SCHOLARLY REVIEW ESSAY

An African Anthropocene

Matthew Bender. Water Brings No Harm: Management Knowledge and the Struggle for the Waters of Kilimanjaro. Athens: Ohio University Press, 2019. 352 pp. List of Illustrations. Abbreviations. Glossary. Notes. Bibliography. Index. \$39.74. Paper. ISBN: 978-0821423592.

Sara Beth Keough and Scott Youngstedt. *Water, Life, and Profit: Fluid Economies and Cultures of Niamey, Niger*. New York: Berghahn, 2020. 188 pp. List of Figures and Tables. References. Index. \$135.00. Hardcover. ISBN: 978-1789203370.

Michael Bollig. *Shaping the African Savannah: From Capitalist Frontier to Arid Eden in Namibia*. Cambridge: Cambridge University Press, 2020. 404 pp. List of Figures. List of Maps. List of Tables. Bibliography. Index. \$99.99. Hardcover. ISBN: 978-1108488488.

Lesley Green. *Rock | Water | Life: Ecology and Humanities for a Decolonial South Africa*. Durham: Duke University Press, 2020. 320 pp. Notes. Bibliography. Index. \$27.95. Paper. ISBN: 978-1478003991.

Louise Green. *Fragments from the History of Loss: The Nature Industry and the Postcolony.* University Park: Penn State University Press, 2020. Index. 204 pp. \$99.95. Hardcover. ISBN: 978-0271087016.

The song on the B side of Fela Kuti's album *Expensive Shit* is "Water No Get Enemy." Based on a Yoruba proverb, the song argues that, if you want to avoid having enemies, you should try to be like water, indispensable and versatile—the stuff of life. Yet the song also suggests that those who need access to water cannot afford to make enemies with whoever controls such resources. Fela is not singing about water so much as about how to survive in a hostile world. Matthew Bender's new book *Water Brings No Harm* borrows its title from a similar adage that was "common on southeast Kilimanjaro in the years before colonialism" (11). It also suggests that water has no rivals and is intrinsically good. But Bender notes that this concept tenders a warning to the community that this vital resource needs to be actively managed in order for it to cause no harm. Both of these proverbs present water as a model for virtuous

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human behavior while highlighting its central importance in making life possible. But they also bely a darker reality: that which is essential might be without enemy, but nevertheless it will always be embedded in politics. The ability to build the physical infrastructures and knowledge traditions to distribute such an essential commodity will always define power and authority within a community. The five books under review are not exclusively about water, but water runs through them in crucial ways. The struggle for and over water becomes a lens for considering new work on how the negotiation of access to scarce resources has shaped landscapes, economies, cultures, and knowledge in Africa. In a range of ways, each book grapples with the question of what is to come. Together they offer a view of climate change from places that have long endured cycles of boom and bust—seasonally, annually, and in longer epochs. Some of these books only note the upcoming challenges rather perfunctorily in their conclusions, while others grapple more centrally

with existential questions of how the relationship of humans with their

environment must change in order to make a future possible.

Matthew Bender's Water Brings No Harm uses the concept of a "waterscape" to shape his examination of Kilimanjaro and the communities that rely on its watershed for both life and livelihood. The notion of waterscape has been taken up by a number of scholars lately to analyze the social construction of waterways, much as environmental historians have long been doing with "landscapes." By bringing water into the foreground, Bender carefully delineates traditions of harnessing and engineering rainwater and glacial runoff to demonstrate how "nature" and "humans" co-create Kilimanjaro, time and again. A core focus of the book, then, is how communities have understood and actively managed their water sources, resulting in internal and external struggles over "competing knowledges of water" as new populations have come to the mountain over the course of the twentieth century. This includes conflicts between community members and state visions of water development in a generally arid nation. The focus on knowledge creation about water allows Bender to move between different epochs on the mountain without prioritizing a particular binary between colonial and indigenous practices.

Before the arrival of European settlers, the region was populated by people who are now collectively known as "Chagga." For the mountain's residents, water was central to organizing life far beyond the practical. It played a critical role in the spiritual and cultural wellbeing of communities who saw the mountain as comprised of four different spiritual regions, with water connecting these disparate groups: "the vihamba, the homeland of the living; the rainforest, the home of the spirits; Kibo, the dwelling place of the creator Ruwa, and the lowlands, the surrounding plains devoid of life and full of dangers and evils" (43). Otherwise disparate groups who lived and labored in these regions were linked through the mifongo system, a network of canals built and managed across the mountain which "acted as connecting arteries" (42) through different landscapes and economies. Building mifongo was the purview of men, and each canal had a leader who designed the plan for the canal, sometimes observing the movement of fire ants downhill to determine

a good slope. The people subsequently maintained their own canals and determined who had access to them. Year-round irrigation made forms of subsistence as well as cash crop farming possible in the watershed of Kilimanjaro in ways that were not feasible elsewhere in the larger region.

When outsiders arrived, they brought their own religious visions of the mountain with them, considering the region an Edenic respite from the rest of "Africa." Under both German and British mandate rule, Kilimanjaro's rainfall and verdant landscape attracted missionary societies and settlers, who took to growing the water-intensive crop of coffee. Thus, Kilimanjaro's waterscape—once considered plentiful—was soon stretched thin, with competing interests in agriculture and hydrological power generation, complicated by seasons of draught. Users struggled to manage the available water resources through competing means, and certain types of use were deemed wasteful and immoral by the Europeans who hoped to draw more water for their cash crops. Bender's story traces negotiations over the control of the mifongo under German and later British rule and chronicles the efforts by the colonial government to modernize the canal system with pipes in the 1950s, reshaping hygienic ideals in the process. While women do not feature prominently in Bender's book, he does note how they were central to provisioning household water supplies, and how their ideas about water changed with both Christianity and missionary education (particularly the training of midwives) in crucial ways.

Moving on from a discussion of tensions between users on the mountain, the second half of Bender's book shifts its focus to the relationship between mountain communities and the state. Who had control and authority over these local resources when they had national implications? In a story that certainly echoes other histories of environmental management in the colonial era, the shift to "technocratic water management" saw the power to decide struggles over water move from locally appointed men to "trained officers." This shift was further consolidated when the independence government abolished chiefly authority in 1963. As Bender points out, the new nation faced the major obstacle of being "largely semi-arid," and the 1970s would bring a host of struggles with drought. Nevertheless, the state committed to providing water to all Tanzanians free of charge. For the Kilimanjaro region, this meant the construction of a dam and the installation of pipes, many of which followed the pathways of the old mifongo canals. Not surprisingly, the massive project had mixed results, but Bender notes that it ultimately demonstrates the "persistence of local actors," as the region was able to retain control over the resource, and mifongo are still used even today. Bender brings us to the present through the transformative neoliberal shift away from seeing water as a right to viewing it instead as something to be paid for. Indeed, free water comes to be seen by some at the state level as actively harming communities and promoting "neocolonial" dependencies. Bender's careful and detailed history of Kilimanjaro's waterscapes makes a significant contribution to African environmental history. At points, however, I wished this particular history were situated in conversation with more literature beyond Tanzania.

Sara Beth Keough and Scott Youngstedt's engaging book *Water, Life, and Profit* explores the geography and economy of those who sell water in Niger's capital city, Niamey. In six compact chapters, the authors describe the different modes of access to drinking water within the city and the livelihoods of those who sell this water, whether that means the Ga'ruwa—water vendors—who deliver water to households, or the men and women who are part of the commodity chain that produces and sells "pure water" sachets in small sealed bags across the city.

Keough and Youngstedt explain why certain ethnic groups in the city take on particular jobs in the water economy while at the same time rendering a geography of consumption. Class shapes access to water and, in turn, the landscapes of different neighborhoods—from the shared water taps that dot the city to the ubiquitous refuse of water sachets and the watered lawns of expatriate enclaves. One of the most important sites where water is distributed, and the culture and economy of urban water provisioning is made, is the standpipe. Local standpipes can be found in nearly every neighborhood of Niamey, watched over by standpipe managers and Ga'ruwa who come to fill their plastic water storage containers, load them onto their carts, and deliver them to their customers' homes. Unlike the vendors in other cities. the water vendors in Niamey do not seem to be in competition with one another, and instead have formed a professional comradery and associations akin to unions. These associations are also frequently family networks. They visit the same water pipes and do not compete for customers, covering for one another when necessary.

Hauling water is a physically grueling job, and many young men take it on temporarily, hoping to transition to other employment or to return home to rural areas after accumulating some money. Ga'ruwa are typically Tuareg or Fulani, two ethnic groups associated with hard labor in Niger. Keough and Youngstedt note how central grueling work is to their identities in the city, earning them respect from "people of traditionally sedentary groups" (79). It is no accident that these two groups have become water vendors in the city. As Chapter Four briefly traces, Tuareg and Fulani people in Niger and Mali pastoral zones also protect and pass on the stewardship of wells through family lines, with the exception of some state-sponsored cooperatively held boreholes.

Chapter Five is particularly interesting for its description of the life cycle of "pure water" in Niamey. The waste that has accumulated since the arrival of water sachets in urban Africa has become an urgent problem. Keough and Youngstedt show how the now ubiquitous water bag moves from production and consumption to its final identity as an ever-present and vexing source of pollution on the landscape. It is mostly poor people in Niamey who drink water from bags, even though that is not the cheapest way to access clean water. This demonstrates a larger general truth: poor people pay more for basic services since a higher volume of consumption usually comes at a cheaper rate. Indeed, expatriates overwatering their lawns pay far less per liter than those buying water sachets.

In what is otherwise a male and youthful world of urban water distribution, Keough and Youngstedt locate some women in the commodity chain of producing water sachets. They write about Mariama, a woman who buys plastic bags that are produced by her neighbor who has invested in an automatic filling and sealing machine. Mariama's key role is to refrigerate the bags until her children sell them, for which she earns about USD16 a day. The chapter also details the marketing aesthetics of the water sachet bags and the importance of a name that evokes purity and cleanliness. Cold water is a relatively new desire in Niamey, in part because of historically negative associations with cold spirits as the purveyors of death and disorder. However, cold water among young urbanites is now associated with being modern and having access to refrigeration. Sachets represent the complex hybridity of public and private water in the city; they contain the city's piped water but are packaged and processed in local households, fulfilling the role of crucial drinking water infrastructure that is not extant in all neighborhoods.

While this chapter promises to trace the water sachet commodity from the end of its life backward, the authors do not spend much time discussing the sachets once they hit the ground as discarded waste. They do note that the sachets clog sewers and often end up being burned, churning their pollution into the atmosphere, but a larger sense of scale and consequence is missing. I have a similar critique of the book as a whole; while it is an ethnography of water vending, there are places where the authors could have integrated drinking water more explicitly into a larger waterscape of Niamey and West Africa. How is drinking water intertwined with rain, sewage, and river water? In what instances do fixed urban infrastructures that deal with other sources of water interact with the mobile and more adept infrastructures of drinking water delivery? How do these liquid geographies shape each other and react to one another?

Scott and Youngstedt do situate their own work within a larger conversation about safe drinking water globally and its links to health and well-being mostly in a context of human rights and the question of right to clean water. This attention to rights and neoliberal service provisioning in the late twentieth century, which Bender also includes, echoes some recent work in anthropology on pay-as-you-go service provisioning and the question of infrastructural futures for poor urban communities. 1

Michael Bollig's book takes us south to Namibia. Shaping the African Savannah is the product of decades of fieldwork in the northwestern region of the country known as the Kaokoveld. Engaging a rich collection of sources, Bollig begins with a history of the region before human habitation and takes us up to the present. To frame this long view, Bollig spends particular time depicting its shifting "environmental infrastructures," a concept he draws from Emmanuel Krieke and others. This draws Bollig's focus to how humans, animals, and their interactions have shaped the ecology of the arid landscape and how the arid landscape, in turn, has determined what kind of life is possible there. Kaokoveld was first home to foragers and hunters who

cultivated a wide expertise based on the native plants and animals which allowed them to diversify their means of survival.

One of the first major ecological transformations Bollig describes is the widespread hunting of elephants in the late nineteenth century. Elephants functioned as "landscape architects," decimating the trees and shrubs of the region and creating grasslands in their wake; they shaped human settlement patterns by affecting access to water and trampling gardens. As the slave trade in Portuguese Africa waned and ivory prices rose, hunting elephants in nearby Ovamboland became very lucrative for Africans, Dutch, and Portuguese. As elephants disappeared, the savannah changed. The profits accumulated from these hunting expeditions fueled stratification within African communities, as Himba and Herero men accumulated their own armies, which they hired out to the Portuguese army. In turn, some of these raiders, such as Vita Thom, were pursued by the Portuguese government and sought refuge across the border in Kaokoveld. Through his military tactics, Thom became "the most powerful broker in the region" (96), with his group consisting of nearly two hundred Herero, Himba, and Nama in 1917. Thom convinced the colonial government that he could guarantee law and order in the region, but he was also just one of several local elites who were able to remake the region's demography and geography.

Mobility, which was so central to survival at the time, was tied to the seasonal nature of water sources and competition between groups for access to certain areas. Water access, which dictated the terrain of human settlement, was overtly political as much as it was about ancestral rights and traditional areas of occupation. After having lost access to many different forms of livelihood and sustenance, the region's communities became dependent on pastoralism by the turn of the twentieth century, relying on the accumulation of animals both for their survival and for political and material status. The new concentration of herding animals shaped the environment in crucial ways, as communities needed access to more water and more grazing. Gradually, the state began a process of encapsulation, regulating where people could live, prohibiting land management with fire, and encouraging sedentarization. As is so often the case in colonial Africa, sedentarizaiton was a synonym for development, bringing with it all the changing demands on land and water that this shift required.

By the late colonial period, efforts to shape the landscape of the region and the livelihood of its inhabitants took the form of "betterment" schemes. As in Kilimanjaro, "traditional authorities were regarded as important partners in the policy of modernization" (154), and chiefs were offered certain privileges such as weapons, salaries, and exemption from pass laws. These new development projects—as in many other regions across the continent were shaped by anxious concerns about overgrazing and soil degradation. Intervention into communities might have initially caused the problem, but it was now the solution. In the process of encapsulation and development, the South African colonial state also sought to separate out multiethnic communities, developing separate communities of Himba, Herero, and Tjimba.

Of all the projects intended to address these issues, the most transformative were years of borehole drilling programs which began in the 1960s. "Boreholes and dams were the first enduring physical infrastructure of the state in much of the Kaokoveld landscape" (178). Drilling and maintaining boreholes required new roads reaching into the bush, and by the end of the 1970s, writes Bollig, a network of roads signaled that the state had "penetrated the local environmental infrastructure effectively and irrevocably" (178). Tribal authorities resisted the borehole projects, even though development agencies and authorities worked hard to reassure them of their merits. State intervention risked undermining tribal authority and creating debts of dependency—material as well as political. The chiefs also resisted the fact that colonial authorities sought to separate people into distinct ethnic groups, diluting their chiefly power in the process. Nevertheless, there was also competition among the chiefs each year to secure access to funds for drilling, since ultimately boreholes not only produced water, but advertised influence and access to power.

Bollig's account is incredibly detailed—following the ebb and flow of sources over centuries. Taking us "Into the Future" in his final chapter, Bollig offers a variety of potential fates for the Kaokaveld, depending on who is doing the planning and imagining. The state envisions mineral mining and expanded exploitation of the region's water resources. This is where the book gets its name; Namibia's promotion of the region as an "Arid Eden" promises wealth from these infrastructural projects along with expanding wildlife conservation and tourism. In contrast, an alternative vision is voiced by local communities, "in which strong traditional leaders and custodians of local customs govern natural resource management." It seems that Kaokoveld's environment will remain a product of negotiations between the region's communities and more distant power brokers as it has long been.

Exploring how history has shaped natural resources and who has access to them is also the topic of Lesley Green's new book, Rock | Water | Life. Green is the founding director of Environmental Humanities South at the University of Cape Town. Her diverse engagements, as becomes clear in this book, place her at the center of efforts to reconcile science and the humanities in South Africa. If Bollig offers a detailed history of environmental transformation, Green's history is more forensic: how did we get to this point of ecological disaster and how do we survive the future? Green argues there is no better place than South Africa for contemplating forthcoming planetary struggles. Quoting South African poet and singer Jennifer Ferguson, Green notes that "Here in South Africa, we are always in the crucible. There are never any shortcuts. All we can do is to be present." For Green, reconciling the supposed binaries of nature and the humanities is the key to confronting the environmental conflicts that shape modern life in the Cape. *Rock* | *Water* | Life is a foray into the past armed with anti-colonial theorists and science and technology studies scholars as her way finders. The book is divided into three sections, "Pasts Present," "Present Futures," and "Futures Imperfect," and each chapter also works around a key aspect of the Cape environment, which she divides into "Rock," "Water," and "Life." In these chapters, she covers a wide range of topics, from mapping practices to baboons, lobsters, fracking, soil, and the reverberating effects of the Rhodes Must Fall student movement.

One example of Green's forensic approach to the past is her chapter on the Karoo. It is a landscape formed millions of years ago with the melting of the Karoo ice cap. In the scope of that time, it is only very recently that it has become inhabited, first by !Xam and Khoena, later by the Nama, Tswana, Sotho, Swazi, Zulu, Xhosa, and Shona, and then even later by the British and Dutch. What was formed in the earth during those millions of years prior to human habitation has of course greatly shaped South African history, first in the form of diamonds and now methane. In between the diamond and fracking eras, the Karoo was also poked and prodded into a stubborn farm and pastureland made possible by the steel windmills that powered boreholes and provided the irrigation necessary for sheep and ostrich farms.

Leaving behind a devastated and denuded landscape, the Karoo has been home to various restoration and conservation endeavors since the end of the last century. Fearing the expropriation of their land at the end of apartheid, white farmers frequently partnered with conservation efforts "building the Karoo into an area of 'lifestyle game farming'." In the process, "low-skilled" laborers were expelled, and they returned to informal settlements in urban areas. As Green puts it, "the market-led gentrification of the Karoo private nature reserves meant creating around animals both pockets of wealth and shanty towns of poverty" (65). Green's question then is, how can one, attendant to these legacies, advocate to protect the Karoo from the onslaught of fracking without allying oneself with this racist history? Considering this legacy, the question of Karoo fracking was, Green notes, "breaking along a fault line of race" (67), with Black entrepreneurs advocating for fracking and white conservationists opposing them, armed with a mythical version of the Karoo as unspoiled. Green is searching to form an "environmental public" that, on the one hand, eschews the classed, romantic visions of nature and the racialized poverty it creates, and on the other hand, does not give in to fracking or hydropolitics because they are "a new subterfuge for an old necropolitics" (73).

To accomplish this, Green argues for the land redistribution that never happened, new housing for displaced Karoo workers, solar energy to displace methane, and to approach the landscape of the Karoo with the demand to allow for the presence of different ontologies. One such ontology is the !Xam's knowledge of water holes and hydrological survival in an arid landscape as a counterpoint to the "fiction of corporate mastery" (76) of the environment. As she does in all of the chapters, Green unpeels the layers of a complicated history of inhabitation to seek ways around the lazy and racist imagery of pristine nature that are still lingering at the heart of conservation and "green" politics in South Africa.

Green also goes after the trap of binary thinking in the way science is taken up by "green politics." In her chapter on the Rhodes Must Fall movement, Green opens by describing a viral video that came out of the student

protest. In the video, the student Mickey Moyo advocated for getting rid of "science as a whole" in the process of decolonizing South African education. The speech was widely mocked under the hashtag "GravityMustFall," and Green asks that we reconsider Moyo's words without defending "the letter of what Moyo argued" (85). In what follows, Green expertly dissects how Moyo's speech—whether intentionally or not—echoes philosophers of science who approach the work of scientists as relentless empiricists bound by specific questions and the "tools and techniques available to them" rather than as purveyors of universal truth claims (86). This she calls "scientism," a belief in the unquestionable "nature of scientific truth, as if science was independent of society" (93).

To show the danger of such constructions of science, she revisits Mbeki's catastrophic decision to turn down antiretrovirals and instead advocate for "African" solutions to HIV/AIDS. Beyond the tragic loss of life, Green argues that this caused a massive setback in actually interrogating the relationship between colonialism and knowledge. In the shadow of Mbeki's dismissal of science, this kind of project seems to be no longer possible. Similarly, the wholesale and hubristic attack on critiques of science as anti-intellectual have only served to fray the conversation further. Thinking through this in her own work, Green's question becomes, "Is it possible to think about different forms of knowledge without reducing one to the opposite of the other?" (94). She works through that question by narrating the process she went through with science researchers and philosophers of science to figure out how to write about, and bring together, scientists and natural plant healers.

Throughout this range of history and present-day dilemmas, Green urgently searches for the tools that would allow for a new relationship with nature. To find these tools, she looks to a different set of anti-colonial thinkers than those who are usually engaged in the arsenal of environmental thinking. "The question this book seeks to address" writes Green, is not how "we ought to do more" for the environment, but rather "as an academic, a sixth-generation white South African, and a mother of two, how to find a way into ecological situations more thoughtfully than the auto-completes allow" (14).

The final book under consideration, Fragments from the History of Loss, opens by revisiting the moment when Cape Town's water supply almost ran dry in 2018. English professor Louise Green writes, "When the city announced the plans for day zero—an allocation of twenty-five liters to be collected at water points around the city—supermarkets ran out of bottled water. The city experienced the limit of a natural resource that directly affected the texture of everyday life. For a brief moment, it was confronted with the terrifying yet utopian possibility of an egalitarian distribution of resources" (10). With this brief anecdote, Green brings the future to the present. South Africa's water problems, particularly in Cape Town, are not some distant nightmare, but rather a present and lurking problem. As Green tells the story, she toys with the idea that the desperate circumstances of water shortage could also be the first moment when water would be equally and ethically distributed, yet history might cynically warn us otherwise. As in *Rock* Water | Life, Green sees the future as dire, but she suggests that it might also be a chance for a radical remaking of life. Green is looking to the past to try to figure out where things went wrong; she locates fault in how nature has been always set aside as apart from—and as respite from—the rest of the world. The "myths and fantasies" of nature have "come to occupy the position of an alibi." "Holding the promise of a value separate from the vicissitudes of culture and politics, it has become the perfect elsewhere. Yet to view nature this way is to neglect the way in which the environmental crisis is itself imbricated in a broader crisis of modernity" (13). Fragments, then, is an attempt to revisit brief moments, sources, and snippets from the past and bring them to bear on the ongoing "nature industry." To accomplish this, Green spends quite a lot of time setting out her conceptual framework. She uses the vantage point of South Africa as a postcolony from which to write, and she employs Walter Benjamin and Theodor Adorno's notion of "constellations" to explain the form of the book as a way to juxtapose and work through diverse forms of knowledge: "The constellation does not aim at the definition and clarification of terms but rather provides a form that holds them in particular relation to one another" (18). În the fragmentary nature of the book, which is evident from the title, Green is seeking juxtaposition and provocation in contrast to the more empirical works above.

The first chapter of *Fragments* looks at the institutional presentation of African nature in different zoos and museums around the world, particularly the Hall of Biodiversity in the American Museum of Natural History and the Eden project in Cornwall, England. The Hall of Biodiversity, Green writes, sits one floor down from the famous Akeley Hall of African Mammals, and they similarly grapple with a nostalgia over a sense of nature lost. Akeley was both a hunter and an early conservation advocate for African wildlife. The Hall of African Mammals was his attempt to create a "Garden of Eden" through taxidermy, which also came to justify intervention in "saving" African wildlife. The Hall of Biodiversity is not sounding the alarm of single species extinction as Akeley's did, but instead it addresses the loss of habitats and biomes. Green writes that these spaces that narrate to the public environmental crisis "demand realism—simple declarative sentences, facts about human activities, statistics about losses" (48) Green suggests that these attempts at realism and the reconstruction of "natural habitat" are inevitably hollow, created in manicured ways that are stuck only representing "the world as it is" even as it is attempting to do something more substantial. They are "an abundance of nature and money in the first world representing the regrettable loss of nature (and absence of money) in the third world" (52).

Green's chapter about a wolf sanctuary is a good example of her constellational approach. She brings together texts such as transcripts from the Truth and Reconciliation Commission's hearings on chemical and biological warfare, two self-published border war memoirs, newspaper reports, and Boria Sax's Animals of the Third Reich. Wolves were brought to South Africa as part of a National Defence Force breeding program during apartheid to

create "wolf dogs" for military operations and counterinsurgency. Their ongoing presence is a "curiously persistent remnant" of this experiment in breeding the animals instrumentalized for violence. Now they must be taken care of as neither foreign nor native, capturing "the shifting coordinates ... of belonging and strangeness—natural and unnatural, indigenous and alien, domestic and world, territory and border" (89). Green uses the wolves to narrate the historical significance of wildness in the Afrikaner political imagination. This is manifested both in the conservation of wild animals and as a way of describing Afrikaner masculinity as undomesticated through its exposure to wildness. Green calls the wolves at the sanctuary a "remainder," literally left over from apartheid military projects. Unlike "indigenous" animals that might find their way more easily into conservation narratives, these animals are, as the founder of the sanctuary calls them, "exiles"—clearly a word with a long and weighty history in South Africa. Green is interested in how the exilic lives of these wolves might inform the larger question of how animals are included or excluded from the "nature industry." Predators in particular are animals who have frequently signaled an escape from domesticity and the oppressive demands of modernity and consumption. Whatever symbolic and visceral role these wolves might have played forty years ago in state violence, they now remain and will be reinterpreted within the new narratives of extinction.

Together, these books cut across a wide swath of approaches and topics in African environmental studies. Some take up the tradition of environmental history, working closely with archival sources and oral histories to retrace how communities have co-produced landscapes for centuries, particularly through the crucible of colonialism. But books such as Bender's and Bollig's also set up the less disciplinarily discreet books here, as they ask how might we —in the shadow of colonial and modernist development projects—begin to create new knowledge regimes and new ways of being in these environments. Yet, as a group of books that nearly entirely omit African women as environmental managers, these histories do not necessarily emerge as usable pasts for thinking equitably about power and resources.

In each text, water is both subject and cautionary tale. As an essential resource for life, the management of water is nothing short of the management of landscapes and livelihoods. The people who control the sources of water are powerful agents-sometimes embedded in and responsive to communities and at other times agents of a distant state. These books demonstrate the growing influence of the Anthropocene in African Studies and the material turn in environmental history. And while none of the authors theorized much with the concept of infrastructure, the histories and futures of water in these books were just as much about the modes and materials of distribution as they were about the resource itself. This is a collective missed opportunity of the texts, to have not made more of the vibrant work in infrastructural studies, particularly as it relates to African Studies. Turning to these literatures would have perhaps led to a bit more reckoning with water itself as a force, shaping its management as well as

evading efforts to control it. Ecologist Eric Sanderson, who is currently working on an atlas of New York City's indigenous landscape, described recently that when storms batter the city, water has showed up in places it did centuries before—in the basements of apartment blocks that used to be creeks and in parks that used to be wetlands². We might say that water holds its own history and memory. We are at a moment where more-than-human-histories are taking a central role in reevaluating the Anthropocene. The power of "nature" to exert its own control over the narrative is missing in all of these books.

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Notes

- 1. A few examples include: Idalina Baptista, "'We Live on Estimates': Everyday Practices of Prepaid Electricity and the Urban Condition in Maputo, Mozambique" (*International Journal of Urban and Regional Research* 39 (5): 1004–19); Michael Degani, "Shock Humor: Zaniness and the Freedom of Permanent Improvisation in Urban Tanzania" (*Cultural Anthropology* 33 (3): 473–98; and Antina von Schnitzler, *Democracy's Infrastructure: Techno-Politics and Protest after Apartheid* (Reprint edition. Princeton University Press, 2016).
- 2. Sanderson, Eric W. "Opinion | Let Water Go Where It Wants to Go" (*The New York Times*, September 28, 2021, sec. Opinion. https://www.nytimes.com/2021/09/28/opinion/hurricane-ida-new-york-city.html).