

Corey Ross, *Ecology and Power in the Age of Empire: Europe and the Transformation of the Tropical World*. Oxford: Oxford University Press, 2017. 488 pp.

Ecology and Power in the Age of Empire is an ambitious book reframing the history of colonialism and imperialism as projects that were, in the first place, ecological and environmental and, in the second place, social, political, and economic. Using a vast array of archival sources from many disciplinary backgrounds, Ross reveals the extent to which colonial powers were not only ideologically but also materially immersed in ecological projects. Such projects ranged from the unfettered depletion of land to slapdash efforts to conserve its alleged “natural beauty.” In three parts, covering the late-nineteenth century imperial age to the mid-twentieth century collapse of the high colonial era, Ross delves into case studies exploring the colonial extraction of natural resources (part one); colonial conservation efforts across a wide-ranging geography the author terms “the tropics” (part two); and the disastrous outcomes that unfolded in the aftermath of direct colonialism (part three). Ross’s groundbreaking intervention details the reciprocal influence between people and their surrounding environments. He also takes a granular look at the consequences of colonialism on the environment and, conversely, the occasional agency expressed by these non-human ecologies affected by imperialism, namely “the soil, water, plants, and animals that were likewise a part of Europe’s empire” (4).

Part one emphasizes the purely extractive dimensions of colonialism, focusing on cotton, cocoa, rubber, tin, copper, and oil production. Ross argues here that colonialism was primarily a socio-ecological project that sought to secure natural resources rather than territorialize land. He describes the process by which imperial powers often began transforming many geographical zones *before* there were any formal colonial designs. Given the book’s length and breadth, the following review focuses on a select number of cases addressed by Ross. Among the constellation of natural resources examined in part one, perhaps the most important of them is chapter six’s exploration into the history of oil acquisition, given its centrality to the current climate catastrophe and global capitalism in general.

From the late-nineteenth century onwards, oil became of particular interest to empires attempting to acquire power in “the physical sense of the term, defined most

elementally as energy converted into action” (199). Initially in the form of coal, the application “of unprecedented amounts of fossilized energy to a multitude of new industrial, military, and commercial activities” (200) fundamentally reshaped and expanded Europe’s physical capabilities to alter the world it colonized—an ability, in turn, significantly enhanced by the discovery of oil. The extraction of oil wrought massive ecological and environmental changes, “connect[ing] a multitude of entities together: the geologist and the forest, the driller and the desert, the motorist and the subsoil” (202). This resultant process of intertwining locations, expertise, and technologies would become essential to globalized capitalism.

Each geographic example of oil extraction in the chapter, such as Burma, Sumatra, and Borneo, “underscores the dependence of colonial oil firms on military security” (209) to dependably and profitably extract oil. However, Ross argues that, for imperial powers, the “main concern...was not a lack of oil but a lack of control over its flow” (213). The latter helps explain how twentieth-century European plans for securing oil unfolded. For example, the colonial powers did not immediately tap known oil deposits—like those near the Tigris river in northern Mesopotamia—but rather chose to prospect for additional fields in neighbouring Iran. To access these resources, European companies had to work diplomatically. Such diplomatic strategies included extracting concessions, such as the 1901 D’Arcy Concession in the case of Iran; establishing and working with regionally-based organizations to keep other known oil sources in the ground, such as the Turkish Petroleum Company, which prevented the extraction of Mesopotamian oil; and instituting ownership over companies that would do the extracting to circumvent local rules and simultaneously establish definite markets for the oil. This last example was best exemplified by the British Royal Navy’s acquisition of a fifty-one percent stake in the British parastatal organization of the Anglo-Persian Oil Company (APOC) in 1912, shortly after large quantities of oil were discovered. The example of Iran is particularly important because, despite numerous interventions, Iran was never formally colonized. Thus, the operation of APOC indicates the extent to which empires could project their power to physically change the environment of distant areas prior to or even without a formalized colonial

apparatus in place. Instead, they relied on what some scholars have termed company or corporate colonialism.¹

Ross argues that the most powerful consequence of imperial ecological construction and destruction was often the environment's reaction. The environment suffered from colonial exploitation but also foiled those same colonial plans. In this sense, Ross describes the environment as exercising its own kind of agency, frequently killing colonial workers and sinking profits within various colonies. For example, in chapter one, Ross examines how colonial interests, both in terms of political attention and financial investment, hinged on soil depletion, which inevitably carried a boom-bust implication. As a result, European powers consistently shifted their interests from areas of soil depletion to areas of fertility. Another example is that as the world became increasingly commercially interlinked, local ecosystems were correspondingly delinked from each other. For instance, the implementation of perennial irrigation to feed water-hungry cotton plants without a sustained program for drainage adversely affected the entire ecosystem, including rapid salinization and reduced fertility for the soils around the Nile because irrigation engineering interrupted the Nile's annual flood cycle (42). Simultaneously, this irrigation program's diversion of Nile waters led to a "falling nutrient subsidy from the Nile" that depleted nutrients in the adjacent ecosystem in the southeast Mediterranean, impacting fisheries and the prevalence of disease (43). Of course, as marine resources were depleted in the Mediterranean, wandering imperial eyes were cast elsewhere to supplant those resources.

On the other hand, one facet Ross explores less is that colonialism was as interested in *linking* environments and temporally shortening the space between them as it was in delinking them. For example, in pre-oil rush Qajar Iran, in 1872, the Persian Crown granted an outstandingly steep concession to the British banker Baron Julius de Reuter to build a railroad that would link London more closely to India while providing inroads to Persia. While the railway was never actually built because of tensions with the Russian Empire, de Reuter framed the concession as an attempt "to open up the great natural resources of their country for the benefit of the world at

¹ See Elizabeth Comack in "Corporate Colonialism and the "Crimes of the Powerful" Committed Against the Indigenous Peoples of Canada" *Critical Criminology* 26, no. 1 (2018): 455-471; Phillip J. Stern, *The Company-State: Corporate Sovereignty and the Early Modern Foundations of the British Empire in India*, (Oxford: Oxford University Press, 2011).

large.”² This motivation to collapse space and time between locales to the smallest degree possible undergirded colonial machinations, linking ecologies along transportation routes for human consumption while simultaneously severing the link between other facets of these ecologies.

In parts two and three, Ross exposes the reader to the domino effects of unintended consequences, where major disruptions in ecological systems by white settlers and imperial powers often ushered in iterations of older problems on a greater scale because of degradations in ecological health. Part two focuses on later colonial practices of conservation and the language of improving and rationalizing land use, while part three delves into the destructive aftermath of these efforts, which, more often than not, ended up exacerbating the harms already done under the purely extractive phase. Ross demonstrates the relationship between these phases through numerous examples. This is perhaps best encapsulated by the trypanosomiasis-carrying tsetse fly in sub-Saharan Africa (259), whose deadly multiplication was wrought by the reduction, via hunting, of herbivores that had fed on the bushes that the tsetse occupied (260-261). At the same time, Ross examines the push and pull between the different ideological camps in various European empires, which could not agree on whether slow programmatic or radical immediate development of the colonies’ ecology was better. Ross also explores the various pressures and subversions the colonies themselves initiated. As Ross describes in chapter ten, an increasingly technical understanding in the twentieth century of what would be “good” for the environment—for example, accommodating the native biosphere and utilizing Indigenous knowledge—was perpetually counterbalanced by the exploitative impulse to reap profit quickly and excessively, despite these purely alien extractive practices almost always resulting in failure.

Three points in this section are particularly striking. The first is that the battles between exploitation and conservation were waged on primarily “ethical” grounds. In other words, they hinged on the injury or benefit environmental projects would provide to European powers in terms of their own perceived morality. Ethics became cemented in the cloak of “science,” as illustrated in chapters seven and eight. These

² Ceren Ucan, “A Tale of Two Railways and the Reuter family.” *Journal of Middle Eastern Studies* 55, no.1 (2019): 22 – 32.

chapters demonstrate how truly “scientific” ideas—for instance, the regulation of resources against overuse, animal extinction, climate change, watershed protection—were always paired with a racist “scientific approach” that limited “irresponsible” Indigenous use of the land. Later, once it became clearer to the technical experts (chapters nine and ten) that Indigenous land-use practices were the most ecologically and economically sustainable, new political concerns arose that encouraged increased colonial intervention into nature, albeit for different reasons. One new camp advocated for faster exploitation of the land at any expense and saw African lands as being a *tabula rasa* for the use of European agricultural machinery, endowing it with new characteristics of “purity” that yet retained its “irrationality” (355).³ Another that emerged was “in many respects... [a] prime example of a budding ‘green anti-imperialism,’” (344) which critiqued imperial land use practices as environmentally degrading. Yet these nascent “green anti-imperial[ist]” ethics still “proposed solutions [that] amounted to a further extension of colonial control” (344). Those who advocated for imperial environmental plans that would do less harm to the Indigenous people believed that colonized peoples and places still needed an improved form of imperial intervention and oversight so that colonized populations could survive the contact of European “civilization” that had supposedly inexorably changed them—a change that the Indigenous people could not weather without European (345).

What is ethical? One of Ross’s most important contentions in parts two and three is that imperial powers oscillated between it being ethical to exploit versus ethical to conserve. The changing definition of ethics is a powerful argument with clear implications for the present: to avoid the worst impulses of conservation, the so-called “developed” world cannot apply the paternalistic logic of the white man’s burden to the domain of worldwide ecology. After all, regarding the imperialist powers’ various conservation attempts, Ross observes, “‘ethically’ minded officials were primarily concerned with boosting indigenous confidence in European expertise rather than valorizing local techniques for their own sake” (332). This often led to disastrous consequences for the environment and always for Indigenous peoples.

The second important argument in this section that conservation itself was a colonial appendage and not a salve to imperial exploitations—a logic that persists to

³ This logic is akin to that of the “noble savage” literary trope.

this day. Colonial-era conservation efforts “represented a radical assertion of power over land use” (273). This appears akin to today’s rhetoric around saving the environment, which often results in the continued appropriation of Indigenous lands for national conservation projects in settler colonial societies like the US, Canada, Australia, Israel, and others.⁴ Ultimately, Ross also notes that today’s climate and environmental nihilism echoes the colonial view that the relationship between past and present is “one of inexorable decline” (300), just as in colonial times, and is imbued with crypto-colonial characteristics itself. This assumes that humans have no way to live within ecologies without degrading them and that “natural” environments have no humans. Eco-tourism and green-grabbing practices – which generally parcel out areas from permanent human habitation to “preserve” them – reinforces this logic.

Finally, Ross reminds us that we cannot see the moulding of the environment in colonial times as monocausal or as only being shaped by European hands. As much as this story is about the negative consequences wrought by the European colonial seizure of lands, it is also about how Indigenous communities resisted or co-opted these methods to make the new models work for themselves, which sometimes contributed to the deteriorating effects as well. Relatedly, as Ross’s conclusion explores, is the idea that the history of the environment offers few singular conclusions in who offered the “right” way to do things under the nation-state model. On the one hand, while the colonial story of linear deterioration ignored constructive Indigenous land use practices, it is also true that some colonial practices did occasionally improve the environments through imperial conservation efforts. That post-colonial nation states sometimes exacerbated environmental, agricultural, or resource-mining ventures introduced under colonialism is evidence of today’s multi-agency regarding environmental degradation. For example, scholars like On Barak have argued that forces like “coalization” did not merely begin in Western Europe then spread elsewhere. Instead, the adoption of coal power happened early in places like the

⁴ For instance, the ongoing Israeli seizure of occupied Palestinian areas to “conserve the environment.” One recent example is a new nature preserve that is being built illegally in the Palestinian West Bank’s Jordan Valley. See Akram al-Waara, “In Jordan Valley, Palestinians denounce new Israeli nature reserves as a ‘facade’ for annexation,” *Middle East Eye*, January 23, 2020. <https://www.middleeasteye.net/news/new-israeli-nature-reserves-west-bank-are-facade-annexation>.

Ottoman Empire, in which coal came to be mutually constitutive of colonizer and colonized societies alike.

On the other hand, Indigenous practices were, more often than not, constructive in preserving an ecology that retained human habitation. To this point, as Ross details, Indigenous human activity in the savannah was actually healing it from a natural process of deforestation, re-entrenching the forest and encouraging growth before the advent of colonialism there (302). That colonial powers misidentified the direction that the forest was moving—that areas were actually being reforested and not newly deforested—would probably be the most likely repeat consequence of potential neo-imperial conservation. On the contrary, a radical plan for our environmental and ecological future must be one that mutually benefits all, including both the land and people's sovereignty.

A critical takeaway of Ross's book is that we—globally in the present—should listen to “[I]ndigenous communities [rather than] technical experts” (418) to learn how to create a sustainably productive world and strategize our way out of our impending environmental catastrophe. These Indigenous practices are improvisational, flexible, and offer a framework that allows us to think beyond the crucial and potentially disastrous limits that borders have on saving the world. Ross argues that human societies and non-human ecologies cannot become discreetly self-sufficient again, if this was ever true in the first place. All localities are now interdependent “omnivores” (421), wrapped up in capitalism's global supply and consumption chain. A national framework where the developed world constantly offloads the consequences to the developing world will doom us. However, the past, as much as it offers warnings for what not to do (and what we still are doing), also points towards “hybrid practices” (360) and experiments that may instill hope.

Ecology and Power in the Age of Empire is essential reading for graduate students and scholars who focus on the fields of colonialism, the history of conservation, and the histories of the environment in the post-colonial world. Its wide-ranging topics of analysis, as well as the fact that it brings both colonial exploitation and conservation under the same analytical mode, is incisive, innovative, and weighs heavily on our present moment. As Ross details in the introduction, we are entering a new age of imperialism, wherein “wealth and power are based not only on the social construction of productive human activity but also on the ability to modify the rest of the biosphere

and harness its productivity for human purposes” (2). The impulses undergirding ecological exploitation remain with us, so it is well worth continuing to trace how imperialism insinuated itself into the environment over the ages. To that point, Ross’s vast case studies and analyses are particularly useful for the further study of the relationship between capitalism’s historical development and the environment. Although the book explores these implications to some degree, subjects such as the financialization of nature and what scholars like Raj Patel and Jason Moore call the “frontier-making” impulse of capitalism;⁵ the imperative to define who and what represents “untapped” labour (47); and how nature upends capitalistic intentions (18) could all be examined in greater depth in future research.

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⁵ Raj Patel and Jason W. Moore, *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet* (Oakland: University of California Press, 2018).