In Sustaining Lake Superior: An Extraordinary Lake in a Changing World (2017), Nancy Langston examines industry’s toxic legacy in the Lake Superior basin and the ways climate change and ecosystem degradation have exacerbated this environmental crisis. Her account has global significance: Lake Superior contains 12 percent of the world’s freshwater, and the persistent pollutants found there have traveled from other continents through wind currents and the grasshopper effect. Langston, however, saves her strongest condemnation for industries located in the lake’s basin by detailing how the waste products of paper and pulp mills as well as copper and iron mines have emitted startling amounts of dioxins, PCBs, mercury, and asbestos into the water.

Throughout her book, Langston outlines how industrial activity has disproportionately harmed First Nations in the Lake Superior basin, beginning with federal removal of Anishinaabe communities from land with known copper deposits in the mid-nineteenth century. She also documents how corporate pollution has poisoned lake fish, forcing First Nations families to consult possibly inaccurate advisories as they moderate consumption of a foodstuff integral to their diets.

To explain how industry has imperiled the people, plants, and animals that depend on Lake Superior, Langston translates germane principles from the natural sciences for her readers. In particular, ecology, chemistry, and limnology (the study of lakes) become protagonists in her account. We learn, for instance, that thermal bars in the vast lake keep pollution near the shoreline “where people and fish are most likely to encounter it” (10). When chemicals arrive, they remain indefinitely, since the deep, cold waters inhibit evaporation and chemical flight. The toxic concentration has brought about algae blooms, fish kills, and human illness.

In other passages, Langston treats scientific arguments as political constructs, by illustrating how corporations have mobilized selective evidence to portray their harmful activities as benign. Starting in the late 1940s, for instance, the Reserve Mining Company successfully presented tailings from its taconite operations as equivalent to “natural sediments” already found in Lake Superior (92). That company also suppressed scientific evidence establishing the carcinogenic effects of fly ash (one of its waste products) and derided any studies suggesting its tailings harmed human health.

Although Langston understands corporate greed as causing toxic pollution, she also emphasizes the utter failure of state and federal regulators in protecting Lake Superior. Her indispensable account of government corruption and ineptitude in the matter of Reserve’s taconite operations is especially damning. After the regional depletion of relatively acces-
Possible iron ore just after World War II, the Reserve Mining Company turned to taconite iron ore that required extensive processing and therefore caused pollution. Reserve justified its activities, which included dumping “67,000 tons of tailing each day into the lake,” as necessary for local economic development and for providing iron ore to national defense industries (81). Over the course of two decades, the State of Minnesota permitted Reserve’s pollution of Lake Superior, dismissing the concerns of fishermen, environmentalists, and organized labor.

The US government also knowingly abandoned Lake Superior to Reserve Mining Company. In the late 1960s, a federal laboratory suppressed its own scientist’s findings that Reserve’s tailings had caused algae blooms. During the same period, the Federal Water Pollution Control Administration buckled under pressure from Reserve to dial back conclusions that its tailings harmed the lake and violated federal water quality standards. In vital criticism, Langston casts the administration’s successor, the US Environmental Protection Agency (EPA), as a “pollution-permitting agency, deciding how to best allow pollutants onto the market—not a pollution-control agency, as many people assume” (214).

Amid state and federal dereliction, Anishinaabe tribes have stood as the only sovereign authorities consistently shielding Lake Superior from toxins. Langston recounts how in the 1990s, the Bad River Band prevented delivery of sulfuric acid to the White Pine copper mine by blocking train tracks that ran through their reservation. Their action got the EPA’s attention, and the federal agency finally agreed to scrutinize the mine’s use of sulfuric acid in mineral extraction. Facing serious federal study, the White Pine copper mine shut down. In just the past decade, six tribes partnered with ecologists to map the extent of sacred wild rice sloughs threatened by a proposed taconite mine. Because of their study, the Gogebic Taconite mining company withdrew their plans, as it appeared nineteenth-century treaties would require protection of expansive wetlands, cutting into profits. Langston tracks First Nations communities repeatedly leveraging 200-year-old treaties that guarantee hunting and gathering rights on ceded territories during disputes with mines.

Given Anishinaabe leadership against toxic pollution in Lake Superior, I wanted to hear more from enrolled tribal members, like Nancy Schuld of the Fond du Lac Band, who Langston quotes taking Minnesota agencies to task. The relative absence of First Nations voices is especially conspicuous, given how extensively Langston quotes company lawyers, government scientists, and other bureaucrats in her book.

The Anishinaabe are also at the forefront of managing natural resources in ways that Langston argues are critical to the resilience of Lake Superior in the age of climate change. Forest and wetland restoration can recover the assimilative capacity of regional ecosystems, Langston explains, thereby better enabling the “capture and breakdown [of] the persistent toxics that undermine our shared futures” (232). I hope Langston’s optimism is warranted, given the complexity of ecological restoration and the impossibility of fully recovering the wild places we have lost.

Toward the end of the book, Langston writes, “Historians rarely believe history can be prescriptive for policy” (233). Her contribution, then, is exceptional, because Sustaining Lake Superior is among the most powerful arguments for stringent toxics regulation that I have ever read.

Natalie Bump Vena
Queens College-City University of New York


Margaret Moore’s Who Should Own Natural Resources? is a timely consideration of resource justice that moves beyond conven-
tional approaches to this question in modern political theory. In the text, Moore addresses the nature of ownership, the concepts of resources, and the supposed absolute notion of human relationships with nature in the context of rapid global population growth, climate change, and conflicts over natural resources. Published in Polity Press’s Political Theory Today series, this book challenges traditional theoretical approaches that predominantly consider resource justice through claims based on the utility of resources. Rather than focusing on who currently possesses ownership rights over natural resources, this text instead offers a more nuanced approach to the question of who should have ownership in the contexts of ownership claims, state jurisdiction, and the rights of future generations. In the following chapters, Moore illuminates the five main ways humans interact with resources that consequently engender claims related to basic needs, production, individual or collective access, institutional jurisdiction, and conservation.

Noting the influence of the eminent political theorist Michael Walzer’s approaches to distributive justice, chapter 1 lays out the foundations of Moore’s theory of resource justice. In contrast with conventional political theories discussed later in the book, this new approach to resource justice is both relational and contextual as it provides more than one guiding principle and analyzes the different interactions with and meanings of natural resources. Due to these varied interactions with resources, it is essential to develop a theoretical approach that is not overly reliant on the utilitarian valuation of natural resources to achieve more equitable resource justice.

In order to call attention to the weaknesses of these conventional approaches, chapter 2 primarily engages with theories of equal common ownership, equality of opportunity, welfare egalitarianism, and private ownership. While Moore acknowledges the importance of subsistence rights that serve as the foundation of these theories, her key argument throughout the text is that it is only one dimension of human interactions with nature and cannot adequately achieve equitable solutions in all contexts of resource conflict. Moore argues that the assumption of substitutability is a shortcoming in these theories. Substitutability is the idea that in the event of conflicting claims to resources, one party’s claim can be substituted, namely with compensation. While this might work in the context of subsistence claims, this solution is insufficient in dealing with other claims that are reliant on the specific resource in question, such as claims to ancestral heritage, spiritual and cultural connections, or claims of social identity and autonomy.

Moore in the third chapter expands on these different claims to resources that are “based on the relationship that she or they have to the thing in question” (41). Moore assesses the strengths and limitations of the claims that emerge from different communities. She goes on to emphasize the contingent role that natural resources play in the continued way of life and existence of community social identity in a manner that makes them impossible to substitute.

In chapter 4, Moore builds upon considerations of varying claims, relationships, and values of natural resources to address questions of resource conflict. Her goal is to consider what is at stake for each claimant in order to balance their rights based on the different ways the groups interact with the contested resource. In considering conflicting claims to access, preference should be given to claims that cannot be substituted with other resources. This does not, however, always require privileging access to a single claimant.

Chapter 5 introduces the final element of Moore’s theory that deals with intergenerational justice. Since there is no universal position on which resources matter for the future, Moore’s focus in this chapter is to explain what sustainability could mean for future generations. Examinations of intergenerational justice require a delicate balance of “the immediate survival of particular existing individuals, but should also include the medium- and long-term survival of persons, including persons yet born” (85). Moore’s approach to
sustainability is targeted at preserving specific resources, including the oceans, water resources, the atmosphere, polar regions, and rainforests, all of which “are important for regulating the planet’s overall climate” (90). The conservation of these resources will help fulfill our obligations to future generations, as eradicating these resources would be a “wrongful imposition of risk” (100). Yet, it is uncertain who should be responsible for the stewardship of these resources. Without an international organization with strong enforcement capacities, the best option will be local communities in the vicinity of these resources, if and when they are deemed the “appropriate or legitimate state or self-determining entity in that geographic space” (103).

Overall, the arguments in this book are very approachable and push the reader to reconsider their understanding of natural resources. Acknowledging the various ways humans interact with nature opens up new possibilities to achieve more equitable resource justice. This approach also brings a more diverse range of actors into the conversation, from people who rely on a resource for subsistence to those who have emotional and cultural connections to it. As anthropogenic factors such as climate change and exponential population growth continue to put pressure on how we live in this world in relation to each other and the environment, arriving at an answer to who should own natural resources? The answer is not as simple as it seems. In order to achieve resource justice, we need to account for the diversity of human interactions with resources and do this in a relational manner that considers what exactly is at stake for each claimant. In providing descriptive accounts of the numerous ways humans are connected to the natural world, Moore contributes valuable insight to the ongoing conversations on resource justice, sustainability, and the impact of our decisions on future generations.

Paige Dawson
San Diego State University


*Upstream* is a deeply empirical book that will be of immense legal value for descendants of displaced Indigenous allottees along the headwaters of the Feather River in Northern California. It will also be of value for an academic audience, NGOs, and legal practitioners—particularly the vanguard of social and environmental justice—as a model for how historical research can contribute to critical interventions and advocacy of Indigenous rights and inclusion in environmental policy-making and natural resource management. The book focuses on the origins of the California State Water Project (SWP), which is celebrated by the California Department of Water Resources as “the nation’s largest state-built water and power development and conveyance system” (4). Beth Rose Middleton Manning argues in fine-grain historical detail that the project is constituted upon Indigenous displacement, cultural genocide, and exclusion from political deliberations—all of which are perpetuated through an ongoing “historical amnesia” of Indigenous allotment rights among those involved in the hydroelectric development project and those who benefit from it downstream.

A key facility in the SWP is the state utility Pacific Gas and Electric (PG&E) hydroelectric development project called “the stairway of power” (5). Situated on the North Fork Feather River, it was designed and engineered as though Indigenous lands were empty and waiting to be reclaimed from “the wilderness” for broader public benefits. Manning shows how this Indigenous erasure and historical amnesia has come to characterize contemporary environmental policy, which makes institutionalized racism possible, perpetuates inequalities, and excludes Indigenous knowledge, values, practice, and existence from public decision-making. Thinking of the work of Chris Peters, she suggests that such ignorance of Indigenous history is a “direct result
of manifest destiny- or doctrine of discovery-based approaches to European appropriation of Indigenous land” (6). In her analysis of the Californian settler imaginary of the SWP, Manning describes how attempts to erase evidence of Indigenous histories produce ignorance, which serves to displace and dispossess Indigenous landholders today. It is precisely these gaps in the historical record that she attends to in her archival research.

Considering the promise of broader public benefits, Manning illustrates how such public works projects are produced by public-private partnerships that drive “progress” for a very narrow “public.” She highlights the public-private relationships and processes of, first, historical timber extraction and hydroelectric development, and then, contemporary ecological conservation. The historical details provided on the relationship between public agencies and private corporations, as two spheres that “institutionalized Indigenous exclusion” (57), support her argument that federal and state agencies were and are complicit in making possible the conditions for an eighty-year-old monopoly that undermined historical legal precedence against “unjust enrichment” (59, 145). Thinking with Walter Echo-Hawk’s concept of “legal fictions,” Manning shows how legal theory can be articulated to justify colonization. In particular, Manning examines federal and state agency documents on cancellation, condemnation, relinquishments, strategic devaluation of Indigenous land through various appraisals, trespassing, bureaucratic hang-ups, and paternalism (100). She encourages us to consider the discursive acrobatics involved in making Indigenous displacement for large-scale public works projects quasi-legal (24, 67). The level of historical specificity in the text is presented as a precautionary measure, to advocate for restitution, and ensure that future policies will not reproduce such injustices.

One of the many important contributions of this work is its capacity to connect historical details with current social movements, thus opening windows of opportunity for new strategies of Indigenous political engagements. For example, Manning foregrounds the forceful emergence of “the Maidu Summit” in 2003 formed by two federally recognized tribes—Greenville Indian Rancheria and Susanville Indian Rancheria—and the petitioning Tsi’-Akim Maidu (Taylorsville Rancheria), as well as the Tasman Koyom Cultural Foundation, Mountain Meadows Preservation Association, and Stivers Indian Cemetery Association (166). The Maidu Summit was brought about by a new articulation of public values through the Stewardship Council, which envisions conservation-as-development along the headwaters of the Feather River, as ecological conservation becomes a dominant public value. One request of the Maidu Summit in recent political engagements was to provide “a map of Indian allotted land prior to the flood of 1913” (165). In the absence of the public-private regime of governance in providing such a map, Manning and colleagues rendered a graphic artifact that will prove useful in future political engagements: a map of the “general location of historic Indian Allotments” (173).

In the conclusion, Manning leaves us with four assertions that can be effectively applied in contexts beyond California:

1. The Indigenous histories that frame some of the largest public works projects, which impact all downstream Californians on a daily basis, are largely unknown; 2. contemporary natural resource education and policy-making contributes to the perpetuation of institutionalized racism by being ignorant of the history; 3. public conservation programs, agencies, and processes are as complicit in the denial of Indigenous rights as corporate development; 4. natural resource policy-making and planning can be transformed with attention to history, a commitment to justice, and a commitment to inclusion. (176)

These four key points have broader implications for social and environmental justice. If departments of environmental studies and natural resource management in colleges and universities across the United States adopted
and re-articulated these four points as learning outcomes and course objectives in their educational programs and curricula, we might begin to understand how inclusion of Indigenous knowledge, values, and practices would positively improve energy resource development projects. As Manning states, “development could have been provided much differently if the system was designed to always protect and foreground Native American cultural and community survival in the fragile ecologies of California” (57). Indeed, “the destruction of the communities and associated ecosystems are not requirements of development; they are the result of natural resources development policies that frame Indigenous peoples and their land and waterscapes as externalities of development, if they are considered at all” (57).

Thomas De Pree
University of New Mexico Health Sciences Center


Thijs van de Graaf and Benjamin Sovacool explore the political, social, and economic dynamics of energy using a systems approach to understanding the global politics of energy. They draw attention to the interactions between disparate elements of the energy system, including multiple types and sources of energy, supply chains, culturally driven consumer behaviors, and institutional networks that guide and create energy policy. The authors assess these systems holistically through four “contested frames” that prioritize different elements of energy production, use, and distribution: (1) neo-mercantilism, which conceives of energy as a resource used strategically by states to consolidate and amplify their own political power; (2) market liberalism, in which energy is a commodity traded among many actors in a web of interdependency where “market regulation trumps energy statecraft” (18); (3) environmentalism, which accentuates environmental and climatic implications of energy production and use; and (4) egalitarianism, which spotlights social justice issues such as equitable access to energy, human rights in resource extraction, and equal distribution of the benefits and costs of energy development.

Citing climate science proving that the global ecological system is at a “critical juncture,” the authors emphasize the urgent need to decarbonize the economy. Science, however, is intensely political. Powerful states, elites, and corporate lobbies have always existed to obscure inconvenient scientific facts, and the authors demonstrate the fossil fuel industry’s fervent promotion of climate change denial. They pull back the curtain on the energy sector to reveal the historical roots of energy resource colonialism, wherein Western powers continue to struggle to maintain control of vast oil and gas reserves in places such as the Middle East, Venezuela, and Nigeria. The authors trace the origin of these resource conflicts through the rising strength of individual nation-states of the Global South and their consolidation of power through the creation of alliances such as OPEC; then they show how the development of new technologies that allow more efficient extraction of oil from shale fields in the United States dilute that power by reducing dependence on foreign oil. “Energy security,” in the United States as elsewhere, is more than a political buzzword; it is used strategically by a number of actors with different agendas. Energy security, the authors show, implies a logic that intentionally obscures externalities; rationalizes increased extraction of fossil fuels in ecologically sensitive areas; and encourages reliance on nuclear fission despite the dangers of catastrophic accidents, difficulties storing spent radioactive fuels, and potential proliferation of nuclear weapons. Furthermore, the narrative of energy resource scarcity leads to a perception of petrostates as particularly vulnerable to attack, although historically these nations have more often been the aggressors.
While a global shift from dependency on fossil fuels to widespread adoption of renewables is a necessary component of the decarbonized economy, the authors underscore that this transition will have numerous, consequential effects on global geopolitics. One result is a potential dispersion of political power due to the decentralized nature of most renewable forms of energy. However, it can also lead to social unrest in areas where fossil fuel industries employ many people. The risks associated with this transition might trigger “a global financial meltdown, caused by the risk of stranded assets” (71). The transition might also exacerbate current inequities or create new vulnerabilities among already marginalized populations. For example, solar panels use batteries that require mining for cobalt and copper from mines in the Democratic Republic of Congo that rely on child labor. Energy justice, in which all people have access to adequate amounts of energy, is a moral and ethical issue that is often sidelined when choices must be made between human rights and economic growth. The climate crisis further complicates matters, as the results will be felt globally but experienced unevenly. Energy development has historically been intertwined with environmental racism deeming some places, usually inhabited by poor people of color, “national sacrifice zones” (131), which will also bear the brunt of climate change impacts exacerbated by energy production.

While there are no simple answers to a just transition to a low-carbon global energy system, the authors outline a few key components. Global cooperation is vital, green sectors must produce measurable economic growth opportunities, capitalism’s social and environmental externalities must be properly accounted for, and populations that are negatively affected must be compensated. Energy politics will continue to be hotly contested, as those with resources and authority cling to historical configurations of power, while others rise to power through technological innovation and cultural adaptation. These shifts in geopolitics will produce friction, especially as states, corporations, and elites are locked into patterns of carbon dependency that have historically been profitable; their resistance to change will contribute to an inertia that will slow the energy transition. However, transformative change has the potential to happen quickly, and the authors provide multiple examples of real almost immediate impacts following legislation in countries like Denmark and Canada.

While localized changes can happen, Van de Graaf and Sovacool argue that what is really needed is a strong and coherent international institutional framework to guide the transition; to date, such efforts at global energy governance have been “chaotic, incoherent, fragmented, incomplete, illogical, or inefficient” (222). However, the authors note that “by far the most unifying force in global energy systems today is the challenge of climate change” (229), leading to interdependencies between nations and a deeper understanding of the interconnectedness between energy and other issues. The book ends on a note of hope, outlining the rewards of a just energy transition: it can soften the potential impacts of climate change, disperse accumulated wealth to more people, and reduce global geopolitical tensions arising from unsustainable energy demands. This change is predicated on the ability of humankind to “not leave the energy transition on auto-pilot, or narrowly reduce its politics to a single frame, but instead actively govern, celebrate diversity, and steer it in the right direction” (233). Godspeed, Spaceship Earth.

**Sarah Hitchner**  
*University of Georgia*


The title of this short book asks, “Is wildness over?”—a provocative and interesting ques-
tion. It aims to explore whether wildness is irrelevant to human lives, and, as with any title that ends in a question mark, the answer is “no.” The book is part of Polity Press’s series on Environmental Futures, which is aimed at a general audience. As such, and for other reasons, the largely academic audience that typically reads this journal may find this book frustrating. Wapner argues that wildness has, through modernization, been increasingly eliminated from our lives. “We” have tamed nature as we live more materially comfortable lives with greater predictability, from plentiful food supplies to thermostatically controlled temperatures within our homes. But this, Wapner argues, is more displacement of wildness than elimination, as wildness is scaled up “vertically” from a local to a global scale, that while there is less wildness in our everyday lives, the global environment has become wilder, riskier, less predictable, such as through climate change. This shift has, Wapner argues, major environmental and social consequences. Tacit within this argument that there is less wildness in “our lives”: these are lives within affluent, North American, or at least, “Western” societies—the book does not really engage with how this is unequally distributed between and within societies.

Wapner prescribes rewilding as a way of letting some wildness back into the world and into our lives, to lower our environmental impacts, and to improve our relationships with ourselves, each other, and with nature. The argument that we need wild, risky, unpredictable nature in our lives is inspired by much (North American) nature writing, such as John Muir and Henry David Thoreau, and echoes wider critiques of excess civilization, incorporating authors such as Aldous Huxley. While the book is written for a general audience, it draws upon a diversity of thinkers on environment, society, risk, and related topics, such as James Scott, Hannah Arendt, Jason Moore, and Ulrich Beck.

For a book that puts wildness at its heart, it does not spend a large amount of time discussing what wildness actually is or might be. Instead, it is discussed broadly in terms of self-willed, autonomous nature, but also of risk, uncertainty, and instability rather than tameness and predictability. This makes the book appealing to non-academic audiences who may be put off by academic debates over such concepts. It also neatly avoids the trap of defining wildness as wilderness, but instead invites us to consider wildness as more than just ecological; it is also about humans, our culture and spirituality. This is good.

More problematically, the lack of engagement in what wildness means leaves “wildness” to do substantial heavy lifting in an attempt to make the argument work. Local ecological wildness is discussed in terms of natural autonomy, flourishing, diversity, and unpredictability, human wildness in terms of comfort and predictability, but global wildness in terms of equilibria and predictable climactic systems. These are quite different kinds of wildness, not readily interchangeable or fungible, which undermines the idea that wildness is being displaced from one to another. After reading it, I am not sure where to find increased wildness in my life. The examples given range from connecting protected areas to getting rid of my home’s thermostat. There is also no discussion of what wildness might mean to different people, cultures, or places.

In order to make the arguments work, there are some gaps in explanation, and some sweeping generalizations that really warrant a more nuanced approach. For example, Wapner argues that removing wildness has wide environmental justice implications, and that increasing wildness, very broadly defined, would contribute to social justice locally and globally. This argument is presented without detail or nuance. While readers familiar with environmental justice scholarship will have sympathy with the idea that increased consumerism has unequal negative impacts, they may also be aware of the troubled history and unequal impacts of efforts to promote or impose wildness, not least in the North American experience from where Wapner writes. Such complexities are missing. There
is also some cherry picking of arguments. The argument that wildness is being displaced “vertically” from local to global levels may work with regard to climate change, if one allows for heavy lifting of the term wildness here, but certainly does not work for biodiversity or natural systems such as rivers more generally. We are seeing these becoming distinctly less wild and controlled at a local and global level, without displacement. An argument could potentially be made for zoonotic diseases, where devastation of nature may incur global chaos in an attempt to control our everyday lives, but COVID-19 came too late for this book, and it fails to engage with previous pandemics.

Wapner’s solution is that we should live with wildness through rewilding, but again, there is some lack of clarity, sweeping statements, and heavy lifting in key concepts. Wapner’s idea of rewilding, like that of other writers such as George Monbiot, is simultaneously about ecological functions as well as how we should relate to nature on economic, spiritual, cultural and emotional levels. This is the good bit. However, it is based on the cores, corridors, and carnivores model of rewilding, which is a particularly North American and problematic idea, both ecologically and socially—not least because key proponents cited approvingly here, particularly Dave Foreman, have been accused of promulgating the kinds of social injustices Wapner decries. This model is not representative of broader rewilding ideas. Similarly, Wapner criticizes the Prometheanism of de-extinction, but does not engage with how other related, albeit tamer, concepts such as back-breeding, reintroduction, and taxon substitutes are central to “active” rewilding approaches. Wapner then jumps between this ecological argument about rewilding to advocating more renewable energy and reduced consumption. These are all good and valid, but not really about rewilding. The different ideas are not woven into an explicit and coherent philosophy.

This book will not satisfy an academic audience, but it is not intended for them. But surely the general reader deserves a more careful and nuanced argument about wildness.

George Holmes  
University of Leeds, UK


What Is Environmental Politics? is a meticulously argued, conceptually engaging, and contextually attuned book that explores the complex interface between environment and politics, which appear seemingly unrelated to each other in mainstream discourse. In line with its title, the book returns the reader again and again to the alternative truth that “addressing environmental issues is not primarily an issue of science or information” (1) but also a political issue involving choices by governments, civil society, and other actors. At the outset of this important and polemical book, Elizabeth DeSombre engages with the heated controversies over defining environment in the context of the Anthropocene and the trending post-humanistic thought within the agenda of environmental protection. Moreover, she tackles the question of environmental injustice—as to why the most marginalized people face the brunt of environmental problems rather than those with high political power—head-on so that the reader asks the right questions that challenge the status quo to feel, think, and act more generously with a commitment to social and environmental justice. In a nutshell, this book, consisting of six chapters, not only delineates complex issues in environmental politics but also makes a compelling case for an eclectic, humanistic, and empathy-based ethical approach to environmental justice.

The introductory chapter offers provocative and unconventional insights into the unique characteristics of environmental issues that explain why it is easy to create environmental problems while difficult to fix or pre-
vent the same. Externalities, collective action problems, common pool resources, disconnection between time and distance in cause and effect of environmental problems, non-linearities/tipping points, and the intersection of environmental politics with economics are those unique characteristics and are described in an engaging and empirically grounded synoptic view.

The second chapter unpacks the crucial role of uncertainty and science in investigating environmental politics. DeSombre emphasizes that science is not apolitical, asocial, or acontextual as projected in popular discourse. Who gets funding for what kind of research questions being asked decides what becomes evidence and what does not. The author discusses the need to bridge the wide gulf between scientists and policymakers to offer a “policy-relevant” science that thinks contextually and “integrates the knowledge of indigenous people” (44).

The relation between different political structures (e.g., federal versus unitary, democratic versus authoritarian, parliamentary versus presidential forms of government) and management of environmental problems are explicated in the third chapter. DeSombre provides an admirably detailed insight into concepts like Environmental Kuznets Curve, authoritarian environmentalism, eco-authoritarians, California Effect, Duverger’s Law, and more in examining various facets of political structures and electoral rules that influence environmental political action. The role of state capacity and its determinants (e.g., corruption, inequality) in impacting the ability to enforce pro-environmental policies is significant.

Chapter 4 engages with the varied and sometimes opposing interests of political actors—politicians, political parties, bureaucracies, judiciary, environmental interest groups, business and industry, business-environment coalitions, and the media (including social media)—in making sense of the different political choices in addressing environmental problems. The story of the rise and influence of green parties and their successes in parliamentary systems of government, including that of the appointment of Green Party members, Indulis Emsis and Moana Carcasses Kalosil as Prime Ministers of Latvia and Vanuatu, respectively, illuminates the key milestones of green politics. The Porter Hypothesis foregrounds the tricky interface between business and environment where environmental harm is accentuated by profit-maximizing corporate interests. But there are also businesses that benefit from pro-environmental action in various ways, for example, manufacturers of alternative energy technologies like solar panels. Business-environment coalition, where the interests of both “the green and the greedy” are mutually protected, appears to be a strategic solution to tackle environmental problems.

Chapter 5 ventures into international environmental politics, which can be broadly divided into interstate and nonstate environmental politics. Lack of an overarching authority, influence of domestic politics, and acceptance by the domestic population are unique obstacles to international cooperation that produce diffuse and fragmented environmental rules. Yet there are exceptions. The Montreal Protocol on substances that deplete the ozone layer illustrates successful international environmental cooperation giving hope for a similar possibility with regard to climate change in the future. DeSombre provides examples of the three models of international environmental agreements, namely, convention-protocol, comprehensive agreements, and regulatory agreement. A sophisticated engagement with the role, function, and influence of nonstate and substate actors in environmental protection pushes us beyond the settled familiarity of much of our knowledge on state actors or governmental actions.

The final chapter exhorts the reader to engage with environmental politics realizing the fact that politics has succeeded in redressing environmental problems globally even though there have been many failures, which, she argues, are often overstated. DeSombre
defends politics of the environment (process of making decisions about environmental policy) as faster and more transformative than the alternatives (e.g., moral suasion and instilling fear); thus summing it up: “There is no alternative to engaging in this process of social choice; science will not tell us the right thing to do environmentally (or economically); it can only help us better understand the trade-offs. Deciding among those trade-offs is the job of politics” (174). Empowering the most vulnerable sections of the society discriminated against on account of gender, race, sexual orientation, caste or other social locations is vital in giving voice to those who are harmed disproportionately by environmental damage. Thus, working to reduce inequality in society goes a long way in protecting the environment.

I personally found DeSombre’s book to be a stimulating read that opens up new avenues for placing environment in conversation with politics when environment is almost always suffixed with science in its quest to be in the science bandwagon. Figures, tables, and pictures to supplement the concepts and arguments seemed to be a significant absence in the book. All in all, it is a valuable entry point for beginning to think about environment in an inter- and multidisciplinary perspective.

Sudarshan R Kottai
Christ (Deemed to be) University, Bengaluru, India


Jarmila Ptáčková’s Exile from the Grasslands aims to serve “as a record of the transformation of Tibetan landscapes and people during a decade shaped by the struggles over contradictory policy designs, inconsequential implementation patterns, and inventive adaptation strategies adopted by officials and pastoralists” (5). Throughout the text, Exile details processes of sedentarization in Tibetan ethnic areas of Qinghai province brought about through top-down, yet constantly morphing, development initiatives. Driven by policies and programs couched in the colonial desires of the Chinese state to civilize and tame the backward “west,” these various attempts to solve state-defined “problems” most often fail, in turn propagating a whole new array of similar “problems” and solutions. The text is thorough in its descriptions of these efforts at a programmatic level and provides a satisfactory introduction to the manifold materializations of development in this highly underreported and politically sensitive area of the world. Unfortunately, however, the text comes up short in its aforenoted aims and as a whole. To be sure, there is scholarly value in this contribution, but it falls on a number of fronts and its conclusions are, at minimum, problematic.

Ptáčková draws on twenty-four months of observation, two hundred interviews, and a substantial reading of primary government sources to detail the mutations of development in rural Qinghai with a more targeted focus later in the text on Zeku county in the eastern region of the province. In particular, the book illuminates how sedentarization programs have shifted across three primary projects: (1) Returning Pastureland to Grassland, (2) Ecological Resettlement Project, and (3) Nomadic Settlement Project. Along with a consistent focus on typical interventions aimed at pastoral livelihoods across the globe like fencing, shifts in land rights, and herd reduction, each of these projects also utilized various means to settle mobile pastoralists in villages and towns including subsidized housing, school building, and alternative employment. For each of these projects, Ptáčková deftly describes how officials consistently move the goal line, shifting desired outcomes, renaming projects, and altering participation parameters to create the appearance of project success.

However, considerable concerns about the methods and the data presented plague the
book as does the author’s consistent lack of probing. First, very little content of the two hundred interviews is represented in the text. The first substantive quote appears on page 80 in a book that is only 119 pages of text. In total, there are less than ten similar quotes—most of which are very general in content—and very few descriptions of households and their experiences. On page 49 the author states “it is insufficient to solely study the statistics and policy agendas,” yet in total, that is the majority of what is represented in the text. Moreover, the observations presented in the text are often very general and at times, make claims that are problematic. On page 62, for example, the author makes the following observation about settled pastoralists: “the majority of people in the settlements just used the free time to rest, relying on food supplies from their livestock in the grasslands and financial subsidies from the government.” Continuing on page 72, they state: “there often seemed to be a lack of awareness of the need to develop new, sustainable, and long-term livelihoods . . . increasingly there is also a growing dependence on various kinds of government subsidies.” None of this is accompanied with descriptive vignettes, case studies, survey data, or anything to corroborate what borders on stereotype. As I discuss below, this has consequences for the book’s conclusion.

In addition to these concerns, there are general statements that beg further and deeper analysis and, as a result, questions linger. Among other examples, the author claims that numerous pastoralists wish to be resettled, but how do readers know this? Furthermore, statements about disaster, land rights transfers, and the construction of permanent settlements on the range, all the subject of considerable focus in studies of pastoralism, are left unquestioned. Finally, in the conclusion they state that “it is disputable whether the actual socioeconomic situation of Tibetan pastoral households really does improve as a result of the sedentarization process or whether it actually deteriorates” (11). Why did this study not help clarify this key question? Some of this is to be expected given the sensitive research context but it belies the aim of the book because coupled with the lack of sufficient data and underdeveloped methods, we learn little about the landscape or the people and their struggles and strategies.

This all leads to a vapid conclusion that fails to display any semblance of a critical stance. For instance, in the single mention of culture it is reduced to religious ritual and only in the conclusion. Moreover, the author claims that development does not appear to have achieved its goals and that development might operate, politically, as a means to pursue a “harmonious society.” This is evident to development studies scholars, at least, since the work of James Ferguson (1994) on how failure serves the primary goal of “etatization” or state-making in his study of livestock development projects in Lesotho. Furthermore, in the Chinese context, the pursuit of sociopolitical harmony is a consistent and oft-repeated theme that does not rise to the level of a finding. This lack of a critical stance leads to bland and deferential concluding statements like this one: “the pastoralists’ extraordinary identity and general worldview further adds to the complexity of the adaptation challenges they face within ‘modern’ environments and urbanized and sedentary society. This requires exceptional patience and support on the part of the state” (118). Surely, the pastoralists whose lifeways have been targeted and dismantled as a threat to the state and a hindrance to the march of modernity deserve more.

Daniel J Murphy
University of Cincinnati


Degrowth has gained strength in recent decades as a field of research, an array of prac-
tices, and a network of social movements working to forge healthier futures. Shared objectives include curbing obsessions with economic growth, reducing the quantity of material and energy used by wealthy economies, and reorienting institutions and worldviews around equitable well-being. Exploring Degrowth: A Critical Guide illuminates thought and experimentation toward these ends, to which its authors—Vincent Lieguy and Anitra Nelson—have made important contributions. Lieguy, an engineer and interdisciplinary researcher long active in the French décroissance movement, is currently supporting local food distribution via cargo-bikes in Budapest. Nelson, a sustainability and ecological economics scholar based in Australia, continues to explore collective approaches to housing, food, and more. Readers are called to join their transformative journeys toward earth-centered societies characterized by conviviality, autonomy, and enjoyment of life, consistent with principles of ecofeminism and socio-environmental justice.

The book traces thought and debate about degrowth that percolated in the late twentieth century among environmentalists, decolonial scholar-activists, green parties, Via Campesina, People’s Summits on Climate Change, and anti-globalization and occupy movements, enabling readers to see its influence in emerging forums like the EU Parliament Post-Growth Conference, the Green New Deal for Europe, the Wellbeing Economy Governments network, and Latin America’s Pacto Ecosocial del Sur. Yet, the term and idea of degrowth found limited traction in mainstream media and discourse until 2020, when broad publics shaken by the coronavirus pandemic and other disequilibria showed unprecedented appetite for a bounty of new books. In Less Is More: How Degrowth Will Save the World, Jason Hickel analyzes trends in material footprint and economic data, asking whether we should try to prolong the status quo through green growth or look toward futures that foreground climate action and justice. In Degrowth in Movement(s): Exploring Pathways for Transformation, Nina Treu, Matthias Schmelzer, and Corinna Burkhart bring together twenty participatory case studies to explore agency and strategy among a mosaic of vibrant (and challenging) alliances. In The Case for Degrowth, Giorgos Kallis, Susan Paulson, Giacomo D’Alisa, and Federico Demaria foreground care and commoning already underway in multiple sites and scales, while motivating and empowering everyday people to move toward healthier worlds every day.

The unique contributions of Exploring Degrowth are clear in its subtitle: A Critical Guide. Lieguy and Nelson guide readers through intellectual histories in which critical theory is applied to society, culture, and thought to reveal and challenge power structures. In the process, they make these emancipatory traditions relevant to contemporary ecosocial challenges. The book applies philosophical reflections to organizational and strategic debates, starting with the term itself. Whereas the fiercely anti-establishment “degrowth” has worked to fend off cooption, it also provokes fear and disgust in people who associate the term with decline, deprivation, and devolution to brutal cave-dwelling. The authors consider whether options like “a-growth” or “postgrowth living” would encourage more positive responses to their vision of “degrowth as establishing secure and safe lives, fulfilling everyone’s needs in collaborative and collective ways, as celebratory and convivial” (3).

The book as a whole, and particularly chapter 2, masterfully communicates decolonial concerns central to degrowth since its earliest expressions among André Gorz, Serge Latouche, and Ivan Illich, in dialogue with critical development theorists including Gilbert Rist and Arturo Escobar. Inviting readers to embark on a journey to decolonize our growth imaginaries, the authors observe: “Degrowth insists on the deconstruction and re-evaluation of beliefs within, and relations between, capitalism and productivism, consumerism and materialism, development and
the quasi-religion of economism, science and technology” (12).

Heightened awareness of their historical positions at the heart of colonizing growth has led Europeans, European settlers, and other privileged advocates to work on decolonizing their own minds and desires, and curbed ambitions to impose one universal vision of degrowth on differently positioned others. This book walks the talk. The authors bring intellectual history protagonized by European men into tough conversation with differently positioned voices and ideas including Alberto Acosta, Ecuador; Eduardo Galeano, Uruguay; Ashish Kothari, India; Majid Rahnema, Iran; and Aminata Traoré, Mali. In doing so, the book reshuffles dominant configurations of power and knowledge.

Drawing on Cornelius Castoriadis’s concepts and practices of autonomy, together with John Holloway’s ideas for changing the world without taking power, *Exploring Degrowth* advocates conditions, institutions, and practices that support the flourishing of pluriversal understandings and pathways. Chapter 4 acknowledges serious challenges with this approach: How can thousands of wildly diverse grassroots and cooperative initiatives come together to impact global corporate and political dynamics? By headlining “degrowth” in nearly every passage, the book fuels visions of consolidating a major coalition and political force around degrowth. At the same time, it reveals potential for more probable futures in which degrowth never takes center stage, but operates to nourish and catalyze currents and actions gathered under diverse banners.

Chapter 5, “The Degrowth Project: A Work in Progress,” proposes ways forward through mutually nourishing alliances among perspectives and movements for social and environmental justice that, in current contexts, are often pitted against each other. Inspired by activist-scholar Angela Davis, Liegey and Nelson foreground intersectional alliances with ecofeminists, postcolonial feminists, anti-racists, and grassroots movements. Karl Polanyi’s account of Europe’s brutal histories of de-commoning and commodification provides background for appreciation of twenty-first-century projects working to re-embed the economy via practices and policies of horizontal democracy, local economies, open relocalization, and Green New Deals. The authors pay particular attention to designs for an unconditional autonomy allowance that would mobilize transition toward sustainable and desirable degrowth societies, in conjunction with local deliberation over production and distribution.

*Exploring Degrowth* illuminates the theoretical, normative, and practical complexity of a movement that interconnects scholarship and activism, north and south, in pursuit of goals ranging from increasing democracy to reducing climate change. As such, the book is highly engaging for a wide range of theorists, activists, activist-scholars and students.

Susan Paulson
University of Florida


The story of the eruption of Mount Tambora in 1815, an active stratovolcano in Sumbawa, Nusa Tenggara Timur, Eastern Indonesia, has inspired considerable speculation in the field of climate historiography for well over a century. The magnitude of the disaster, a Class 7 eruption on the Volcanic Explosivity Index scale, was the largest event of its kind recorded in history. It has been estimated that nearly 100,000 people perished as a direct or indirect result of the eruption, which included an explosion cloud that reached 45 km into the stratosphere, along with powerful blasts, pumice flows, ash fallout, and tsunamis (Brönnimann and Krämer 2016). The effects of Tambora’s eruption were felt on a global scale and throughout the years that followed. This is indeed the main argument
posed by Wolfgang Behringer’s book, where disastrous famines and epidemics stemming from changes in weather patterns after the eruption paralyzed not only Asian territories but also European and North American continents from mid-1815 to 1820. Considering the event as a large-scale natural experiment, the author sets to “construct a new synthesis . . . with the aim to redefine the Tambora Crisis as a part of world history, an event with a rightful place not just in natural history, but also in cultural and social history” (6). Drawing a comparison with the present climate crisis, his intent is to “analyse the vulnerability and resilience of the societies of the time when faced with a sudden climatic turmoil” (2). The final product, however, falls short of providing a compelling theoretical and methodological narrative that can reconcile the high level of interconnectedness between domestic policies, wide-scale military conflicts, and a massive volcanic eruption.

While a much-needed undertaking, it is a daunting task to formulate a cohesive argument that accounts for the numerous forces explaining complex sociocultural and ecological outcomes and to identify the causal role played by each factor. The interaction of human-environmental forces along with the synergies and past legacies of adaptation that shape societal responses to ecological crises make it difficult to isolate purely meteorological factors. While Behringer acknowledges the complex social, political, and economic web of factors against which the Tambora crisis unfolds in Europe, in his effort to isolate and document what he sees as natural causes of the dire circumstances experienced, he underestimates the role of events such as the Napoleonic Wars or the English Corn Laws. Although he mentions key sociological processes triggered by the aftermath of the French Revolution and the reorganization of the principalities in the German Confederation in the late eighteenth and early nineteenth centuries, these elements are only given minor importance in his argumentation. In this way, he states that the rule of the sociological method, “that it is ‘in the nature of society itself that we must seek the explanation of social life’ does not apply here,” rapidly concluding that Emile Durkheim’s social facts are not pertinent when the “conditions are set not by Napoleon or the bourgeoisie but by a volcano” (3).

Unfortunately, Behringer’s quick dismissal of sociopolitical factors leads him to overstate the role of climatic events, resulting in a simplification that weakens his rationale to a sort of environmental possibilism. For example, he connects the emergence of literature tropes such as vampires and Mary Shelley’s Frankenstein to the inclement weather and darkness that ensued after volcanic aerosols effected long-lasting surface cooling in most of Europe (Marshall et al. 2019). Furthermore, Behringer does not clarify his methodology for making broad-level connections between seemingly unrelated events such as artistic expressions of sunsets in English Romantic paintings, Pogroms against the Jews, the Tasmanian Genocide, the outcome of Waterloo, the building of the Erie Canal, and geological incidents in Eastern Indonesia.

The originality in Behringer’s book is to be found in the abundant and sometimes tedious presentation of historical evidence in the third, fourth, and fifth chapters that chronicles the climatic anomalies post-Tambora. Focusing predominantly on Germany and Switzerland, but also establishing parallels with England, France, and North America, the author provides ample accounts of the famine and miserable conditions that predominated from 1816 through 1820. Hunger is seen as a direct result of failed crops in 1816 and 1817 due to excessive precipitation and cooling temperatures. In fact, 1816 is recorded as the coldest year on record, inspiring the expression of the “year without a summer.” Migration, criminality, public unrest, assassinations, and conflict are all associated to the effects of the famine rather than the anarchic conditions that ruled in Europe post-Waterloo. In a similar line, Behringer also discusses the emergence of saving banks, insurance markets, poverty associa-
tions, and the invention of soup kitchens, including a characterization of the widespread adoption of the so-called Rumford’s soup across Europe. The latter probably offers one of the most rewarding sections presented in the book. Another interesting element is to be found in the dispute about the origin of the solar maculae (sunspots or dark spots, and solar flares) and the emergence of meteorology as a discipline toward the end of the eighteenth century.

In all, devoting a chapter per year (1816, 1817–1818, 1819–1820) to the treatment of the effects of the eruption and only a short epilogue to some sort of theoretical or synoptic analysis, the book loses focus due to the numerous subsections and ambitious geographical coverage. While the objective is to present information that can document the role of meteorological conditions in explaining the circumstances throughout the world at that particular time, sections jump between disparate topics that are only connected as effects of the Tambora crisis. Despite shortcomings, the book should be of interest to readers seeking to understand the domestic realities of Western European societies following the defeat of Napoleon and the unprecedented weather challenges caused by Tambora. The author should be commended for attempting to provide historical rigor to these accounts and for attempting some sort of brief and patchy analysis of the situation in India and China. Readers expecting a careful exposition of the mediation of climatic events in cultural and social life, and most importantly, a rich theoretical or methodological discussion, will be better served by looking elsewhere.

Victoria C. Ramenzoni
Rutgers University

REFERENCES


In The African Roots of Marijuana, Chris Duvall seeks to restore Africans’ role as agents, innovators, cultivators, and users of marijuana. The book is a multifactored argument about the unfamiliar roots of this particular drug’s use and its prohibition, both of which trace to colonial Africa (among other places).

There are no histories of psychoactive cannabis for any continent in the world. Duvall’s original history relies on published sources, mostly made by outsiders, about cannabis use of others. Duvall notes that marijuana users themselves rarely left accounts of the reasons for their use. Despite this, he makes a convincing argument that psychoactive cannabis has long been associated with exploited labor forces. This is an impressive work of research.

Work is the “most commonly documented context of use” for cannabis in the Atlantic world from 1500–1925 (160). It was fairly easy to grow and smoking it made it easier to endure economic marginalization and exploitation. In South Africa, for example, after the 1700s, European settlers paid workers with cannabis, not food. Marijuana also reduced the feeling of hunger, which would have helped workers during long days with insufficient nourishment. It was this pattern of cannabis being used by laborers more than overseers that led some to want to prohibit it by the late 1800s.

There are two types of cannabis: cannabis sativa and cannabis indica. The former grows
in temperate zones north and south of the equator and is non-psychoactive. The latter grows mostly in the tropics. Humans have been cultivating it for 12,000 years. Africans had much longer experience with cannabis than did Europeans. This matters because Europeans did not know about *indica* prior to the 1800s and, when they discovered it, it was in Africa and Asia.

But the Western pharmaceutical industry did not learn from African or Indian growers and users about the product. Cannabis was of interest to European users after the 1840s, but they did not know much about its production or preparation. Europeans did not think that those in the colonies had anything to teach them about it, so by the late 1890s, interest in pharmaceutical cannabis in Europe had waned. In 1925, cannabis was included in the International Opium Convention that sought to control exports of a number of drugs. This was the beginning of a global attempt to control its use and trade (3).

Even though Duvall’s account stops in 1925, he is a scholar of the late twentieth-century United States and is writing to critique current drug policy in the United States that has been created based on a myth of racialized drug use. He writes: “Cannabis has been part of social constructions of race that follow a general pattern: non-Whites seemingly prefer drugs over hemp, while Whites choose hemp over drugs, at least in historical contexts” (40).

Cannabis probably arrived in East Africa from its native Asia a thousand years ago and from North Africa through the Mediterranean perhaps as early as two thousand years ago. By 1500, Africans had also invented the smoking pipe, both a dry and a water pipe. Native Americans also created dry pipes, but not water pipes. Africans used the water pipe for smoking marijuana. So, Duvall declares, “Cannabis smoking is ultimately an African innovation and contribution to world culture” (67).

Duvall highlights several well-known African societies for whom marijuana use was a central feature of their fame. One of them was Morocco’s Heddawa religious brotherhood who used cannabis to achieve spiritual enlightenment. The Heddawa “embraced poverty, celibacy, and drug use” and thus ran counter to Moroccan Muslim beliefs (98–99). They influenced others to smoke it, and to this day, marijuana is an agricultural crop of some significance in Morocco.

The Bena-Riamba movement was located in the central Congo Basin in the turbulent decades of the 1870s and 1880s. Slave trading was one of the primary activities in the basin at the time and was eroding a number of large kingdoms in the area. The dominant narrative is that Bena-Riamba arose, forsaking warfare and encouraging cooperation, as a result of smoking marijuana. But their goals were political and economic: to carve out a sphere for trade and influence in the region. Both examples serve as a reminder of the importance of considering the contextual use of the drug. Generalizations about usage defy historical realities.

Cannabis then made its way to the Americas from west central Africa through the Transatlantic Slave Trade. While South Asian laborers likely brought it with them, Duvall is not as certain about direct transport of cannabis via African slaves. He proposes that it came to the Americas through secondary dispersal and not directly from Africa.

In some ways, there is almost too much information here. Duvall has taken on a tremendous amount in this text. An entire chapter is devoted to the historical linguistic evidence associated with marijuana and the ways associations across the Atlantic can be traced by it. For someone wanting to understand African contributions to cannabis history, a summary of this information would suffice. At times, I had to re-read sentences and paragraphs again to make sure of the author’s meaning because of the detail and nuance.

On the other hand, Duvall’s work is a masterful synthesis of a great deal of disparate literature. It does what one would hope
a focus on a particular commodity, crop, or drug would do: allow one to see the ways subjects of colonialism deeply shaped the world we inhabit, even if only by the ways their actions were misinterpreted and misunderstood by those with economic and political power.

*Kathleen Smythe*

*Xavier University*