Rachel Carson Center

Perspectives

Making Tracks

Human and Environmental Histories

Edited by
CHRISTOF MAUCH
HELMUTH TRISCHLER
LAWRENCE CULVER
SHEN HOU
KATIE RITSON

2013 / 5

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Christof Mauch and Katie Ritson

Making Tracks in Environmental History

Perhaps it is a feature of environmental history in particular that our origins and our past stories shape our interests and our fields of enquiry in myriad ways. Over the years, engaging with the many different research projects that have come through the doors of the Rachel Carson Center, it has become apparent that the stories of how our scholars found their way to their own research projects, the paths they took, are themselves rich narratives of human interactions with their environments.

The field of environmental history draws together very different people and very different ideas of nature, and it does this also by means of very different academic disciplines. Since its founding in 2009, the Rachel Carson Center has invited more than a hundred Carson fellows and visiting scholars to join its environmental history community. Not just historians, but anthropologists, social scientists, literary scholars, geologists, and theologians have joined the lively discussions at the RCC, each bringing their insights to bear on the environments that we live in. The variety of environments that have been constitutive in RCC research is large—we are as global an institution as any you can find. Moreover, the RCC is a meeting place not just of nationalities and formal disciplines, but also between those who are already self-identified environmental historians, and those who are wandering on the margins, or whose research is uneasily situated at the juncture between different schools of thought.

In the past, history was largely ignorant of nature. Research focused on politics, on societies, on cultural interactions, on gender and class; nature as an actor, as constituting agent, was overlooked. Yet in all of these very human histories that were written, human society was shaped and limited by its environments. Whether in rural settlements or in industrial cityscapes, whether dependent on rice we grow ourselves or on food imports, we have been fundamentally made and changed by that which, for want of a better word, we often call “Nature.”

In this volume of *RCC Perspectives* we offer a small selection of the pathways that have shaped environmental history at the RCC. These individual stories, chosen from many superb submissions to represent the spread of regional interests and academic

trajectories at our center, show how deeply place matters; how nature is never just apolitical; how different pathways, both literal and figurative, can lead to environmental history; and how the rub of different disciplines can throw up whole new areas of interest. Taken together, these tracks provide orientation in a changing landscape, and show the great flexibility and versatility of our discipline.

This volume is the outcome of the cooperation between the RCC and its thriving alumni network. It is a volume made up of many different voices, and since the RCC continues to thrive and evolve, it cannot be seen as any kind of end point. Many of the tracks in this volume are not well-trodden, and they lead us through a landscape that is mutable and as yet uncharted. Following them will help us understand our human environments both in the past and in the future.

Please visit our blog *Seeing the Woods* (www.seeingthewoods.org), where we will continue to publish new pathways for you to explore.

A Sense of Place

Grace Karskens

All that is Solid: Castlereagh 1999

The Castlereagh Road runs straight and flat along the floodplain of the Nepean River; the brooding brow of the Blue Mountains looms on the opposite side. The escarpment is hazy blue with eucalyptus oil, light and dark play on its dense forest mantle.

I had heard about this place from archaeologist friends who were working here as consultants, and from activists who were trying to save it. Their stories were strange, like science fiction. Just over 2,000 hectares was being open cut for gravel and sand mining. Not in a remote location, but in Sydney. The quarries were to be rehabilitated as five large lakes. Together they would be bigger than the renowned Sydney Harbour.

I was curious, fascinated, struck by a puzzle. In New South Wales we have strong legislation protecting heritage, especially those highly revered places dating from the early colonial period. Another set of legislation automatically protects all Aboriginal sites. Yet the quarry and lakes scheme involved the destruction of Australia's second oldest colonial farming landscape (dating from 1803) and at least forty Aboriginal sites. It is likely that some of the oldest Aboriginal artefacts in Australia were found here—dropped perhaps 50,000 years ago on the gravel banks of the raging river. How had this happened?

Ellen Arnold on medieval Germany

As a child, I lived for several years in Darmstadt, Germany, where my father was serving in the Army. As a result, my childhood memories are soaked in castles and Volksmarches and small medieval towns with cobbled streets and crooked houses. Now, I am drawn to the blurry edges of the human interaction with nature in the Middle Ages—to the ways that human actions, religion, memory, and storytelling intersected, and in particular the ways in which nature and natural resources were drawn into concepts of sanctity.

Then there was the lakes scheme itself: it's a relatively large system of linked artificial lakes, depending in part on urban runoff and water from an already severely stressed river. Why were we building lakes on the world's driest continent, where drought is a regular visitor, where cities are regularly visited by serious water shortages? And I always wonder what happens to the memory of such places, once real, visceral, palpable, now vanished. How had people lived in this environment in the past? What happens to the people who are displaced? What happens to all the material that is removed, transported, reconfigured? What are the environmental consequences? I think of Marshall Berman's words on our "Faustian bargain" with modernity. To be modern, he wrote, is to

> …find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world—and at the same time threatens to destroy everything we have, everything we know, everything we are.[1]

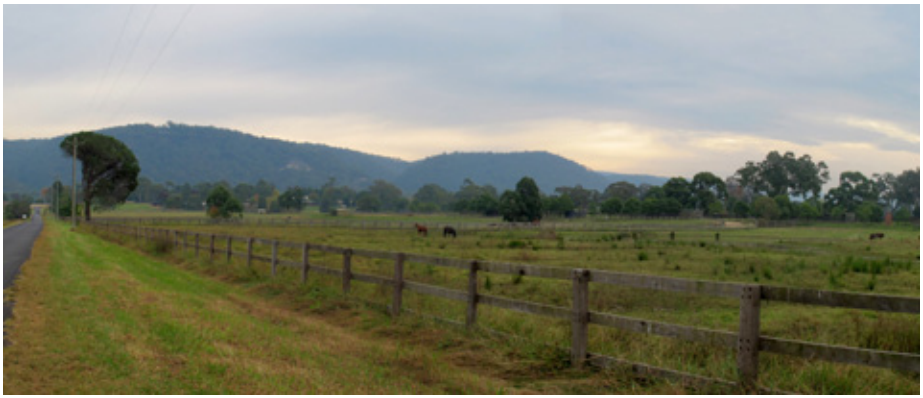
So I went to Castlereagh, to the farthest edges of the city, to see for myself.

The clouds always seem to hang low in these flat, green river valleys. The fields sliding by on the west, lying between river and road, were long cultivated. Creeks, swamps, and lagoons running north and northwest spread through them like veins. Turf farms, growing grass for Sydney's suburban lawns, lingered on here, and fields of cabbages stretched away in converging rows, glossy and grey-green in chocolate-coloured loams. A line of naked, pencil-thin poplars marked out the drive to an old house. Other farmhouses and cottages stood empty, suspended, waiting. Old orchards had long been left to gnarl and twist amidst thickening grasses.

The old Nepean River flows northwards, girdling the Cumberland Plain and the city of suburbs that sprawls across it. The water rushes deafeningly at the weir, dances, slapping silver on a windy day, blue to green to brown, meanders through its terraced floodplains and over rocky rapids, between high levee banks.

Castlereagh Road, linking the once-country towns of Penrith and Richmond, was one of those slow, old-fashioned roads of the city's rural hinterland, doglegging patiently around the early settlers' grants. Once a track for drays, carts, cattle, and walking hu-

1 Marshall Berman, *All That is Solid Melts into Air: The Experiences of Modernity* (New York, Penguin, 1982), 15.



The edge of the quarry on Smiths Road in Castlereagh, New South Wales, Australia (courtesy of the author).

man feet, it's a sealed 100k zone now. Other drivers are impatient with my slowness, my craning to see the doomed landscape. They overtake in a roar and a spray of gravel.

On the east side of this road lies the immediate future. Obscured by high levee banks, tangled grasses and tall weeds, the vast orange gash of the sand and gravel quarry extends as far as the eye can see. Until recently this too was solid, green, farmed floodplain. The quarrying companies bought out the farmers 20 years ago, demolished the houses and barns, amputated the lanes and ploughed them up. Over the past two decades, more than 38 cubic kilometers of overburden—terraces of silts, sands and clays—have been stripped to get at the ancient deposits of gravels and sand below. It is a bizarre, otherworldly scene, the excavators and face shovels industriously gutting the earth. White egrets stand fearless beside the giant machines, watching for grubs turned up by the great blades. The wind turns strong and gusty, and trucks race along the spoil heaps and cuttings, frantically spraying water to keep down the dust. Gigantic trucks are literally carting away the country along broad haul ways to the processing plants. Sand and gravel, brought down from the highlands a hundred thousand years ago, will be reconfigured as roads and footpaths, luxury hotels, and shopping centres.

Soon what remains of the early rural landscape between the Castlereagh Road and the river, and the still deeper Aboriginal dimension, will be bulldozed and gouged out too. This palimpsest of paddocks, old fence-lines, cottages, leaning barns, lanes, gardens, trees, creeks, all this solidity will have vanished. In its place will be not air, but water. This road I am driving will be gone. The solid shale bed fourteen metres down will be

the bottom of a vast new lake. I imagine driving underwater with bass and bubbles and the hulls of speedboats muffled overhead.

So this was the deal: new lakes, as big as Sydney Harbour from the Heads to the Bridge, in return for the old farming lands. There was a kind of urban egalitarianism in the plan. Water views and water sports—and the leisure to enjoy them—are surely the rights of Sydney's citizens. Why shouldn't Western Sydney share in them? Originally billed as an "aquatic playground," the scheme included a lake large enough for an Olympic-size sailing course, a wildlife lake, and a series of smaller receiving and treatment lakes. There was talk of beaches and wave machines for surfing. The overburden, as the quarry companies call the rich river soils, is stored in gigantic stockpiles or carted straight to the sites, to be massaged into rolling hills between the new lakes, planted with grasses and native trees.

You can see the shape of things to come at the south end of the scheme lands. The consortium's headquarters is pleasantly surrounded by brand-new, gently rolling hills, grassed and studded with young trees. There's a big new rowing course too. In 1999 it was abuzz with preparations for the Sydney Olympic Games, then hysterically imminent. Turreted white tents with fluttering flags clustered round excitedly.

Closer by, small groups of schoolchildren ambled down to a reedy pond with nets and clipboards. Another group of children was learning to move like emus, clicking sticks, led by a young Aboriginal woman from Muru Mittigar, a new company-funded Darug Aboriginal information and cultural centre set at the entrance to the consortium headquarters. She sang, moving easily through the young trees. Over the horizon, the giant stockpiles of the Pioneer processing plant were just visible, its machinery a faint whine in the distance.

The Castlereagh Road is literally the line where urban meets rural, the dynamic interface, the point where the city devours its outer edges, the locus of loss and destruction, of remaking, new experiences and meanings; and, probably, of forgetting. We are driving along the ever-shifting line between the city's past and its future, the breakers of the great tide of destruction and dynamism, rolling over the Cumberland Plain.

Claudia Leal

Far Away, So Close

When I was a child, my family would get into the car every vacation and drive seven hours from Bogotá to Bucaramanga through the Colombian Andes. We bought biscuits in Arcabuco and *bocadillo* (guava paste) in Vélez before driving down into the terrifying Chicamocha Canyon. My dad invariably told us to admire the imposing landscape while my sister and I plunged into our seats to avoid the sight of the precipices. Then came Pescadero, the burning bottom of the canyon, which signaled that we were close to another family get-together at our grandparents' house, full with their nine children and my numerous cousins.

Although we occasionally changed our destination, most of our trips remained within Colombia. We headed south to see pre-Columbian tombs amidst rugged mountains in Tierradentro, or flew to Providence Island, close to the coast of Nicaragua but officially Colombian territory. We crossed the deserts of the Guajira Peninsula near Venezuela, and visited Amacayacu National Park in the Amazon (and peeked into Brazil and Peru). In Gorgona, a tiny island off the Pacific coast, we climbed to the summit and found, hidden among the vegetation, the survey marker my dad had placed there 40 years before as part of a geodetic study of the country. We observed a sloth crawling from one tree to another just a few feet from our cabin, and searched for surviving lobsters that were swept onto the beach at a remote spot along the Caribbean coast, which has since been ravaged by violence. Salomón Caizamo, who served a short time in prison for providing food for inexperienced and idealistic guerrillas, greeted us in Utría, where I marveled at the sight of sea and jungle coming together.

Right after graduating from college with a degree in economics, I went to La Macarena and worked for a semester as a teacher in a "boarding school" in the jungle. When I arrived, the school consisted of two huts, one serving as a kitchen and the other as a classroom. The kids slept on planks under the thatched roof while the teachers hung their hammocks underneath them. At night I took pleasure in the wonderful noises of the forest, but was less keen about sharing my living quarters with mosquitos and roaches. La Macarena took me far away from my comfort zone. For the first time I shared my life with people who ended up at the end of the world for lack of better choices. Never before had I been in a place so challenging, and never before had I learned so much.

The author as a child, with her father (courtesy of the author).

That experience and my economics degree earned me a job in an ambitious biodiversity conservation project covering the entire Pacific coast of the country. I lived in Bogotá and travelled constantly to the chaotic cities of the region, crossed muddy trails, endured long journeys in motorboats and dugout canoes, visited the mangroves and the forests, and talked to black peasants and state officials. Again I experienced the jungle, worked with poor people, and got to know the margins of the Andean country I grew up in. And again I learned much about places I could hardly imagine from the classrooms I had shared with the children of distinguished members of our national society. Such a vibrant yet sad place; so contradictory and beautiful.

I wanted to write (and understand what I saw) and was under the impression that grad school was the right place for that. I had an interest in the environment plus a mind that thinks historically. For three years I had been getting to know a place with no official

history, besides that of slavery and the quest for gold in the eighteenth century. With independence and emancipation it became a backwater. Only when a law in 1993 defined its people as ethnic, as having an "ancestral culture" and ecologically friendly practices, did the region become of interest to the outside world. I went to the department of geography at Berkeley to study how the place had become what I knew, that is, to fill the void in documented history from the early 1800s to the 1990s. After finishing, I got a job back home in the history department of the same institution where I did my BA.

Swamped and fascinated by courses and students (plus two beautiful mini-monsters of my own), my work has been guided by three main intellectual concerns. One is the environment, though not for its own sake. As much as I would have liked to study biology, my questions are centered on people. It is the creation of landscapes, the uses and conceptions different groups of people have of the environment that interests me most. A second concern is blackness, and race more broadly. In the Pacific coast of Colombia, where more than 90 percent of the population is black, I was forced to question my own *mestizo* (mixed-blood) identity and face the elusive issue of racism. Since then I have been trying to understand the historical underpinnings of racial difference and hierarchies in Colombia and Latin America. The third, which brings the other two together, is place, specifically tracing how marginal regions or frontier areas form and become nationalized, all while being part of broader transnational circuits.

I work on these three issues within the confines of Colombia. Parochialism? Perhaps. But to me it seems real, meaningful, and unavoidable, and also easier when living in Bogotá. I was born in this city and have come to realize how powerful the idea of the nation is for many of us. Those family trips profoundly shaped my sense of belonging, as did being conscious of my privileged position. Colombia is one of the most unequal societies in Latin America, and violence continues to make it worse. Colombia is also one of the most environmentally diverse countries in the world. My contribution is modest. I strive, along with others, to build a social memory that includes that diversity and recognizes the past of marginal areas and peoples. Perhaps rainforests and the quest and meaning of freedom for black people will someday appear in history textbooks alongside Simón Bolívar. My concerns are grounded in my particular life history and in specific localities, but the issues are much more general so various dialogues are useful and possible. Latin America has always been an explicit point of reference. The RCC allowed me to have a broader perspective, and it is in this direction that I want to work in the coming years.

In this manner, I expect to contribute to the environmental humanities by bringing in certain parts of the world, as well as a dialogue between disciplines (history and geography) and topics (race and nature). I realize that my efforts are geared towards building a career and gaining recognition. But they are also, more deeply, a quest to give meaning to a life that started by touring the dirt-windy roads that somehow helped bring together a country called Colombia.

At the RCC I started a project on the history of conservation. We'll see what fruits it will bring.

Donald Worster

History on the Dry Side

I spent the first 23 years of my life in the American West and the last 24 years learning not only how to live there again, but also about the world beyond the shores of America. Between those periods I became one of the first of a new breed of environmental historian, driven by a desire to challenge my elders and at the same time win their approval. Others will have to decide whether my challenge won their approval or not.

My parents were Dust Bowl refugees, born in Kansas before the Great Depression and the calamitous 1930s. They ended up in the poor, ugly desert railway town of Needles, California, where the transcontinental trains of the Santa Fe stopped briefly before charging across the Mohave Desert into Los Angeles. Needles is located on the banks of the Colorado River, downstream from Hoover Dam, Las Vegas, and the Grand Canyon, and I confess to loving it like a desert rat raised on scorpions and mesquite. From an early age I must have been imprinted with hot, arid landscapes, for I keep coming back to them in my writing.

Fortunately for me in some ways, my parents managed to return to the Great Plains, where they found a more secure life and I found a decent public education. We settled near my grandparents' farm on the outskirts of Hutchinson, Kansas, where I learned to fish and hunt and to love the prairies with their big open skies and violent rainstorms and droughts. A scholarship allowed me to attend the University of Kansas, where the legendary James Malin—one of the first to fuse ecology and history together—taught. I was, however, besotted with nineteenth century English novels, especially *Jude the Obscure* (I must have been feeling pretty obscure myself). Another scholarship funded my doctoral education at Yale University, where I studied American and British history and literature. At that time Yale had probably the best history department in the nation, and it was a hotbed for intellectual historians. It was an easy transition from fiction to the history of ideas, but ideas considered worth studying then were mainly the legacy of New England Puritanism, or attitudes toward race and slavery in the South. Neither touched me deeply.

What did excite me was walking in a wooded area near my home, comparing the snow- or mud-filled landscape with those dry places I had known as a boy. Everywhere

water oozed and ran through the Connecticut environment, more water than I had ever seen before, and what had once seemed perfectly natural to me—the aridity of the West—now seemed far away and almost exotically different. I was beginning to think seriously about the power of the natural environment to shape human lives. In 1970–71, my last year at Yale, I taught a seminar for a dozen talented undergraduates in what must have been one of the first courses in environmental history anywhere. During the first week we went on a hike to find the New Haven harbor, obscured by highways and oil tanks, and by the end of the course I knew that I had found my calling: to become an environmental historian, whatever that might mean.

The author in the Gansu Province of China (courtesy of the author).

My first job after doctoral studies was at Brandeis University, a predominately Jewish institution located in the Boston area. It was, and is, a wonderful school, but intensely urban and largely indifferent toward my environmental interests and inclinations. Fortunately, we lived only a short ways from Walden Pond, the Sudbury and Concord Rivers, and Fairhaven Hill, all famous among American transcendentalists like Henry David Thoreau and Ralph Waldo Emerson. This was about the same time as the first Earth Day and the great awakening of environmental concern in the United States. My life had always been lived close to the land, rivers, climate, and soil, so I was ready to fall in love with New England and its extraordinary tradition of nature writing and to devote myself to rethinking the role of nature in history.

But like the author and historian Bernard DeVoto, who lived for many years in an adjacent town, I discovered by living so long in exile that my heart was in the western United States. An offer came from the University of Hawaii, which was farther west than I wanted to go but was irresistible, and I accepted. Another unfamiliar environment, it challenged my adaptive skills and opened my imagination to the Pacific Ocean and its

perimeters, including Australia, New Zealand, Japan, and China, all of which eventually became travel destinations.

Peter Boomgaard on prehistoric landscapes

I am interested in the so-called Cave Paintings found in southwestern France and northern Spain, to the north and south of the Pyrenees, with names such as Altamira, Lascaux, and, more recently, Chauvet. These paintings, the people that produced them, and particularly their meaning, have generated an enormous literature and heated debates. One author writing about the cave paintings states explicitly that these early Europeans must have looked out, from the entrance of these caves, over the same landscape that one sees today, but that is obviously not true. We are used to thinking about landscapes as having been shaped by humans, and after some reflection it will occur to us that livestock has played a role in landscape formation as well. But didn't the megafauna, still present in Europe when the cave paintings were produced, co-shape the landscapes, certainly in an epoch when they didn't have much competition from humans?

In 1989 I returned to the Great Plains to become the Hall Professor of American History at the University of Kansas, where I taught courses on the West, along with environmental history, the history of science, agriculture, and interdisciplinary environmental studies. Here I was fortunate to work with many superb graduate and undergraduate students. In 2010, I became a research fellow at the Rachel Carson Center and returned in 2013, and in 2011 was the Strachan Donnelley Visiting Scholar in the Institute for Biospherical Studies and School of Forestry and Environmental Studies at Yale. Over the years I have lectured and traveled in Europe, Asia, Africa, as well as nearly every part of North America, and my writings have been translated into several languages. But this pattern I have been describing—finding a place to put down roots while transcending them and transcending national borders at the same—is I think where environmental history has been leading all of us: toward a more international, comparative, and global understanding of the meaning and significance of nature in our lives.

My books began with a revised Yale dissertation, *Nature's Economy: The Roots of Ecology*, a history of environmental science in its cultural context, very much a product of New England living and Yale training. It was followed by my "return of the native" books: *Dust Bowl: The Southern Plains in the 1930s; Rivers of Empire: Water, Aridity, and the Growth of the American West; Under Western Skies: Nature and History in the American West;* and *An Unsettled Country: Changing Landscapes of the American West.* Over the past decade I have published two biographies of western Americans who like me were deeply impressed by the natural environment, materially and spiritually: *A River Running West: The Life of John Wesley Powell* and *A Passion for Nature: The Life of John Muir.*

Currently, I am working on a book tentatively entitled *Facing Limits: From the Age of Abundance to the Age of Vulnerability*, to be published by Oxford University Press. Naturally, it will reflect my family's past as western Americans, encountering scarcity while yearning for a better life. But it will also reflect the fact that I feel more like a citizen of the world these days, not merely a desert rat. Over the next few years I will serve with great pride as a visiting faculty member at Renmin University of China and as honorary director of its Center for Ecological History. China will now be my home for part of each year, but it is always the dry, spare landscapes of America's West that are most vividly on my mind.

Sherry Johnson

Weathering the Storm

Growing up in Miami, long before satellite images warned of approaching weather fronts, residents kept a close watch for signs of danger. People who had never come through a hurricane turned to the advice of the old-timers in their community to provide guidance on living in the tropics and on how to survive the threat of hurricanes and tropical storms. Such hazards were never far from the community's consciousness, and when a hurricane threatened, preparations began in earnest.

Everyone had a task. Children cleaned debris from the yard that could turn into deadly projectiles as the wind increased. Adults prepared lanterns and candles, put up hurricane shutters, cleaned the bathtub and filled it with water for use after the storm had passed. Many old Florida houses had a safe room, essentially a windowless walk-in closet where the family would take shelter while the storm raged outside. Generations of folk and family wisdom gave us a sense of confidence. Before the storm, and at every family gathering during the year, elders recounted the horrifying effects of one or another hurricane only to reiterate its resilience in its ability to survive. In my family, we heard about my cousin who talked incessantly during the hurricane that hit Miami in 1947. Later, in life, my father-in-law never failed to tell the story of how he had survived the great Okeechobee hurricane of 1928 because his father had put him and his siblings up into the rafters of their Cracker cottage as it floated off of its pilings. In danger's aftermath, survivors were left with a feeling of confidence that since they had endured the effects of at least one deadly hurricane, they could do so again. Out of survival came a sense of capability; knowing what to do meant one could survive a future disaster and cope with its aftermath; and the intangible mentalities associated with being a survivor became ingrained into the collective mentality of the population.

Decades later—but not surprisingly—I chose a field of inquiry related to my personal experiences: the tropical environment, hurricanes, and their social, economic, and cultural consequences. My first introduction to the possibilities of such a focus came during my time at the University of Florida in December 1985 in a class on Andean archaeology taught by Michael Moseley. Moseley had invited geographer César Caviedes to explain a climate phenomenon that two years previous (1983) had caused severe flooding in the

Andes. Because the floods occurred during the Christmas season, the event was named for the Christ child, El Niño, and the cycle now is universally recognized by its popular name. Scholarly interest in El Niño had quickened in recent years, and scholars learned that El Niño and its counterpart, La Niña, were recurring events. My introduction to the importance of climate and weather events led me to take courses in tropical ecology and in nineteenth-century urbanization, which became my first introduction to environmental history. This interest endured throughout my professional career, and I combined it with my geographic specialization in Caribbean and southeastern borderlands history.

Diana Mincyte on gardening in Lithuania

My earliest encounters with "non-human" nature were those of gardening. Like many others in the socialist world, my parents had acquired a patch of land located a few kilometers outside of the city where they spent long hours cultivating beds and growing a wide variety of vegetables, berries, and fruits. It is the harvests from the garden—*sodas* in Lithuanian—that filled the shelves in the cellar of our apartment building with jars of jams, juices, preserves, compotes, and pickled vegetables. For my parents, the garden was the center of their lives, the source of pride, and the method for ensuring sustenance. But not for me. In my memories, gardening always meant grueling work.

My childhood experiences shaped my scholarly interests in profound ways. Not only have I been drawn to studying questions of poverty, sustenance, and self-reliance in the context of environmental issues, but environmental humanities gave me the language to consider the complicated ways in which nature and culture are braided together and how biological processes intersect with class politics, labor practices, subjectivities, technological advancements, economic conditions, and the philosophical questions of life and well-being.

In the 1980s and 1990s, the depth and breadth of scholarship on colonial Cuba was almost exclusively dependent upon sugar determinism. Sugar cultivation and its corollary, African slavery, were the predominant analytical frameworks employed to explore

historical processes. My dissertation, that became my first book, moved away from sugar determinism and investigated how the landscape of Cuba after the Seven Years' War (1756–1763) changed as a result of peninsular (Iberian) immigration. Although not intended as such, this book implicitly suggested how the physical landscape was altered by demographic change. Yet given the state of knowledge about Cuban history at the time, incorporating an environmental framework would have to wait for my second major project.

Even before I finished my first book, I had been gathering data to write a second book on the importance of the environment on Caribbean history. The project was still in its early stages, but its direction took shape after I received the comments from a (not-so-anonymous) reader of a manuscript that I had submitted to a major journal about changes is spatial ordering in and around Havana. That reader asked what influence, if any, hurricanes had on demographic processes, and I knew in that instant that my next project would incorporate how dramatic events affected social and economic processes. Two contemporary publications influenced my thoughts and methodologies. One was Louis A. Pérez's book (*Winds of Change: Hurricanes and the Transformation of Cuban Society*, University of North Carolina Press, 2001) that examined how three severe hurricanes in the mid-nineteenth century destroyed agricultural production and led to shifts in slaveholding patterns. The second major influence was César Caviedes's publication, *El Niño in History* (University Press of Florida, 2001) which took a broader framework and showed how El Niño and La Niña cycles alternate and affect historical processes. At the same time, two new disciplinary trends were emerging: disaster studies and historical climatology. From just a handful of studies in the 1990s, researchers across the globe provided a growing body of knowledge about temperature fluctuations and about how a variety of disasters—most relevant to my research on hurricanes, floods, and drought—were key actors in impacting people's lives. With each new disciplinary trend, my archival investigations expanded exponentially, finally encompassing documentary sources from Spain, to Cuba, to the United States in archives in Massachusetts, Philadelphia, Louisiana, and Florida, among many. By October 2009, the first draft of my manuscript was submitted to the University of North Carolina press. Three months later, I began my fellowship at the Rachel Carson Center in Munich in 2010, where I was able to make significant additions and revisions. The final product, my book *Climate and Catastrophe in Cuba and the Atlantic World in the Age of Revolution* was published in November 2011. To date, the majority of the reviews have been positive, and in June 2012, it earned the

Gordon K. and Sybil Lewis Prize for best book on Caribbean Studies by the Caribbean Studies Association.

My most recent project has evolved as a consequence of collecting evidence for my last book, opinions in an article by Philip Jones and Michael Mann ("Climate Over Past Millenia," *Reviews of Geophysics*, 42 (2004), 1–42.), and a conversation with Christian Pfister at the Rachel Carson Center in 2010. This study hypothesizes that pivot periods, i.e., those crucial times (sometimes longer than a decade) when the earth moved out of one phase and into another, could have a significant impact on historical processes. With worldwide temperatures in disequilibrium (relative to what had been the norm for longer periods of time), one would expect to find an increase in weather-generated hazards along this chronological horizon of disequilibrium. Such hazards—rapid-onset events such as hurricanes and floods or slow-onset events such as drought—impacted preindustrial societies, which struggled to survive. As societies adapted to changed weather patterns, a new normal developed only to be disrupted when the earth's temperature shifted again.

The geographic focus of this study is the frontier between Spanish Florida and the British colonies to the north, where in the 1730s, extreme weather events became agents of causation. In 1738 a drought so severe that it had no counterpart until the Dustbowl of the 1930s killed crops, livestock, and even led to heatstroke and deaths in the human population, but by late August, the heat wave broke and the region experienced an inordinate amount of rainfall, sometimes making travel hazardous even by boat. I am seeking to expand the research on my project to encompass a wider geographical scope and to be able to compare and contrast the events in Florida and the Caribbean to other areas where similar phenomena occurred such as Europe. Extreme weather events have increased in recent years, and the patterns of adaption that we can see in history could well be a blueprint for our future. All of my scholarship has been influenced by the support of the Extreme Events Institute and the Latin American and Caribbean Center at the School of International and Public Affairs of Florida International University, and it goes without saying that the Rachel Carson Center's continuing help will always be appreciated.

Sarah Cameron

The Long Winter

My introduction to the environmental humanities began on a sunny California day many years ago. I was a senior in college, and, like many of my peers, I was trying to figure out what on earth might come next. I had always been interested in international issues, but I spoke only a smattering of Italian and Spanish. Seeking some adventure, I applied to the United States Peace Corps. During my interview, the recruiter took down my information. She asked if I had any preferences on my assignment, and I volunteered that, while I was willing to go anywhere, I really, really hated the cold. I saw her carefully write this down. And as I waited for my assignment over the next few months, I imagined the site where I would be volunteering: a nice, sunny patch of the Italian- or Spanish-speaking world.

So, on that sunny California day, as I opened up my mailbox, what I found came as a shock: it was an express mail letter from the US Peace Corps. My assignment: two years in the Russian Far East! This two-year term wasn't a prison sentence, although friends did tease me mercilessly about my impending "exile to Siberia." Rather, it was the beginning of my adventures in the environmental humanities and the Russian-speaking world.

My two years as a school teacher and Peace Corps volunteer in the Russian Far East (which is technically not "Siberia," but a separate region of Russia, bounded roughly by Lake Baikal and the Pacific Ocean) taught me many things. But one of the most interesting and unexpected results of my time was an introduction to a different way of relating to the natural world. Friends in my field site, a small town known as Khorol, showed me how to hunt for mushrooms and fiddlehead ferns in the forests that bordered the town. They took me to their "dachas," summer cottages in the countryside, where they planted vegetables and grew fruits and various berries. These cottages were modest structures. Most were little more than a shack, without heat, electricity, or indoor plumbing. In the dacha, I learned how to get water from the well, chop firewood, and milk a cow. Like my friends, I came to enjoy the tranquility of the dacha and the break from modern conveniences. My friends knew that I didn't have a dacha, and many expressed doubt over how I would get through the region's long winter without one. Neighbors began to

The author in 2001 at a village in the Russian Far East (courtesy of the author).

shower me with potatoes, jam, and canned vegetables, all from their dachas. There were so many potatoes I could not think where to put them or how to store them. I hid them in the crevices under my sink, where they sprouted and tumbled out every time I opened the cabinet door.

Initially, I was puzzled by their kindness: the market in town was small, but it appeared to have enough fruits and vegetables so that I could survive the winter. However, I soon came to understand the importance that my friends placed on eating food that they produced and conserved themselves. It looked and tasted delicious. It was far cheaper than the tired fruits and vegetables, trucked across the border from China, that was the only produce sold in the town's market during the wintertime. In referring to the goods that they grew, produced, and frequently gave to me, my friends didn't talk about "jam" or "potatoes." They talked about "my jam" and "my potatoes," and, through this turn of phrase, I came to understand the pride that my friends took in their efforts. If it was "theirs," that meant that they knew exactly how it had been produced and grown, in contrast to the produce that found its way into the town marketplace. And, if this produce was "theirs," that also meant that they had insurance, a way of surviving the winter even if economic hardship or changes in the food supply threatened to disrupt their lives.

With no knowledge of how to even store a potato properly, I couldn't have imagined growing anything in the seemingly inhospitable landscape of the Russian Far East. But my friends did. Though I certainly wouldn't have starved, their assistance greatly improved my wintertime diet and overall good humor during the long winter months.

Although it is a very different historical, political, and environmental context, the connection between local knowledge and food production emerges frequently in my research on

the Kazakh steppe. Through careful attention to how agrarian and non-agrarian peoples in the steppe got food, I try to illustrate the linkages between local knowledge and food production. My research also illustrates the disastrous consequences that can result when a regime tries to upend local food systems. For example, in the late nineteenth century, after a series of disastrous growing seasons and frequent bouts of famine, Russian and Ukrainian settlers to the Kazakh steppe began to adapt to their new environment. They employed new types of livestock, including camels, to till the land, and they studied the types of grains that could flourish in the steppe's arid environment. Some even began to develop an affinity for a local delicacy, fermented mare's milk (*kumis*).

Martin Schmid on the Danube

I came into environmental history from a cesspool (albeit a medieval one, in which I was eking out my student existence as an archeological technician). Out of the medieval cesspool, I jumped into the Danube. The Danube was part of my life during my childhood in the 1970s and 80s. My father's parents lived close to Vienna in a large house with a great view across the river. My mother was born 300 river kilometres further downstream in Budapest, and grew up during the 1950s and 1960s in a medium-sized town close to the Hungarian capital. She told me that in those times, bathing in the Danube was a mucky pastime for Hungarian kids. Water pollution from heavy industries in the then-socialist "People's Republic of Hungary" mantled their little bodies with an oily film. Her great-aunt needed a lot of ox-gall soap and scrubbing. This woman, who took care of my mother after her parents left Hungary and their six-year-old daughter during the revolution of 1956, had remarried a Jew. This man, who I remember as a small friendly man with thick glasses, was the only member of a big family to survive the Shoah. My Austrian grandfather, 300 kilometres further upstream, was a convinced Nazi. I do not know if he was convinced his whole life; he died in 1979 when I was only five. He left the wonderful house above the Danube, in which I now live with my family.

In the late Russian imperial and early Soviet periods, Kazakhs, the steppe's majority ethnic group, also relied upon their knowledge of the landscape to get food, although

their methods differed from Russian and Ukrainian settlers. Most practiced pastoral nomadism; they carried out seasonal migrations along pre-defined routes to pasture their animals, including horses. This was a way of adapting to the steppe's environment, particularly the scarcity of good pastureland and water. As nomads, Kazakhs also developed ways to distribute the economic risk of animal herding, their own "insurance" in case of food scarcity and economic hardship. But in the late 1920s, when the Soviet regime began to eliminate this system, shunting nomads and peasants onto collective farms, widespread famine resulted. More than 1.5 million people died in the Kazakh famine of 1930–33, and the new republic of Kazakhstan lost a quarter of its population.

I believe that my experiences in the Peace Corps helped shape my current research on famine, agriculture, and land transformation in Soviet Kazakhstan in subtle ways. And I look back fondly on my two years in the Russian Far East (although I must admit I still do not like the cold).

Frank Zelko

The Brick Veneer Frontier

I grew up on the fringes of Melbourne in the early 1970s. My parents were Yugoslav immigrants who had come to Australia to escape the poverty and drudgery of one of Europe's poorer rural backwaters. Hard work, strong labor unions, and a healthy economy combined to help them realise the Australian dream, which, like its North American counterpart, involved mortgaging themselves to a new house in a subdivision far removed from the pre-gentrified inner city neighborhoods that were then associated with urban squalor rather than Victorian charm.

My treeless expanse of newborn suburbia in Burwood East—built at the expense of century-old apple and pear orchards—hardly seemed a promising location for ecological enchantment. But kids are too ignorant to know that. My introduction to the wonders of nature took place on the brick heaps and woodpiles strewn across vacant blocks awaiting brigades of brickies and chippies, the worker ants of the suburban frontier. Lifting up stray bricks revealed earthworms, crickets, and centipedes amid yellowing strands of dying grass. Peering under rusty strips of corrugated iron—for some reason ubiquitous on suburban building sites—offered the possibility of more exciting game: frogs, mice, and very occasionally, the petrifying thrill of a deadly tiger snake. In a time before helicopter parenting and Nintendo, I spent many happy days trundling through waist-high dandelions and other weedy colonizers of abraded landscapes, picking through building detritus and hauling home treasures (to my mother's dismay).

I didn't think this way at the time of course, but in retrospect, I can see that my suburb passed through several ecological stages, each of which brought a different set of opportunities and limitations. Within a decade, the bulldozed landscape of my early childhood years became the familiar suburban patchwork of brick veneer houses, concrete driveways, and couch grass lawns. The temporary construction site "commons" gradually gave way to private little fiefdoms, thereby restricting exploration to one's backyard, parks, and school grounds.

Melbourne's mild climate enabled its diverse population to create a hotchpotch of new micro-ecosystems, each reflective of the home they'd left behind: Greeks and Italians planted citrus and olive trees, parsley and rosemary; German and Dutch im-

migrants constructed elaborate flower beds brimming with tulips and crocuses; the established Anglo-Australians, whose patriotism was finally beginning to extend to native Australian flora, began favoring wattle and eucalyptus trees, as well as indigenous shrubs and sedges. Ecotomes—transitional zones between ecological communities—were virtually nonexistent. Instead, six-foot wooden fences separated Italian vegetable patches from English ornamental gardens and backyards assiduously cultivated to mimic the Australian bush.

The birds that populated my early childhood—fellow European immigrants such as sparrows, blackbirds, and starlings—increasingly had to compete with an influx of native species drawn to the ecological hybridity of suburban Melbourne. In the mid-1980s, residents were delighted by the arrival of rainbow lorikeets, among the most gaudy and gregarious parrots in the world. In addition to their traditional diet of eucalyptus nectar, the lorikeets thrived on the abundance of non-native fruits, particularly the row of Chinese loquat trees that separated our backyard from our neighbor's.

By the early 1980s, fast-growing eucalyptus trees began to tower over the single story suburban bungalows. I don't recall ever seeing possums as a child, but by the time I was a teenager, both ringtails and brushtails had become ubiquitous, skittering along power lines at night and raiding fruit trees. They were joined by flying foxes, giant eerie bats that congregated by day in the city's botanical garden before taking off at dusk and beginning their slow ungainly flight to the suburbs, where they spent nights crash landing on backyard peach and plum trees. Sometimes you'd see a dead one hanging from a power line, a severe and unjust punishment for an ill-chosen roost.

By the time I left Burwood East in the early 1990s, it had reached what might loosely be called a secondary stage of ecological succession. The bulldozed, sunbaked, and weedy quarter-acre blocks of the 1960s were now shaded by mature trees and populated by a diverse and motley range of plant and animal species. Like any ecosystem, it was the sum of many parts. Humans may have initially conceived and constructed it, but over time it had become the product of multiple agents. Few people noticed that their gardens, roofs, and treetops had become battlegrounds pitting colonial invaders like starlings and sparrows against a resurgent population of native birds, such as noisy miners and wattle birds, who found in suburbia abundant ecological opportunities worth fighting for.

The author's father, Steve Zelko (left), and his friend and fellow Yugoslav refugee, Karol Grah, begin digging the foundations for a new suburban house (courtesy of the author).

What ideas did the human inhabitants have about these ecological developments? I doubt many of them gave it much thought. Suburbia contained its fair share of enthusiastic green thumbs, but there was little to suggest that they had any kind of holistic view of their environment or a deep understanding of how they were transforming it and why. Everyone was busy tending their own atomized patch of property in whatever way they saw fit. Some planted lush, thirsty lawns that would have been appropriate in an English garden but which required enormous effort and expense in Melbourne's Mediterranean, drought-prone climate. At the other extreme, although similarly problematic, were those who favored low maintenance concrete front yards, environments more suited to cricket than crickets. Others compromised by spreading tanbark around the property or creating rock gardens. If it existed, neighborhood pride was anchored in tidy yards and safe streets rather than notions of ecological cohesiveness or integrity.

The result of thousands of people with diverse social and cultural backgrounds, uneven levels of energy and commitment, and different ideas of home, the suburban landscape of my childhood constituted a haphazard form of ecological diversity. It was not the *longue durée*, evolved diversity of the rainforest or coral reef. Rather, its weird

and fractured patchwork of ecosystems was the by-product of subdivision, real estate investment, and homeowners' heterogeneous aesthetics and habits of consumption.

Objectively, by world historical standards, my middle class suburban childhood and its ultimately diverse habitats of native and introduced species could only be described as pleasant and privileged. My parents continue to live happily in the same house. Nevertheless, I have little desire to live in Burwood East or any neighborhood like it. Environmental history eviscerates suburban nostalgia. The pleasures of the backyard barbecue—and the general complacency of suburban life—ignore the energy flows and externalities that make such a life possible for a relatively small percentage of the world's population. The bittersweet result of being an environmental historian is that it has enabled me both to better understand my home while moving me emotionally ever farther from it.

Matthew Kelly

Finding Dartmoor

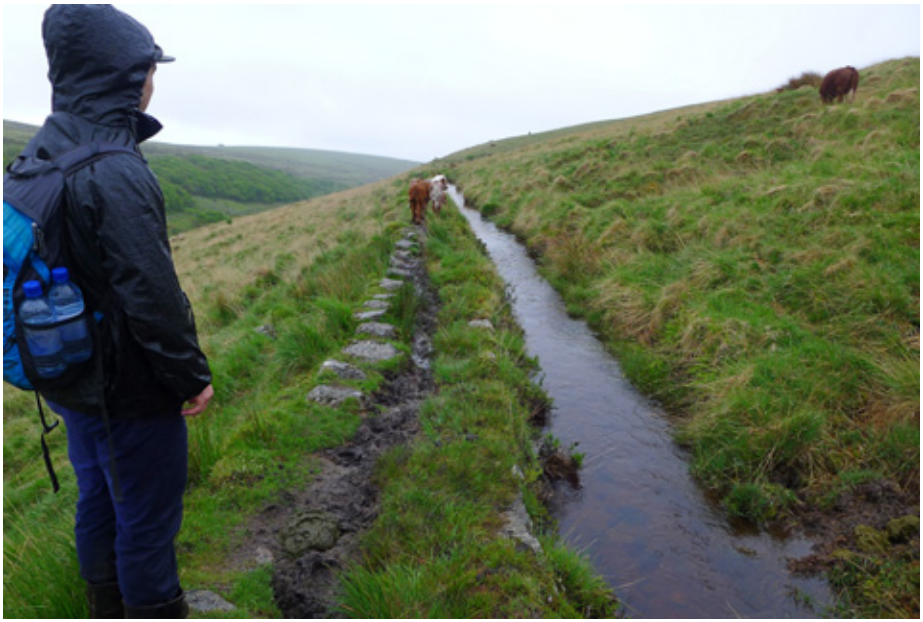
History isn't autobiography, but experience can deliver the historian her subject. I grew up in Devon in the UK, the county that hosts the landscapes of Dartmoor, a varied upland that was designated a national park in 1951. Not all Devonians are "Dartmoor lovers"—a phrase so clichéd it is painful to type—but I am, and though I cannot recall the moment of infatuation, it dates from the period of infatuations, a constituting thread of my *Bildungsroman.* Dartmoor's open spaces, wide and secluded, were places of freedom and exertion, where excess energy was converted into the endorphin-fuelled euphoria of adolescence, a Wordsworthian hit that can still deliver. Four days at Pixies Holt with my classmates when I was 12; a snowy midnight walk with the hippie-eco Woodcraft Folk; ne'er do well hostelling weekends with friends when I was 15 or 16; ritualistic pilgrimages with willing friends over the coming years; and that Proustian moment in north Oxford, when the blustery night somehow brought Dartmoor's olfactory sweet nothings of earth, stone, wood, and animal in through an open window.

As a prospective PhD student, it didn't occur to me that Dartmoor might be a historical subject. And my romanticism only partly accounts for this. I had been weaned in the mid-90s on a curriculum that was rigorous and demanding, that exposed students to highly developed historiographies and fetishized scepticism. The New Cultural History— not yet a "turn"—was our cutting edge and it was Le Roy Ladurie, Natalie Zemon Davies, Joan Wallach Scott, Benedict Anderson, Robert Darnton, and their invented traditions, imagined nations, massacred cats, and rough music who kept us up at night. There was no teat in Oxford for a suckling runt like environmental history. I took on one of those big themes—nationalism—and wrote about the Fenian ideal in late nineteenth and early twentieth-century Ireland. At that time, Irish historiography was fraught with what retrospectively looks like a classic revisionist/anti-revisionist controversy, except in Ireland the disputed past had a material impact on the present. In 1998, the year the Provisional IRA and loyalist paramilitaries gave up armed struggle and the Good Friday Agreement was signed, I wrote my Master's dissertation on a nationalist literary association from the 1880s. My supervisor, Roy Foster, had done much to define the terms of the debate, and at age 22 it was a little bewildering to find myself a tiny voice in that very loud discussion.

Flicking through the book (2006) that emerged from my postgraduate work, I find very little awareness of how perceptions of the Irish landscape might have shaped cultural nationalism. In a later article I touch on evidence suggesting a young nationalist came to political consciousness as he became aware of the material precipitates of British power in the Irish landscape, but my treatment was incidental to the larger argument. Landscape features more significantly in the book I wrote about the experiences of my grandmother, her sister, and her mother as Polish deportees to Kazakhstan during the Second World War. In letters the girls subsequently wrote to their father from refugee camps in Asia, they idealised the *kresy*—Poland's eastern borderlands—as both the lost domain of childhood and the canvas on which they painted their future hopes. There was to be no return, and at the end of the war they were transported to Britain, reunited with their father, and settled alongside other Polish refugees in a disused US army hospital on the edge of Dartmoor at Plasterdown. My great-grandfather had arrived there ahead of his family, and in optimistic letters he pictured the landscape as needing improvement, comparing it to the *kresy* where he and his wife had settled as a young married couple 20 years earlier.

Historical forces beyond their control had placed this Polish family in a landscape that allowed them to reassemble shattered hopes through a relationship with the land that symbolically connected Poland's former eastern borderlands with England's West Country. To learn that my grandmother, at age 16, had cycled the lanes of Dartmoor's low-lying western fringe added another layer of connective tissue to the story, but it took a more mundane observation to awaken my historical imagination. In the last stages of writing *Finding Poland* (2010), I visited Plasterdown and my unpractised eye found almost no evidence of its previous incarnation as the site of a refugee camp. And it was this that got me thinking about what a history of Dartmoor might be.

Unwittingly, I had stumbled upon W. G. Hoskins' idea of the landscape as palimpsest, one of the most influential ideas in late twentieth-century British landscape history. As another cliché has it, the landscape historian must begin her research with a good map and a preparedness to get her boots muddy. Much of course has changed since Hoskins wrote, not least the development of geo-mapping technologies, but the old notion persists that the landscape is a text the historian must learn to read for evidence of past lives. The cultural turn, however, had done its work and I found myself drawn not to high-tech methodologies but to written texts and the subjectivities, grammars of representation, and so on that they contain. What had Dartmoor signified and how had that



The author, some cows, and Devonport Leat in Dartmoor, below Beardown Tors (courtesy of the author).

changed during the modern period? What values, hopes, and fears had been invested in this landscape? Standing at Plasterdown, unsure whether I was on a site that nature had reconquered or that had been restored by human hands, I understood that the material reality of what was under my feet could not be reduced to a series of texts comprising a free-floating semantic field. What I had long intuited was suddenly clear. Dartmoor was not "unspoilt," a great wilderness touched only by sheep, ponies, and our imaginations, but its material fabric was fundamentally of human making. Delimited, yes, by its natural characteristics—I got that—but produced nonetheless. Looking at David Blackbourne's *The Conquest of Nature*, long on my largely fanciful to-read list, suddenly seemed pressing, as did revisiting Simon Schama's *Landscape and Memory*, a book that had enthralled me as an undergraduate.

"Nature writing," my agent said, alert to the current market, "this is nature writing." I insisted it had to be history. The world hardly needs more sub-MacFarlane narcissism, and I've a head of department as well as a publisher to keep happy. Dan Franklin at Jonathan Cape had taken *Finding Poland* and now gave *Quartz and Feldspar* the nod. I really was going to spend the next few years writing about Dartmoor! I conceived of

the book in four parts: Antiquarianism and Archaeology; Improvement and Incarceration; Preservation and Amenity; and Commoners and Folk. The serendipitous moment came a year or so into the project when I was invited to give a paper at the University of Bristol. Peter Coates told me about the Rachel Carson Center; I had a weekend to get the fellowship application in.

Shane McCorristine on the Arctic

I still try to think about European exploration in the Arctic as a passage, and narrations of Arctic exploration as descriptions of movement, rather than static snapshots of unadapted bodies in an unforgiving landscape. Having travelled to Arctic Canada, I no longer assume that everything is rooted and static. Places can also be buoyant and atmospheric; the sea, the ice, the land, the stars, and the sky are all part of Arctic place.

And so, in September 2012 I arrived at the RCC with a stack of research notes, a laptop, and a sense of being an imposter. In February 2013, I left Munich with a lot of new friends, a thing for the Alps, a liking for Bavaria's sweet beer and nutty bread, a desire to eat some green vegetables, an even longer to-read list, 40,000 words worried over, a commitment to co-convene a workshop on nature conservation, and the possibility that I might be on the way to becoming an environmental historian.

Journeys around the Globe

Shen Hou

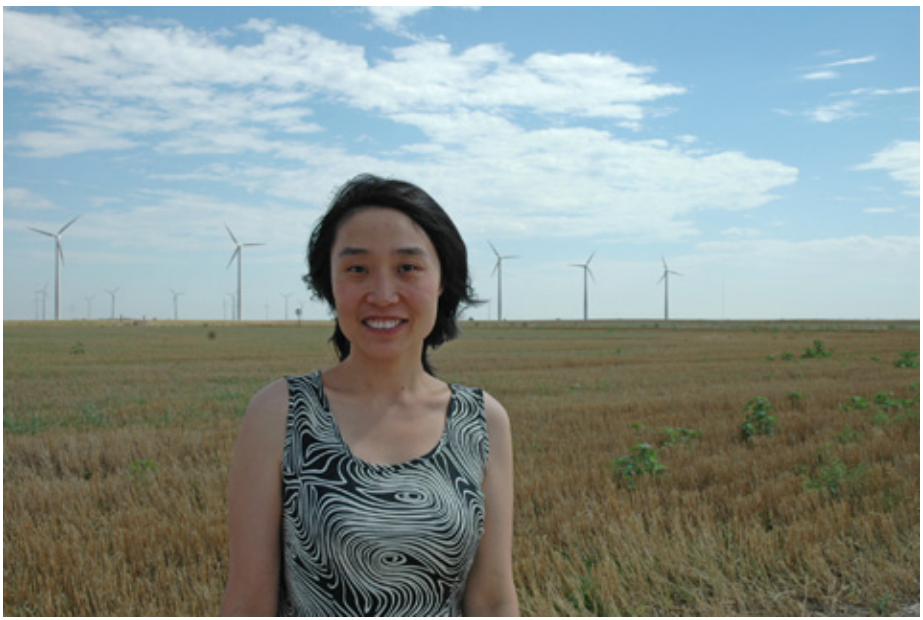
A Deep Affection for Nature's Beauty

I was born in Lanzhou, a city in the west of China where the Yellow River flows. But my memory of this place had been obscured for a long time because my parents moved to Tsingtao, a coastal city with golden beaches, green pines, and red German-styled roofs everywhere. Not until I encountered a book entitled *Dust Bowl: The Southern Plains in the 1930s*, did I recall the environment of my childhood—dry, barren, and harsh. Once the fierce wind blew, the yellow dust drifted. But the book *Dust Bowl* did much more than remind me of my childhood home, which required so much toiling and struggling for survival; it also fundamentally changed my view of history and the way to do history.

When I first read the book, I was a junior student at Central China Normal University, located in another river town, Wuhan, which is bisected by the Yangtze River. My parents were both history professors who brought me to the enchanting terrain of history and inspired me to explore it on my own. Following their footsteps, I took history as my major, but then I was more fascinated by the intellectual world of ancient China, which had been my interest since I was a child. I studied the ancient people's poems, essays, conversations, music, behaviors, love, and hatred. I always found nature in their writing, for it had been one of the main themes in traditional Chinese intellectuals' life. Like those ancient Chinese intellectuals, I felt a deep affection for nature's beauty and sensed some mysterious kinship with nature, but never did I think that it was in fact a major force shaping the history I was trying to investigate. "There is a story of wax and wane in this pond, and only the gulls could read it" (Huang Geng, Chinese poet in the fourteenth century). I thought that the vicissitudes of nature should be left out from our own story and felt too content with my little world to realize how ignorant I was.

The book *Dust Bowl*, by Donald Worster, was translated by my mother, Hou Wenhui, who was the first scholar to introduce environmental history into China. Mother never tried to impose her own interest on me, but she told me to read that book. So I did, staying up late in a dorm as hot as a furnace where the electric power was cut off after 11 p.m., holding a candle in one hand and the book in the other, completely captivated. Then, I said to myself: "History could be written in this way!" As a history major in

China, I had become familiar with the ideals of the greatest ancient historian Sima Qian: "Explore the dialogue between nature and human, understand the change in the past and present, and establish my own words." Few historians I read, however, had taken this ideal seriously. For the first time in my life, I felt like that frog in the ancient Chinese proverb, sitting at the bottom of a well, seeing only a tiny portion of the sky and believing that it was the entire world. So this frog was eager to jump out of the well to see the real world, or at least to see as much as she could.



The author under western skies (courtesy of the author).

Where should I start? Obviously, with the country of the Dust Bowl. I wanted to stand under the vast western skies where people's sight could go as far as they wanted. Fortunately, I was admitted to the University of Kansas where Prof. Don Worster had been teaching for a decade. It took me more than a year to understand that my jump was from more than one country to another across the Pacific, but also from one language and culture to another, and from ancient Chinese intellectual history to American environmental history. The jump was so wide that I would have drowned if Don and other professors at KU had not rescued me with their encouragement and tolerance.

For six and a half years, I lived on the Great Plains of North America, learning to adapt to its natural and cultural environment and thinking about nature's role in history. The old training in intellectual history still haunted me, and I found my academic interest focusing on the intellectual landscape of humans' relationship with nature. For my dissertation I chose to write about the magazine *Garden and Forest*, published in late-nineteenth-century Boston and New York, and tried to reveal a more profound urban side of the early environmentalism in the United States. The research for the dissertation led me to New England, New York, Washington, DC, and many other places. It also led me to discover the inner world of those early American green reformers: Frederick Law Olmsted, Charles Sargent, William A. Stiles, Charles Eliot. All of them seemed to be living in such a remote era and country, but I found in them some concerns and passion for nature and culture similar to my own. It has been five years since my graduation, and my dissertation has been published as a book entitled *The City Natural: Garden and Forest Magazine and the Rise of American Environmentalism* (University of Pittsburgh Press, 2013).

So where should the frog jump next? I felt an itch to go back home after being abroad for so many years. Somehow, home seemed different now. The rolling plains and the crystal blue skies of Kansas had become a second home for me in many ways. I did not realize how much I was attached to that land until I left it. But on the other side of the world, I still had another home, a home where my cultural roots are, but also a home that could seem alien after being far away for so long. I knew that back home, environmental history was beginning to thrive and people were starting to join it. Therefore, I came back to China and tried to find my position in this burgeoning country.

In the first two years, I was a postdoctoral fellow at Tsinghua University. After that I served on the faculty of the history department at Renmin University of China for three years. In 2010, my fortunate star shone again, and I went to the Rachel Carson Center in Munich as a residential fellow. There I found an even wider sky to see and a more exotic land to explore. At the RCC I felt that I was getting close to becoming an international citizen with deep environmental concerns for our planet and a transnational academic interest.

While a Carson Fellow, I started a new project, studying the introduction, acceptance, interpretation, and practice of American ideas of nature conservation in China. I call it *Old Land, New Nature: The Journey of the Ideas of Nature Conservation from the*

United States to Modern China. Now it seems I finally get a chance to integrate my old fascination with Chinese intellectual history with my new career as an environmental historian. And this time, I do not want to be in an intellectual vacuum; this time I am eager "to ramble into fields, woods, and the open air." I want to get some mud on my new walking shoes (as Don Worster advocates in *Doing Environmental History*). I want to travel to some of the nature reserves, see their soils, waters, plants, animals, and people living there and incorporate them into this project, studying how the idea of nature conservation has changed over time and how it has helped shape modern China.

This transnational journey of conservation ideas is more or less like my own story. For more than a decade, I have been roaming from one continent to another, finding in every place a certain intellectual home. And I have always felt so lucky to become an environmental historian, a profession that has given me a legitimate reason to indulge in my love for nature and culture.

Thomas Lekan

A Place for Animals

In hindsight, I can see how my current book project, *Saving the Serengeti: Tourism, the Cold War, and the Paradox of German Conservation in Postcolonial Africa*, brings together a number of personal and professional ideas and aspirations that have been simmering since my childhood. *Saving the Serengeti* focuses on the work of former Frankfurt Zoological Society director Bernhard Grzimek, who is arguably Germany's most important wildlife conservationist of the twentieth century. Germans remember him for primarily for his Sunday night television program *A Place for Animals*, the longest running in German history (1957–1987), and the documentary *Serengeti Shall Not Die* (1959) that he produced with his son Michael. The film stirred Western audiences to send donations to protect the Serengeti and other national parks in Africa, but the real sacrifice came from local Africans, particularly those pastoralist groups who had to leave their homelands to make room for a new kind of tourist habitat. Yet Grzimek also understood better than most the connections between ecological protection at home and abroad; he fought just as hard to save chickens from horrific battery farms in Europe as he did endangered black rhinos in the Ngorongoro Crater in Tanzania.

Saving the Serengeti is a product of deep ambivalence about my own fascination with all creatures great and small, on television and in my home, during roughly the same years that Grzimek was at the height of his influence. It also reflects my desire to bring environmental-historical perspectives to bear on "real world" debates about sustainability, ecotourism, and the legacies of European and American green imperialism in Africa and Asia, a wish motivated in part by my disillusionment with the world of environmental policy analysis in my first years after college. Viewing long-forgotten episodes of *A Place for Animals*, I'm reminded of my favorite television program of the 1970s, the one for which my parents let me stay up "late" (i.e., past 8:00 on a school night!): Mutual of Omaha's *Wild Kingdom*, hosted by Marlin Perkins of the St. Louis Zoo. My parents thought the show would satisfy my scientific curiosity, and the safe and harmonious animal scenes appeared resolutely apolitical during a time when they worried about the violent images of the war in Vietnam appearing on the nightly news programs. Perkins always left his sidekick Jim Fowler do all the dangerous work with animals, and Jim's antics served as the perfect segue to selling life insurance (*Jim may not escape the jaws of the Upper Nile*

crocodile, but you can protect YOUR family from unseen hazards by contacting Mutual of Omaha about a life insurance policy….). I envied Perkins's access to animals and developed my own menagerie in our northern Ohio home. At one point, ten aquariums in the house containing myriad tropical and local freshwater fish, frogs, a snake, a small snapping turtle named Sarah, and a lone bluegill I caught with a net in a local pond. I also had a Netherland Dwarf rabbit and our Sheltie, Taffy. After trying to transplant woodland flowers into our yard or build my own backyard bass pond without sufficient aeration, I learned the hard way how species were adapted to particular environments, and on my mother's advice, became more cautious about what I brought home from the wilds of ex-urban Cleveland. Nudged a bit further by my mother, I reluctantly let Sarah, the bluegill, and the rest of the gang return to their pond of origin.

I did not know Grzimek as a child; few North Americans did, though many West German commentators credit him with transforming the straitlaced boys and girls of the Adenauer years into the firebrand Green activists of the 1970s. Indeed, as it developed over the late 1960s and 1970s, Grzimek's *A Place for Animals* became much more didactic, and Grzimek much more of a crusading activist, than *Wild Kingdom* or Perkins ever did. Yet I recognize now how *A Place for Animals* and *Serengeti Shall Not Die* confined scenes of danger and death to the "natural" give-and-take between predator and prey in the African savannas. The human-on-human violence wrought by European colonialism, anti-imperialist struggles, military dictatorships, and the land alienations needed to create national parks never made it on screen. *That* violence was the product of the world of politics, and I accepted that the ecological crisis facing humanity was above such fleeting concerns. All I knew as a child and a teenager was that my beloved charismatic mammals were endangered, and that was enough for me to send small donations to the World Wildlife Fund, to take classes in environmental studies in college, to study marine ecology and human-nature relations in Australia, and to work in environmental policy in Washington, DC, in the early 1990s.

For various reasons, I became disillusioned with the epistemological quagmire of policy work. Despite excellent projects on wetlands and hazardous wastes, I could not imagine a life trying to put a price tag on aesthetic experiences or determining an acceptable level of cancer deaths for "cost-benefit" analyses. As an undergraduate I had always loved European history, and once I narrowed my focus to modern Germany and started more intensive language training at the University of Washington, their historian of modern

Germany left. So I decided to transfer to the other "UW"—the University of Wisconsin, in Madison—where my dissertation, which became the book *Imagining the Nation in Nature* (2004), examined the relationship between cultural landscape preservation and the construction of national, regional, and local identities in Germany from 1880 to 1945. But the real motivation behind the book was Europe's answer to the trouble with wilderness—the middle ground of homeland, or *Heimat*, prized by early German conservationists, but vilified in the wake of Nazism for its potentially nefarious avocado qualities (green on the outside, but brown—i.e., fascist—in the middle).

Jacob Tropp on visiting reservations

The springboard for my professional journey in these directions was travel itself. In the early 1990s, while contemplating applying to graduate school, I had the opportunity to travel briefly in two areas of the world that would leave their marks on my intellectual development: African "homelands" in South Africa and Native American reservations in the southwestern United States. The similarities of some of the human-environmental problems in these distant locations were visibly striking. In both places, I traveled across "reserve" or "reservation" borders created by histories of European settler expansion that left indelible distinctions in local landscapes: prosperous farmlands and towns on one side and impoverished non-European communities living on impoverished environments on the other. When enrolling for my doctoral work, I was initially driven to study, in some comparative way, how such political ecological marginalization of local peoples and environments transpired in each setting.

As I began to fashion a second book, I imagined it initially as a kind of sequel to the first, informed by Samuel Hays's insights about the relationship between white-collar consumerism and the post-material values that spurred modern environmentalism. I had not dealt sufficiently with the issue of tourism in the first book, especially given Germans' well-known penchant for seeking out nature and wilderness abroad (my first glimpse of this was a trip to Zion National Park, where the signs on the bus warned visitors, in German, not to feed the animals, and where the gift shop's check-out coun-

The author next to images of Julius Nyerere and Bernhard Grzimek at the Serengeti Visitors Centre (courtesy of the author).

ter had another sign leading to it: *Kasse*). I wanted to know how Germany's array of natural monuments, nature parks, and nature reserves shaped and were shaped by various configurations of consumer culture, and how the dialectic that developed between consumption and conservation, even in so-called "soft" or "green" tourism alternatives, informed twentieth-century German environmentalism.

And so I began to look into a huge array of tourist guidebooks and tourist ephemera. While reading about hiking in the Black Forest, I was drawn to the piles of German-language guidebooks about foreign destinations, and how these guidebooks framed places such as Africa, South America, and Asia for German visitors. I knew that Grzimek was a critical figure in postwar German environmentalism and tourism promotion, famous for encouraging tourists to save Africa's precious wildlife by booking package tours to the Serengeti, but I imagined that he would take up a chapter of the book—nothing more. Then, when I took up a fellowship at Princeton's Davis Center for Historical Studies in 2009, I decided to focus on Grzimek first, since his story fit the theme of "Cultures and Institutions in Motion." I soon realized that there was a

much deeper story about Germany's colonial legacies in East Africa and the legacies of the Cold War in tourism development. The one chapter about Grzimek became two, then three, and without realizing it, I had a schizophrenic book on my hands, too unwieldy to make a coherent narrative. My fellow scholars and mentors, including the then-director of the German Historical Institute in Washington, Christof Mauch, kept coming to the same conclusion: "You really should make Grzimek and East Africa the center of your story."

I loved the *idea* of doing a transnational story like this, but I knew that writing a book of this kind would entail (1) scrapping my existing proposal, *Green Tourism*, and face those "sunk costs" head on; (2) diving into an entire African historiography of landscape with which I was only dimly familiar; (3) diving into a colonial and postcolonial historiography about Germany with which I was only dimly familiar; (4) traveling to archives in East Africa, particularly Tanzania, to follow Grzimek's story outside the "homeland" and assess its impact; and (5) beginning Swahili. As luck would have it, new pathways opened up that made me more confident I could meet some of these challenges. The University of South Carolina gave me a grant to pursue archival material in Tanzania; the Frankfurt Zoological Society offered me generous access to their basement full of reports, pamphlets, and memoranda; and the Rachel Carson Center fellowship has allowed me to merge the Tanzania and Frankfurt Zoo material, edit old chapters, and begin new ones. The research trips to Tanzania have convinced me of the value of this project: I never expected myself to be writing, as my friend and fellow RCC fellow Michel Pimbert remarked, a "history of the present." So many traces of German colonialism written on the landscapes and in the memories of the people I met, so many different views of Bernhard Grzimek himself and the controversies over the Serengeti, as if they had happened a few years ago, rather than decades hence. *Saving the Serengeti* unravels the naive assumptions about wildlife and nature from a televisual childhood that many of us share and affirms that culture and values do matter in the realm of policy, even if the results are less tangible than the quantitative modeling I did decades ago. If this book enables even a small dialogue to begin between historians and policy makers interested in the tensions between "people and parks," about the pitfalls and prospects of ecotourism, and about the colonial legacies that have shaped the responses of "developing nations" to European sustainability initiatives, it will be worth the wait.

Shiho Satsuka

The Charisma of the Wild Mushroom

My current book project is tentatively titled, *The Charisma of the Wild Mushroom: Cultural Politics of Environmental Knowledge Translation.* The particular mushroom I am following is the *matsutake*, highly valued in Japan as an autumn delicacy. I am exploring how knowledge about natural environment is produced and negotiated by tracing people's engagements with this mushroom. Specifically, I am focusing on how Japanese scientists construct their knowledge by translating natural and human worlds; scientific and lay knowledge; and scientific knowledge across different cultural and epistemological traditions. I am examining how their works configure and reconfigure the relationship between human and nonhuman, and how their activities stimulate the construction of new environmental ethics.

In Japan, matsutake have long been considered a symbol of culinary aesthetics that highlights its seasonality in nature. However, domestic harvest has been declining drastically since the 1960s. Currently, more than 90 percent of matsutake in the Japanese market is imported from many countries, including Canada, the United States, Mexico, Korea, China, Turkey, Morocco, Sweden, and Finland. To many people, matsutake symbolizes the crisis of agriculture and forestry in Japan, indicating the country's heavy dependency on imported food and forestry products.

Matsutake's prime habitat is red pine forests in *satoyama*, secondary forests near human settlements where people used to coppice woods and clear the forest ground to collect fuel and green fertilizer. Matsutake are a weak competitor: if the soil is rich enough for other fungi and microbes, a matsutake cannot survive. The nutrient poor soil created as a side effect of human agricultural activities has provided an ideal niche for matsutake. Due to the "fuel revolution" since the late 1950s, people started to use propane gas rather than logs for household fuel. Scientists explain that matsutake harvest declined because people stopped intervening with the forest ecology.

In order to produce mushrooms, matsutake require a specific symbiotic relationship with its host trees, mostly pines. The mechanism of this symbiosis still poses puzzles for scientists. Despite the century-long effort, no one has ever succeeded in artificial

cultivation of this mushroom. Therefore, in order to recover matsutake harvest in Japan, scientists advocate restoring the whole forest landscapes to the conditions in which matsutake can thrive. The scientists also argue that the matsutake-pine symbiosis strengthens trees and reduces disease, thus contributing to the health of the entire forest. By these scientists' work, matsutake have become simultaneously an icon of nostalgic agrarian lifestyles and cosmopolitan forward-looking biodiversity conservation project.

I found matsutake a fascinating object of study as its specific biological characteristics elucidate the complex relationships among various life forms, including humans. Matsutake's entangled ecology challenges the binary distinction between nature and culture and the still-dominant framework of nature conservation that assumes the universal applicability of protected area and park systems.

Bao Maohong on visitors to Peking

In order to exchange academic findings with international environmental historians, Bao Maohong has invited more than ten famous professors to visit Peking University in the last decade. Professors Joachim Radkau, John McNeill, Martin Melosi, Christof Mauch, and Kentaro Inoue, among others, gave talks at Peking University's beautiful and historic campus. Some young scholars in Shandong Province came to attend their talks. Some of Bao's PhD students went to Australian National University, University of Melbourne, Ochanomizu University, and the Ludwig Maximilian University as advanced students or fellows. Professors Libby Robin, Don Garden, John McNeill, and Christof Mauch gave them generous and insightful guidance. Some of his students are now working in some of the top universities in China, such as Sun Yat-Sen University, and Capital Normal University. He hopes they will push environmental history research in China to the forefront of the world.

Critical studies in anthropology, political ecology, and environmental history have pointed out the colonial legacies of "wilderness" protection and the limitation of imposing this norm in many parts of the world. They have also addressed the problem in

the growing popularization of traditional and indigenous knowledge that turns local people into stewards in Western-centered resource management projects. These projects often frame non-Western knowledge as static fossilized traditions and ironically maintain the hierarchical division between Western science and non-Western folk knowledge. I am interested in exploring alternative ways to understand the dynamics among different knowledge systems by tracing the Japanese scientists' struggles with translating different knowledge that elucidate the complex entanglement between scientific and folk knowledge.

Scientific knowledge about nature is not only shaped by culturally specific epistemological frameworks, but also inseparable from the specific social concerns, thus situated in society. Through the examination of matsutake science, I am also exploring how various kinds of "values" are produced in people's engagement with environment, and how these values are mediated and negotiated in the practices of scientific knowledge production. By values, I mean not only economic values, but also scientific values—information that constitutes new facts and objects that build on our knowledge of environment; ethical values, which bring specific sensibility to the natural environment and to social relations; and political values—our "response-ability" to history and our visions for a better environment in the future.

Matsutake lead us to a way of examining how environmental values have literally "mushroomed" in many parts of the world. While matsutake and its related species have existed in many countries, they were relatively unknown outside Japan until 1980s when the Japanese traders started to buy them at a very high price. The old Latin name for matsutake in Nordic Europe was *Tricholoma nauseosum*, because it was considered to cause nausea. Also, both in southern Europe and North America, the matsutake's smell was described as being like "dirty socks".

Although not being keen to eat matsutake, many people were drawn to go to the forest, pick them, and export it to Japan. In Yunnan, China, matstuake mansions were built by the money earned from harvesting the mushroom. In northern British Columbia, Canada, matsutake became important non-timber forest products in the sustainable development for the First Nations. In Oregon, Vietnam War veterans pick matsutake near Southeast Asian refugees. In Scandinavia, ecotourism projects featuring matsutake are developing. Not only commercial traders, but ecologists and forest managers in North

Citizens reforming the forest to suit matsutake growth (courtesy of the author).

America, Europe, China and other countries became interested in matsutake for its potential for sustainable development and for understanding the intricate interspecies relationship in forest ecology.

This project is related to my previous book project, *Nature in Translation*, the manuscript of which I completed during my tenure as a Carson fellow at the Rachel Carson Center in 2012. *Nature in Translation* focuses on the Japanese tour guides living in Banff, Alberta, Canada's iconic national park. In this book, I examine how the Japanese tour guides translated natural landscape of the Canadian Rockies to tourists from Japan and how they mediated Canadian national park's ecological knowledge and Japanese understanding of nature.

While conducting the fieldwork in Western Canada, I noticed that matsutake hunting was a very important leisure activity among some Japanese residents. Some argue that the early Japanese immigrants working as laborers in the forest started picking matsutake at the turn of the twentieth century. It is also suggested that the practice spread out in the internment camps in the inland British Columbia during the World War II, and since then, it has become an important "heritage" activity among Japanese Canadians. In the Japanese guide company I worked with, when the peak summer

tourist season was about to end, the managers and the guides would drive a half day to go to the forest in BC to pick matsutake. At first I wondered if they saw business opportunities in matsutake, but it turned out that matsutake hunting rather helped them to recover a sense of self by giving them opportunities to experience the forest differently from the way they do for their work. I was intrigued by the charismatic attraction of matsutake among Japanese in North America.

Meanwhile, in 2005, I started joint fieldwork with Anna Tsing by visiting markets and interviewing some matsutake scientists in Japan. This research experience has extended into the larger collaborative project, Matsutake Worlds Research Group, among anthropologists with different geographic and topical expertise: Timothy Choy, Lieba Faier, Michael Hathaway, Miyako Inoue, and Anna Tsing. The group traces the global extension of commodity chain and its social effects while exploring new methods of collaboration in socio-cultural anthropology.

Before starting this project, I was not interested in matsutake as food. While growing up in Tokyo, I did not have much chance to eat fresh matsutake. I remember that I was unimpressed by a popular instant soup containing artificial matsutake flavor. When I first visited a Kyoto market for this research, I was stunned to see the price tag of ninety thousand yen (about nine hundred dollars) for only a handful of matsutake. Even though these mushrooms were among the highest grade fresh from the nearby region, I could not understand why people would spend that much money on mushrooms.

But being guided by the merchants who treasure the wild mushroom as "blessings from the mountain deity," the agricultural officers who work hard to improve the livelihood in rural communities, the citizens who devote to their voluntary work in restoring satoyama landscapes, and the scientists who are dedicated to communicating with this fantastical creature, I gradually started to gain sensibility to appreciate the fine aroma of matsutake. Like any other anthropological project, in order to understand the living experiences of the people, their world views, knowledge, and sensibility towards nature, the long-term bodily immersion and the cultivation of senses in the particular environment are necessary.

Matsutake is not merely an expensive commercial food item; what is exchanged in the market is not only money and mushrooms as commodities. By following matsutake,

I have observed people's appreciation of forest landscape and desire to recover the connection with non-human beings, along with the environmental problems caused by the rapid industrialization, the expansion of greedy capitalism, and the snobbish conspicuous consumption. The charisma of matsutake helps me to explore how people produce renewed knowledge and sensibility toward human and other beings who share the environment.

J. R. McNeill

Unexpected Detours

My journey to the environmental humanities, which in my case means to environmental history, began in Durham, North Carolina, in 1981. I had just completed a highly conventional PhD thesis at Duke University and was flamboyantly unsuccessful in the academic job market in the US. I worked laying shingles (I was a roofer) by day and by night revised my dissertation. I had the use of a professor's office at Duke while he was on leave, and there I found, by chance, a paperback copy of Alfred Crosby's *The Columbian Exchange*. I read it cover to cover in one sitting and have never been quite the same since.

Michel Pimbert on other worlds

For a while I was overwhelmed by a sense that an environmental apocalypse was inevitable. I felt terribly disempowered and worried about it all. But it helped growing up in Paris in the post-1968 years of student protests when hearts and minds were still moved by such famous slogans as "demand the impossible" and "imagination is seizing power." Travelling to remote places in Asia and Latin America where indigenous peoples lived also encouraged me to believe that "other worlds were possible."

Later that year, still floundering in the academic job market, I began to do contract research for ecologists who were interested in the global carbon cycle. The ecologists wanted historical data about landcover changes in Latin America over the past five hundred years and needed someone who could read Spanish and Portuguese. I could do the former and figured I could learn to do the latter. For 18 months I researched and wrote white papers for my ecologist employers, generating estimates of how much land was in pasture, in crops, in forest, and so forth in every country from Cuba to Chile. I also learned a little about how the world looks to ecologists.

In 1983 my luck changed and I landed a job teaching European history at Goucher College, near Baltimore, Maryland. I gradually conceived of a research project that would combine the biological focus I had so admired in Crosby, the land-use approach I had learned from my ecologist bosses, and European history, which I was now teaching. I had at that point studied French, Spanish, and modern Greek, which inclined me toward the Mediterranean. I decided to work on Italian and Turkish as well. My courage failed when I contemplated adding Arabic and Serbo-Croatian (as it was then called) to my to-do list. By the late 1980s, when I had moved to Georgetown University, I managed to get some research leave and spent a year and a few additional summers in Turkey, Greece, Italy, Spain, and Morocco. I divided my time between archives and mountain villages. My wife still has not forgiven me for dragging her to chilly, rainy, dreary provincial towns in winter. But we had lovely times as well in the Sierra Nevada of Spain, the Rif Mountains in Morocco, the southern Apennines in Italy, the Pindus Mountains in Greece, and the Taurus range in Turkey. That research provided the basis for my first book of environmental history, *The Mountains of the Mediterranean World* (1992). It tries to provide a chronology for the deforestation and soil erosion in these mountain chains, emphasizing changes of the past two hundred years.

My luck continued to improve. In 1992–93 one of my friends from graduate school finagled an invitation for me to spend a year at his university in New Zealand. New Zealand is a fascinating place ecologically (as well as a wonderful place to live). I researched Polynesian environmental history, including that of pre-colonial New Zealand (circa 1200–1769 CE), from the Hocken Library at the University of Otago and wrote a few articles on the subject. Soon after I returned to the US, Paul Kennedy of Yale University persuaded me—he did not have to try hard—to attempt a general environmental history of the twentieth century. He was preparing to edit a series of 13 volumes on the history of the world since 1900, and had concluded that one should be about the environment. This task suited me because by the early 1990s I had small children and could not in good conscience leave home for stints in distant archives and libraries. A synthetic book based on secondary sources available in the Library of Congress, only 10 kilometers from our home, fit my circumstances. So I researched and wrote *Something New under the Sun: An Environmental History of the Twentieth Century World* (2000). It emphasizes the scale and scope of twentieth-century environmental change, and highlights above all else the role of the energy system and fossil fuels in provoking tumultuous change to the biosphere.

When I finished that book, the children, happily, were still there. I needed another project that would not require being away from home. I had recently read Stephen Hawking's bestselling two-hundred-page history of the universe, and decided to write a two-hundred-page history of humankind. After all, if Hawking could fit 14 billion years of the Universe into two hundred pages, surely anyone could write 200,000 years of human history at that length! I thought it would be an interesting project and if it sold 1 percent as many copies as Hawking's book, it would pay for my children's educations (which in the US can cost considerable sums). It was indeed an interesting project, especially because I recruited my father to help me write it. It's a good thing no psychiatrists were listening when we discussed what to put in the book and what to leave out, and whether terms such as "barbarian" should be used (I lost that debate, on the grounds that if it was good enough for Herodotus it should be good enough for me). The resulting book, *The Human Web* (2003), was not two hundred pages long (more like 325 pages), nor has it yet sold enough to finance even one child's university education. I still think it is a persuasive interpretation of the human career on Earth—and well worth buying!

After some brief and undistinguished detours through the swamps of academic administration, in 2006 I turned my attention to the history of yellow fever and malaria in the Caribbean. I had begun thinking about this topic while researching my dissertation, part of which dealt with eighteenth-century Cuba. The relevant files in the Archivo General de Indias, in Seville, contained countless references to yellow fever outbreaks and vast expenditures on Spanish military hospitals in Cuba. I had done almost nothing with this information in my student days, aside from one conference paper which, as I learned some years later to my astonishment and mild embarrassment, had been published without my knowledge, permission, or revisions. Now, in 2006, I had the opportunity to revisit this subject more carefully. My children were old enough that at least short visits to distant archives in summertime had become feasible again. So I returned to Spanish and British archives, learned what I could about pathogens, immunology, and the habits of certain species of mosquitoes, and wrote *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914* (2010).

It has the sharpest argument of any of my books, to wit, that the installation of sugar and slavery in the early-seventeenth-century Caribbean created conditions exquisitely favorable for the mosquitoes that carry the yellow fever virus and malarial plasmodia,

Capileira village in the La Alpujarra district of Granada, Spain (Source: Graham Colm via Wikipedia Commons).

and that those mosquitoes and the infections they transmitted helped keep the Spanish empire Spanish, circa 1660–1800, despite energetic assaults mounted by Britain. Moreover, after 1790, when populations in the Caribbean began fighting revolutionary wars of independence, those same mosquito species and diseases aided the various revolutionary causes by killing many tens of thousands of young soldiers sent out from Europe to quell insurrections.

The summer after *Mosquito Empires* appeared, in 2011, I took up residence at the Rachel Carson Center to begin work on my next project. That, I regret to say, is not yet finished. It will be a global environmental history of the Industrial Revolution, circa 1780–1920. In some ways it will be a prequel to *Something New under the Sun,* but it will have a tighter thematic focus than did that book, on industrialization and its ecological effects around the world. If it takes me long enough, perhaps by the time I complete my research the Carson Center will have forgotten about my 2011 fellowship and will unwittingly allow me back to finish the final draft of the book.

Lawrence Culver

From the English Garden to LA

I arrived at the Rachel Carson Center in June of 2010, carrying page proofs of my first book with me on the flight to Munich. Even though I had never spent time in Germany—and my knowledge of German was highly limited—I applied for a Carson Fellowship to commence work on a new book project. After finding out that I had been awarded a Carson Fellowship, colleagues at my university in the US seemed to have only one question: why was an environmental research institute in Germany named for the American Rachel Carson? Some of them perhaps suspected that this was all an elaborate excuse for Bavarian beer consumption. Admittedly, one cannot reside in Munich for long without imbibing—particularly with my fellowship coinciding with the 200th Oktoberfest—but Munich offered much more than its admittedly fine *bier*. My time at the Carson Center, and my time living in Munich, helped me to rethink my research, and to think in new comparative and transnational ways.

I received my PhD at the University of California, Los Angeles, and few cities might seem to have less in common than Munich and LA. Yet both are river cities, and both have struggled with how to live with an urban river. After a series of floods, the Los Angeles River was buried in concrete, transforming it into a drainage channel. In Munich, the Isar is a beloved recreational resource. In Los Angeles, many residents would have a hard time even telling you where their city's river is. Now, however, LA is considering Munich's re-naturalization of the Isar as a potential model.

My work was enhanced by the inherent interdisciplinarity of the RCC, but also by its international and global scope. My book project as originally conceived focused on historical perspectives of climate and climate change in the US. Yet my time in Munich made me think about historical perceptions of climate in many places, from Europe, to the Russian steppe, to Australia. One of the great virtues of studying the environment is that it forces us to look beyond political boundaries, and the RCC facilitates a global exchange in this regard.

As a historian, I am obviously interested in the past. I became an environmental historian in part, however, because it allows me to conduct historical research that connects to the

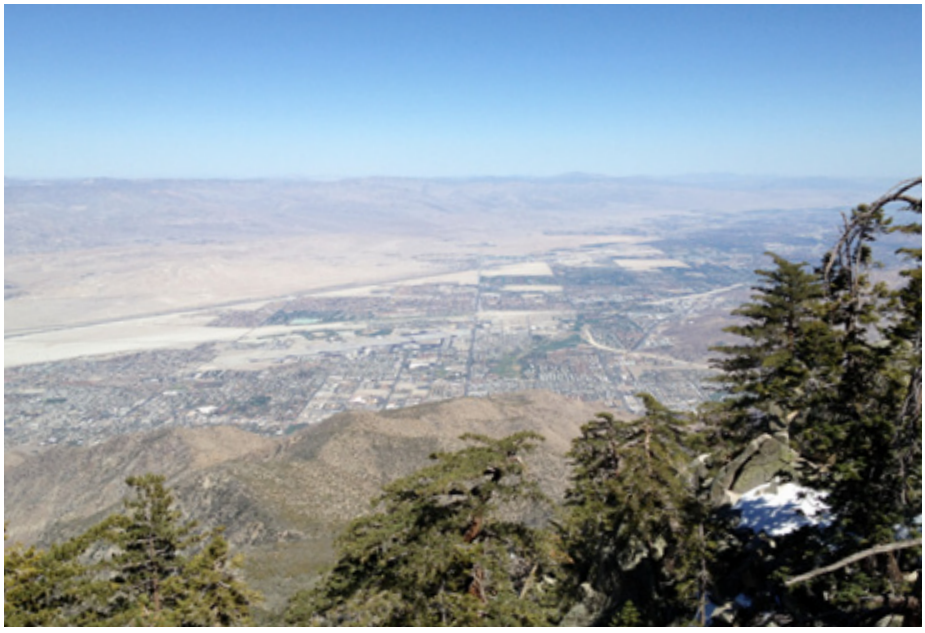
present. I am also especially interested in research about the past that can help explain the physical present, and both natural and built environments. My first book, *The Frontier of Leisure: Southern California and the Shaping of Modern America*, examines the rise of tourism and leisure culture in Los Angeles and Southern California. In researching and writing the book, I wanted to better understand how recreation has shaped the way people interact with and think about nature. For modern city dwellers, recreation is a key way they connect with nature, unlike people who derive sustenance or income directly from it. For Los Angelenos, a trip to the beach, a hike in the mountains, or a drive out to the desert is often their closest approach to the environment (though their homes and yards, the city they live in, and their consumption patterns are all emphatically part of nature as well).

Fei Sheng on gold rushes

As a second-year graduate student at Peking University I chose a course called "The History of Environmental History" held by Prof. Bao Maohong. I learned a lot from the series of seminars, especially on the environmental perspective for understanding our history and social development. Luckily in these seminars I met John McNeill and several other famous environmental historians.

I was gradually curious about the exploitation of mined resources and its environmental impact. In 2010, I successfully applied for a scholarship from the Chinese Scholarship Council and went to the Australian National University to study the environmental history of the Australian gold rushes. I am now proud to be an environmental historian with the help of my new supervisor, Prof. Libby Robin. Recently I have concentrated my work on a new subject: the spreading of Chinese environmental knowledge around the Pacific Rim during the gold rushes of late nineteenth century. I wanted to reveal how colonialism, resource exploitation, and migration were connected and how migration changed the environment around the Pacific Rim.

I also wanted to better understand the processes through which forms of architecture and urban planning first seen in Los Angeles and regional resorts such as Palm Springs



Palm Springs and the Coachella Valley viewed from the summit of Mount San Jacinto in Southern California (courtesy of the author).

so profoundly shaped US urbanism after 1945, from suburban golf-course communities, to "ranch" houses, to urban sprawl. The history of recreation in the region also illuminated how access to recreation and recreational space is a civil right, and unfortunately something that in the US was often racially restricted or privatized. Great socioeconomic and racial disparities in access to recreational space, from small playgrounds to large tracts of open space, remain a problem in Los Angeles. Indeed, in an ever more urban world, these are global issues. The protests roiling Turkey in spring 2013 began over government plans to build a structure atop one of the only green spaces in Istanbul.

Living in Germany often made me think about how differently Munich and Los Angeles had been designed and planned, and the varied lived experiences of people in both cities. Since 1945, the US has constructed cities in which it is very easy to be alone. Driving in individual cars, working in office cubicles, eating take-out or eating alone, Americans have lost much of the shared public life our cities once possessed. In Los Angeles in the 1920s or 1930s, on hot summer weekends, a vast number of Angelenos headed to beaches or public pools. Now, in an air-conditioned present, they retreat inside to stay cool. Munich residents instead flock to the English Garden and the Isar, with crates of

beer in tow. Recreation is still emphatically public, whereas in the US it is increasingly private, confined to homes and backyards. The shared tables and spaces of the city's biergartens and restaurants also attest to a more communal society, rather than the more individual and private culture of the US.

My current book project, undertaken in earnest at the RCC, continues my research into popular perceptions of the environment, but on a broader chronological and geographical scale. *Manifest Disaster: Climate and the Making of America* draws its title from an ideology rampant among European citizens of the USA in the early nineteenth century: manifest destiny. This ideology claimed that due to the "manifest" racial, religious, political, and economic superiority of white Americans, all of North America was destined to be part of the US, pushing Native Americans, Mexicans, and anyone else out of the way. While manifest destiny is a familiar topic in US history courses, I was fascinated by the fact that this ideological framework also had an unexplored environmental component. White Americans expected not just residents of North America, but in fact the continent itself to cooperate with their ambitions. This led to wildly inaccurate assumptions about the western region of the continent, especially its climate. It even spurred a war with Mexico, and the annexation of more than half of that nation, only to be followed with widespread disappointment that much of the new US Southwest appeared to be worthless desert. Moreover, this turned out to be just one moment among many when climate had been a preoccupation and subject of intense debate in US history. They were intensely interested in where they could grow the climate-sensitive cash crop, cotton. Most infamously, they debated the idea of whether "rain would follow the plow," and that plowing the earth would release moisture into the air and make soil retain more water from rainfall. This climatic myth proved a tragic fallacy, drawing settlers and investors to doomed agricultural enterprises from the Great Plains of North America to the Australian outback.

Moving from the Rocky Mountains to the Alps made me think about climate and climate history in new ways. The Isar arises from snowmelt in the Alps south of Munich. Snowmelt also provides much of the drinking and agricultural water for the western United States. Yet years of drought have lowered reservoirs, and much of the region may have severe water shortages in the foreseeable future. In 2013, in contrast, Bavaria experienced some of the worst floods in its history. The loss of arctic sea ice may be exaggerating Bavaria's continental climate. In a warming world, this was the year

winter would not let go of central Europe. Was this an anomaly, or a portent? Only time will tell. Experiencing two bouts of "thousand-year" floods in a decade does not bode well, even though in long-term climate history they may not be statistically significant. Europeans have long historical experience with environmental hazards. Bavarian cities such as Passau have flooded many times. European settlers in the USA did not have that long-term historical memory, and that put them at greater risk of environmental disasters, from the flooding Los Angeles River to droughts.

The debate about climate change and climate policy is not solely about science. It is about political ideology, ethics, religion, economics, and—yes—history. This is what the environmental humanities can bring to the greatest environmental threat of our time. It can bring a broader perspective, frame the discussion of climate change and climate policy in a way that is easier to understand, and more fully comprehend human attitudes towards climate. Climate science must remain the basis of climate policy, but if we wish to combat climate change, it is the *humans* who must change. Whether learning from other Carson fellows, reading research from other disciplines or regions of the world, or simply taking a stroll in the English Garden on a warm summer day, my time at the Rachel Carson Center and in Munich certainly changed me.

Voicing the Politics in Nature

Melanie Arndt

Chernobyl

I grew up in a country that does not exist anymore—East Germany or the GDR. Perhaps this partially explains my interest in Eastern Europe and its environmental history. Even though I was too young to completely comprehend the events of 1989, I have vivid memories of that tumultuous time. It certainly accounts for my eagerness to explore the world, half of which was essentially inaccessible to me behind the so-called Iron Curtain. It flickered by on the forbidden West German television programs that animated our living room; during other times, I was able to imagine those places with the help of the colorful postcards that arrived from our West German relatives, or the relatives of friends and neighbors who were willing to share a glimpse of the world "over there" ("drüben," as we used to say). There were also some books that provided me with components to build up my image of "the West," the most powerful of which were those about nature and wildlife. I received "Australia's Wildlife," translated from Czech, from my parents on one of my birthdays. It was a wonderful gift. I was completely blown away by the drawings in the book, the descriptions of many unknown animals whose habitat and diet I quickly learned by heart. Because of that book, Australia ranked first on my list of "most favorite countries" for a very long time, despite being fully aware that I may never have the chance to go there; it happened to be on the wrong side of the political division of the world.

But it was not only "Western" nature and wildlife that fascinated me: my parents made ample use of the limited travel options and showed us many of the landscapes available to us in Eastern Europe. In the late 1980s and up until the early 1990s, East Germany, like many other Eastern European countries, went through a phase of ecologization—people started to speak out against the devastating environmental degradation they had been experiencing for decades. One of the rather paradoxical outcomes of the Cold War is the green belt that winds through the former border- and no-man's-land between East and West. Once the place of a homicidal border regime, it is now a wildlife sanctuary for some rare birds and animals. In my hometown, Lutherstadt Wittenberg, I became one of the sandal-wearing cyclists who protested against the straightening of the Elbe, denouncing the demolition of its marshy meadows, and demanding more bicycle paths.

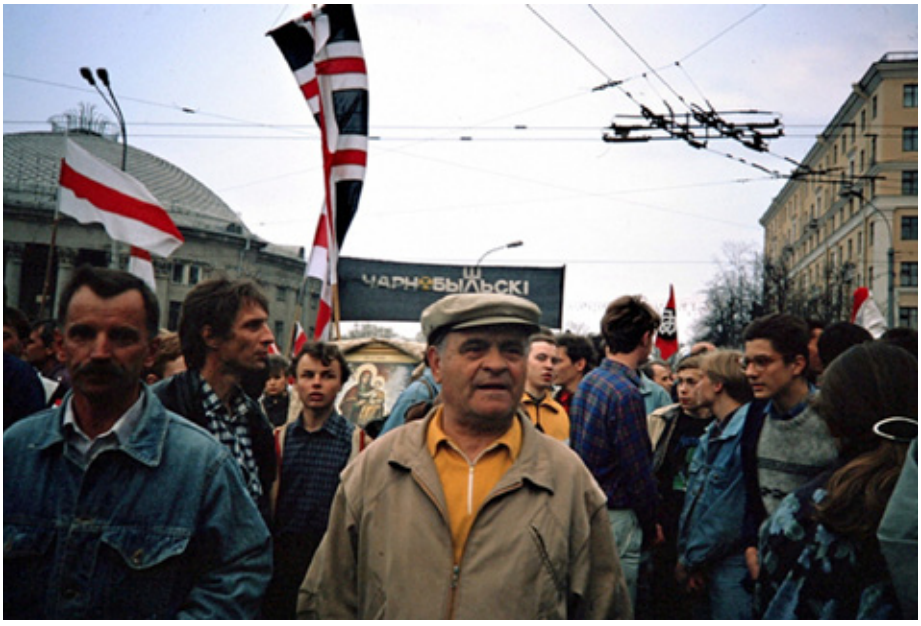
After secondary school, and some five years after Germany's reunification, I spent 18 months as a volunteer in Minsk, Belarus. Even if the choice of an Eastern European country seemed strange to many of my relatives and friends (we finally could go West!), it did not come as a big surprise for others. I belonged to the minority who had always loved the Russian language. In fact, I have had a pen pal in Minsk since the fifth grade, and I had spent several summers entertaining "Chernobyl children" during their recuperation.

Working for one of the first civil rights and Chernobyl non-governmental organizations and in an orphanage for disabled children, the time I spent in Minsk was incredibly important for both my personal and professional life. I not only learned a lot about another country in flux and a disaster so impossible to comprehend, I was also forced to deal with challenges of my own identity. Rather suddenly I was transformed from an East German, or "Ossi," to a West German, or "Wessi." Although I had grown up in the Soviet bloc, fellow Eastern Europeans perceived me now (and sometimes I even perceived myself in this way) as coming from the affluent, democratic West. These experiences taught me how easily perspectives can change, how fragile seemingly self-evident matters can be, and how much there is to understand about ourselves and others if we switch our frame of reference from time to time. I have never forgotten.

Chiara Certomá on environmental conflicts

When, in August 2002, I was working in the Marine Natural Reserve in Lampedusa with some colleagues of mine and someone blew our car up, I realised that environmental issues were not a matter on which shared consensus could be easily reached: they involve larger issues of power, control, and political conflict. In my doctoral dissertation I used environmental theory as a conceptual frame to investigate the politics of knowledge at the center of disagreements over the management of space.

Since Belarus was the country most affected by the radioactive fallout of the 1986 disaster, I read all the material available to me about Chernobyl before moving to Minsk.



The "Chernobyl March" in Minsk, Belarus on 26 April 1996, the tenth anniversary of the Chernobyl disaster (photo by author).

Arriving there (with a backpack full of "clean" milk powder) I quickly learned about the ambiguous role the disaster had played for the people in the capital and even more in the provinces. While my new Belarusian friends laughed at this over anxious "Wessi" with her milk powder and did not care about the origins of the products they consumed, "Chernobyl"—ten years after the explosion of the reactor—became a crucial political issue, driving hundreds of thousands of people onto the streets of Minsk. I was confronted with this "political Chernobyl" not only in the streets but also daily at the office of the NGO, which was one of the main organizers of the protest marches. But I was also confronted with yet another side of the disaster: the office was a busy transit point for a huge number of foreign organizations offering what they understood would be of most help for the disaster victims. Even though I had taken care of "Chernobyl children" back in my hometown, it was only at this moment that I understood the scope of the solidarity movement "Chernobyl" had created and how it broke open all Cold War barriers.

My firsthand experiences and the many questions they raised made me want to return to the topic since the day I left Minsk. I remain most intrigued by the often-paradoxical consequences of the disaster, especially by the very different approaches to coping with

the problem. After studying in Potsdam, Berlin, and London, and finishing a PhD on a quite different topic, I finally returned to Chernobyl. As the director of an international research project with five Belarusian and Ukrainian PhD students, I finally had the chance to reexamine my earlier experience through the lens of science. At first I was most interested in the disaster's impact on the development of civil society in Eastern Europe. Increasingly, however, I realized that the underlying problem was much bigger and that Chernobyl was not just a "typical Soviet" disaster—as many continued to believe until the disaster at Fukushima proved them wrong. The problem has much more to do with the "nature" of radioactivity itself.

I discovered environmental history rather late in the game; it was essentially by accident through the works of Joachim Radkau. This field fascinated me because it offered ways to break down my observations to the very intimate relationship everyone has with nature, defining our well-being. In my current book project, which I developed during rigorous intellectual exchanges with the fellows and staff at the Rachel Carson Center, I have set out to use the approaches of environmental history to analyze the social and political processes that flow from irradiated landscapes, or, rather, from attempts to understand, mitigate, and compensate for them—not only in the Soviet Union but also in the US. The exchange with scholars from all over the world, working on so many different topics, but all related to the relationship between human beings and the rest of nature—be it in colloquia, in the kitchen, or on the top of the Bavarian mountains—was incredibly fruitful and I am very grateful for this experience. Even if I had to learn from the Australian fellows that the dingo, my favorite animal from my childhood book, is an apparently dangerous animal.

Clapperton Chakanetsa Mavhunga

Poaching: Criminalized Endogenous Innovation?

My name is Clapperton Chakanetsa Mavhunga, alumni fellow of the Rachel Carson Center and associate professor of science, technology, and society at the Massachusetts Institute of Technology. I am a Zimbabwean by nationality. I grew up herding cattle, picking fruit, fishing, and all those other things that a rural African boy born to poor, hardworking parents does.

Even though I later acquired degrees at the University of Zimbabwe, the University of the Witwatersrand, and the University of Michigan, and taught at MIT, I count my mother and father as the most influential professoriate on things that inspire my itineraries in the world. I have become deeply invested in what to make of the environments—physical and social—within which kids like me grow up in Africa, which are not considered as educational and technological as, say, Brooklyn, the formal school, or the university. What is to be said about the valley where I herded cattle, the pools where I fished, the hills and forests I hunted and picked fruit in, the dusty streets and our home-made plastic football, and all those other sites where the African child is taught critical life skills by showing and doing, but not by the exam and the pen?

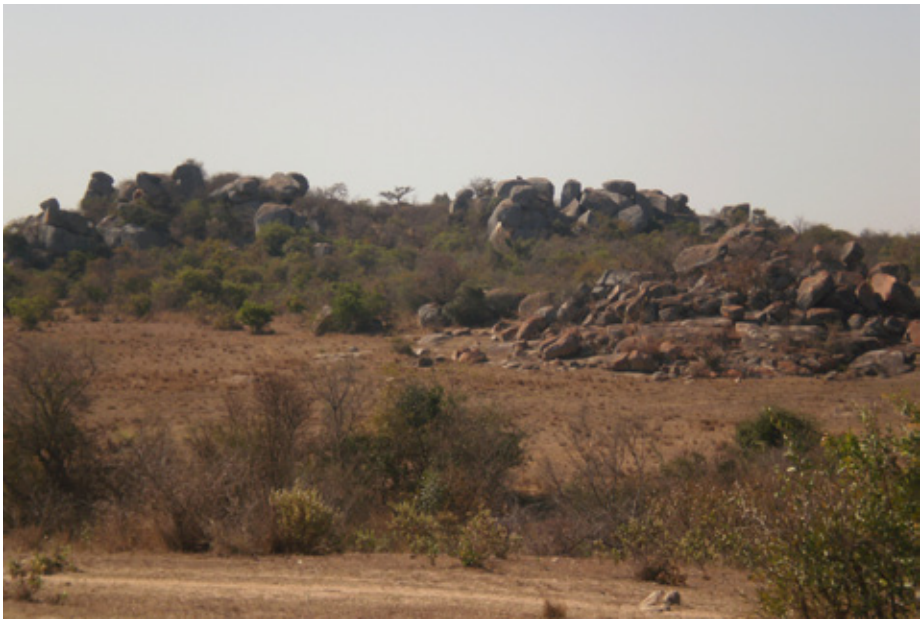
This question provoked in me a deeper question: what is the place of Africa in the scientific and technological map of the world? This is the question that undergirds my research. It arises out of a double absence: of the role of technology in African history, on the one hand, and of Africa in the global history of technology, on the other. The concept of *technology* in the African context needs to be problematized because it is entangled within the colonial circumstances under which it arrived and the specific (Western) things it denoted. Africa was not considered technologically advanced before Europeans arrived, and even after being touched by the hand of civilization it was seen only as a laboratory and source of raw materials for the innovative outside world. I approach the environmental history of Africa from a technological dimension, illustrating how endogenous African knowledge and Africans themselves have shaped the environment. From that vantage point I am able to account for the "incoming ratio" and its encounter with African creativities, and what happens afterwards.

I am currently finishing what started out as one manuscript but has now turned out to actually be two books. The first, titled *The Mobile Workshop I: Studying African Technology and Innovation from Transient Workspaces* (to be published by MIT Press in 2014) is a historical study of endogenous African hunting in Zimbabwe, which is now criminalized as poaching. I basically plead a case for understanding poaching as an important example of mobile innovation, what I call transient workplace or transient workspace. Instead of seeing it as criminal mobilities, I see the hunt as a professoriate of ecological knowledge whose illegality is a colonial legacy. The question is: what do we do with criminalized knowledge, or practices that place an order we have come to accept as a marker of the normal at risk of endangerment?

Michel Pimbert on transformations

My early environmentalism became rooted in a wider political and social ecology framework that was grounded in history. Environmental collapse was not inevitable—people can change the course of history. This insight was so liberating at the time! History everywhere tells us that citizens can mobilize and act to address the social origins of environmental crisis and bring about positive transformations.

The first part of my book explores two African philosophies of all human mobilities guided by ancestral spirits (*vadzimu*) and the forest (*sango*) as a sacred space. To be able to navigate it required a specific understanding of the spiritual relationship between *Mwari/Xikwembu* (God), ancestral spirits, the living, the animal world, and indeed the trees, rivers, and mountains. *Mhondoro* (lion-spirits) were the most senior ancestral spirit, and *shumba* or *mhondoro* (lion) and shrine-trees like the *muhacha* (mobola plum) were sacred. As guided mobility, the hunt poses interesting questions on what constitutes technology under regimes of spirituality. The second section is dedicated to how European colonizers under siege from the deadly tsetse fly actually deferred to these hunters in the absence of any remedies of their own. The final part turns to the criminalization of African hunting in the wake of emerging wildlife conservation regimes during the colonial period and the uncritical retention of the same under postcolonial conditions. The fact that "fortress conservation" has not delivered



The Nyamudira Hills where the author used to climb and pick *matohwe* (snot-apple), *tsvanzva* (large sourplum), and *fokosiyana* (Kalahari currant) fruits (courtesy of the author).

security against poaching, and only serves to criminalize what could be a powerful ally and stakeholder in wildlife sustainability, calls for a rethinking of the approach. However, the hunt is one of many criminalized knowledges and practices to which people defer in times of crises, particularly the crisis of "modernity." Since neither legal structures nor conservation practices were informed by or designed for the benefit of Africans, and since the colonial regimes that installed them are gone, it is important to critically revisit them with a view to constructive engagement.

The second book takes up the issue of the tsetse fly in detail, this time dealing not with criminalized knowledge that returns in times of crisis, but knowledge appropriated by Europeans to the extent that their African trace is completely lost. The book basically says that African technologies formed the basis of colonial tsetse science in Zimbabwe. In it I show that prior to European colonization, Africans had combined systematic game elimination, bush clearance, close settlement, traveling by night, repellants, and inoculation to protect their livestock against the tsetse fly scourge. Drawing on multidisciplinary research methodologies—archival research, ethnography, and indigenous registers, songs, idioms, and folklore—the book shows that African ideas and labor

constituted the foundation and backbone of colonial tsetse and trypanosomiasis control. Having already dealt with the employment of African hunting knowledge in the first book, the manuscript focuses on four other knowledges and practices European settlers "borrowed" from Africans. Throughout, the book exposes the irony that a colonizer who trumpeted his European civilizing mission could rely so completely on the knowledge of "primitive people" and simultaneously abuse it so as to strip Africans of their land in the name of disease control.

My career is devoted to exploring those knowledges, practices, and philosophies that ordinary people engage in, what they know, and how best to develop research strategies to know what they know. What we saw in Zimbabwe in the decade of crisis (2000–2008) suggests that. Here was a nation where the only foreign currency available in the country was found on the parallel market, otherwise called the "black market." Banks, including the Reserve Bank, had none. As services collapsed all round, ordinary people deferred to knowledge that the state considered "criminal," "primitive," and marginalized. Cities became *cidades esfumaçadas* (smoky cities) as people deferred to firewood, now that electricity was rationed to two hours' supply at 2 a.m. to 4 a.m. only. Poaching escalated, now that meat was scarce. Even more people went back to farming, now that the supermarket shelves were empty. Legal or not, these stratagems—and that of immigration, diaspora, and remittances (all within the traditions of Zimbabweans)—saved lives when the entire financial, food supply, water supply, and other centrally planned technocratic regimes had collapsed. They deserve to be studied as a way of building sustainable environments for social innovation.

Carmel Finley

Swimming with the Groundfish

I came to history through the dubious path of journalism. I've written all my life, since I've never been very good at math, and I like to tell stories. I'm trying to figure out how to write about fish, fishing, and why fish stocks are being managed into extinction. I'm not sure why this has gotten so deeply embedded in my psyche (I'll resist saying hooked). There might be fishing in my DNA; a great, great, great grandmother allegedly immigrated to Nova Scotia with her two children after the death of her fisherman husband. It might be that I'm married to a fisherman, but I really don't think that's it, since he's a salmon troller and I'm interested in a completely different set of fish, marine species that mostly show up on plates as little white fillets draped in sauce, not exactly the most charismatic mega species.

Photo courtesy of the author.

I'm interested in fish and fishing because I wrote a lot of stories about them when I was a reporter, and most of those stories were wrong. It wasn't evil intent or incompetence; I was repeating things I had been told, things people thought were true. During the 1980s and 1990s, I wrote about the economic benefits that would come with full utilization of the fish species off Oregon. I was truly shocked when a series of new stock assessments in 1996 showed that eight of these stocks had been drastically overfished, some to less than ten percent of virgin biomass. I had been told that West Coast groundfish management was the best in the world. I had lived through the collapse of West Coast salmon stocks. Now groundfish stocks were collapsing? Why had this happened?

The more I looked at the groundfish situation, the clearer it became that the science was at the heart of the problem. Where had the science come from? One of the first papers I read suggested its adoption had been a political decision, not a scientific one.

I didn't know much about fisheries science but after years of covering fisheries, I did know something about fisheries politics.

Rob Gioielli on environmentalists

The South Carolina coast, or Lowcountry region as it is also known, had been dominated by large rice, indigo, and cotton plantations before the civil war. Its population then was 90 percent African-American, almost all of them slaves. In 2001, when I was a reporter for the *Beaufort Gazette,* Emory Campbell, director of a community outreach and education center, was the first one to teach me that environmentalism was not monolithic, but a complex set of political ideals and attitudes that was dependent on a variety of social, historical, and geographical factors. A person's background and economic status, and where they lived and worked, shaped how they approached and understood the environment. Did they grow up on a farm or in a city? Did they go to college? Did they work in an office or a factory? All of these things mattered.

"We are also environmentalists," Emory Campbell told me. We might not be able to hire expensive lawyers and have fancy bumper stickers on our car, but we care about water quality because we fish in local streams and creeks, he said. We care about sprawl because it takes our land and family farms. We care about the environment because it is our home. Lowcountry African Americans were not just environmentalists who simply cared about different issues. They were environmentalists of a completely different type.

That's when I met Naomi Oreskes, who invited me to the University of California, San Diego, to work with her. I had to take the Graduate Record Examination (GRE); I did so badly I'm still amazed I was accepted. My husband, heartened by the GRE debacle, was dismayed when the acceptance letter came. Several friends asked why I was going to grad school, when I should just write my book. But I knew I didn't know enough to write the book and that I'd need a lot of support to figure what the groundfish collapse meant. I packed up my old Camry and headed for San Diego.

Thanks to the encouragement of Delores Wesson, the assistant director of the California Sea Grant program, Naomi and I wrote a grant that won me three years of funding. I was slowly figuring out the structure of fisheries management and focusing on the assumptions about fish and fish populations—assumptions that were forged in a post-World War understanding of fish stocks. Most of these assumptions were wrong. Postwar fishing institutions were built around the idea that fishing played a valuable role in sustaining fish populations, by removing the larger, older fish, leaving resources for younger, faster growing fish. Throughout the 1960s and 1970s, scientists estimated the potential harvest from the sea—200 million metric tons a year, 400 million metric tons. Governments set about building boats to catch all the fish. But the global catch is around 90 million metric tons and the subsidies, once created, live on.

I was toting my dissertation around, trying to figure out how to turn it into a book, when Paul Farber told me to contact Christie Henry at the University of Chicago Press. *All the Fish in the Sea: Maximum Sustained Yield and the Failure of Fisheries Management* was published in 2011.

Having written a dissertation and a book, I thought a second book would be easier. I had six glorious months in Munich at the Rachel Carson Center writing a draft that I am now revising. If anything, the writing is even slower this time around. I've looked at how fisheries science was institutionalized (hint: it emerged from the State Department). This time I'm trying to look at how and why postwar governments created subsidies to build the global fishing fleet. What did governments want when they built fishing fleets? And, more importantly, how can we change the political process so that fisheries management reflects the knowledge that scientists have so painstakingly pieced together over the last 100 years about fish populations in the ocean? We need a new story—and new policies to protect fish population structures—if fisheries and the people who depend on them can be truly sustained in the future.

I figured I'm writing the most important story of my career. And if I have one bit of advice for graduate students, be careful what you study. You never know what piece of information is going to reach out, grab you, and not let you go.

Amy M. Hay

Fighting the Deadly Fog

"It was always my understanding that you don't take your kids into combat with you . . . At least not in the American Army."—Jack Spencer [pseudonym], Vietnam War veteran.[1]

When I wrote my dissertation on the Love Canal chemical disaster, one of the more intriguing pieces of evidence I found involved an interview two Vietnam veterans gave to a local Buffalo veterans' newsletter. In it, the men compared their contaminated neighborhood to the destroyed landscape they had experienced in South Vietnam. What I wrote then:

> Exposed to Agent Orange during the Vietnam War, the men agreed that they faced a much more difficult battle at Love Canal. Veteran Hough saw himself as a "angry, bitter, dying old man who's ready to start killing people," well-aware of the chemical contamination permeating his neighborhood. He ended his interview with an implicit analogy: he pointed to a dying tree in his back yard and compared it to the ones defoliated by Agent Orange in Vietnam. Jack Spencer, the other veteran, connected his family history of illness to medical conditions known to have chemical causes. Spencer thought the government had failed both Agent Orange victims and the residents of Love Canal, but his neighbors bore an especially grievous burden.[2]

I realized I wanted to know more about these veterans, about their exposure to Agent Orange, and what had happened to them afterwards. A short version of the story starts with two chemical compounds known as the phenoxy herbicides, 2,4-D and 2,4,5-T, which made up Agent Orange in equal measure. The herbicide mixture was named after the orange stripe on storage barrels. Even before American troops fought in South Vietnam, the John F. Kennedy administration provided the supplies, the aircraft, and eventually the personnel that sprayed over 20 million gallons of chemical herbicides over 12 percent of the South Vietnamese countryside. This special operations team, called Operation Ranch Hand, sprayed Agents Green, Purple, White, Blue, and Pink along with Agent Orange. Except for Agent Blue, all of the herbicide mixtures contained

1 Leslie Patten Wolff, "Vets Face New War at Home," *Buffalo Veteran*, July/August 1980, 3.
2 Amy M. Hay, "Recipe for Disaster: Chemicals, Community Activism, and Public Health at Love Canal, 1945–2000" (Ph.D. diss., Michigan State University, 2005), 105.

either or both 2,4-D or 2,4,5-T in various combinations, thus my use of the term Agent Orange herbicides. I discovered the class action lawsuit Vietnam veterans brought against Dow Chemical, Monsanto, Diamond Shamrock, and Hercules Chemical in the late 1970s. In 1983 veterans "won" a $180 million out-of-court settlement. Almost from the beginning I realized that the story of Agent Orange represented a transnational history; at the time I thought of it as a challenge to scientific knowledge and expertise. I had found my next project.

In my initial framing of the project, I thought I would focus primarily on veterans' health protests. Research took me first to the Vietnam Archives located at Texas Tech University in Lubbock, Texas. There I discovered others had started writing projects about Agent Orange and had abandoned them. The archive contained massive amounts of information on Agent Orange, with significant evidence showing scientists' protests against using Agent Orange in South Vietnam. While identifying other archival and primary source materials, I continued surveying the secondary literature on veterans' protests centered on Agent Orange. I next traveled to the Alvin L. Young Collection on Agent Orange located in the National Agricultural Library, in Beltsville, Maryland. Much of the Young Collection had been digitized and was accessible online. I examined the transcript of the 1978 Bill Kurtis documentary *Agent Orange: Vietnam's Deadly Fog* and discovered Veterans' Administration worker Maude DeVictor. My project had already begun to change. But in one of the subseries not available online I found the next important piece of information, ironically in another newsletter, again transforming this project.

Starting in 1965, Ida Honorof broadcasted a weekly radio program called "A Report to the Consumer" on KPFK 90.7 on Pacifica Radio in Los Angeles. Honorof also self-published a newsletter that clearly formed the basis of her radio broadcasts. The April 1971 issue, "The Defoliation of Los Angeles," focused on the continued use of Agent Orange herbicides—2,4-D and 2,4,5-T—domestically even after the Richard M. Nixon administration had banned their use in South Vietnam. This newsletter led me to three western women who all challenged federal, academic, and industry officials and national pesticide policy in the decades after Rachel Carson's *Silent Spring*. One of the women, Carol Van Strum, wrote a book, *A Bitter Fog* (1983), that tied together citizen protests and veterans. My project had shifted from an examination of Agent Orange in Vietnam to using Agent Orange as a lens through which I could examine citizen activism: scientists, grassroots, and veterans.

The final evolution in my project came when I won the academic version of a multi-million-dollar lottery: a writing fellowship at the Rachel Carson Center for Environment and Society in Munich, Germany. Established to internationalize the environmental humanities, the RCC offered me a sabbatical year to start putting the story of Agent Orange herbicide activism on paper. It was only after I arrived in Munich that I realized my fellowship stay would be much, much more than that. At the RCC I added new groups protesting Agent Orange herbicides, like international scientists, Vietnamese people, and students in the United States. I presented my "Works in Progress," an incomplete first chapter that really was just one big hairball. Oh, but the awesome feedback I got from my incredibly generous fellow fellows. I knew my project was going to evolve even more.

Michelle Mart on the missing paradigm shift

The discourse about pesticides in the early twenty-first century is more sophisticated and complex than it was in 1950. But I would argue that the commitment to an industrial, agricultural order and chemical interference in the environment is no less strong. There has not been a paradigm shift about pesticides or the environment, even if environmental historians and activists would like to think otherwise. In essence, there is no indication that most Americans have given up three bedrock assumptions of their cultural outlook: modern human society has some ability to manipulate or control the environment; short-term interests are more important than long-term ones; environmental decisions must be made on the basis of clear evidence, not out of precaution.

I thought about the narratives of empire that these chemical herbicides perpetuated. I rearranged chapters. I wrote the "life history" of the phenoxy herbicides for an RCC-sponsored workshop. I realized that my western women were fighting over the issues raised in Chapter Six of *Silent Spring*. Being at the RCC was like being in grad school, sharing ideas without the sometimes nasty competition. I listened to some of the best environmental historians, anthropologists, and literary scholars interrogate ideas and understandings of my and our projects. I shared with other scholars and as my project grew, it was reorganized, it got better. By the end of my stay I realized that I was

Leaking Agent Orange barrels at Johnston Atoll circa 1973 (Source: US Government photograph, via Wikipedia Commons).

examining challenges to the Cold War consensus within the realm of environmental protest. My research revealed the continued power of the military-industrial-academic-complex in the decades after President Dwight Eisenhower identified it. I had found evidence on the ground of the ways ordinary people understood and responded to—were inspired by—Rachel Carson's *Silent Spring*.

Given our ongoing concerns and challenges over chemical toxins, industry power, and the voice of citizens around the world, my research recovers the presence of various groups who challenged the wholesale use of chemical herbicides during war and peace. They challenged the destruction done to the natural environment, and the harm endured by human beings and animals. My research asks who gets to decide, what role does the state play, can we create transnational environmental justice movements? I hope it helps us answer these questions too.

Finding Environmental History

Kieko Matteson

Woodland Rambles

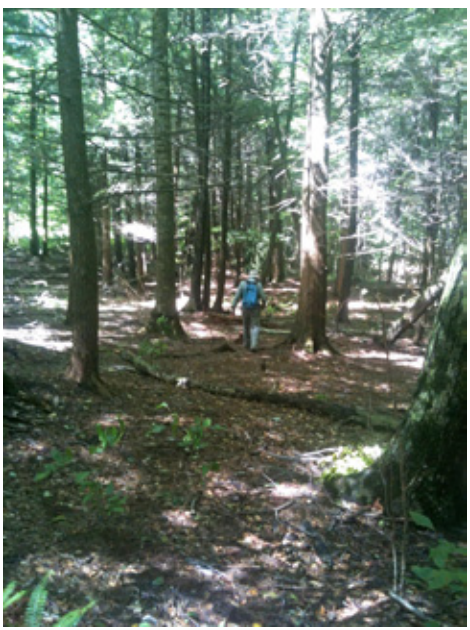
I have been interested in environmental history—the unfolding dynamic between humans and the natural world—since long before I knew what environmental history was. As a child growing up in Vermont, the northeastern US state famous for its bucolic landscapes, winter sports, and white-steepled villages (and as the birthplace of Ben & Jerry's ice cream), I spent hundreds of happy hours rambling the patchwork of field and forest that surrounded our family's 250-year-old farm, scrutinizing the traces of earlier generations and experiencing firsthand the ways environment orients identity. Hikes with my father, whose forebears abandoned a rocky spit in the Narragansett Bay to settle the Vermont frontier in the eighteenth century, were voyages between past and present as we revisited familiar landmarks and explored the bygone practices that had given the farm its present shape.

> **Marianna Dudley on history**
>
> I think that in any given university undergraduate department, there will be a handful of students that will be nurturing or exploring the conviction that environmental historians all share: that we live, and have always lived, in a more-than-human world, and so our history should reflect that.

Making our way through the old sap woods, for example, my dad would routinely pause at a stone wall that two centuries earlier had protected young sugar maples from the chomping and stomping of grazing beasts. Sagging and mossy, the wall no longer posed an obstacle, and the stag-headed maples were well past tapping, but their persistence nonetheless spoke of the efforts of the farm's early occupants to use every available resource for long-term ends. Farther up the slope, beyond the wall's crumbling contour, we would stop to peer at the sheep dip—now a mere indentation in the earth— where the farm's ovine inhabitants were once doused in balsam baths prior to shearing. We had to zigzag and duck to avoid being slapped by the abundant young beech and pines—a

state of affairs that invariably caused my father to lament the loss of the open vistas he had enjoyed as a young man, when the state's economy was still beginning its shift from merino wool to tourism, and forests had not yet overtaken the upland pastures.

Our excursions weren't solely exegeses of early New England agropastoralism. They were also sentimental pilgrimages to favorite places: the once sun-glazed slope, now shrouded by hemlock, where my father's beloved dog, Stamp, was buried; the massive glacial erratic, called "Big Rock" in our plain family parlance, upon which earlier generations had spread their Sunday picnics; and the eerie spot by the freshwater spring where, according to local lore, a railroad tramp had gone to quench his last thirst before taking his life with a dose of Paris Green.



The author's father, Bob Matteson, walking in the woods during one of their outings (courtesy of the author).

Though as a kid I complained about being bushwhacked and bug-bitten, the potent blend of didacticism and nostalgia that suffused our rambles left a more lasting mark: they turned me into a historian. In particular, I became a historian of early modern and modern France, focused on the tense and tumultuous struggles over forests during the French Revolution. As I argue in my forthcoming book, *Forests in Revolutionary France,* the fight for woodland control among the French state, rural communities, and industrial interests at the end of the eighteenth century underpinned the development of a repressive, exclusionary, and ultimately untenable form of conservation that was widely implemented in France and beyond. In its failure to be resolved equitably, moreover, the conflict shares disquieting parallels with present-day troubles. Just as France's economic and political turmoil were shaped by population growth, social disparity, food insecurity, and an energy crisis caused by declining wood resources, so too are the global upheavals of the present linked to comparable pressures and to the repercussions of reliance upon a far more finite form of fuel.

On the face of it, these concerns may seem to share little in common with my childhood wanders in Vermont. Like most people, the path I followed towards my adult interests and occupation was a meandering one, guided by exceptional teachers, inchoate inclinations, and opportunities gained and lost. In the case of my family's farm, I couldn't go back even if I wanted to. Extending from mountaintop to beavered bottomlands, it was an arcadia for a kid to traipse and explore, but a white elephant for my parents to maintain. By the time I was a university student it was clear that the property would pass out of my family's possession. Perhaps as a product of my ambivalence toward that looming loss as much as of my curiosity about the Old World origins of New World land use, I chose to explore the history of environmental change and stakeholder claims in the context of France, rather than in my own home state. In the process, I have come to understand and appreciate both all the more. From the *longue durée* perspective, one's ownership of land may be ephemeral, but the land's hold on one's identity endures.

Gijs Mom

Salvation Road

When asked to describe and reflect on my road to environmental history, I have several possible answers, although I realize all of them are somewhat uneasy. The easiest way (out) is to join the bicycle crowd and point to the electric vehicle I chose as the topic for my dissertation. Only a few of my closest friends know that the electric vehicle came into my orbit as a potential threat: I was teaching internal combustion engine technology at a polytechnic while also acting as a publicist on what I then called "advanced automotive technology" for the Dutch and Belgian engineering press, and I wanted to know, in the early 1990s, how seriously my job would be threatened by the coming of the electric vehicle. So yes, I must be a good guy, as I study the right artefact (when I was a linguistics teacher in another life I once gave a student an F because he dared to consider the electric chair during a presentation as a fascinating contraption without going into its moral implications. Sorry Geert-Jan, if you're reading this).

But wait, I just finished my second monograph, and that's on Atlantic automobilism and its violent and aggressive traits, celebrated by female and male novelists (especially the latter) and there's not much on the car's emissions, its energy consumption—you know, the obvious suspects. Is there, again, an easy way out here? I contemplated using the flight into "nature" as an entrance into an environmentally based storyline, but would I be willing to follow up on Leo Marx, do a car thing where he already did a more general machine thing? Would the road network, the landscape be "environment" enough to warrant a place among those other fellows delving into ice expeditions, climate disasters, famines, novels on environmental justice, native peoples in Mexico, and land grabbing?

I started writing the book as a fellow of the Rachel Carson Center (with three fellow-fellows in temporary quarters in Schellingstraße 9, waiting for the printer to be installed, out of breath from climbing the sky-high stairs, down to the *Konditorei* for our daily coffee, cradled in the comfortable net of countless student assistants) so there is my *Führerschein*: someone at the examination board let me pass. We organized our first reading sessions, moved to Leopoldstraße, enjoyed the muzak of the fitness freaks below, especially during the weekends when only the foreign and lonely diehards were left, and

read, and wrote, and wrote more, the student assistants meanwhile carrying kilogram after kilogram of photocopies to my desk. Along with my overenthusiastic intake of Bavarian beer and schnitzels, I co-developed a kind of textual obesitas which took months to get rid of once back home (and I am still recuperating).

With Uwe Lübken and Agnes Kneitz I set up the first international RCC workshop (or was it the second?) on mobility history and environment, wondering out loud and collectively why transport history appeared so reluctant to take up the environmental challenge and make it into one of its core topics, discussing the mobility of tectonic plates as much as the migration of plant seeds and the meandering of diseases. MIT Press was there, to see whether there was an edited volume hidden in the discussion (there was not at that moment, I'm afraid). Helmuth Trischler came to comment on the results, Frank Uekötter as well. And then, during one of our excursions into the Bavarian landscape, I saw the light: aggression, and environment, taken literally, as *Umgebung* (instead of *Umwelt*)! That should be my angle of attack! I saw how early twentieth-century novelists "conquered" nature as much as they conquered the colonies, and, for the males among them, also as much as they conquered women. I started documenting a history of automotive aggressiveness against the Other and was able to deconstruct the transcendental qualities of these conquering practices. That's how the main conclusion of the book I wrote at the RCC came to be: the car driver feels like a poet, god-like, floating upon a feeling transporting him beyond his middle-class self, self-adorned with the possibility to destroy, with the near-irresistible power to maim (Marcel Proust liked to rape a village in his car, as he wrote to a friend, tongue-in-cheek), consciously during the first period of nature celebration, largely unconsciously (hidden as statistics) during the second, interbellum phase of exploding road casualty statistics. And how about the car emitting lead and poisonous gases during the third phase of the post-World War II years (not covered by my book)? That should not have surprised us after the two earlier preparatory phases. But it should be told by others.

Now, nine chapters further down the road, the rest is history, or better, future; the book is still to be published. The RCC was not only an excellent locus to get me going along the Atlantic aggression road, it was also the place where the first issue of the new journal *Transfers* was conceived, a journal to "rethink mobility." As a matter of fact, we will have our third editorial team meeting on the occasion of the RCC's reunion in August 2013, where we will discuss, again, the question why so few transport and mobility

Ecological mobility? The author in Kolkata, India, where hand-pulled rickshaws form an important part of the livelihood of seasonal migrants to the city (courtesy of the author).

historians venture into environmentalist issues. There is so much to attack: urban noise; the catalytic converter and the problem of energy consumption during its controversial introduction; the onslaught on the road, the cannibalism of space; the partisanship among historians of transport when it comes to public or private transport; the relationship between history writing and current-day policy and planning; the machine in the landscape; the landscape in the machine; and, not to be forgotten, Rachel herself and the city. Meanwhile, *Transfers* has published on the mobility of German sausages in the nineteenth century, the transfer of dime novels in the 1920s, transport and cosmopolitanism, the rickshaw in Bangladesh, and the role of the Hummer in the Iraqi war. What the RCC did for me is to help open up the field. Somehow, somewhere, someone has to start closing it a bit—something perhaps to do in the next six years.

Timothy LeCain

The Neo-Materialist Flip

My interest in the environmental humanities began badly, as I came to the field for what I now think of as all the wrong reasons. I started off as a historian of technology, studying with the scholar of American industry and science David Hounshell at the University of Delaware. My move to the crowds and factories of northern Delaware—a state practically synonymous with the chemical artificiality of the giant DuPont corporation—did not come easily. Having grown up in the Big Sky country of the northern Rocky Mountains, much of the American northeast struck me as hopelessly ruined and divorced from the vibrant power of capital "N" Nature. As soon as the first summer break came, I boarded a plane and headed back to the wilder lands of my home state of Montana.

Sitting in the cramped seat of a Northwest airlines jet, I looked out the window as the plane banked sharply for landing. For a brief moment, the ragged knife-edge of the Bridger mountain range lay beneath me, the snow-dusted peaks glowing pink in the light of a setting sun, vast tracts of dark pine forests stretching beyond the mountains with scarcely a single electric light to disturb their shadowed perfection. What a contrast this land was, I thought, to the unnatural human-created machine hurtling me through the cold, thin air. My fellow passengers and I seemed more akin to astronauts than travelers. We were kept alive thanks to the roaring jet engines outside my Plexiglas™ window, a bizarre technology that burnt ancient hydrocarbons to pump warm pressurized air into a narrow tube of aluminum metal while spewing noxious wastes into the pristine sky. What we needed to better understand, it seemed clear to me then, was the history of how and why humans and their artificial technologies had left the natural world behind. We needed to find a path away from technology and towards Nature, to get humans out of their screaming jets and back in touch with those peaceful green forests below.

Almost 20 years later now, I look back at my younger self at that moment and think that, while my goals were admirable enough, my analytical approach was entirely wrong-headed. Indeed, today I would argue that my views then were more symptomatic of the problem rather than a solution to it. For this I can thank the many influential thinkers I've encountered in the years since: Latour, White, Cronon, Noble, Russell, and others. Slowly, even a bit painfully, I have come to believe that one of the root causes of our

A Northwest Airlines Boeing 727 arriving at the Bozeman, Montana airport with the snowy Bridger Mountain range in the background (courtesy of Scott Gore).

contemporary and historical environmental problems is not that humans and their artificial technologies have *left* nature, but rather that so many of us came to believe that we even *could* leave nature—that humans could ever be anything else but the entirely natural animals that we are.

In a book that I began while I was a Carson fellow, I try to make this point in a chapter called "We Never Left Eden." The title suggests how ancient and pervasive I believe the problem is, going all the way back to the Western idea of humanity's fall from an earlier paradisiacal harmony with nature. This idea in turn, I argue, is close kin to the even more widespread belief that humans are somehow special, a point on which most of us agree even if we debate precisely why. Some emphasize the human use of tools to manipulate a distinctly separate and exterior natural environment, others, the development of language or complex urban societies. Regardless, all implicitly or explicitly insist that at some point the hominin animal left nature behind to become the master manipulator of the material world rather than its product. From there flowed, depending on one's perspective, all the blessings or all the curses of the modern human-dominated world of the past few millennia.

This deeply anthropocentric worldview has endured through the centuries, despite suffering what looked to be mortal blows from Copernicus, Darwin, Carson, and many

others. Surprisingly, scientific thinking has done relatively little to undermine it. To the contrary, many scientists continued to embrace human exceptionalism in other forms, often believing that our extraordinary intelligence would permit us to transcend the limits of this material world and become akin to gods. Not too surprising given their name, humanists have been even more eager to proclaim the worth of their chosen subject of study, which is to say, themselves. Among historians, this long tradition of anthropocentrism reached something of an apotheosis in recent decades when social constructivist thinking kept many focused squarely on humans and a concept of culture that drew a clear line between the human sociocultural world and the material world around them. While only the most radical of constructivists ever questioned that a separate material reality existed outside of human ideas, for many years the possibility that this external world might construct humans as much as it was constructed by them was largely ignored. Human ideas about matter mattered a great deal more than matter itself.

In the book I mentioned above, I call my chapter on this topic "The Denial of Matter," and if that were all I had to say about the topic, it would be rather depressing. Fortunately, in more recent years a very different way of thinking about the material world has begun to take shape, one that has potentially radical implications for humanists, scientists, and people in general. Smitten by Stephen Greenblatt's wonderful 2012 book, *Swerve*, I've toyed with calling mine *Flip*, though that title may be too redolent of recent American real-estate practices and charismatic sea mammals to really work. Regardless, the idea is that I and some other neo-materialist scholars are proposing that we need to flip the conventional view of the relationship between humans and matter on its head. Instead of understanding humans as the master manipulators of a separate and passive material world, we argue that humans and their cultures are, to a significant degree, products of matter: that the material world creates us and our diverse cultures every bit as much as we create it. Indeed, recent scientific and humanistic insights strongly suggest that it no longer makes sense to draw a clear conceptual line between humans and matter (or nature, as some prefer to call it), but that we should instead focus more attention on the many ways that humans and their cultures are made of and from matter and cannot logically exist in isolation from it.

Lest I begin to sound vaguely misanthropic here, let me briefly assert for the record that I have the highest regard for human beings and their many accomplishments. Indeed, some of my best friends are humans, and I am particularly fond of the ones who are

my wife and two children. My intent is not to revive the foolish anti-humanism of neo-Malthusian movements like Earth First!, nor to deny that humans have accomplished many wonderful things, at least by our own inherently provincial standards. Rather, I want to suggest that humans did not achieve these things on their own, that they were aided by countless powerful material partners, great and small, operating in complex biogeochemical ecologies that have created not only the human animal, but also many important aspects of human culture and society.

Which brings me back at last to that younger version of myself in the cramped economy seat of a Northwest airlines jet. As I look back on it now, the problem with the jet was not that it was divorced from the real nature I thought I glimpsed in the mountains and dark forests below: on the contrary, I would insist today that engineers had merely shaped the natural material world to create the jet. They had not fundamentally altered or left it behind. More importantly, the real problem was that I, like most humans, failed to appreciate how the dynamic power of nature had created the jet too, that this odd machine was as much a product of the extraordinary chemical abilities of hydrocarbons and aluminum as of the much-vaunted mental capabilities of human brains. Because we fail to see that humans are best understood as partners with things rather than their masters, we also fail to appreciate the many complex ways in which we become deeply entangled with those things, some of which we might well have done better to avoid. There was nothing inherently unnatural or bad about the jet. But having thrown our lot in with oil, aluminum, and the other materials and properties that we call a jet, we humans have partnered with some very powerful things that now threatened to lead when we had meant for them to follow.

The neo-materialist flip thus suggests that far from being akin to Nietzsche's *Übermenschen*, we humans might do better to think of ourselves as a gang of occasionally charming but frequently foolish children who have stumbled upon an abandoned locomotive idling quietly on a siding. Eagerly climbing aboard, we carelessly push and pull at the controls of a machine whose powers we can only vaguely comprehend. By chance, we throw the machinery into gear and send the engine careening down a track towards a destination we can scarcely imagine, all the while praising ourselves for how very clever we are. I wonder: even if we somehow figured out how to stop the locomotive, would any of us get off?

Eva Jakobsson

A History of Flowing Water

The university library in Gothenburg had for some reason classified Donald Worster's *Rivers of Empire* as natural science. Books under that classification were not my primary interest. Nonetheless, during one of my strolls along the open shelves of the library, the title attracted my attention and I pulled out the thick volume. At this time—in the early 1990s—environmental history was not very well known among historians in Sweden. *Rivers of Empire* came to open new perspectives for me and it had a major influence on my doctoral project. This is the short story of how the door to environmental history was opened to me.

Wandering along the library shelves, I had just ended my employment as a high school teacher deep in the forests of the Swedish northern inland. Two hundred kilometers to the nearest city, one human inhabitant per square kilometer, the temperature down to –30 degrees Celsius for weeks during winter—the mere thought of living in the little municipality of Sveg for the rest of my life was depressing. During my daily walk to work, passing a grocery store and the melancholy red-and-black painted *Hotell Mysoxen*[1] (later that hotel obtained an important role in the Henning Mankell crime novel *The Return of the Dancing Master*) I started thinking about how stimulating it would be to work in history again. Not to read, but to write history. So far I considered myself a medievalist. However, as I could not read Latin fluently, I knew that I had to find a project in modern history.

In the end I found my project in memories of my childhood landscape around the Gullspång hydropower station, one of the larger plants from the early 1900s. As children, we used to play among the polished, summer-warm rocks in the drained river groove. The dam, with its sluicegates that could suddenly be opened, rose above us. When swimming in the river upstream from the dam, we could feel the undercurrent in the direction of the turbines. The strong current would grab our legs and our small bodies would be pulled towards the intake. Thus it was not by work in the Richard White sense that I got to know the hydropower landscape, but rather through the course of child's play.

1 The hotel name is interesting from an environmental history perspective. One would think that the name should be *Hotell Myskoxen*, because of the colony of wild musk oxen at the Norwegian border. Instead the first part of the hotel name—*Mys*—is the Swedish word for enjoying oneself; a word game probably to contrast the alleged hostility of the musk ox.

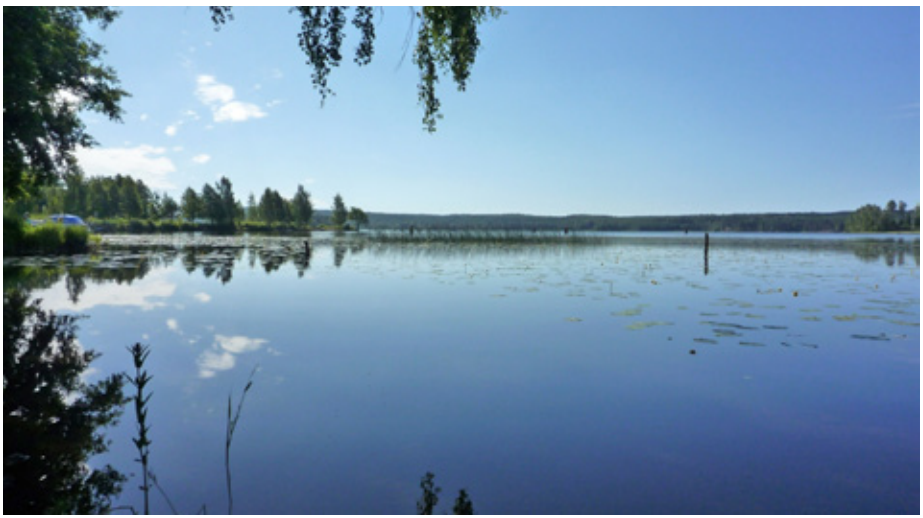
During my daily walks deep in the Swedish woods, I started to formulate questions about this waterscape. How was it possible to build this dam and regulate the upstream lake? Who owned the water? Which political premises had to be in place to control the flowing water? These were the questions I had in mind when I unexpectedly stumbled upon *Rivers of Empire.* Environmental history research gave my own research a new direction and finally, in 1996, I defended my doctoral thesis *Industrialisering av älvar* (Industrializing Rivers).

Afterwards I continued my research on the history of flowing water. At the same time, I had the good fortune of attending some of the early meetings that came to form environmental history networks in both Scandinavia as well as in Europe.

In Sweden Sverker Sörlin had been appointed to the first professorship of environmental history. Together with Hilde Ibsen, he organized the first environmental history research training course in Umeå in 1994, among others with Carolyn Merchant as a lecturer. This was a course for Nordic research fellows. As Nordic people we discussed history and chatted socially in our own languages—and we still do so. Therefore we often cooperate on a Nordic basis. Simultaneously the Nordic meetings are very fruitful as our respective countries have their own specific histories. Many of those who met there in northern Sweden nearly 20 years ago are still writing environmental history. They became vital to the establishment and development of the research field in their respective countries.

The Nordic dimension in my research development even happened to include my private life. At one Nordic historical meeting I bumped into—literally—a Norwegian historian and ended up in Norway permanently. That is why it was the Norwegian Historical Association that awarded me a travelling scholarship to participate in the 1995 American Society for Environmental History conference in Las Vegas. Among others, I had the opportunity to be in the audience at Martin Melosi's now-legendary presidential address on urban environmental history. Experiencing Las Vegas and Hal Rothman's enthusiasm was of course overwhelming, and I clearly remember the local history excursion in Las Vegas, where we were shown the city's "old" buildings. However, most important of all was that I, for the first time, had the opportunity to visit an international conference and listen to the many historians whom I had only read about until then.

In 1999 I attended the founding meeting of the European Society for Environmental History (ESEH) in Dietramszell, south of Munich. During the first years of its establishment—from 1999 to 2004—I served as a Nordic representative on the board. The first conference of the ESEH was held in St. Andrews in 2001 and it gives me great pleasure to see how it turned out to be such a vivacious organization. Moreover, working in the ESEH enabled me to meet some remarkable Europeans; some of them I have come to consider as my dear friends.



A Swedish waterscape (Source: Michael Spiller via Flickr)

In 1999 I responded to a call for papers from the British historian Richard Coopey for a conference on water history in Aberystwyth. At this conference, we were united by the idea of unifying historians under an association for water history researchers. My Norwegian colleague Terje Tvedt succeeded in collecting Norwegian funding to arrange the first international conference on the history of water. I worked together with Tvedt and Coopey on the program committee for that conference, and in August 2001 we had the pleasure of welcoming more than 300 historians from about 70 different countries for the conference in Bergen on the rainy west coast of Norway. There, the International Water History Association was formally founded.

For some years, I was occupied with other things than environmental history. I served as a Head of the Department for History and Foreign Language at the University of

Stavanger. I did research on accident investigations and traffic safety in a historical perspective. Today I am grateful to be back in the field of environmental history. It is a well-known fact that environmental history has experienced some difficulties becoming established in Norway. It is therefore an extra delight to note that my employer, the University of Stavanger, allows me to offer courses in environment history.

At the moment I am occupied with how we have understood the vast Lake Vänern, the third-largest lake in Europe. I am pleased, once again, to be able to return to the Swedish waterscape.

Marc Elie

From Social History to Environmental History. And Back?

As I applied for a fellowship at the RCC, I was conceiving a new research project to gain some distance from my doctoral work on Gulag ex-detainees. Gulag studies are heartbreaking; I needed a change. A history of disaster and risk management in twentieth-century Russia and Soviet Union promised to offer a new angle to understand the tragedies of the past century without having to dwell on the penitentiary system.

I ask how Soviet society and state understood, anticipated, and coped with natural hazards and technological threats coming precisely from the forces of progress which the authorities—together with their Western counterparts—were loudly advocating.

Colleagues from Soviet history would laugh that "disastrous" could apply to quite anything in the Soviet Union. Indeed, defining even at the heuristic and methodological level what a disaster may have meant in a country, half the history of which (from the beginning of World War I until the death of Joseph Stalin) has been described by serious historians as a continuous catastrophe, proved engaging.

Seen in retrospect, I must say that even draped in the framework of the "social history of the political" (Noiriel) and equipped with the toolbox of social disaster studies (vulnerability, resilience, culture of disasters, coping, etc.), the project of analyzing how disaster management in the broadest sense of the expression worked or not remained within the limits of a classic sovietologic enterprise, as my doctoral work had been: in the end it all came down to understanding a foreign culture that had been one of the most attractive utopias of the past century, and which eventually failed. This is no doubt an important and exciting task. At the RCC, though, I had the chance to discover that environmental history could offer other prospects.

My stay at the RCC was short. I spent only three months in Munich. I could not stay for longer, having just got a new position in France. But the fellowship proved crucial for understanding what I actually intended to do with a history of Soviet disasters. I have trouble now explaining what actually triggered the environmental turn in my research. I know it happened in Munich in discussion with various and actually very different

researchers, both in their methodologies and ideologies. It all happened at the level of intellectual influences through lengthy encounters that could happen only at the RCC.

Donald Worster no doubt played a major role. His personal commitment to the stories he writes struck me as a cardinal feature: he writes on what moves him. Furthermore, he thinks of history as a way to enlighten people, to reveal to them the (misleading) assumptions their lives are built on and the contingency of the paths their society has chosen. His effort to combine three approaches—the natural history approach (How does nature evolve?), the social history approach (How do humans interact with nature?) and the cultural history approach (What do people think about nature?) is to me the most sensitive way to approach environmental history in its diversity and to describe its specific features.

Edmund Russell's insistence on preserving an irreducible kernel in nature and body from any "cultural determinism" made a strong impression on me. Not only should historians show awe for the realms of things lying behind words, but they should follow the scientists who make their ways into things themselves. So Edmund follows the scientific experiments of neurologists in order to write a history of the brain, as opposed to a mere history of how our concept of "brain" evolved. Worster and Russell, and the arguments over reductionism (Is the mind the brain and nothing else?) they would hold at the workshops, had the longer lasting impact on me, as I now understand. Many other encounters were essential. The RCC allows for intense discussions in formal, semi-formal, and non-formal settings. Using these venues, Gordon Winder and Stefanie Belharte were among the most captivating discussion partners and most patient teachers. You could test theories on them, they would resist, object, criticize. With backgrounds in geography and ethnobiology they would throw dissident gazes at my problems and ask questions to shake up what I held for certain.

My disaster project became progressively more and more environmentally oriented. Disaster management and its failure or success became less prominent in my interests. Actually, looking at disasters is a way first and foremost to understand how nature in its coarsest expressions bumps into human life and changes society. Disasters—be it natural or man-made—put violently into view the irreducible in nature that had not been calculated in, counted with, anticipated, and that is not manageable because it bursts or outflanks preventive measures. Natural things and living bodies lead their own life

Houses covered with rocks after a mudflow in Malaia-Almatinka Valley, Kazakhstan, 1956 (Source: Central State Archive, the Republic of Kazakhstan, 2-46946).

outside of human interaction, and they have their own history. The devastating earthquakes of Soviet history—in Crimea in 1926, in Turkmenistan in 1948, and in Armenia in 1988—are phenomena of the dynamics of the earth crust. To access their functioning, historians have to read what the seismologists say about quakes.

Disasters, second, happen at the synapse between human activities and the forces of nature: they occur when and where humans extract, transport, construct, and produce. Where humans act massively upon the natural world, they may encounter unintended and unanticipated consequences. Natural laws may strike back in the form of a firedamp explosion devastating a mine, of winds destroying cultures and destructuring soils, of an ice storm freezing the Azov sea within a few hours, clasping thousands of ships, or of a nuclear reactor spiraling out of control. Discovering how human-induced processes and natural dynamics interact to engender disasters is one of the main challenges of a history of disasters. Third, disasters are events labeled as such by their contemporaries. They alone define what is risky or disastrous in hazards. And this in turn depends upon how they envisage nature. How the understanding of nature, of the agency of nature, and of human-nature relationships evolved in times of disaster became some of my main preoccupations.

To conclude, I want to add that environmental history leads me to take into account how natural things, commodities, and ideas circulate. The importance of borders ends up diminished. Nation-states and empires, the main horizons of most of social history, appear contingent and fragile when one looks at global environmental changes. These straitjackets are unable to account for the circulation of environmental ideas, let alone for that of flora and fauna. Environmental history opens the mind for global approaches of changes in nature and society. This is in my view the main contribution of environmental history to the history of societies. Chernobyl acted as a central locus of the ecological revolutions of the last third of the twentieth century, both in East and West. Understanding Chernobyl as a global ecological disaster is more interesting in my view than defining its weight in the delegitimizing processes that led to the fall of the Soviet system. And even those processes are better understood in relationship to the changing attitude toward science, to the changing status of the natural world in industrialized countries as a whole, and to the international fallout debate; that is, they are better understood when seen from the global perspective. Since my stay at the RCC, environmental history has helped me try to do better social history.

Franz-Josef Brüggemeier

Place, Time, and Me

In recent years historians have rediscovered the importance of place. Environmental historians in particular have benefited from this, for they study topics for which concrete, physical spaces are of central importance. Recent conceptual reflections on this topic have reached dizzying heights, leaving empirical-minded historians at a loss. This is also true for reflections about the meaning of time, that basis for all historical study, which for environmental historians may easily include many thousands of years, if not geological timescales. These reflections fascinate me, but also sometimes leave me rather baffled, since both my personal history and my work as a social and environmental historian are shaped by a very real and clearly-defined space (Germany's Ruhr district) and time period (the years since 1970).

For a long time the Ruhr district was the largest and most important industrial center in Europe, dominated by coal, iron, and steel, which have left significant and lasting traces on the landscape and environment of the region. One of these legacies is the river Emscher. Starting in the late nineteenth century, the river was used as a dumping site for the wastewater produced by coal mines, steel mills, chemical plants, and cities. The river did not survive industrialization. Instead, it became an open sewage canal which could no longer support fish populations or other somewhat complex organisms. The water was so saturated with coal sludge and other particles that the Emscher riverbed had to be leveled and lined with concrete so that the water would flow at all. In addition, the stench that arose from it was sufficient to banish any memories that the waterway in question had once been a river.

Nevertheless, in the late 1970s there were people who recalled how it had once been and who devoted themselves to turning the Emscher into a river again. When I first heard about this project, it seemed to me less a visionary dream than a crazy, impossible one. By contrast, I considered the plans being made around this time to fly to Mars to be entirely realistic. Nor was I particularly interested in other environmental topics during this period. At any rate, I did not see a connection between such topics and the landscape of the Ruhr region.

This changed in the early 1980s when I was asked to write an article on the social history of this region for a handbook. This was my area of expertise, for I had recently completed my PhD dissertation on the social and everyday history of miners. This of course was the reason why I had been asked to write the entry, but for precisely this reason I felt unable to do so: I didn't think I could find anything new to contribute to the subject that I hadn't already published. And so I looked more carefully at the plans for the handbook and noticed an interesting omission—there wasn't anything on environmental history. I suggested to the editors of the volume that I could write such an entry. And yet neither the editors nor I knew whether there were enough sources, how far back they went, or if it was even possible to write a historical study on the environment of the Ruhr. Therefore we decided that I (together with a colleague) would first determine what sources were available and which topics could be investigated. To our delight we discovered more than we had hoped and were commissioned to write the article.

The article focused on industrial pollution, a logical topic for an area like the Ruhr. And industrial pollution became a major subject in the emerging field of German environmental history, in contrast to the United States, where the idea of "wilderness" has played such a prominent role. Also, in comparison to an environmental history that looks at changes over thousands of years, the investigation of industrial pollution is accused of being narrow and has been criticized for being too anthropocentric. This criticism should not be dismissed lightly, but nor should it be overlooked that since the 1990s German environmental history has produced a multitude of impressive studies on various topics of the industrial age and developed a variety of interesting methodological approaches.

Aspects of social history have been important in this, but less than I would like. For example, in German speaking countries environmental historians have often neglected the question of environmental justice—as is also the case in environmental discussions as a whole. In the context of the German energy transition this aspect has recently been given more attention, since there are indications that the costs of renewable energy are unequally distributed among different groups of society. I hope very much that this question and similar ones will be discussed more intensively in the future.

In the Ruhr itself the heavy industry has been almost entirely shut down, the residents of the area have lost jobs and are looking for new perspectives. The sense of widespread decline is made worse by the environmental legacy of industrialization; many parts of

Graffiti by the Emscher river. Translation: Listen—is your heart still beating? (Source: Ruhrlandmuseum Essen, Fotografische Sammlung, Bestand IBA-Archiv).

the Ruhr are affected by it and are not necessarily attractive. However, there have been considerable improvements. Even for the Emscher: it is still a sewage canal, but now the sewage is at least treated before it is dumped into the watercourse. The brooks and streams that feed into it have been recultivated and transformed—they look entirely natural once more. This is planned for the Emscher, too, but it will require great effort, expense, and patience.

It is possible that this goal will be reached before the first manned mission to Mars takes place. But that is mostly because this space flight has turned out to be too expensive and unrealistic. In comparison, the goal of turning a ruined river back into an ecosystem in which fish live and which is safe for humans to bathe in again seems practically within our grasp—even if we will still have to wait for several decades and I will then probably be too old to mark the occasion in swimming trunks. But none of this will change the importance of the Ruhr region for my discovery of environmental history.

Lajos Rácz

From East to West

My interest in the natural environment is something I was born with. I grew up in an Eastern Hungarian village, where electricity was installed only three years before my birth. My eldest brother initially had to do his homework by the light of an oil lamp. My parents were peasants, as was everybody in our family.

When I read late medieval or early modern sources, my own life experience helps me a lot in interpretating the information. It was an important feature of my peasant world that my parents did not push me in terms of book-learning. History, which I considered to be an occasional hobby alongside football, handball, and acting, was something I started in my late teens, when I was motivated by my personal interest, and not the ambitions of my parents or my rigorous teachers. Anyway, it turned out in high school that I was not a universal talent. However, as a student of geography and history at Szeged University I realized that I might make a good specialist.

In the autumn of 1988 in my first job, my boss, György Enyedi, chaired a discussion for the academic institute's young researchers. He talked about everything, but one statement in particular defined my later career: that the best researchers are not always the cleverest people. For reasons that I won't go into here, this was an exceptionally important sentence for me. It seemed that bad character was needed for research success. Namely selfishness, without which there is no concentration, and more importantly stubbornness. After Enyedi's speech I felt that I had a promising research career ahead of me.

I came to my research field of climate history quite early on, as a second-year student, in the spring of 1985, and, proving my selfish and stubborn character, I have been in the same field in academia ever since. There were no researchers specializing in this research field in Hungary at the time. Historians, geographers, and meteorologists dabbled in environmental history occasionally for their research, but these attempts did not substantially change the direction of their research. The Academy in Eastern Europe has, though, a feudal character; without supporters at your back, you can easily be knocked down. Especially if you are a young researcher, at the very bottom

of the scientific pyramid, without even a science degree. I wouldn't have been able to remain on my feet without the support of the international environmental history research community.

I managed to get onto Christian Pfister's radar first. In 1991, Christian summoned me to the climate history conference in Mainz, despite the fact that I did not know English (the language of the conference); moreover I had no funding, neither for the conference fee, nor for accommodation, nor for travel expenses. That was my first international conference. Presumably I did not make a bad impression on Christian, because I subsequently spent one and a half years at the Regional and Environmental History Department at Bern University in the 1990s. I became part of the international climate and environmental history research scene during this time. Likewise, Christian nominated me to the Board of the European Society for Environmental History in 2001, as Hungary's regional representative.

Wilko Graf von Hardenberg on interdisciplinary dialogue

It was only when I worked as a historian in the interdisciplinary setting of the Department of Geography in Cambridge that I actually learned the ropes of environmental history. The opportunity to discuss and debate with physical, human, and historical geographers, in fact, allowed me to widen my perspectives and to gather a new, more profound understanding of the bonds between place and time, as well as an alternative theoretical framework to my research on environmental conflicts in the rice fields of my home county and the nearby Alpine national park of the Gran Paradiso.

A five-month Dutch Academy scholarship with the Netherlands Institute for Advanced Study in the Humanities and Social Sciences at Wassennaar was the next milestone in my career (2003–2004), which I won at the recommendation of Petra van Dam. This provided me with a distinguished setting to turn my over-long study into a real book, which was published in Hungarian in 2008.

My stays at the RCC (in 2010 and 2011) gave me the opportunity to produce an English-language version of my book. These periods in Munich differed fundamentally from my earlier field trips. In the 1990s, I felt like a itinerant worker, leaving my family behind while I pursued my career. In Munich I was joined by my family: three of my daughters, my son, and my wife. We have experienced what has made Munich for many years one of the world's most liveable cities. We have fond memories of Munich's comfortable, pleasant, and not least safe communal spaces.

The Rachel Carson Center was the pole of our life during our Munich residence. The organization of our work did not cause difficulty thanks to the colleagues who supported our research at the center. The schedule at the RCC was both relaxed and well organized, the events did not bureaucratize our lives, but motivated us to join in the common discourse. It was the icing on the cake, though, that with the support of Christof Mauch at the RCC, I was able to find an opportunity to publish my book in English, so that the book, like me, has been able to travel west. I spent one of the best periods of my life in Munich. And thus it's not so surprising that even though I only spent six months at the RCC, I still feel "homesick" for Munich.

Crossing Disciplinary Frontiers

Edmund Russell

Lucky Forks

Winds at my back and lucky forks in the road led me to environmental history.

The winds at my back blew across the Great Plains of the United States. I grew up in Kansas and Nebraska, where it is hard to overlook the importance of natural resources for human experience. One of my grandmothers came from a ranching family and the other grew up on a farm. My father worked for a natural gas pipeline company. As a boy, I spent a lot of time exploring creeks and wheat fields and camping with my family and Boy Scouts, which encouraged a fondness for the outdoors. At the same time, I discovered that I loved reading, especially biographies and novels. The local library became one of my favorite places. The winds from boyhood, then, gently pushed me toward environmental and humanities interests. They have blown in the same direction ever since.

My undergraduate curriculum focused on the humanities. I majored in English with an interdisciplinary emphasis on the nineteenth century, which included history courses. With some embarrassment, I must report that the competitiveness of premedical students scared me away from science courses for the first couple years of college.

A lucky fork in the road came midway through college. I applied to teach sailing at a summer camp in the Sierra Nevada Mountains of California. The staff director asked me to become the camp naturalist as well. "But I'm an English major," I pointed out. "Isn't there someone else more qualified?" "You know as much as anyone else," he replied. Not a terribly strong argument about my qualifications, when you think about it, but I agreed. I enrolled in a botany course to prepare—and loved it, which dispelled my fear of science courses. Leading nature walks at the camp turned out to be a joy. I incorporated readings from nature writers, such as Edward Abbey, in addition to teaching about geology, botany, and zoology. My senior year, I wrote a thesis on the nature poetry of Gerard Manley Hopkins, whose verse first bewildered, then fascinated me. If you have not read "The Windhover," you have a treat awaiting you.

Five days after graduating from college, I boarded a plane for Asia. I wanted to put my training in English to practical use where the needs were great, so I worked the next

two years as a volunteer journalist for a rural development institute in the Philippines. That experience taught me many things hard to understand in a classroom, such as the grinding poverty that bedeviled farmers and the frequency of pesticide poisoning. I survived a bout of typhoid fever, which made me think about the natural world in a less romantic way than I had when reading Edward Abbey and nature poets.

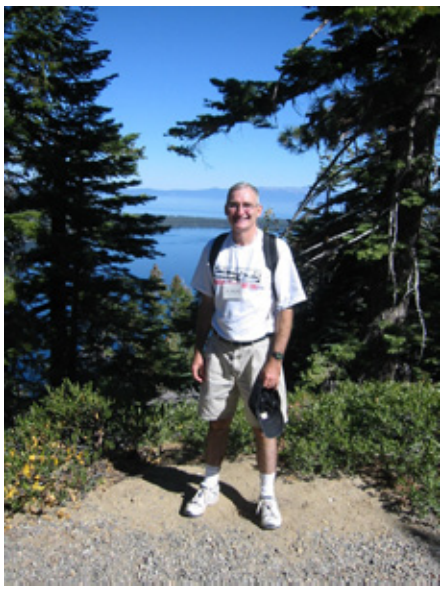
My Philippines experience sparked an interest in sustainable agriculture to address both rural poverty and pesticide poisoning. I planned to work as an activist at a non-government organization, but I felt I lacked the expertise to be effective. I had graduated from college with the minimum number of science and math courses (three), and decided to go back to school to study biology. For the next two years, I worked full time during the day and attended school at night to take the prerequisites for graduate training in biology.

I tried to find a graduate program in which I could synthesize my interests in humanities and biology, but my undergraduate professors could not suggest any. I entered the PhD program in biology (with a focus on ecology) at the University of Michigan because it was a leader in using ecological theory to develop sustainable agriculture, and because graduate students in the program had done creative dissertations.

Two events in graduate school led me to environmental history. The first was discovering the field. While browsing a used book sale, I happened across a paperback titled *Changes in the Land*, by William Cronon. I inhaled it in one sitting in the graduate library, then raced home and pounded on the door of David Hsiung, a neighbor who was in the PhD program in history at Michigan. “What is environmental history?” I asked. David recommended books by Donald Worster, Arthur McEvoy, and Alfred Crosby. I loved their work but did not immediately change the course of my career. I had already started on a dissertation on the ecology of rice that soon took me back to the Philippines. Another key event came there when a rice farmer told me the latest sustainable methods of pest control were the same practices his father and grandfather had used. This revelation torpedoed the assumption underpinning my research. I had assumed the barrier to sustainable agriculture was the lack of knowledge of alternatives. Now it looked like alternatives had been available all along.

Why did we get on an unsustainable path? That question came to obsess me, and it was clear the methods of history were better equipped for answering it than were the

methods of biology. I wrote to my advisors in Michigan (John Vandermeer and Beverly Rathcke) and suggested switching my dissertation to a history of pesticides. They agreed. I added three historians to my committee of three biologists and wrote a history dissertation in a biology department. I had decided to become an environmental historian, and it has felt like the right decision ever since.



The author at Fallen Leaf Lake, California, where the author worked as a naturalist at the Stanford Sierra Camp (courtesy of the author).

I went into the dissertation project thinking that domestic, civilian politics, and economics drove the development and adoption of pesticides, which they had. But research revealed that war had also played a major role. My dissertation eventually became a book (*War and Nature*) that used the history of pesticides and chemical weapons as a case study of the impact of war on the environment and vice versa. It seemed like an important topic for practical as well as intellectual reasons, although some of the conclusions were surprising. Talking about the impact of war on the environment makes most people think of the visible damage one sees on battlefronts, but the bigger impacts result from mobilization efforts at home that create institutions and ideologies promoting heavy use of natural resources. These developments continue into peacetime, while the cessation of hostilities halts the damage on battlefronts. To encourage the environmental history of war to cohere as a research program, Richard Tucker and I co-edited the first book of essays on the topic (*Natural Enemy, Natural Ally*). In an effort to show the practical value of research in environmental history, I published a law review article applying the lessons of history to the environmental law of war (*Nicking the Thin Edge of the Wedge*).

Earning a PhD in biology was a roundabout route to environmental history, but it has paid off in the long run. My overall scholarly goal is to deepen our understanding of the world by synthesizing history and biology. This goal led me to study the way in which people have shaped the evolution of populations of non-human species, and

how changes in these populations have circled back to shape human experience. I've called this approach to history "evolutionary history" (and published a book with that title), although a better name might be coevolutionary history. Currently I am working on a book that uses the history of dogs in Britain in the nineteenth century as a case study of coevolutionary history.

The Rachel Carson Center graciously funded me as a Rachel Carson Fellow to look into synthesizing environmental history with another field of biology, neuroscience. Professor Ernst Poeppel, a professor of medical psychology at the LMU, welcomed me into his research group. We found common ground in the topic of healing environments. Public health researchers have learned a lot about the ways in which environments shape health through direct impact (such as spreading pathogens or encouraging accidents). Far less understood is the indirect impact of environments on health, even though this impact can be significant. Patients seeing trees out their hospital window recover more quickly from surgery, suffer less pain, and have fewer complications than patients seeing a brick wall. The mechanisms are still unclear.

Professor Poeppel's previous work had included the study of effortless mental processing, which led to the hypothesis that health-promoting environments placed fewer cognitive demands on brains than non-health-promoting environments. Professor Poeppel, postdoctoral fellow Evgeny Gutyrchik, graduate student Lukasz Smigielski, other collaborators, and I carried out an experiment in which we had subjects imagine health-promoting and non-health-promoting environments while scanning their brains with a magnetic resonance imaging machine. The results supported the hypothesis. Subjects showed more brain activation when imagining non-health-promoting environments than when imagining health-promoting environments. Specifically, the left prefrontal cortex, which is involved in regulation of emotions (among other things), showed higher activation. This pattern was consistent even though individuals imagined very different environments (ranging from wild nature to no nature in sight) as health-promoting. In the future, we hope to continue the experimental approach while also exploring the historical basis for ideas about healing environments. This research could have major social benefits by helping architects and urban planners understand how environments shape health.

Anthony Carrigan

Against Discipline

I didn't attend my high school classes for academic reasons. My main motivation for turning up at school was social, and I don't remember doing much work in any of the lessons. It's not that I was an execrable student; just I could never really understand the logic behind subject segregation, or the way shared knowledges would get subdued. One well-meaning teacher told me to drop history in favour of music when I was fourteen, and I took mainly science and maths classes after that, along with English, with the vague intention of doing something medical eventually. Outside of school, though, the disciplines were irrelevant to what I read and dreamed about. I've always loved reading fiction because of the way it brings new worlds to life and all their possibilities. I loved language for how it shaped those worlds, defined them, made them beautiful. And I loved how so many forms of writing, in their textures and their unexpectedness, recast the settled paths of thought. Most of all, the literature I loved made boundaries meaningless, and spoke of uprisings.

Thinking back now, these things—distaste for uncreative education, enchantment by imaginative forms—have been my lodestars as I've moved through academic life. I'm also pretty sure they're why I fell in love all over again when I landed at the RCC. To create gateways rather than cementing walls, to forge connections over ruptures, to listen broadly, deeply, openly, and to cherish the contingent, the unpredictable: the Rachel Carson Center is these things to me.

What makes this so important? Too well we know the paths of progress seem like one single catastrophe, with the increasing pile of rubble due in no small part to the divisions, powers, hierarchies that we have forced upon ourselves and our environments. I'm a post-colonialist and an environmental scholar, and I'm this because I believe, like one of the writers who is closest to my heart, that this work is crucial if we are both to hold "a broken mirror up to broeken nature" and "to go – try? – beyond the crisis/disruption" and reveal "at> last the outline(s)

[HINTERLAND]

of wholeness & restoration, re/vision, healing". – Kamau Brathwaite

This kind of work involves looking critically at the legacies of violence, greed, and anguish, and at the same time trying to capture some of the amazing creativity and hope that still abides, and make it foundational to a future based on empathy and care.

Loko aʻi (fishpond), Lahaina, Maui (courtesy of the author).

This is also what the Carson Center is to me: a place to foster a sense of academic interdependence that reflects in microcosm the more massive, barely graspable restructurings the world is facing. Certainly it altered how I think this could be done closer to home, in our universities. Right now, in the UK and elsewhere, a storm is blowing in from paradise, and seems to catch relentlessly in our wings. At the same time, there is warmth and shelter in new partnerships, and always hints of openings that can subvert, transform, resist, refresh, renew in line with what we hope for in reflective life. For me personally, after four wonderful years at Keele, I'll be returning soon to the place that nurtured me as a PhD student, Leeds—a place where I know the climate is supportive (as in Munich) of environmental humanities, and where I hope to be part of its growth and sustainability.

I don't expect a post-disciplinary university just yet, and one of the effects of the storm is some retrenchment and retraction of the new. Still the Carson Center is a beacon that illuminates, and makes me think of those Lindisfarne cormorants the poet wrote about, with catches in their beaks, showering fishscale confetti on the shining sea. He was doubtful then of what poems can do, but my own doubts about whether I could ever find a place set up for innovation, inspiration, cross-fertilisation that was the opposite of school—well, they've been quieted (I've never doubted what is it that poetry can do, however dark the days).

And so I go to Leeds refreshed, transformed, renewed, both by my time at Keele, and by that precious period of conceptual transformation the RCC provides. More than this, I go with the ambition in mind of helping build up structures that reflect the best of the world you've led me to. I think that for all the rubble of history—the imperial debris—the world is opening up in new and fascinating ways, and the work I'm doing and what the RCC stands for is finding the right audience, or better, conjuring it. There is growing willingness, for all the conflict, to listen to each other's narratives, and to creative forms more generally. Without stories, without poetry, the value of the waters and the land and life itself cannot be realised, and without stories from the world—each part of it—our local value systems stay obscured. I'm very excited to be starting out on this journey now, and am looking forward to sharing it with the Rachel Carson Center for many years to come.

Cheryl Lousley

The I in Interdisciplinary Studies

There was an image before anything else: a group of people seated around a table engaged in excited debate. In my memory, one person has an arm extended to emphasize a point; others were poised to respond. It was the body language that said that what was being discussed was important, and that discussion from various perspectives was necessary for anything really important.

Simon Werrett on sustainable science

If recycling and stewardship are so intimately connected to capitalism, science, and imperialism, this raises the question as to whether they are a long-term solution to problems of sustainability. The recent development of recycling and stewardship for environmental ends might be seen as only a first step or stage in a longer process of making a more sustainable culture, in which knowledge serves sustainability rather than profit and efficiency. So a final strand of my work in this area explores the use of interdisciplinary approaches from the humanities and science and technology studies to think about alternative approaches to making science sustainable. How might epistemology be made more sustainable? If sustainability, instead of operability, were the foundation of scientific knowledge, how would it change? Could disciplines such as history, aesthetics, rhetoric, philosophy, or theology be used to think of new approaches to making science sustainable?

That image was my first introduction to interdisciplinarity, a mouthful of a word, but a core principle of scholarship on complex problems. And environmental issues are some of the most complex problems we have, especially since they do not merely subsist in some distant realm "out there" called the "environment" but are part of our food chains, our livelihoods, our economies, our bodies. Rachel Carson, namesake of the Rachel Carson Center, made this very point in her classic book *Silent Spring*. DDT, she

argued, did not simply vanish into some mythical ether after being sprayed on fields and cities. It stayed around in the soil, in the rivers, in the lakes, and made its way into the bodies of birds and mammals—mammals like us. Climate change, toxic contamination, deforestation—these are issues because they pose *economic and livelihood* challenges. They raise questions related to *politics and social justice*: Whose bodies are exposed to the health risks of pesticides? Whose livelihoods are undermined by rising sea levels? Who benefits? And they raise fundamental questions about modern culture: How did we come to organize social life as if the biophysical world was a mere resource and dump? What are the modern myths that justify ongoing ecological risk-taking?

Add another person to the table for each of these questions, and you have a sense of what goes on at the Rachel Carson Center. Any afternoon at the Rachel Carson Center, when I was a Carson Fellow in 2010, would find historians, anthropologists, economists, geographers, and literary critics like me gathered around a table to discuss films, books, guest presentations, and our own writing drafts. We had lively discussions and were challenged to explain our premises and judgments clearly, without jargon, so that everyone could follow and respond.

Add dozens of researchers for each of those questions and the table will start to get crowded, perhaps even heated with all those bodies in a small space, and with all those different opinions. The elegant simplicity of interdisciplinarity as an idea is appealing; putting it into practice is difficult. The seemingly effortless conviviality of the Rachel Carson Center requires the dedicated attention of a team of directors, support staff, and external advisors. Pedagogical approaches to interdisciplinary study also require skilled coordination—which was actually what was going on behind the scenes of the image of that table I so vividly remember.

The image was actually the centerpiece of the promotional brochure that attracted me to my undergraduate program, an innovative, problem-based, interdisciplinary arts and science program at McMaster University, in Hamilton, Canada, the university that pioneered problem-based learning in medicine. A book has been published on the McMaster Arts and Science Program as a case study of interdisciplinary education, called *Combining Two Cultures* (University Press of America 2004).

I am part of the generation of scholars trained in the interdisciplinary programs introduced in Canada and other countries from the mid-1970s onwards in areas like environmental studies, women's studies, and cultural studies. In my undergraduate program, interdisciplinarity was pursued through synthesis courses called "Inquiry" that focused on complex problems like international development or technology and society, and where students were expected to draw on the skills and methods they were developing in their more traditional courses in mathematics, literature, philosophy, biology, and physics. The premise of the problem-based approach of Inquiry is to engage learners in actively grappling with complex situations rather than teaching by way of cumulative building blocks, with required knowledge initially isolated from its contexts for the sake of simplicity. The problem-based approach can be frustrating and time-consuming—and, just as often, challenging, intense, and exhilarating. The goal is to educate flexible, critical, well-rounded thinkers rather than only teach an established body of knowledge.

It was an Inquiry course that gave me my first insight that there was a humanities or cultural dimension to environmental issues, and that culture was political. Until then, I thought of politics in the narrow sense of political representatives and parliamentary debate. And this ignorance made me cynical about politics. I had never met a politician, and the short-term cycle of elections seemed destined to produce shortsighted decision-making. Politics, I was sure, was some distant and dysfunctional realm quite separate from the everyday lives of people and other living creatures.

I came to see cultural patterns—whether landscapes like the North American front lawn, or genres like sentimental or gothic writing—not as simple choices of style but as politically significant and meaning-laden ways by which certain social groups sorted out their values and identities—their sense of who they were and what was important or proper. To fully appreciate the environmental debate about the lawn requires stepping beyond technical questions about pesticide application, monoculture, and soil exhaustion—and about which one may appeal to politicians to better legislate. A tidy, trimmed, and litter-free green lawn is a statement of prosperity and propriety for the North American middle class. It demonstrates a respect for property boundaries and a sense of control and mastery—the property can be readily surveyed with the eye, everything seen to be in its proper place. It also shows an appreciation for the living world, and the leisure time and money to sustain

and express this appreciation. The lawn is a physical artifact, but also a cultural one. The lawn appears benign and innocent, but it is the mark of a particular set of values and a particular social class. In other words, it is political.

The difficulty I had in initially grasping the political and cultural dimensions of everyday environments is part of the legacy of modernity. Modernity emerged through the systematic separation of the biophysical from the cultural aspects of the world: the laws of gravity were not dependent on the laws of the church. The rise of capitalism further involved what Karl Polanyi called the "disembedding" of economic rules from socially based land-use patterns, livelihoods, and cultural practices of specific communities. Carving up the lived world into distinct realms made the modern era, but it also led to absurdities like the pretense that economic production ends with consumption—neglecting the full life cycle of materials and their byproducts, and neglecting the colonization of cultural life by advertising.

Interdisciplinary is a response to this fragmentation of knowledge, but its foundational role in modern knowledge also explains why interdisciplinarity is so difficult in practice.

To start with a table is to create a place like the Rachel Carson Center where people may gather while nevertheless each having their own seat, their own research and opinions, shaped by listening and speaking with the others gathered around. That was political philosopher Hannah Arendt's description of politics itself. And an ideal that set me on the path to my research and scholarship in the environmental humanities.

Eunice Blavascunas

Cultural Encounters in the Name of Biology

In 1994 my first post-college job was to survey small circular plots in the temperate rain forest of Fort Lewis military base in western Washington, USA. The US forest service contracted my skills in fungal identification to determine the food abundance for flying squirrels, the preferred prey of the endangered spotted owl. As with many military bases, biodiversity flourished. Trees had not been logged for close to a hundred years. Many lay splayed on the ground nursing new saplings, providing protective tunnels for a number of small rodents. The US Forest Service and base managers agreed to apply variable density thinning to the stands in order to determine whether forestry practices might create suitable habitat for the spotted owl, a bird dependent on the ancient never-logged forests of the Pacific Northwest. While a laudable conservation experiment, the research also risked the proposition that old growth forests were not necessary for spotted owls if humans could recreate their habitat with a forestry application.

The experience attuned my sensibilities for why and how culture figures into the biological stories we tell. Not only was there the ethical question of our potential results, we were also research guests on a military base. At least once or twice a week not-so-distant experimental explosions rocked the ground. Soldiers-in-training crawled on elbows and knees through the underbrush as I stood in the circular perimeter of my plots. My solitary position in the woods afforded me time to think. What relationships between the military, squirrels, owls, trees, soldiers, and biologists were not included in the end-product of our research? Why were those connections even important? And what were the formats for discussing these relationships?

At that time I was projecting future career possibilities. To my benefit, the Polish Minister of Environment visited our Forest Service research lab on a State Department sponsored exchange. I had wanted to travel to Eastern Europe due to the historic changes occurring after the fall of the Berlin Wall. The minister told us about the Bialowieza Forest in eastern Poland, Europe's last lowland old-growth forest, split between a commercially logged forest and a national park. Not unlike the situation in the US Pacific Northwest at that time, forestry dependent communities and environmentalists were at odds over how to use and define the forest.

In 1995 with only two hundred words of preliminary Polish in my lexicon, I set off for Poland. Staying close to my career design in biology I joined a Danish team of herpetologists. The Danes organized international teams of volunteer college students, including Poles, to search farmers' ponds in the forest hamlets for the presence of the fire-bellied toad (*Bombina bombina*). As with my experiences on the Fort Lewis military base, I found myself drawn to the cultural encounters taking place in the name of biology. Curiosity, challenges over expertise, judgments about western/eastern, modern/undeveloped, ecologically valid/null, were all part of this mix; as were rich stories about biologists participating in the Solidarity movement, forest protection through tsars, Polish kings, and occupying Germans, and a landscape of peasant agriculture. I decided to enroll in a social science graduate program that might compliment my tools in biology.

In 1997 I was admitted to a cultural geography MA program at the University of Texas at Austin, where I was fortunate to receive funding to return to Bialowieza for twelve months. Learning Polish, having an office at the Institute for Forestry Sciences, and beginning to talk to people about their sense of place in this forest, I took on the work of matching impressions with interview data. In 2001 I decided to continue my lines of inquiry in a PhD program at the University of California Santa Cruz. My mentors, including, Melissa Caldwell, Anna Tsing, Hugh Raffles, Don Brenneis, Donna Haraway, and most importantly my main advisor, S. Ravi Rajan, provided new frameworks in political ecology, science technology studies, animal studies, and postsocialism, to examine the rich ethnographic material i was collecting in the forest. I lived in Bialowieza for more than two years over the course of my PhD training and also led groups of US students there as well.

S. Ravi Rajan's best piece of advice in a theoretical terrain of which ideas to write through was "just tell a good story." Exemplary in Rajan's own writings and also in all his interactions was how to dismantle orthodoxies, write hopeful ecological stories, and hold onto one's original passions. I am deeply grateful for his encouragement and guidance.

During my PhD studies I also took summer work as a ranger at national parks, including Isle Royale, a small island archipelago in Lake Superior, and Yosemite National Park. In these parks I gave voice to the biological and historical stories embedded in each park in my role as an environmental interpreter.

A family, their farm, and a Danish college student searching the farm's pond for rare frogs. 1995 Bialowieza Forest region. (photo by author)

Since graduating in 2008 I have had the chance to teach for two years at the University of Washington's Program on the Environment, where I helped students grapple with the entanglements of facts and values. I have also held a postdoctoral research position at Miami University's Havighurst Center for Russian and Post-Soviet Studies, funded through a National Council of East European and Eurasian Research grant, which enabled me to return to Bialowieza for another research trip while also affording me the time and resources to begin studying contests over the use of Warsaw's Vistula River Banks. Through a Switzer Environmental Leadership Grant (2012–2013) I conducted research in northern Maine, USA, affiliated with the Schoodic Institute, looking at how a proposed national park inflects with cultural ideas about property and territory. This summer (2013) I am joining the Rachel Carson Center as a fellow to work on my book manuscript "Black Stork, White Stork: Uses of the Past in the Bialowieza Forest."

In so many ways this manuscript is a synthesis of all the experiences I write about here. The book is an environmental history and ethnography which explores the roles of biologists, foresters, and formerly peasant farmers in shaping the Bialowieza forest, including its administrative structures and even its biological composition. The book mediates contests over the forest and expertise while remaining ever committed to the individual human stories residing in a place. The book's title is drawn from the nicknames of two aging bachelor brothers who live in the forest and symbolizes tensions between domestic

and wild nature, between the peasant past attached to the patronage of foresters and an imagined cosmopolitan future where nature lovers believe they can transform people and reform attitudes towards the beauty and importance of an old growth forest.

Ingo Heidbrink on avoiding the ivory tower

The environmental perspective of historical research might also be a way to avoid or leave the ivory tower occupied by too many historians in the past. Besides linking historical research with pressing issues of today's global society, the environmental research lens seems to be an ideal starting point for interdisciplinary cooperation and most important bridging the traditional divide between the humanities and the natural sciences. Projects like the Bremen International Graduate School for Marine Sciences: Global Change in the Marine Realm (GLOMAR), which I have been helping to develop since the mid-2000s, clearly demonstrates that environmental history is an ideal area for bridging the disciplinary divide, and more importantly for understanding pressing issues of today in their whole complexity of natural and human factors.

My book narrates these materials to help students, scholars, and all readers care deeply about how we know, use and protect places with rare ecological qualities and what happens to the people who live within them. The most important intervention I want to make with this book is to talk about what is "natural" and "wild" within Europe and how the definition of "wild" within this geographic space informs more widespread ideas about what is "wild" in other continents. In an age of scholarship when the wilderness concept has largely been discredited, I remain committed to interpreting parks and preserves as more than just stories of dispossession.

In sum, I came to the environmental humanities due in large part because my questions rolled beyond the confines of my discipline. Much by chance and much orchestrated through my own efforts and the help of my mentors, my career has taken me places and afforded great opportunities. I look forward to my year at the Rachel Carson Center where I will be in the luxurious position to spend all my time forging this set of ideas into a text that can contribute to environmental thought and action.

Stefan Dorondel

Environmental Anthropologist-cum-Environmental Historian: Listening to the Mermaids

Sometime in the spring of 2010, I was accepted as Carson Fellow at the Rachel Carson Center. The title of my application was *Transforming the Socialist Landscape: New Rural Elites, Property Rights and Land Use Changes in Post-socialist Romania.* As I wrote in the application, I intended to turn my (second) PhD dissertation on agrarian transformation and land-use changes in post-socialist Romania into a book. I was not very sure which direction the book would take but I knew when I arrived in Munich that the book would have a heavy touch of social anthropology—a discipline I was trained in at the Université Libre de Bruxelles and at the Humboldt University Berlin. Thus, here I was, a social anthropologist who landed in June 2010, in a foreign place among people who were not "my own crowd," who speak in a foreign language and use strange concepts that I could barely understand. I was very determined to stick to my own discipline, to my own subject, and to try to get as much I could from the six months of freedom that Munich offered.

In the kitchen next to the coffee machine—the center of social interactions, where Carson fellows would generously throw so many ideas, books titles, and names of different authors—I heard the "song of the mermaids" for the first time. There, not only did I discover that environmental historians and scholars of ecocriticism are not so much a different species speaking a foreign language, but I also started to recognize authors I loved, books I have read and influenced me, and ideas that have haunted me for quite some time. This expert in USA environmental history, that specialist in the Columbian nineteenth-century history of waste, this historian of the national parks, that expert in environmental literary and cultural studies—they all spoke to me in a language that made sense for my own study. That geographer from the Antipodes, whose comments always started with "In New Zealand…," suggested that I pay attention to animals and their agency, which often illuminates social and political relations. This historian of Africa interested in the making of international development expertise, that historian interested in neurohistory, that explorer of the literature of supernatural, spiritualism, and surrealism of the Arctic, or this environmental film expert—all had something to contribute to the understanding of my own subject. I expected to receive

The author crossing a river during fieldwork in Romania (courtesy of the author).

comments and suggestions from fellows I considered my own peers—sociologists and anthropologists, be it their expertise on Lithuania or on local knowledge societies—or to receive criticism from an environmental historian acquainted with Eastern Europe. And I did receive everything I expected from them. I had not expected to receive comments and suggestions that would completely redirect my perspective on post-socialist changes, from a crowd of scholars whose topics were so different from my own. I was completely mistaken.

Then the moment came for my presentation in the Works-in-Progress seminar. I was struggling with the introduction of the manuscript, and after many revisions, doubts, feelings of failure, and the sentiment of never-ending writing, I presented it. It was one of those magic moments when I realized, through the questions, suggestions, and light critiques provided by the other fellows, where I was heading. That afternoon, from 6 p.m. to 8 p.m., enlightened me and put me on a different road. I was asked about changes in the type of crops and orchards, about intercropping and the forest trees, as well as the changes suffered by post-socialist rivers. I was asked to shamelessly trespass the territories of others, and invited to build bridges between them. I was pushed to look at the same ethnographic materials, but from new angles, and nature was always part of the story.

I needed several days to go through all the suggestions, comments, and questions I received within the seminar. Clearly, these all tried to put me on a different path than the one I thought I would take. Several days after the seminar, I was still haunted by Frank Uekötter's observation that I can "milk" more from a more environmental approach. What was almost completely missing from the project I applied with to the RCC and from the literature I cited there was "the nature." When I showed the first

draft of a projected future book to Christof Mauch, the literature on environmental issues was almost nonexistent. He pointed that out to me and suggested several classical works which could redirect my perspective. Probably in order to make sure I would read them, he even emailed me some PDFs and gave me some books from the shelf in his office. Crosgrove, McNeill, and Worster—to name a few—have indeed changed my perspective. Reading McNeill's assertion that Eastern Europe still represents an unexplored frontier[1] for environmental historians made up my mind. I knew then that I found my own way of dealing with the social and political changes in post-socialist Romania. I realized that this kind of massive change does not reorganize the society only, as I had been inclined to point out (thus bringing redundant ethnographic proofs to what was already said by anthropologists and sociologists of post-socialism), but also the natural environment. Crops, forests, animals, and rivers all suffered the impact of the massive social, economic, and political transformations. I knew then that I should tell their stories as well. Interestingly enough, these were important issues for my village informants as well. Initially, I choose to not take them into account because I was more interested in political relations and markets than in the relations between villagers and their environment. As I have pointed out in the introduction of the manuscript, my informants showed me the changes their crops suffered, the vanishing of the forest, and the biodiversity once fostered there. In my dissertation, I choose to turn my attention towards a different direction. The environmental historians I met at the RCC pushed me to listen again to what those people had to say. I realized that it would be methodologically weak and theoretically misguided to separate land and forest social and political relations from their environmental aspects.

It would be unfair to discuss only the (semi)institutionalized promotion of the environmental history within RCC. At the RCC, seminars mean a lot, but they are not everything. I myself learned a lot and was convinced by the importance of the environment in my own research through personal links and the lifelong friendships I built with some fellows from my cohort. It was not only that they were some of the most brilliant scholars I ever met, but the humanity of those I had the chance to share the office, the kitchen, and the university cafeteria with convinced me to listen to them. A small but active community coagulated around the daily ritual of going to lunch, be it at our Lebanese friend across the street or at the university cafeteria. During these meals— usually prolonged by our heated scientific

1 McNeill, J. R. "Observations on the Nature and Culture of Environmental History," *History and Theory*, 42 (December 2003): 5–43.

debates—I learned more than I would have learned in a class on environmental history. Here I heard, for the first time, the name of Alfred Crosby, an author extremely useful for my own current research but rarely, if at all, cited by social anthropologists. I must have bothered many of my *commilitones* with my insistence for them to read some of my chapters in order to help me insert "more nature" into the text. They always did. Some of these colleagues-cum-mentors-cum-friends became partners in crime for the weekend gatherings in the wonderful pubs around the Marienplatz or just for wandering around the city. The unparalleled taste of Bavarian beers (Aventinus rules!), the rich and tasty proteins from a *Schweinshaxe* and the unforgettable atmosphere of "Weissen Bräuhäuser" cement the memory of a great time, equally for learning and for joy. For me, RCC was important not only for the people I was colleagues with, but also those I met who were interested in "nature." RCC was a magnet for such people. I never had thought I would profit so much from an encounter with a Hungarian landscape planner, whose comments helped me improve the first version of my introduction; several geographers from the LMU geography department enlightened me with their expertise on biophysical changes in the landscape. I started to read this literature mainly because of them.

Shane McCorristine on celebrating interdisciplinarity

As someone who trained as an historian, is currently based in an English studies department, teaches human geography, and will move to an archaeology department shortly, I am not a typical environmental humanist. But meeting my colleagues in the RCC taught me that there is no such thing as a typical environmental humanist. Indeed I shudder at the thought of such a thing, for the calibre of talent and expertise that I encountered in Munich showed how varied and atypical this discipline could be. Where interdisciplinarity is all too often a hindrance in the Academy, here it was celebrated and prioritised as the process of connecting environmental and social relations.

For me, RCC means the luxury of thought. The intellectual and convivial atmosphere created by the two directors created such a luxurious atmosphere, so rare these days within academia. I never felt any kind of pressure on me except the pressure I placed

on myself in order to be at the same level as my colleagues and friends. The PhD students and the RCC staff, who assisted us in almost everything, also contributed to this relaxed atmosphere. Receiving the books directly from the rich Munich libraries, without haunting the city, gave us extra time for thinking, reading, and writing. Time—this scarce resource of any scholar in this world—was generously offered to us by the way RCC was conceived to function.

When I arrived at the RCC I was determined to defend social anthropology against any intruder. I left RCC with the conviction that we scholars from different humanities and social science disciplines are not so very different and have in common many subjects, methods, and theoretical ideas. But the most important thing with the RCC was that it taught me to trespass on new territories, some of which even led me astray from my own area of expertise. Thank you!

About the Authors

The following were all Carson fellows between 2009 and 2013:

Melanie Arndt
University of Regensburg

Eunice Blavascunas
The SERC Institute

Franz-Josef Brüggemeier
University of Freiburg

Sarah Cameron
University of Maryland

Anthony Carrigan
Keele University

Lawrence Culver
Utah State University

Stefan Dorondel
Francisc I Rainer Institute of Anthropology

Marc Elie
Centre d'Études des Mondes russe, Caucasien et Centre-européen

Carmel Finley
Independent scholar

Amy M. Hay
University of Texas-Pan American

Shen Hou
Renmin University of China

Eva Jakobsson
University of Stavanger

Sherry Johnson
Florida International University

Grace Karskens
University of New South Wales

Matthew Kelly
University of Southampton

Claudia Leal
Universidad de los Andes

Timothy LeCain
Montana State University

Thomas Lekan
University of South Carolina

Cheryl Lousley
Lakehead University

Kieko Matteson
University of Hawai'i at Mānoa

Clapperton Chakanetsa Mavhunga
Massachusetts Institute of Technology

J. R. McNeill
Georgetown University

Gijs Mom
Eindhoven University of Technology

Lajos Rácz
Szeged University

Edmund Russell
University of Kansas

Shiho Satsuka
University of Toronto

Donald Worster
University of Kansas/Renmin University of China

Frank Zelko
University of Vermont

About the Editors

Christof Mauch and **Helmuth Trischler** are joint directors of the Rachel Carson Center.

Lawrence Culver and **Shen Hou** are Carson fellows and presidents of the Rachel Carson Center Alumni Association.

Katie Ritson is managing editor at the Rachel Carson Center.

RCC Perspectives

RCC Perspectives is an interdisciplinary series of papers and essays in environmental history, environmental studies, and related fields. The papers have their roots in the scholarly activities of the Rachel Carson Center for Environment and Society and in current debates in society. They combine thought pieces and fresh empirical research, and they are designed both to further international dialogue and to inspire new perspectives on the complex relationship between nature and culture.

perspectives@carsoncenter.lmu.de

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Rachel Carson Center for Environment and Society
LMU Munich
Leopoldstrasse 11a
80802 Munich
GERMANY

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Perhaps it is a feature of environmental history in particular that our origins and our past stories shape our interests and our fields of enquiry in myriad ways. This volume of *RCC Perspectives* brings together short explorative essays from international fellows and alumni of the Rachel Carson Center. Many of the "tracks" in this volume are not well-trodden, and they lead us through a landscape that is mutable and as yet uncharted. Following them will help us understand our human environments both in the past and in the future.

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