Wildlife Initiative, Wildlife Conservation Research Unit, Oxford University, 2001).

[35] Isak Niehaus, Eliazaar Mohlala, and Kally Shokane, *Witchcraft, Power and Politics: Exploring the Occult in the South African Lowveld* (Pluto Press, 2001).

DOI: 10.5282/rcc-springs-15920

[36] Adam Ashforth, "On Living in a World with Witches: Everyday Epistemology and Spiritual Insecurity in a Modern African City (Soweto)," in *Magical Interpretations, Material Realities: Modernity, Witchcraft and the Occult in Postcolonial Africa*, ed. Henrietta L. Moore and Todd Sanders (Routledge, 2001), 206.

[37] Isak Niehaus, "Witches of the Transvaal Lowveld and Their Familiars: Conceptions of Duality, Power and Desire," *Cahiers d'Études Africaines* 35, no. 138–139 (1995): 513–40, https://doi.org/10.3406/cea.1995.1458; Harry Mashabela, "The Bell Tolls Not Only for Lightning Witches," *The Star*, 30 April 1984.

[38] Anne E. Pusey and Craig Packer, "Dispersal and Philopatry," in *Primate Societies*, ed. in Barbara B. Smuts, Dorothy L. Cheney, Robert Seyfarth, Richard W. Wrangham, and Thomas T. Struhsaker (University of Chicago Press, 1987), https://doi.org/10.7208/9780226220468-023; Patrick Onyango, Laurence R. Gesquiere, Jeanne Altmann, and Susan C. Alberts, "Puberty and Dispersal in a Wild Primate Population," *Hormones and Behavior* 64, no. 2 (2013): 240–49, https://doi.org/10.1016/j.yhbeh.2013.02.014; Euclid O. Smith, "Dispersal in Sub-Saharan Baboons," *Folia Primatologica* 59 (1992): 177–85, https://doi.org/10.1159/000156657.

[39] Susan C. Alberts and Jeanne Altmann, "Balancing Costs and Opportunities: Dispersal in Male Baboons," *American Naturalist* 145, no. 2 (1995): 279–306, https://doi.org/10.1086/285740; Robert M. Sapolsky, L. Michael Romero, and Allen U. Munck, "How Do Glucocorticoids Influence Stress Responses? Integrating Permissive, Stimulatory, and Preparative Actions," *Endocrinology Review* 21, no. 1 (2000): 55–89, https://doi.org/10.1210/edrv.21.1.0389; Esme Kilroy Beamish, "Causes and Consequences of Mortality and Mutilation in the Cape Peninsula Baboon Population, South Africa" (master's thesis, University of Cape Town, 2009), https://open.uct.ac.za/server/api/core/bitstreams/bb18f49f-1eb8-471b-b054-cead2baf39d3/content; Tali S. Hoffman and M. Justin O'Riain, "Monkey Management: Using Spatial Ecology to Understand the Extent and Severity of Human–Baboon Conflict in the Cape Peninsula, South Africa," *Ecology and Society* 17, no. 3 (2012), http://dx.doi.org/10.5751/ES-04882-170313.

[40] Draws from Swart, "Little Grey Men."

[41] Jenni Trethowan, "Authorities Okay Hunting and Killing of Cape Baboon Despite Call to Minister Creecy for a Moratorium," *Daily Maverick*, 29 July 2022, https://www.dailymaverick.co.za/article/2022-07-29-another-cape-baboon-killed-despite-call-to-minister-for-a-moratorium/.

[42] Sandra Swart, "The Beast That Never Forgot?."

[43] Engel, "Brutal Death of Chacma Baboon Sparks Outcry."

[44] Stefan Carpenter and David M. Konisky, "The Killing of Cecil the Lion as an Impetus for Policy Change," *Oryx* 53, no. 4 (2019): 698–706, https://doi.org/10.1017/S0030605317001259.

[45] Chris Qwazi, "Ghost Baboon Terror," *Daily Sun*, 9 February 2016, https://www.snl24.com/dailysun/news/national/ghost-baboon-terror-20160209; Armando Chikhudo,"Baboon Trashes Gogo's Furniture," *Daily Sun*, 10 September 2018, https://www.snl24.com/dailysun/news/national/baboon-trashes-gogos-furniture-20180909; Mzamani Mathye, "Villagers Fear Hairy Tormentor," *Daily Sun*, 5 December 2014, https://www.snl24.com/dailysun/news/villagers-fear-hairy-tormentor-20141205; Joshua Sebola, "Curse of the Baboon Hand," *Daily Sun*, 2 November 2015, https://www.snl24.com/dailysun/news/national/curse-of-the-baboon-hand-20151102; Zamokuhle Mdluli, "Ghost Baboon Farts Outside Every Night," *Daily Sun*, 13 October 2015, https://www.snl24.com/dailysun/news/national/ghost-baboon-farts-outside-every-night-20151013.

[46] Priscilla Boshoff, "The Supernatural Detective: Witchcraft Crime Narratives in the *Daily Sun*," *Text and Reception in Southern Africa* 25, no. 2 (2013): 164–75, https://doi.org/10.1080/1013929X.2013.833420; Herman Wasserman, "Attack of the Killer Newspapers! The 'Tabloid Revolution' in South Africa and the Future of Newspapers," *Journalism Studies* 9, no. 5 (2008): 786–97, https://doi.org/10.1080/14616700802207797; Herman Wasserman, *Tabloid Journalism in South Africa: True Story!* (Indiana University Press, 2010).

[47] "Baboon Horror: R20k Reward up for Grabs!," *Daily Sun*, 12 February 2025, https://www.snl24.com/dailysun/news/nspca-offers-r20-000-reward-for-baboon-killing-in-delmas-20250212.

[48] I thank reviewer two for pushing me to think about this possibility.

[49] Mifune Nobuhiro, Simunovic Dora, and Yamagishi Toshio, "Intergroup Biases in Fear-Induced Aggression", *Frontiers in Psychology* 8 (2017), https://doi.org/10.3389/fpsyg.2017.00049.

DOI: 10.5282/rcc-springs-15920

Cite this article

Swart, Sandra. "Killing a Baboon: Applied History and the Anthropocene Ape." *Springs: The Rachel Carson Center Review*, no. 7 (May 2025). https://doi.org/10.5282/rcc-springs-15920.

DOI: 10.5282/rcc-springs-15920

ORGANIC FARMING IN THAILAND: A CONVERSATION WITH JUDITH BOPP

Judith Bopp and Mascha Gugganig

Springs

The Rachel Carson Center Review

7 • 2025

Judith Bopp and Mascha Gugganig

Judith Bopp is a postdoctoral researcher at the Rachel Carson Center for Environment and Society (RCC) working on her DFG-funded project "Fostering the Health–Nutrition–Ecology Nexus: Organic Farming Practices and Household Resilience in Rural Thailand." One of her friend's great fears is that she will eat all of his vegetables when she is on his farm in Thailand, and she has cultivated secret skills as a vendor at farmers markets across Germany. She shares her trajectory with Mascha Gugganig, who is currently writing a habilitation tentatively titled "Humans–Food–Environments: Contributions to the Environmental Humanities from Science and Technology Studies and Sociocultural Anthropology" at the RCC. Mascha has fond memories of her mother working for Schaltkreis, the first Viennese organic supermarket offering home delivery back in the '80s. Judith's background in cultural geography and (eco)linguistics, and Mascha's training in sociocultural anthropology, and science and technology studies makes for an engaging conversation, which once again shows that agriculture is a crucial field deserving more attention in humanities and social-science research.

Market Pang Mapha, Mae Hong Son Province, Thailand. Photo by Judith Bopp. CC-BY NC 4.0.

Mascha Gugganig: Your current project can roughly be placed in the field of the environmental humanities. Coming from cultural geography and linguistics, what are your disciplinary touchpoints with the environmental humanities?

DOI: 10.5282/rcc-springs-15640

Judith Bopp: I'm interested in the field of ecolinguistics, which studies the patterns of language—the vocabulary, framings, and metaphors used—and erasure, meaning terms that don't appear in speech but that are implied.[1]

MG: This might be a very naïve question, but the field of ecolinguistics doesn't deal with ecology in the biological sense, does it?

JB: Actually, it works both ways. For one of the big guys in the ecolinguistics scene, Professor Arran Stibbe, language is considered part of ecology since it is a primary way of interaction between humans, other animals, or plants. So, this branch of linguistics aims at revealing the speaker's relationship with the environment and actually has an activist moment, which is to challenge the stories we live by. For example, with capitalism—a system we take for granted as we live by that system—this means challenging that system and formulating new narratives for a more eco-positive language. This implies understanding and questioning existing destructive stories, such as capitalism, and the underlying narratives based on patterns and mental models in our language use; then, as a next step, these destructive stories need to be reformulated.

MG: Can you tell me a little bit about your project in your own words?

JB: There are two layers [*both laugh*]. Since this is funded as "basic research," I work on a model, which is my health–nutrition–ecology nexus. This nexus explores how in agriculture, farm ecologies including soils are linked with nutritional quality of products grown in these surroundings and with the health of those who consume them. It emerged from my observations that in common agriculture discourses, relationships of more than two factors are not really considered, for example, links between agricultural soils, human health, and resilience. So I decided to look at small-scale farmers in Thailand who shift to organic farming methods, assessing whether these methods attend to the relationships between health, nutrition, and ecology. And then, in a second step, I put that in the context of household resilience, including subjective resilience indicators—how people perceive their own resilience. My overarching, more practical goal relates to ecolinguistics. I'd like to see a change in the way we talk about farming—a change in the narratives—also in nonscientific contexts.

> *The health–nutrition–ecology nexus explores how farm ecologies including soils are linked with nutritional quality of products grown in these surroundings and with the health of those who consume them.*

MG: You mean not just in academic debates but also in view of other actors' knowledge dissemination?

JB: Exactly. Even on a societal level, I find that agriculture is often talked about in very technical terms. So, the medium of publication is one point, and trying to bring in subtly different vocabulary about agriculture another. But also, Thai farmers that I interviewed, they already describe their farming practices or their relationship to nature in a very sensitive, mindful way; it's something they grow up with. So, actually, they are already modeling what I would like to amplify.

MG: Could you give an example?

DOI: 10.5282/rcc-springs-15640

Vegetable beds on a regenerative farm in Trat Province. Photo by Judith Bopp. CC-BY NC 4.0.

JB: It's funny, because I also did research in Bangladesh, and farmers' answers showed very different mindsets compared to many Thai farmers for different reasons, for example, to prioritize economic improvement, for their belief in agrochemicals, or simply because they take a pragmatic approach to farming. When I asked the people I work with in Thailand about the relationship between their organic produce and their health, they say, "Well, it's obvious, we don't need any tests. Why do you want soil measurements? Look at my soil, touch my soil, smell it—which I do—and you will see it's healthy. We don't need a scientific explanation for why my product is healthier."[2]

There's something very dedicated to their practice, like an intrinsic motivation to grow good food for themselves, for their family, and for others. And if you do something in a mindful way, then the product will also be better.

There are studies on water molecules, and how they change when you treat a plant in a certain way, and how this relates to the product that you eat. I do think there's some relationship, and the Thai farmers I meet, they are convinced by that but without necessarily having read about this link. It's simply their understanding of how the elements relate.

> *There's something very dedicated to their practice, like an intrinsic motivation to grow good food for themselves, for their family, and for others.*

MG: So, coming from science and technology studies, I'm always fascinated by the question of how we know what we know. Why do people either embrace or reject certain *scientific* ways of knowing? And then there are all these other forms of knowledge, especially in farming, which is so practice-based. I've been doing research on farming in Canada and in the EU, and found that farmers who do organic or similar forms of farming generally feel they don't need scientific proof to justify that what they're doing is good. But they also say they want to have scientific studies as a way of monitoring, because they want to be able to talk to politicians, to translate their knowledge into this quantitative language of science and policy. I'm wondering if you could say a little more about the Thai farmers' stance on scientific ways of knowing, also in the context of the microbiome—of the soil and of the consumer.

JB: There are links between the microbiome in the soil and the microbiome in the eater. Some farmers are very scientifically inclined, saying, "Okay, we need to find a way to make this viable in scientific terms," just in order to have a voice. I actually started fieldwork with this as my basic intention: sampling the local soil and examining its nutrient and microbial content so that I could provide quantified proof. To do so, I would have needed to engage a team of soil scientists. Just before the beginning of my project, however, I had to shift my fieldwork from Bangladesh to Thailand at short notice, and I haven't been able to establish links with soil labs in Thailand yet, so I can only comply to the social-sciences part of my study for now. Some universities in Thailand and agricultural-extension offices offer affordable test kits. They don't measure the microbes in the soil but the different nutrient contents in soil, water-retention capacities, the composition of different types of soil, or its acidity.

DOI: 10.5282/rcc-springs-15640

MG: Is your intention to say: Microbiome is studied more and more scientifically in Thailand, and understood as a distinctly scientific term? Is your project the local vernacular of that? Or is it trying to add a new dimension to scientific research on microbiome through these local perspectives?

JB: The latter. There is a very common technique among many local farmers, especially those who were taught organic farming practices by their parents: fertilizing the soil with *jul insee*, which is a local fertilizing liquid based on microbes. Similarly, the Japanese microbiologist and farmer Fukuoka, who was quite influential with his natural-farming approach in Thailand, promoted the use of IM—indigenous microorganisms—which are microorganisms specific to locality. Almost every organic farmer in Thailand uses these microorganisms. It's basically a substance perfectly adjusted to the very local soil. It's like a culture, right; it's like a fungi culture that you have to vaccinate the soil with, stimulating the growth of beneficial microbes in the local soil.

Jul insee stored in a barrel. Photo by Judith Bopp. CC-BY NC 4.0.

MG: So, IM is the local name for a fertilizing practice applied to the local soil microbiome. Correct?

JB: Thinking about it now, as we talk, IM is probably the local version of the microbiome or what is now propagated as the soil microbiome in the Western world. The practical thing about IM is that their bases are not very specific. It can be a bit of leftover rice that you dig into the soil, and then the microbes multiply in it. Or you can make *jul insee* from scratch. Many people make it from kitchen waste. Or, if you happen to grow sugar cane on your farm, you can add some sugar cane.

DOI: 10.5282/rcc-springs-15640

Organic pepper freshly collected from its host tree, Chiang Mai Province. Photo by Judith Bopp. CC-BY NC 4.0.

MG: It's fairly simple.

JB: It's *very* simple; it's very applicable. And, you know, the question of whether organic food can feed the world . . . It always comes up in the food-security context, or livelihood context. My answer to it is: The farmers I've worked with already practice very simple means. They radically cut their costs of external inputs. They have basically no investment. Once the soil is in good condition, they grow using the inputs they have on their farm.

> *The farmers I've worked with already practice very simple means.*

MG: Are they subsistence farmers, or do they also produce for a local market?

JB: The principle is always subsistence first, and then what is left, you sell at the market. A farm layout that I encounter often is: one plot for vegetables, maybe a rice field, and the rest would be orchard. But this is more of a concept among organic farmers, not among small-scale chemical farmers—those who use agrochemicals, which is still the standard in Thailand. Small-scale chemical farmers usually do monoculture on one rai, two rai, using agrochemicals (1 *rai* = 0.16 hectare), growing a cash crop instead of food for household consumption.

DOI: 10.5282/rcc-springs-15640


Crop diversity in organic farming. (Left) Six rows of vegetables edged by banana trees. (Right) Two flooded rice fields integrated in a mango orchard and vegetable field. Chiang Mai Province. Photos by Judith Bopp. CC-BY NC 4.0.

MG: Are there a lot of small-scale farmers that use chemical input for monocultural, commodity farming in Thailand?

JB: Yeah, but most of them are indebted, and they have health issues. That was also one of the reasons why I wanted to inquire into the health context. Because you can see the health effects emerging from sustaining an unprotected—or not well-protected—use of agrochemicals. And then glyphosate, and pesticides that are banned in Europe, are very common in Thailand. Health effects are therefore more immediate than in Europe.

And what is very interesting: Most of the chemical farmers you talk to, they all know about organic farming, and how it works. It's not that I say, "Hey, don't you think that would be better for you?" They're praising organic food; many said to me: "It's super healthy, and it will be better for us. My wife has cancer." And then the "but" follows: "Yeah, but in my case, I can't afford the transition period." The transition to organic farming takes two or three years because the soil is usually more or less dead, depleted, so it will take a while to regenerate and stimulate the microbes. And there will be some loss during that transition period. Also, many of the small-scale farmers are elderly, and their kids will probably not take over their farms. This, I believe, likely further diminishes their motivation to change their farming system just before retirement. So, I really understand the complexities about shifting to organic farming.

> *The transition to organic farming takes two or three years because the soil is usually more or less dead, so it will take a while to regenerate and stimulate the microbes.*

MG: And what is their rationale behind the fact that cancer or other health issues are common? Is that a reason for them to consider transitioning to organic farming?

JB: Those who transitioned, they all state this was for health reasons. Which is so different from Bangladesh, where most farmers I encountered would say that they would shift for financial incentives. But in Thailand, most say it's health. And among those who haven't shifted, many told me they know where their health issues are coming from, the rashes or hearing deficiencies or indigestion, cancer in the worst case.

DOI: 10.5282/rcc-springs-15640

Organic polyculture orchard run by three sisters in Chiang Mai Province. © Judith Bopp. All rights reserved.

MG: What about the Thai health minister, and what is the position of Thai politicians in general?

JB: The health ministry has a fund. Three percent of the taxes on alcohol and tobacco goes into *So So So* (a health fund), which supports people who engage in health-promoting activities, like urban gardeners, or people who run workshops using Thai herbs in the kitchen. They also fund organic-farming projects. So, this ministry tries to promote the transition to organic farming. But the agriculture ministry is a problem because it is infiltrated by the lobbyists of chemical companies. It's not Monsanto/Bayer AG as such, but they cooperate with Charoen Pokphand Group Company, Ltd. (CP), which is one of Thailand's biggest companies. They actually rule the entire food and agrochemical industry. CP operates all Seven Eleven stores. They're super common everywhere in Thailand. CP dictates what enters the stores and is sort of the anchor for Bayer AG. Some Asian companies try to get their agrochemicals and other agricultural supplies into Thailand through CP, and CP representatives sit in the ministry.

MG: And this is commonly known?

JB: That's commonly known [*both giggle*]. So, I think a bottom-up movement is the only hope. Nobody would rely on the government to issue policies beneficial to organic farmers. Probably globally, agriculture is caught in similar power dynamics it cannot escape from.

MG: I think this goes to what you mentioned earlier about your attempt to challenge the dominant narrative of agriculture, but doing it through policy might be too cumbersome.

JB: Yeah, too cumbersome and too ambitious. And maybe not always useful, because seeing that farmers can organize themselves locally, why should we scale it up when it works for them? One

DOI: 10.5282/rcc-springs-15640

insight I've had: It's good to look for simple solutions, which many Thai farmers also confirm. Just simplify things; make it work. Don't be overambitious. In Thai, you would say *po dee*, which means it's good enough, like, stop here, good enough is already fine. I think this is a good mindset. But I still think policy is important. And it would, of course, be beneficial if the ministry of agriculture decided to promote organic farming and institutionalize it more. But I just don't see it happen because of the powerful elites sitting in the ministry.

MG: It seems like you're interested in both studying and promoting alternative solutions that are already being implemented on a smaller scale. Is that correct?

JB: I mean, I question my role a lot. What am I doing, and who will benefit from it? But the Thai case offers so many models. And while my research is very region-specific, these models, and the motivations and mindsets behind them, are something that people, not only farmers but also consumers, could benefit from in other places of the world. I have been trying to connect stakeholders from my different case studies in Thailand and Bangladesh. They're also asking for that dialogue—they hope to meet and learn some concrete practices from each other, simple things such as IM, or just exchange knowledge. And I wouldn't underestimate the role of motivation and what it takes to spark someone's interest as well as the ability to realize an idea. You might be questioning a shift to organic farming for 10 years, and then someone comes along, and you suddenly think, "Wow, cool, it's possible, I'll try right now." So maybe this is something where I could help inspire, or make people meet or even present these ideas here in Germany. But the Thai case can't serve as a blueprint, it's more about motivation, like demonstrating how important mindsets—ways of seeing the world—can be in sparking confidence and driving a shift.

> *I wouldn't underestimate the role of motivation and what it takes to spark someone's interest as well as the ability to realize an idea.*

MG: This brings me to my next question, which is about the local understanding of organic farming. Concepts like biodynamic farming were popularized in Germany and then spread across the world. Organic farming was also very prominent in California. But what sparked the organic-farming movement in Thailand? Did they use the word organic in the beginning?

JB: There are different stories about Thailand's organic-farming movement, depending upon who you ask: One I encountered is that the movement set out in the 1980s, in the context of a government scheme, to improve the livelihoods of small-scale farmers. In the '80s, most regions were quite remote in terms of infrastructure, especially in the northeast, which used to be very rural, and people were poor. So it was in the context of securing livelihoods in remote areas that small-scale farming slowly turned organic. The schemes came from the department of rural development, not the agriculture ministry. These schemes were about rural development and economic resilience. And then this development quickly widened because a small, emerging health-conscious urban scene, mostly in Bangkok, gained interest in chemical-free supplies from the countryside. More and more small initiatives emerged, alongside that government scheme, building up consumer–producer groups over the following decades. And there was some influence from other Asian countries, like Korea and Japan.

DOI: 10.5282/rcc-springs-15640

Organic restaurant and shop in Bangkok. Photo by Judith Bopp. CC-BY NC 4.0.

At the time, they didn't use organic certification in Thailand. But it started to emerge, I think, in the early 2000s, to broaden the range for consumers who shop in bigger supermarkets and asked for official proof. Those consumers are willing to pay more for certified healthy products conveniently provided by the supermarkets. Nowadays, I would say that organic farming is very much consumer-driven.

As for the term "organic," today it's used on a daily basis, but during my previous fieldwork in Thailand between 2013 and 2016, many people actually refused the term, saying that it was a Western-induced concept they didn't really adhere to. To make sure their farming approach was Thai in origin, they would call it *kaset thammachart* (natural farming) instead. Consumers are now probably the group that prefers the term "organic," which is why it's increasingly used today.

> *For most Thai organic farmers, organic means diversity, growing a range of plants, and not mono-cropping. That's why they say it's not only about the inputs but also about the soil.*

If you ask Thai people, they would say *kaset thammachart* is organic plus [*laughs*]—beyond organic. But I think this is due to the nature of the (Western-style) certified organic farms in Thailand, which are basically monocultures using organic fertilizers. For most Thai organic farmers, organic means diversity, growing a range of plants, and not mono-cropping. That's why they say it's not only about

DOI: 10.5282/rcc-springs-15640

the inputs but also about the soil. If you are a little health-conscious and you know your farmers, then you don't need the certification.

MG: And do consumers go to farmers markets to get the food organic farmers sell?

JB: In Bangkok, a lot of organic food provision is self-organized and consumer-based. It works—and especially as a result of the COVID-19 pandemic—via direct delivery from the farm, and it's very cheap to have products sent to the city. Sometimes, consumers go on Facebook where farmers in the countryside advertise their produce: "My mango harvest is here. I've got 50 kilos. Who buys it?" And then farmers send it to consumers. Or like my friend in Bangkok: About 20 farmers he knows deliver their produce to his house, where his friends and extended friends pick it up on a weekly basis. The pandemic accelerated this movement since farmers weren't allowed to go sell at the fresh market then.


Village markets in Petchabun Province. Photos by Judith Bopp. CC-BY NC 4.0.

Farmers markets are difficult to maintain in Bangkok. Some supermarkets sell organic products, but they are much pricier than the delivered ones, almost double the price. That's actually another reason why most Thai consumers would go for non-certified products: The markup is almost insignificant compared to the regular price. And then, the supermarkets often use a number of different, often unclear quality labels, e.g., "organic," "pesticide safe," or "under conversion," the latter referring to the transition period of several years before a product can become certified as organic.

DOI: 10.5282/rcc-springs-15640

I actually asked organic farmers how they've dealt with crises like the COVID-19 pandemic, and many of them said, "Yeah, well, we had no troubles selling our products, because people were even more interested in healthy products. We sell the stuff to our neighbors." They don't even need to ship it to Bangkok." The farmers had money throughout the pandemic, some of them even more than before.

MG: It's the kind of resilience that gets you through these crises. I saw this in Canada too, and in Germany: Community-supported agriculture (CSA) farmers did really well during the pandemic. But then after the pandemic, they had a dip because people went back to the regular supermarket. In some ways that shows you something, right? We constantly talk about resilience and crises, and how we're going to get through these—there might be something to learn from these farmers.

JB: Yeah, exactly! And then again, I would say: Keep it simple, and don't oversophisticate resilience measures.

Judith Bopp buying steamed vegetable from a street vendor in Bangkok. Photo by Thanomwong Chumphu. CC-BY NC 4.0.

Notes

[1] Ecolinguistics as a tool is concerned with "critiquing forms of language that contribute to ecological destruction, and aiding in the search for new forms of language that inspire people to protect the natural world." Arran Stibbe, *Ecolinguistics: Language, Ecology and the Stories We Live By* (Routledge, 2021), 1.

[2] Quotations are from interviews with Thai farmers conducted between 2013 and 2024.

Cite this article

Bopp, Judith, and Mascha Gugganig. "Organic Farming in Thailand: A Conversation with Judith Bopp." *Springs: The Rachel Carson Center Review*, no. 7 (May 2025). https://doi.org/10.5282/rcc-springs-15640.

Contributing Authors

Judith Bopp is a cultural geographer working on organic food movements both in rural and urban contexts. She joined the RCC in 2023 with her DFG-funded research to work on "Fostering the Health–Nutrition–Ecology Nexus: Organic Farming Practices and Household Resilience in Rural Thailand." She has a background in linguistics as well and is passionate about ecolinguistics and how to shape relatable narratives to live by.

Catherine Bush is the author of the story collection Skin (2025) and five novels, including Blaze Island (2020) and the best-selling The Rules of Engagement (2000), a New York Times Notable Book. Her nonfiction has been published in journals such as Emergence and Noema, and she has fiction forthcoming in the volume Climatic Subjects (2025). She was the 2024 writer-in-residence at the Rachel Carson Center. An associate professor of creative writing at the University of Guelph, she lives in Toronto, Canada.

Author photo: © Arden Wray. All rights reserved.

Erika Garozzo is a geographer based in Catania. Her PhD project focused on the dismantling of social healthcare infrastructure in an urban setting and how feminist responses are emerging in the form of protests and self-organized infrastructures of care. She is currently a postdoctoral researcher on the BIOTraCes project, funded by Horizon Europe. In her research she explores the socioecological relationships of the Simeto River and new ways of inhabiting this landscape that break away from agroindustry and monoculture.

Indian writer and anthropologist **Amitav Ghosh**—winner of the 2024 Erasmus Prize—has addressed the human cost of today's planetary crisis in his fictional and nonfictional work. He is the bestselling author of 10 novels, including the Ibis Trilogy (2008–2015), The Hungry Tide (2004), and Gun Island (2019), and of several works of nonfiction, from The Great Derangement (2016) to The Nutmeg's Curse (2021). Amitav holds a PhD in social anthropology from the University of Oxford and has been a full-time writer since 2004. In 2024, he was a short-term visiting scholar at the RCC, giving talks including the one published here.

Author photo: © Mathieu Génon. All rights reserved.

***Paolo Gruppuso** is an anthropologist researching water landscapes, nature conservation, and more-than-human socialities at the intersection of social anthropology and the environmental humanities. He holds a PhD from the University of Aberdeen (2016). His research explores wetland practices and imaginaries, as well as urban ecologies and Anthropocene landscapes across Europe. He currently holds a DFG Eigene Stelle research grant for the project "Rethinking Wetlands (ReWet): An Environmental Anthropology," based at the RCC.*

***Mascha Gugganig** is a senior lecturer (akademische Rätin), codirector of the Center for Life Sciences and Society at the Faculty of Biology, LMU, and an affiliated researcher at the RCC. With a background in sociocultural anthropology, science and technology studies (STS), and the environmental humanities, she likes to challenge boundaries between nature and culture, society and science, arts and technology, and currently researches grassroots innovations and emancipatory technologies for agroecological farming.*

Mike Hulme is professor of human geography at the University of Cambridge and professorial fellow at Pembroke College. His work illuminates the numerous ways in which the idea of climate change is deployed in public, political, religious, and scientific discourse. He is the author of 12 books on climate change, including Change Isn't Everything: Liberating Climate Politics from Alarmism (2023) and Why We Disagree About Climate Change (2009). From 2000 to 2007, Mike was the founding director of the Tyndall Centre for Climate Change Research (University of Norwich), and in 2024 he spent six months on a writing fellowship at the RCC.

Sandra Swart is a professor and chair of the Department of History at Stellenbosch University, South Africa. She received her PhD in modern history from Oxford University in 2001, while simultaneously obtaining an MS (with distinction) in environmental change and management, also at Oxford. Her research focus is the socio-environmental history of southern Africa, with a particular focus on the shifting relationship between humans and animals. Sandra was a Landhaus Fellow in 2024.

"Rain, Carson, Art, Salt: A Venetian Matrix" by Catherine Bush, "The Unbearable Weight of Displaced Weather" by Mike Hulme, "Walking a Sicilian River" by Paolo Gruppuso and Erika Garozzo, "Killing a Baboon: Applied History and the Anthropocene Ape" by Sandra Swart, and "Organic Farming in Thailand: A Conversation with Judith Bopp" by Judith Bopp and Mascha Gugganig are licensed under CC BY 4.0.

"The Nutmeg's Curse." © 2024. Amitav Ghosh. All rights reserved. Used with permission by The Wylie Agency (UK) Limited.

This refers only to the text and does not include any image rights.

Springs: *The Rachel Carson Center Review* is an open-access online publication for peer-reviewed articles, creative nonfiction, and artistic contributions that showcase the work of the Rachel Carson Center for Environment and Society (RCC) and its community across the world. In the spirit of Rachel Carson, it publishes sharp writing with an impact. Surveying the interrelationship between environmental and social changes from a wealth of disciplines and perspectives, it is a place to share rigorous research, test out fresh ideas, question old ones, and to advance public and scholarly debates in the environmental humanities and beyond.

Springs is available online. To view, please visit https://springs-rcc.org

ISSN 2751-9317

Rachel Carson Center