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Climate Injustice, Racial Capitalism, and the Contradictions of Property

Abstract: This article examines the legal constitution of racialized climate injustice, assessing the racialized dynamics of property in the context of climate change. It explores these examples: first, the failure of the international climate regime to contest unjust appropriation of the atmosphere by industrialized countries regarding historical emissions; second, the limitations of the “no-harm” rule, which is effectively the internationalization of the domestic principles of the tort of nuisance, in providing compensation for the racialized harm caused by climate change; and third, how international investment law is allowing fossil fuel companies to seek compensation if governmental actions in response to climate concern impact their investment or hoped-for returns.

Keywords: racial capitalism, climate justice, assets, investment law, reparations, carbon markets

I. Introduction

The climate crisis, driven by the rapacious, expansionist tendencies of “fossil capital” (Malm 2016), now threatens our very livability on this planet (Pörtner 2023). It also makes starkly evident the violent racialized hierarchy of how differently racialized lives are legally valued and protected. This article builds on scholarship that has foregrounded how “the global ecological crisis is simultaneously a racial justice crisis” (Achieme 2022). The causes of the climate crisis, its differentiated effects, and dominant legal responses to it are structured by racism, defined by Ruth Wilson Gilmore as the “state-sanctioned or extra-legal production and exploitation of group-differentiated vulnerability to premature death” (Gilmore 2007). As Carmen Gonzalez has shown, both the unequal causes and unequal effects of the climate crisis make visible how “capitalism’s profit-making processes create and intensify racial distinctions to facilitate the extraction of wealth and externalization of waste at the expense of marginalized states and communities” (Gonzalez 2024, 484).

The analysis in this article focuses on a key juridical building block of the regime of racial capitalist ecological destruction, namely, property rights. Property rights are a central element of the “code of capital” (Pistor 2019): The legal recognition of property rights is what enables “things” to become “assets,” and the legal and state protection of property secures the process of capital accumulation. Legal scholars have recognized “the significant role that property plays in

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contributing to climate change” (Butler 2022, 289), including by facilitating control over and extraction of resources, enabling carbon-intensive production, and fostering unlimited accumulation. As Lynda Butler writes, “Without change, the outdated norms and values of modern property systems will continue to promote economic interests and contribute to climate change” (ibid. at 294).

Despite these critiques, the logic and structures of property law have shaped—and thereby also constrained—existing international legal responses to the climate crisis. The dominant mitigation approach adopted by international law has been the establishment of emissions trading schemes, themselves premised on the creation of new, immaterial property rights in carbon (Dehm 2018b). The international community has finally acknowledged that fossil fuels need to be urgently and equitably phased out. But fossil fuel companies are utilizing international investment law to sue governments for implementing climate policies that threaten their investments and profits, thereby threatening the green energy transition (Tienhaara et al. 2023; 2022).

The constraints imposed by the logic of property are key to understanding why international law offers only limited avenues for those most harmed by the climate crisis to seek compensation or reparations (Mason-Case and Dehm 2021). A critical examination of property law in the ecological crisis illuminates both property law’s role in authorizing climate harm and constraining climate responses, as well as how property is inherently racialized. As Critical Race scholars have shown, there is an “entangled relationship between race and property” (Harris 1993) given how “property laws and racial subjectivity developed in relation to each other” (Bhandar 2018). Property is thus “produced by and productive of social differences, including racial categories” (Blomley 2022, xiv). Race has structured what rights and interests can be claimed as proprietary, whose interests are granted the protections of property, as well as what is considered to be an object of property (most overtly in the case of slavery, where racialized people were legally designated as property). These structures of property are central to the process of “race-making” or racialization. Thus, I suggest that exploring how the “racial regimes of ownerships” operate in the context of the climate crisis and how they distribute privileges, protections, harms, and liabilities illuminates the way in which the legal regime is deeply implicated in the racialized violence of the climate crisis.

To develop this argument, this article examines three telling examples of the racialized dynamics of property in the context of the international legal regulation of climate change: first, the failure of the international climate regime to contest unjust appropriation of the atmosphere by industrialized countries regarding historical emissions (Part IV); second, how international investment law is allowing fossil fuel companies to seek compensation if governmental actions in response to climate concern impact their investment or expected returns (Part V); and third, the limitations of the “no-harm” rule, which effectively internationalized the domestic principles of the tort of nuisance, to provide compensation for the racialized harm caused by climate change (Part VI). There are, of course, many other examples of the racialized dynamics of property in the context of climate change that could be examined, but for reasons of space and expertise the analysis in this piece was limited to three examples pertaining to international legal regulation of climate change. To lay the groundwork for this analysis, Part II explains the analytic of “racial capitalism,” which is invaluable for understanding the climate crisis and considering strategic pathways of struggle toward more ecologically just futures. Part III provides an overview of the theoretical literature on race and property rights and explains why understanding the racialized construction of property is crucial for engaging and contesting climate change and fossil capital.

II. Racial Capitalism and the Climate Crisis

There is growing attentiveness to how the climate crisis is simultaneously also a racial justice crisis (Achieme 2022; Abimbola et al. 2021; Sealey-Huggins 2018). This has promoted an overdue reckoning with the “racist, colonial foundations of ecological crisis” (Achieme 2019, para. 12). As E. Tendayi Achieme writes:

Systemic racism served as a foundational organizing principle for the global systems and processes at the heart of the climate and environmental crises. Understanding and addressing contemporary climate and environmental injustice alongside the racially discriminatory landscape requires a historicized approach to how “race” and racism have shaped the political economy of climate and environmental realities, as well as the governing legal frameworks and worldviews that these frameworks represent. (Achieme 2019, para. 12)

There is an extensive body of scholarship on climate injustice as well as the need to be attentive to how climate change, and/or climate mitigation and adaptation policies, disproportionately impact “vulnerable groups.” However, this literature often avoids explicitly engaging with racism, racial discrimination, or practices of racialization. Thus, until recently, climate justice analytics often focused on global inequalities, rights of Indigenous communities, and neocolonialism in a manner that did not explicitly foreground the way in which practices of racialization were central to the production and reproduction of climate injustice. In this section, I briefly discuss some of the key themes in the existing literature before showing how the analytic of “racial capitalism” can help deepen and systematize existing themes in various bodies of scholarship.

The international climate justice movement grew out of the environmental justice movements that organized domestically in countries of both the Global North and the Global South. The environmental justice movements in countries of the Global North exposed how environmental harm was concentrated in communities of color and low-income communities (Bullard 2018; 1993). In countries of the Global South, “environmentalism of the poor” (Guha and Martínez-Alier 2013, 3; Martínez-Alier 2003; Nixon 2011) or “liberation ecologies” (Peet and Watts 1996) foregrounded the material interest the poor and peasant communities had in the environment for their livelihoods. Transposing these analyses and ecological distributional conflicts to the global level, that international climate justice movement has powerfully illuminated how climate change reproduces and intensifies existing inequalities and marginalizations, including through the geographical displacement of sources and sinks (Parks and Roberts 2010; Roberts and Parks 2009). Climate justice scholarship has thus foregrounded how climate change is “inextricably linked to broader social injustice” and highlighted the distributive, procedural, and recognitional injustices of climate change, as well as the need for corrective or reparative justice (Gonzalez 2021, 5).

Within legal scholarship, there has long been attentiveness to the North/South dimensions of the climate crisis (Alam et al. 2015; Natarajan 2012; Mickelson 2009; Dehm 2016). Scholarship oriented toward climate justice has drawn attention to how Indigenous communities are suffering on the frontlines of climate change (Westra 2008), while also leading struggles against both fossil fuel extractivism (Estes 2019) and false solutions to the crisis (Indigenous Environment Network 2009a). The fact that colonialism has exacerbated the effects of climate is increasingly recognized, including by the Intergovernmental Panel on Climate Change (Pörtner 2023), even though there remains an inadequate acknowledgment of the material and epistemic harms of “climate coloniality” (Sultana 2022).

There also is a growing awareness of the need for an intersectional account of the harms of climate change when “developing, implementing, funding, monitoring, evaluating, learning from and reviewing climate action at all levels” (Morgana 2024, para. 77). Such an approach recognizes that inequalities do not have “single causes that stand alone” but rather are “caused by a multiplicity of intermeshed causes, leading to structural inequality,” thereby enabling a “holistic perspective to situations of injustice” that is informed by “a more complete understanding of the social and political circumstances of such injustices” (De Jong 2024, 744).

Concurrently, there were persistent scholarly critiques of how the positioning of the “Anthropocene,” as both a (now formally rejected) geological epoch (Crutzen 2002; Witze 2024) and an analytical frame (Birrell and Dehm 2021), rested on a problematic assumption that it was an undifferentiated “Anthropos” that had become a geological agent without explicitly engaging with the “hierarchical structure of the *anthropos* itself” (Gear 2015, 226), or that it was capitalism as a mode of production that was driving ecological crisis (Moore 2017; 2016). Thus, in the context of a broader political reckoning with the legacy and persistence of structural racism, legal scholarship on climate justice belatedly began to more explicitly engage questions of race, racialization, and structural racism.

The analytic of racial capitalism can help deepen and systematize existing themes in various bodies of scholarship discussed above by providing a structural and historical account of the *causes* of these injustices and why these injustices are continuously reproduced by an “economic order that systematically exacerbates poverty and inequality while exceeding the limits of the planet’s finite ecosystems” (Gonzalez 2021, 5). It recognizes that vulnerabilities, marginalization, and inequalities are not simply given, but systematically *produced*, and that populations are continuously being divided and stratified, and social hierarchies mobilized, as part of “strategies and outcomes of profit-making” (Gonzalez and Mutua 2022, 128). Thus, race is not treated as a “‘natural’ phenomenon” but rather there is an “account of racialization” (Knox and Kumar 2023, 34–35; Knox 2023, 58) or how “‘races’ and racial hierarchies are created and perpetuated” (Gonzalez and Mutua 2022, 128).

Carmen Gonzalez and Athena Mutua show how processes of profit-making and race-making operate in mutually coconstitutive ways such that “profit-making processes create and reinforce the making of racial meaning, while race-making, underwritten by white supremacy, structures and facilitates the economic processes of profit-making” (Gonzalez and Mutua 2022, 127). Together, a number of processes form a “structured web of racialized extraction,” powerfully demonstrating how three processes of profit-making—exploitation, expropriation, and expulsion—are inherently intertwined with three processes of race-making—(racial) stratification, segregation, and the creation of sacrifice zones (ibid. at 2022). This focus on “race-making” is crucial, because it recognizes that there are a range of “racial constructs” and that different populations have been racialized in diverse ways to “mark out and reproduce the unequal relationships into which Europeans have co-opted these populations” (Wolfe 2016, 2). In the same way that the analytic of racial capitalism emerged as “Third Worldist and anti-racist movements. . . sought to deepen the Marxist tradition through theorizing the conditions in which race and racism came to play a structuring role within a given social formation” (Knox and Kumar 2023, 34), the engagement between those studying and struggling against racial capitalism with climate justice movements could mutually *deepen* existing understandings, including by identifying the systemic drivers and structural causes of the ecological crisis and its differentiated precarities.

Moreover, utilizing the analytic of racial capitalism to understand the climate crisis does not preclude, but arguably facilitates, an analysis of how “[e]nvironmental racism and climate injustice interact with other forms of social exclusion, such as discrimination on the grounds of gender, age

and disability” (Achieme 2019, para. 47). Carmen Gonzalez and Athena Mutha write that “[t]he concept of racial capitalism provides a structural and historical account of the way in which race and class are linked in the global economy, including how they shape other oppressive structures such as patriarchy” (Gonzalez and Mutua 2022, 128). As Gargi Bhattacharyya argues, racial capitalism “describes a set of techniques and a formation, and in both registers the disciplining and ordering of bodies through gender and sexuality and dis/ability and age flow through what is happening” (Bhattacharyya 2018, x). Nonetheless, she suggests, it remains valuable to use the term “racial capitalism” given how “these techniques of othering and exclusion utilise the logics of race, regardless of the targeted population” (ibid. at x). In particular, the recognition that contemporary forms of racial discrimination are rooted in slavery and colonialism (Achieme 2019) draws attention to the intertwined processes of colonialism, capitalist expansion, and racialization (Knox 2023). In the climate context, there is growing acknowledgment of how “colonialism, capitalism and catastrophic climate change are structurally—and not simply contingently—linked” (Bhambra and Newell 2022, 181). Thus, “inequalities generated and exacerbated by climate change in the present have longer and connected histories once colonialism is properly acknowledged as a continuous factor” (ibid. at 180).

The term “racial capitalism” is arguably best engaged as a “strategic, rather than purely analytical, concept—a concept forged and developed in struggle” (Kelley 2023, 3562). While academic debates continue about its intellectual provenance, it’s clear the analytic was developed by different thinkers in different ways during the period following formal decolonization in large parts of the world. This was an effort to better understand how capitalist exploitation and expropriation depended on practices of racialization. The adoption of this concept was “rooted in strategic debates across much of the colonial world” about how anticolonial struggles should focus on anticapitalist or antiracism struggles (Levenson and Paret 2023b, 333).

In particular, it was through debates by activist intellectuals about apartheid and its relationship to capitalism in South Africa that many now examine racial capitalism’s origins (Levenson and Paret 2023b; 2023a). There are, however, as Marcel Paret and Zachary Levenson argue, “multiple contending—and potentially irreconcilable—theories of racial capitalism” (Paret and Levenson 2024, 1826), including a more contingent account of the relationship between capitalism and racism presented by Cedric Robinson in *Black Marxism and the Making of the Black Radical Tradition* (Robinson 2020), as well as a long tradition of Black and anticolonial Marxists who “sought to *deepen* the Marxist tradition through theorizing the conditions in which race and racism come to play a structuring role in a given social formation” (Knox and Kumar 2023, 34).

In this article, I do not focus on the different ways in which racial capitalism has been theorized. Instead, I adopt the term “racial capitalism” as a “kind of signifier to denote a general relationship between capitalism and racism” (Knox and Kumar 2023, 29), and to foreground how race and racialization are material processes that need to be understood historically and in their present articulations, and that such processes can—and must be—contested by anticapitalist struggles (ibid. at 44). Racial capitalism also provides a means of understanding the different forms of racial stratification and how race is used to divide people, but this structural account of racialization is consistent with acknowledging that some Black and nonwhite elites do enjoy enormous privilege, especially those who are members of a multiracial “transnational capitalist class” (Chimni 2004, 4).

The work of Carmen Gonzalez has shown how indispensable an engagement with racial capitalism is in examination of climate change and other ecological crises through her analysis of climate migration (Gonzalez 2021), the Anthropocene (Gonzalez 2020), and ecocide (Gonzalez 2024). In considering how race-making and profit-making are central to the dynamics of climate injustice, we need to pay attention to a number of facets of the crisis. First, it is important to pay attention

to the way the fossil fuel industry drives the climate crisis, including by creating racialized sacrifice zones and through the colonial appropriation and control of land to enable extraction. As Sarah Riley Case argues, “Capital accumulation and ecological damage, then, are intimately bound to one another and to racial ideologies” (Riley Case 2023, 50). Second, it is crucial to recognize the way in which the effects of climate change will intensify existing marginalization and inequalities. It is widely recognized that it is the peoples of the Global South and Indigenous communities who are already most economically and socially marginalized that will bear the worst impacts of climate change. Vulnerabilities to climate impacts are shaped by intersectional drivers of inequality such as gender, race, ethnic origin, age, level of ability, sexuality, and diverse gender orientations. Third, it is necessary to pay attention to the way in which legal responses to the climate crisis have been premised on a racialized and unequal valuation of lives and have thus reproduced and intensified preexisting inequalities, marginalizations, and precarities (Dehm 2021). As the global economy transitions from a fossil fuel-intensive form of capitalism to so-called “green capitalism,” it will be crucial to map how the structural racial inequalities that characterized fossil fuel extraction persist, perhaps differently articulated, in the so-called green economy. However, highlighting “how ‘race’ and racism have shaped the political economy of climate and environmental realities” should not “eclipse the role played by” powerful actors in the multiracial “transnational capitalist class” (Chimni 2004, 4) and powerful countries in the Global South in promoting—and profiting from—climate crisis (Achieme 2022, paras. 12, 17).

Much of the analysis on climate justice and racial capitalism has—rightly—focused on the harms to racialized peoples and how they are impacted by processes of exploitation, expropriation, and expulsion. However, in this article, my focus is on showing how the legal architecture is racialized, with a specific focus on the legal form of property. I argue that crucial to understanding the dynamics of racial capitalism, especially the concepts of climate change and climate justice, is interrogating how one of the key legal building blocks of capitalism—property rights—is itself thoroughly racialized. The next section provides an overview of the considerable scholarship about how property is racialized and how this insight can be applied to understand the production and reproduction of climate injustice in regimes of racial capitalism.

III. Property, Race, and Climate Change

Political theorists Jeff D. Colgan, Jessica F. Green, and Thomas N. Hale have developed a “theory of climate change politics based on the present and future revaluation of assets” (Colgan et al. 2021, 586). Their analysis offers a powerful insight: “[C]limate change, along with decarbonization policies to mitigate it, will trigger a profound and uneven process of economic re-evaluation of these assets” (ibid. at 586). They develop this argument by attending to two different classes of asset holders: “holders of climate-forcing assets” such as fossil fuel resources and associated infrastructure, along with other industries implicated in climate harm, such as deforestation and industrial livestock cultivation; and “holders of climate-vulnerable assets” such as coastal properties and fisheries (587). The insights of the article are powerful and usefully reshift the way in which we consider climate politics.

However, the analysis is limited in how it takes existing legal constructions of assets, as well as the legal construction and distribution of the underlying property rights, as given. This article thus seeks to build on Colgan et al.’s analysis and shows how it is crucial to appreciate the racialized construction of property rights and how this shapes the global political economy of climate change and the extreme inequality of its causes and effects.

Underlying all assets is a property right. Assets are inherently “legal constructs, in that ownership and control rest on the state enforcement of property and control rights” (Birch and Muniesa

2020, 5). However, what characterizes an “asset” and distinguishes it from other property rights is an expectation that future economic benefits will flow from the resource controlled (*ibid.* at 3). An asset is thus, as Lisa Adkins, Melinda Cooper, and Martijn Konings write, “a property title that must be constantly valued as a balance sheet item but often precisely cannot be readily traded” (Adkins et al. 2022, 19). They identify how an asset has a “particular temporal structure” that “requires an upfront investment in (often borrowed) funds and it is meant to generate returns over a particular future timeframe” (*ibid.* at 19). Thus, protecting the value of an asset entails more than simply protecting property rights. It also entails protecting the expectations of future returns. The analysis below shows that both the legal regime of property and the legal protection of future expectations are highly racialized.

Property rights are central to the legal architecture of capitalism. Given that “[p]roperty institutions are key constitutive elements of socio-economic systems” such as capitalism, they cannot be “understood in abstract from, and without reference to” the broader social and economic systems of which are they part (Ireland 2024, 2–3). Even though the nature of property in contemporary capitalism is changing, so that it is increasingly oriented toward the protection of “property-as-capital” rather than “thing-ownership” (*ibid.* at 4), in crucial ways, property “remains tethered to the conceptual and material structure of its liberal genesis” (Davies et al. 2021, 11). Feminist and critical theorists have long shown how women, people of color, and Indigenous peoples were excluded from liberal philosophies of property (*ibid.* at 11; Nedelsky 1990; Graham 2010), while the paradigmatic legal subject was “the white, European male property-owner” (Gear 2015, 237). The control of property by men, along with women’s exclusion from property ownership, has been a key legal mechanism for maintaining patriarchal structures. Marxist accounts suggest that the emergence of private property played a key role in the development of patriarchal societies (Engels 2001; see also Federici 2004).

Critical Race Theory scholars have highlighted how property rights are inherently racialized and how “processes of racialization are inextricably bound with property as a social form” (Munshi 2021, 1038). In her pathbreaking article, “Whiteness and Property,” Cheryl Harris powerfully reflects on “how rights in property are contingent on, intertwined with, and conflated with race” (Harris 1993, 1714). There is, she argues, an “entangled relationship between race and property,” and due to this relationship, “historical forms of domination have evolved to reproduce subordination in the present.” She shows how racial domination structures the origins of property rights in the United States as well as the ongoing operations of property law. Slavery treated Black people “as objects of property” (*ibid.* at 1716). Concurrently, the “conquest, removal, and extermination of Native American life and culture were ratified by conferring and acknowledging the property rights of whites in Native American land” (1716). It was “only white possession and occupation of land [that] was validated and therefore privileged as a basis for property rights” (1716).

Goenpul scholar Aileen Moreton-Robinson builds on Harris’s account to provide an “Indigenous reading of how white property rights are connected to the internal territoriality of patriarchal white sovereignty in the form of the nation-state” (Moreton-Robinson 2015, xix). She reveals “racialization [as] the process by which whiteness operates possessively to define and construct itself as the pinnacle of its own racial hierarchy” and that claims to “white possession” are premised on the persistent “disavow[al] of Aboriginal sovereignty” (*ibid.* at xxi).

Brenna Bhandar has powerfully described the “racialized regimes of ownership” in various settler-colonial jurisdictions to show how “modern property laws emerged along with and through colonial modes of appropriation” (Bhandar 2018, 3). Her analysis foregrounds how conceptions of property were inherently intertwined with the “formation of the proper legal subject.” She writes

that “[t]he colonial encounter produced a racial regime of ownership that persists into the present, creating a conceptual apparatus in which justifications for private property ownership remain bound to a concept of the human that is thoroughly racial in its makeup” (ibid. at 4).

Patrick Wolfe shows how the white, Western discourse of property brings together different racialized “regimes of difference with which colonisers have sought to manage subject populations” (Wolfe 2016, 3). He writes, “Racialized distinctions. . . bespeak different histories, of different forms of expropriation—in one case of labour, in another of land” (ibid. at 2). He continues:

A mutuality between these otherwise antithetical relationships was sealed in the White man’s discourse of property. As John Locke provided, in texts that would profoundly influence Euroamerican colonial ideology, private property accrued from the admixture of labour and land. As this formula was colour-coded on the colonial ground, Blacks provided the former and Indians the latter, the application of Black people’s labour to Red people’s land producing the White man’s property. (Wolfe 2016, 3)

These historical dynamics continue to affect the juridical form of property and its operations today. K-Sue Park’s analysis of US jurisprudence shows how historical slavery and conquest continue to “explain aspects of the system—its construction of jurisdictions, property value, ground-level institutions, and organization of force” (Park 2022, 1062). Feminist and property theorist Margaret Davies similarly foregrounds the “racialisation of the property-person nexus” and how “representations of whiteness as a valuable property of self-possessed persons and of non-white human beings more directly as objects of property or economic instruments” (Davies 2007, 44). Nicolas Blomley writes that:

The evolution of property law has been articulated through the attribution of value to the lives of those defined as having the capacity, will, and technology to appropriate, racializing those deemed unfit to own property. The justification for property ownership is thus bound to a highly racialized concept of the human. The social powers that property’s territorialization accord are also embedded in such racial logics. (Blomley 2022, xiv)

The stabilization and protection of future expectations are also enabled by law and highly racialized. Katharina Pistor has shown how forms of legal “coding” have been developed to protect value including by “extend[ing] the life span of assets and asset pools” or extending priority claims through time (Pistor 2019, 3). In other work, I’ve drawn attention to the numerous “legal techniques. . . developed to reduce the contingency of the future or make an inherently uncertain future less uncertain, or at least uncertain in a more calculable and predictable way” (Dehm 2023b, 271). Moreover, the way law enables the protection of future expectations is central to Cheryl Harris’s analysis of “whiteness as property”—precisely because it is the “persistence” of such racial privilege that is ultimately at stake. She writes, “The exclusion of subordinated ‘others’ was and remains a central part of the property interest in whiteness and, indeed, is part of the protection that the court extends to whites’ settled expectations of continued privilege” (Harris 1993, 1758).

In this context, critical scholars are increasingly turning to dispossession as a “counter-narrative” and “critical framework” used to reevaluate the role of property within racist and settler-colonial contexts and to correct “the abstracting and ahistorical tendencies of political liberalism” by bringing to the foreground the “relational character of private property” (Munshi 2021, 1025). Jodi Byrd et al. define “economies of dispossession” as the “multiple and intertwined geologies of racialized property, subjection, and expropriation through which capitalism and colonialism take shape historically and change over time” (Byrd et al. 2018, 2). Thus, an analytic of dispossession

foregrounds the theft from those who have been colonized and dehumanized through processes of racialization, as well as the concurrent ways in which the law protects violent appropriation *as* property and increasingly also protects the investment and interests of capital *as* property.

However, as Robert Nichols insightfully identifies, a focus on “dispossession” as an analytical concept raises a “new set of conceptual and practical complications.” First, in order to conceptualize dispossession as an “normatively objectionable loss of possession,” we require a “background system of law that could establish the normative context in which a violation (for example, theft) could be recognised, condemned, and punished” (Nichols 2020, 6). Second, this focus thus generates a complex double bind given how the term “dispossession” “seems necessarily appended to a proprietary and commoditized model of social relations,” and thus, there is an inherent—and possibly self-defeating—contradiction in seeking to “leverage this category of dispossession as a tool of radical, emancipatory politics in the critique of extant legal authority and proprietary relations” (ibid. at 6). Thus, Nichols’s analysis shows that the remedy for the violence of dispossession is not necessarily possession, but rather a disentanglement of the proprietary logic that underpins the violence of both dispossession and property.

Despite this vibrant scholarship on property, race, and colonialism, there has been only limited scholarly attention on how the racialized nature of property law shapes the international political economy of climate change. Yet, the racialized nature of property and the racialized protection of assets shape various aspects of the climate crisis. They underpin understanding of what forms of appropriation give rise to new property rights and influence what expectations should be protected by law as well as what sort of harms are deemed worthy of repair.

IV. Historical Emissions, Appropriation of the Atmosphere, and Property in Carbon

This section discusses one telling example of the racialized dynamics of property in the context of the international legal regulation of climate change, namely, the failure of the international climate regime to contest unjust appropriation of the atmosphere by industrialized countries regarding historical emissions. Climate change is a result of an unequal history of emissions, and there remains extreme emissions inequality. Currently, the richest 1 percent of the global population emits as much greenhouse gases (GHGs) as the poorest two-thirds of humanity (Ghosh et al. 2023). The richest 1 percent is responsible for 16 percent of all consumption emissions, equivalent to the emissions of the 5 billion people who make up the poorest 66 percent of humanity (Khalfan 2023). However, these inequalities are compounded if cumulative historical emissions are considered. By the end of 2021, the world had already emitted into the atmosphere 86 percent of the allowable “carbon budget” for a 50 percent chance of limiting warming to 1.5°C, and a small number of historical emitters have “used up” a disproportionate amount of this limited “carbon budget” (Evans 2021).¹ A recent study quantified each country’s share of responsibility for cumulative CO₂ emissions in excess of a planetary boundary of 350 ppm (at the time of writing in 2025 the world was at 425 ppm) and found that countries of the Global North were collectively responsible for 92 percent of these excessive emissions (Hickel 2020). Additionally, just 90 producers of fossil fuels and cement—the so-called “carbon majors”—have created 63 percent of cumulative worldwide emissions from 1751 to 2010 (Heede 2014, 229).

Historical emissions need to be understood as a racialized appropriation or colonization of the atmosphere, which is harmful in and of itself, but also has further harmful effects. As Max Liboiron

¹ The largest cumulative emitters are the United States (20 percent), China (11 percent), Russia (7 percent), Brazil (5 percent), and Indonesia (4 percent) (Evans 2021).

reminds us, “pollution is not a manifestation or side effect of colonization but is rather an enactment of ongoing colonial relations to Land.” Pollution is thus best understood “as the violence of colonial land relations rather than environmental damage” (Liboiron 2021, 6–7).

Racialized violence resulting from historical emissions manifests in a number of ways. First, historical emissions have real, measurable climate impacts. The cumulative emissions of the United States, the European Union, Russia, Japan, and Canada between 1850 and 2012 will contribute to a nearly 0.5°C temperature increase by 2100 (Rocha et al. 2015, 10).² Thus, the appropriation of the atmosphere also drives climate chaos, which through slow-onset events and the increased frequency and intensity of extreme weather events will “lead to new forms of land-expropriation through rising sea levels and desertification” (Folkers 2020, 617), even if the temporal delay and complex causal chain between emissions and their effects means such “accretional harms” are often not perceived as “violence” (Nixon 2011). Second, as Sarah Riley Case and I have argued, these historical emissions matter “because their acts were constitutive in enabling the conditions of dispossession, violence, slavery, racial difference, and uneven wellbeing that generated—and continue to generate—stark asymmetries between and within countries” (Mason-Case and Dehm 2021, 174). As such, they can be considered an act of original violence—or “primitive accumulation”—that created the conditions giving rise to a racialized regime of fossil fuel capitalism.

Many developing countries have argued that such historical emissions are also significant because they represent an “appropriation of atmospheric space.” That is, they prevent other countries from pursuing the same carbon-intensive development pathways that industrialized countries have pursued or even emitting what would be their “fair share” within a carbon budget consistent with a given temperature target. Thus, the historical emissions of some have severely constrained the policy choices of other countries about what development pathways to pursue (Shue 2014).

Andreas Folkers has argued that the “colonization of atmospheric space by CO₂ emissions” should be understood as a form of “air-appropriation” (Folkers 2020, 612). He writes that the concept of “air-appropriation,” which refers to the “the occupation of the atmosphere by CO₂ emissions as an effect of the combustion of fossil fuels” (ibid. at 617), makes it possible to “foreground the violence, the imperial origins and ongoing social asymmetries of the Anthropocene condition” (612). He traces a longer history of the territorialization of authority, premised on the “act of appropriating, measuring and dividing space [that] makes up and orders these spaces in the first place” (617). In contrast to historical forms of colonial appropriation focused on the appropriation of land, what is at stake with air-appropriation, Folkers suggests, is the “molecular spatiality that concerns the chemical composition of the atmosphere expressed in parts per million (ppm) of CO₂” (617). He draws on the work of Michel Serres, who highlights the interconnected etymology of property, propriety, and cleanliness to conceptualize waste as a type of appropriative control (Serres 2010).

Excessive emissions, however, were not perceptible as an act of appropriation until the atmosphere—or the atmosphere’s carrying capacity of greenhouse gases—became scientifically recognized as limited. In classical international law approaches, air (along with the high seas) was conceived as being *res communis* (“a thing belonging to all”) on account of its being limitless and available for the use of all. However, as the scientific consensus consolidated that there were clear limits on the atmosphere’s capacity to absorb GHGs and/or waste gases, the atmosphere increasingly became an object of legal concern and governance. The questions about *whether* quantified emissions limitations should be imposed, on *which* polluters, and how they should be

² Note that this figure is based on cumulative Kyoto GHG emissions; it differs slightly if only CO₂ emissions are considered.

quantified were highly contested throughout three decades of climate negotiations. Due to developing country advocacy, the preambular paragraphs of the 1992 United Nations Framework Convention on Climate Change (UNFCCC) acknowledge that “the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs.”³

While developing country parties have insisted that the principle of “common but differentiated responsibilities” (UNFCCC, art. 3.1) meant that historical polluters needed to take the lead on emission reductions, this interpretation has been rejected by developed countries, and the principle is increasingly undermined and decentered in the regime (Dehm 2021, chap. 3). While the 1997 Kyoto Protocol operationalized the principle of “common but differentiated responsibilities” and only imposed emission-reduction obligations on developed country parties, the 2015 Paris Agreement⁴ is premised on self-differentiation, with each country putting forward its own “nationally determined contribution,” and lacks any process for ensuring that each country is contributing its “fair share” of the global mitigation effort (Dehm 2018c; 2021). Thus, the way in which the international climate regime imposed limits did not properly redress the unequal historical appropriation of the atmosphere. Instead, by imposing only very modest emission-reduction limitations on historical polluters, it effectively allowed the unequal appropriation of atmospheric space to continue.

Additionally, the unequal appropriation of atmospheric space by historical polluters was converted into an unequal allocation of initial carbon credits through the legal establishment of international emissions trading schemes. The initial allocations of the new immaterial property rights in carbon were premised on the unequal historical appropriation of the atmosphere. This created a “unequal distribution of these entitlements amongst states” (Felli 2014, 254) that favored the Global North over the Global South, and this initial unequal distribution of property rights within the regime has ongoing implications for the structure of international carbon markets and the forms of dependency and control they establish. Emissions trading entails a certain privatizing [of] the atmosphere (Childs 2012), by legally constructing permits that allow the holder to emit, and constructing the legal architecture that allows such permits to be traded between polluters. The text of the 2005 Marrakech Accords that operationalized the Kyoto Protocol’s carbon trading mechanisms explicitly denies that it “created or bestowed any right, title or entitlement to emissions” on parties.⁵ But commentators agree that, in practice, the effect of the decision created a quasi property right (Yandle 1999; Wemaere et al. 2009). Thus, the establishment of the carbon trading regime not only put limits on future emissions but also—simultaneously—established the “constitution of public entitlements to emit greenhouse gases” (Felli 2014, 245).

The initial allocation of property rights in “entitlements to emit” was implicitly premised on an “occupation theory” or “first discovery” justification for property. In the early twentieth century, Morris Cohen explained that “[t]he oldest and up to recently the most influential defence of private property was based on the assumed right of the original discoverer and occupant to dispose of that which thus became his” (Cohen 1927, 15). The so-called “doctrine of discovery,” which was used to justify colonialism in the Americas, was premised on claims by European powers of their “ethnocentric allegations of cultural, racial, governmental, and religious superiority over the rest

³ United Nations Framework Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107, 31 I.L.M. 849 (entered into force Mar. 21, 1994).

⁴ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

⁵ UNFCCC, Decision 15/CP.7 (2002), UN Doc. FCCC/CP/2001/13/Add.2; UNFCCC, Decision 2/CMP.1 (2006), UN Doc. FCCC/KP/CMP/2005/8/Add.1.

of the world” (R. Miller 2019). Farhana Yamin notes that “[b]y requiring only modest cuts from current emissions levels (and in some cases allowing increases), the Kyoto Protocol targets appear to sanction grandfathering as a formula for allocating emissions”—an approach that gives developed countries “considerable advantages because it sanctions their high levels of current emissions,” which works to the disadvantage of developing countries (Yamin 1999, 267). She suggests that the grandfathering approach reflects “two traditional legal principles regulating the appropriation of things and territory historically favoured by [countries of the Global North]:” first, that “whoever possesses a territory and exercises actual control over it acquires a legal title;” and second, that where something is considered *terra nullius*, “the ‘first come–first served’ principle establishes title, provided there is an actual display of sovereignty and authority” (ibid. at 270).

This approach, based on “grandfathering,” differs sharply from other principles that could be used to determine allocations, such as claims of equal per capita rights to emit GHGs (D. Miller 2009; Salzman 2010), or frameworks such as greenhouse development rights, in which the allocation of obligations is based on considerations of responsibility (contribution to the problem) and capacity (ability to pay) as well as a “right to development” (Baer et al. 2008), or the application of the “polluter pays” principle in relation to historical emissions (Yamin 1999). In contrast to these latter approaches, which are based on consideration of equality or equity, “grandfathering” favors those countries that have historically been the main polluters.

Other commentators have highlighted how practices of “grandfathering” have rewarded historical polluters. Romain Felli argues that the process of so-called “grandfathering” “ensured that the distribution of entitlements amongst countries favoured the wealthiest and most ‘polluting’ countries: those with the highest amount of emissions received the largest amount of entitlements to emit” (Felli 2014, 262). Similarly, Diana Liverman notes that “[b]ecause the baseline for reductions was based on emissions in 1990, the atmosphere was effectively ‘enclosed’ according to pollution levels in 1990.” This affirmed and endorsed “prior appropriation,” such that “those who first polluted the atmosphere then [would] acquire a right to pollute under international law” (Liverman 2009, 294).

Therefore, although many commentators argued that the key problem with the Kyoto Protocol was that it allowed “the undeveloped world. . . to continue to emit with impunity” (Yandle 1999, 39; Campbell et al. 2010), because developing countries were not (pursuant to the principle of common but differentiated responsibilities (CBDR)) required to commit to emission reductions, arguably the more problematic effect of the Kyoto Protocol was that it constitutionalized an unequal and inequitable allocation of rights to emit that favored the historical polluters of the Global North. Although countries of the Global South were excluded from immediate emission-reduction obligations under Kyoto, the principle of GHG emissions agreed to—namely, “grandfathering”—was disadvantageous to them (Felli 2014, 263).

Moreover, the hybrid system established by the Kyoto Protocol does not simply permit the trading of allowances. It also enables the production of “offset” allowances or credits from activities considered to represent “saved” or “prevented” emissions. The former “Clean Development Mechanism” allowed countries of the Global North to purchase carbon credits from “emission reduction” projects located in the Global South.⁶ The stated objectives of the mechanism were to deliver globally aggregate and symbiotic benefits, to help countries of the Global South achieve sustainable development, and to allow countries of the Global North to achieve their compliance obligations in the most cost-effective manner (Kyoto Protocol, art. 12).

⁶ Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol), art. 12, Dec. 10, 1997, 2303 U.N.T.S. 162.

However, critics have highlighted that such schemes have failed to reduce aggregate emissions (Cames et al. 2016) while also failing to promote sustainable development (Boyd et al. 2009). Instead, they often caused social, environmental, or human rights harms in the communities where projects were located (Lohmann 2006). Thus, not only did the creation and unequal initial allocation of property benefit the historical polluters of the Global North, but it also created new relationships of structural inequality in the carbon economy by positioning countries of the Global South as producers of carbon credits to satisfy demand from and benefit the Global North. As James Gathii writes, “At the heart of initiatives like carbon offsets is the continuation of a long history of extraction, exploitation, and exploration of raw materials or commodities from Global South countries with valuable ecosystems” (Gathii 2024, 546). The new carbon economy thus replicated and reproduces neocolonial and racialized inequalities and promotes new forms of “accumulation by decarbonization” (Bumpus and Liverman 2008), “carbon colonialism” (Dehm 2016), “CO₂lonialism” (Indigenous Environment Network 2009b), and the actualization of new forms of global authority over land and resources in the Global South (Dehm 2021). As such, these initiatives reflect a continuation of the systemic economic oppression and exploitation enabled by structures of racial capitalism under the guise of the so-called “green economy.”

V. Fossil Fuels, “Stranded Assets,” and International Investment Law

This section discusses a second telling example of the racialized dynamics of property in the context of the international legal regulation of climate change, namely, how international investment law is allowing fossil fuel companies to seek compensation if governmental actions in response to climate concern impact their investment or expected returns. International investment law has increasingly been used by fossil fuel companies to seek compensation from governments that implement climate policies that might impact their profits. This highlights the racialized protections of property that international law provides. There is a growing critique of the racialized nature of international investment law. As James Thuo Gathii and Ntina Tzouvala write, international economic law “is deeply implicated in how relationships of expropriation, exploitation, and hierarchy along race and ethnicity are produced and in the ways in which some people are subordinated by others through processes of economic extraction and wealth acquisition” (Gathii and Tzouvala 2022, 199). They argue that the legacies of slavery, imperialism, and colonialism that are central to capitalism have not been “transcended” by international economic law, but rather that “past patterns of direct political subjugation have been transformed to contemporary patterns of over-exploitation, destruction, and abandonment, often carried through and subsequently rendered invisible or are ‘legitimated’ by [international economic law]” (ibid. at 199–200).

The history of international economic law shows how the field has been structured by the imperative to maintain colonial power and racial hierarchies, especially in the aftermath of formal decolonization. As Felipe Ford Cole writes, “For the jurists and diplomats that shaped the core [international investment law] doctrines in the nineteenth and early twentieth centuries, [. . .] the goal was securing the property of investors from ‘civilized’ races in a world of ‘uncivilized’ races” (Cole 2022, 1). Scholars have highlighted how the process of investment arbitration emerged in the aftermath of socialist revolution and decolonization (Miles 2013; Pahuja 2011) to protect the private property of Western companies in the face of Third World resource nationalism and efforts to claim permanent sovereignty over their natural resources (Dietrich 2017).

The emergent field of investment law grew out of arbitral practice and associated scholarly writing in the early twentieth century, where lawyers sought to enable “positioning the protection of foreign property as a universal rule against domestic attempts at large-scale redistribution of

wealth” (Leiter 2022, 56). They invoked the “general principles of law as recognized by civilised nations,” which was authorized by a “hierarchization of difference” that favored Western claims of legality over those of socialist and Third World states (ibid. at 58, 69). The development of the recent field was spurred by efforts to protect wealth, power, and “fossil capital,” including a number of key arbitrations over the nationalization of oil resources (Sornarajah 2015; Anghie 2007). Fossil fuel company directors and lawyers were involved as “masterminds” of and active participants in the project to develop investment law (Perrone 2021). Given this history, it is particularly concerning that international investment law is now being utilized by some fossil fuel companies in ways that risk posing a barrier to a rapid transition away from fossil fuels, and is increasing the costs of the energy transition (Tienhaara et al. 2023; 2022; Tienhaara and Cotula 2020; Tienhaara 2018).

The fossil fuel industry has made extraordinary profits from the extraction, circulation, and combustion of fossil fuels. According to some analysis, profit has amounted to a total of \$52 trillion or a daily profit of \$2.8 billion over the past fifty years (Carrington 2022). Thus it is unsurprising that the fossil fuel industry has, for decades, promoted misinformation and sought to influence policy to protect its interests (Supran et al. 2023; Franta 2021; Dehm 2023a). However, the science is clear: In order to meet the international goal of holding the average surface temperature rise to 1.5°C, a rapid phasedown of fossil fuel use is necessary. Analysis published in *Nature* in September 2021 showed that in order to have a 50 percent chance of limiting warming to 1.5°C, by 2050 nearly 60 percent of oil and fossil methane gas and 90 percent of coal must remain unextracted (Welsby et al. 2021).

However, governments have “already licensed, permitted, and constructed more oil and gas fields, coal mines and other fossil fuel infrastructure than is compatible with a livable climate.”⁷ The 2023 IPCC Synthesis Report warned that “projected CO₂ emissions from existing fossil fuel infrastructure without additional abatement would exceed the remaining carbon budget for 1.5°C” (IPCC 2023). The International Energy Agency has modeled that in order to have a 50 percent chance to limit global heating to 1.5°C, no new oil and gas fields should be approved for development, nor should any new coal mines or mine extensions (Bouckaert et al. 2021; Fernández and Spencer 2023). Academic studies have confirmed that existing fossil fuel capital stock is sufficient for energy demand in a 1.5°C scenario (Green et al. 2024). This fact, in conjunction with the reality that “preventing new fossil fuel projects is, generally, more economically, politically, and legally feasible than closing existing projects,” grounds the authors’ normative claim that “new fossil fuel projects ought not be permitted” (ibid. at 954).

However, the phasing out of fossil fuels also needs to be informed by justice principles: States—and arguably also corporations—with large historical and ongoing emissions must take the lead in phasing out fossil fuels (Okafor 2020, paras. 29–30). Moreover, equitable considerations need to inform what fossil fuels are left in the ground, who has the best case for using the remaining allowable amounts of fossil fuels, and whether compensation should be paid to low-income countries for keeping fossil fuels in the ground (Carney 2016; Dehm 2023a, 173–74). Although it took almost thirty years of discussions, international climate negotiations have started to address the underlying cause of the climate crisis, namely, fossil fuels (which accounted for 91 percent of CO₂ emissions in 2022) (Hausfather and Friedlingstein 2022). The 2021 “Glasgow Climate Pact” called on countries to “accelerat[e] efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies.” UNFCCC, Decision 1/CP.26 (2022), UN Doc. FCCC/CP/2021/12/Add.1, para. 20. COP28 in 2023 called on parties “to contribute to . .

⁷ Amicus Curiae Brief of Oil Change International and Bank Climate Advocates Regarding the Request of Advisory Opinion Submitted by the Republic of Chile and the Republic of Colombia, Inter-American Court of Human Rights, at 4 (Dec. 18, 2023), https://oilchange.org/wp-content/uploads/2024/01/Amicus-Brief_Int.CHR-eng.pdf.

transitioning away from fossil fuels in energy systems.” UNFCCC, Decision 1/CMA.5 (2024), UN Doc. FCCC/PA/CMA/2023/16/Add.1, para. 28(d). Nonetheless, the United Nations Environmental Programme’s *Production Gap* report shows that countries still plan to produce more fossil fuels than is consistent with limiting warming to 1.5°C (SEI et al. 2023).

Given this, it is concerning that international investment law might present a further barrier to a rapid and equitable transition to a low-carbon society. It might impose the costs of that transition on states and their populations rather than on the companies who have profited from causing the climate crisis. Kyla Tienharra et al. provide a careful analysis of the legal and financial risks that countries, especially low- and middle-income countries, face and conclude that “government policies necessary for the energy transition will be delayed, weaker than otherwise, and/or more costly to taxpayers due to ISDS cases and the threat of investor claims” (Tienhaara et al. 2023). In 2023, the Special Rapporteur on the right to a healthy environment wrote:

Humanity has reached a now-or-never point that demands deep, rapid emission reductions, detoxification and scaled-up nature protection by 2030. Otherwise, we risk an unliveable future for ourselves and future generations. Yet as States struggle to address the climate crisis, protect the environment and safeguard human rights, they are threatened by foreign investors using ISDS claims and threats to delay, weaken or overturn these imperative actions and seek billions of dollars in compensation. (Boyd 2023, para. 72)

There have been over 150 international investment law cases brought by companies involved in extracting, transporting, refining, selling, or burning fossil fuels for electricity (Tienhaara et al. 2020). However, these cases did not directly engage with questions of climate policy. One of the first cases to be adjudicated that more directly implicated climate policy was *Rockhopper v. Italy*, before an ICSID tribunal.⁸ This case concerned the decision of the Italian government to impose a ban on all oil and gas projects within twelve nautical miles of the Italian coast. This impacted the 2014 license of Rockhopper, a UK-based company, to drill for oil off Italy’s Adriatic coast. The tribunal found in favor of the fossil fuel company and ordered Italy to pay them \$185 million in compensation for this expropriation.

There are various critiques that can be made of the *Rockhopper* decision (Arcuri 2023; Arcuri et al. 2024; Marzal 2023b). One important critique concerns how the tribunal ascertained the damages awarded to the investor based not on their “sunk costs” but on their future expected profits, based on a discounted cash flow analysis (Marzal 2023b; 2021; 2023a). Such an approach to damages assumes that the company should have been able to extract—and profit from—all the oil in the concessions, without any ecological or other limitations, despite the warning from climate science that fossil fuels must remain underground unburned. However, arguably at the heart of the decision is the question of what constitutes property.

The *Rockhopper* case arises out of regulatory disputes over the Ombrina Mare project. An exploration permit was first sought in 2002, it was granted in 2005, and exploration started in 2008, despite strong opposition from local citizens in the “No Ombrina” movement (Arcuri 2023, 6). In the aftermath of the Deepwater Horizon oil disaster, the Italian government in 2010 passed the Decree Prestigiacomo, which prohibited oil extraction within five nautical miles of the coast and twelve nautical miles of protected areas. Although the Ombrina permit arguably should have been refused at this stage, especially after the technical committee considering its environmental impacts recommended against granting a permit, no action was taken.

⁸ *Rockhopper v. Italy*, ICSID Case No. ARB/17/14, Final Award (Aug. 23, 2022).

In 2012, a new Law Decree on Development created an exception to the previous Decree Prestigiacomo, to exempt oil operations that had already submitted a production concession application from the ban. The project was revitalized, and in August 2015, the Ministry of Environment issued the Decree of Environmental Compatibility and the project lodged an application for a production concession. In December 2015, while this application was still pending, a Stability Law was introduced, banning all oil extraction within twelve nautical miles, and in January 2016 the permit for the project was denied. In April 2017, Rockhopper commenced arbitration proceedings against Italy. The claimant successfully argued that Italy had breached Article 13 of the Energy Charter Treaty, which regulates expropriation. This was based on a contested factual finding of the tribunal that “the Claimants had a right to be granted a production concession which was engaged as of 14 August 2015,” and the tribunal presented the denial of the permit as a deprivation of this right.⁹

However, as Alessandra Arcuri shows, this legal conclusion depended on the tribunal first “envisag[ing] a ‘right to a production concession’” and then then equating it to a de facto property right, when, in fact, under Italian law, “Rockhopper was never endowed with such a right” (Arcuri 2023, 13). She argues that the tribunal’s approach treating the company’s expectation that it would be granted a production concession “as an irrevocable right is a way to augment investors’ rights” (ibid. at 13). She suggests that the award did not reflect existing property entitlements, but was in fact “constitutive of otherwise non-existing property rights” (13). Arcuri argues that the tribunal constituted new rights for the fossil fuel company in two different ways: first, by “creating a right to obtain a concession for the production of hydrocarbons which was nowhere to be found under Italian law,” and second, “in line with neoliberal developments of international investment law, the tribunal extended the property rights and the concept of expropriation by equating an alleged right to obtain a production concession to property rights that could be expropriated” (17).

While *Rockhopper* is, as Arcuri argues, “particularly illustrative of how arbitration tribunals can create new rights by expanding the boundaries of expropriation and by misreading domestic law” (Arcuri 2023, 14), it is certainly not unique in this regard. As Antony Anghie identifies, investment tribunals have “been continuously expanding the concept of property itself through their findings on what constitutes a ‘foreign investment’” (Anghie 2023, 83). Scholars have shown that ISDS arbitrators have “advanced investors’ rights [by] interpreting ambiguous treaty provisions very broadly in a way that establishes new categories of protected property that did not previously exist” (Nichols 2018, 252). This more expansive interpretation of what constitutes property in the investment law context has far-ranging implications, including for the “distribution of regulatory costs between the public and private” and the compromise of “public policy latitude” (ibid. at 264). It reflects an approach to property taken within the international investment regime that is focused on “the maximization of local wealth through foreign investment” (Perrone 2017, 675). This focus thus promotes an approach that fosters the interests of foreign investors over national government or local communities. These cases demonstrate how international investment law “can be deployed to expand the property rights of the fossil fuel industry and to counter ecological democratic forces,” leading scholars to argue that international investment processes are “complicit in delaying the green transition by ossifying and amplifying the fossil industry’s property rights” (Arcuri 2023, 2). What emerges is both an extension of and a protection of the property rights of investors through international arbitration, protecting the interests of fossil capital and protecting fossil fuel companies from the costs of climate action, despite the fact that they both caused and profited from the crisis.

⁹ *Rockhopper v. Italy*, ICSID Case No. ARB/17/14, Final Award, para. 191 (Aug. 23, 2022).

VI. Resisting Reparations

This section discusses a final telling example of the racialized dynamics of property in the context of the international legal regulation of climate change, namely, the limitations of the “no-harm” rule, which effectively internationalized the domestic principles of the tort of nuisance, in providing compensation for the racialized harms caused by climate change. In recent years, vulnerable countries in the Global South, especially low-island states, have experienced devastating impacts of climate change caused by the historical emissions of early-industrializing countries. The issue has recently gained new visibility and momentum. Already five million deaths a year are linked to climate change, and climate disasters cost over \$100 billion annually. These figures are projected to increase as climate change intensifies (Millan 2021; Mercado 2022). Some estimates suggest that developing countries will face between \$290 billion and \$580 billion in economic losses from climate change in 2030, in addition to noneconomic losses, with some predictions suggesting economic losses could reach \$1.7 trillion by 2050 (Markandya and González-Eguino 2019).

Demand for climate reparations by these affected countries is, as Sarah Riley Case has highlighted, intimately intertwined with a broader reckoning of the racialized violence of capitalism and colonialism, given that they are “rooted in the understanding that ecological harms arise from imperial relations” (Riley Case 2023, 50). These claims for climate reparations, she argues, are “indissociable” from demands for reparations for the ongoing legacies of slavery and colonial plunder, and this inescapable connection gives further moral and legal weight to these claims while also “provid[ing] insights into meanings of reparations” (ibid. at 50). In her final report as Special Rapporteur on contemporary forms of racism, E. Tendayi Achiume called on the international community to “[p]rioritize reparations for historical environmental and climate harms and for contemporary harms rooted in historic injustice” (Achiume 2022, para. 78). She elaborated that “[r]eparations require addressing historic climate injustice, as well as eradicating contemporary systemic racism that is a legacy of historic injustice in the context of the global ecological crisis” (ibid. at para. 78).

Although countries of the Global South have voiced demands for some form of compensatory justice for the impacts of climate change for at least three decades, such demands have been evaded persistently and countries of the Global North have refused to discuss any compensation of historical harm or anything that might give rise to liability (Dehm 2020). Countries of the Global North have adopted a variety of tactics to obstruct and delay any outcomes related to compensation for climate-related harm, including “limiting the scope of the issue, reducing transparency, manipulating concepts, and pushing nontransformative solutions” (Falzon et al. 2023). The issue of “loss and damage” did not appear in the program of the UNFCCC until fifteen years later, when it was included under “enhanced adaptation actions” as part of the 2007 Bali Action Plan. UNFCCC, Decision 1/CP.13 (2008), FCCC/CP/2007/6/Add.1, paras. 1(ii)–(iv).

In 2013, in a major breakthrough, the Warsaw International Mechanism for loss and damage associated with climate change impacts was established. UNFCCC, Decision 2/CP.19 (2014), FCCC/CP/2013/10/Add.1. The treatment of loss and damage was one of the controversial aspects of the Paris Outcome—the Paris Agreement and the COP21 decision that accompanied it. UNFCCC, Decision 1/CP.21 (2016), FCCC/CP/2015/10/Add.1. Article 8.1 of the Paris Agreement recognizes “[t]he importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage” (Paris Agreement, art. 8). However, the accompanying COP decision included a clause stating that Article 8 of the Paris Agreement “does not involve or provide a basis for any liability or compensation.” UNFCCC, Decision 1/CP.21 (2016), FCCC/CP/2015/10/Add.1, para. 52.

In 2022, after concerted action by climate justice organizations and groups and countries of the Global South, the international community agreed to the establishment of a funding mechanism for loss and damage. UNFCCC, Decision 2/CP.27 (2023), FCCC/CP/2022/10/Add.1. This was a historic step, a crucial victory for climate justice. However, the actual operationalization of the fund the following year, UNFCCC, Decision 1/CP.28 (2024), FCCC/CP/2023/11/Add.1, makes visible its limitations and constraints. In particular, there are no obligations imposed on historical polluters to contribute to the fund, and the amount pledged (\$661 million at the time of writing) represents less than 1 percent of the estimated \$400 billion annual costs of climate change (McDonald 2023).

Simultaneously, there is growing concern that debates about loss and damage have been “captured by dominant neoliberal climate governmentality” and that, as a result, within dominant institutions and scholarly discourses the root causes of climate harm are obscured, Western knowledge and technocratic interventions are centered in responses, and certain “colonial subjectivities” are imposed onto those impacted by climate change in the Global South (Jackson et al. 2023). Moreover, to date, most of the financing discussions within loss and damage bodies have focused on processes of prudential risk management, international support to establish new (index-based and other) insurance mechanisms, and the adoption of financial instruments such as catastrophe bonds (Dehm 2020).

The mobilization of green finance used to promote the development of insurance against climate makes visible the inherent contradictions in the “climate-development-finance nexus” (Chamberlain and Bernards 2024). James Chamberlain and Nick Bernards suggest such efforts are best understood as efforts to “navigate the contradictions engendered by global capital accumulation. . . within the constraints posed by international financial subordination” (ibid. at 15). For example, they argue that the African Risk Capacity, a climate insurance scheme, “looks like precisely the inverse of most visions of climate reparations or climate justice.” It entails a “net transfer of aid and fiscal resources to finance capital,” and provides “uncertain protection” to those most vulnerable to climate hazards (ibid. at 15). Addressing climate risk through private financing mechanisms thus “continues the historical entrenchment and subordination of economies of the Global South to the current global debt and financial architecture that is already woefully imbalanced against them” (Gathii 2024, 536). Simultaneously, such schemes represent a dangerous inversion of climate justice demands that enables the further evasion of responsibility by those who have contributed most to causing the climate crisis. They put more responsibility on those who have contributed least to cause the climate crisis and those who are also the most vulnerable to ecological harm (Dehm 2020).

Given the persistent structural barriers faced in seeking compensative or reparative justice through international climate negotiations, it is unsurprising that climate justice advocates and communities impacted by climate harm have sought other legal avenues for redress outside of the international climate regime. In the aftermath of the 2015 Paris Agreement, there has been rapid growth in climate litigation, with the number of climate change–related cases more than doubling since 2015. While the “first generation” of climate litigation primarily focused on traditional environmental law arguments—such as administrative appeals against approvals for fossil fuel mines and infrastructures—the “next generation” of climate cases has mobilized new and novel legal arguments to bring claims against public and private actors (Peel et al. 2017).

Some of these cases directly engage arguments for climate reparations, including a growing number of tort-based claims seeking compensation from fossil fuel companies for the climate impacts already being experienced by communities and individuals (Ganguly et al. 2018). However, as I describe below, these claims remain structurally shaped by limitations of property rights, given that

they are primarily based on tort doctrines, such as nuisance, that are focused on the protection of an owner's right to the use and enjoyment of their property. For example, the transnational tort case *Luciano Lliuya v. RWE AG*, brought by a Peruvian farmer against German energy giant RWE in the Essen Regional Court, is based on provisions in the German Civil Code that allow an owner to seek an injunction if their ownership is interfered with (Collins 2022; 2015). On May 28, 2025, the court dismissed the plaintiff's appeal because it found that there was no concrete danger to his property. *Luciano Lliuya v. RWE AG*, Case No. 5 U 15/17 OLD Hamm, Judgment (May 28, 2025). Although his case was dismissed, the plaintiff and his legal team celebrated the ruling as "mak[ing] legal history" because the "judges confirmed that major emitters can be held liable under German civil law for the consequences of climate change" (The Climate Case 2025). The court's legal reasoning affirmed that the German Civil Code can apply transnationally in climate cases, that RWE's emissions are globally significant, that civil liability can arise from lawful polluting activity, and that holding emitters liable does not create a competitive disadvantage but reflects a value-based legal system (Dehm 2025a). However, many other climate-vulnerable people in the Global South will not have standing to bring similar actions if they lack what Lliuya had, namely, formalized evidence of ownership of his home. Although other less property-based reparative claims have also been proposed, for example atmosphere-recovery litigation based on the public trust doctrine, such claims have not yet been legally pursued (Wood 2021).

At the international level, the question of reparations for climate harm is raised most directly by the International Court of Justice (ICJ) Advisory Opinion on *Obligations of States in Respect of Climate Change*, ICJ Rep. 2025 (July 23). The Pacific Island climate activists who spearheaded the campaign for the Advisory Opinion described it as part of "an epic battle to save planet Earth" (United Nations 2012). The advisory opinion handed down in July 2025 has been celebrated as marking the start of a "new era of climate reparations" (Narulla 2025). One of the most significant aspects of the ICJ's advisory opinion is the court's affirmation of the applicability of broader principles of general international law to the climate crisis, including the duty to prevent significant harm to the environment and general rules on state responsibility (Wewerinke-Singh 2025). However, even as the ICJ opened the door to climate reparations, it was evasive on the key temporal questions that are central to any future claims about reparations owed by individual countries for their historical greenhouse gas emissions (Dehm 2025b). Thus, even as the advisory opinion opens the door to potential future claims for climate reparations, it also highlights the many still-existing legal hurdles that such claims would face (*ibid.*).

Despite this important opening, there are still formidable obstacles to *in concreto* international legal claims for historic responsibility for climate change, and the operation of the "no-harm" rule arguably reproduces some of these barriers. Legal mechanisms are most apt at addressing individualized, quantifiable harm and its proximate causes, and are ill-equipped to address structural injustice. Legal requirements to demonstrate foreseeability can limit remedies to harms caused knowingly. They can exclude responsibility for emissions prior to a certain date, even though industrialized nations still benefit from, and arguably were unjustly enriched by, emitting activities.

Legal requirements to show specific causation cannot properly grapple with the temporally expansive, global, environmental, cumulative, and collective dimensions of climate change. The difficulties that claims for historical emissions face in demonstrating all elements of the duty to prevent significant harm to the climate system, including meeting all the evidentiary requirements, do not indicate an inherent "weakness" in these claims (Mason-Case and Dehm 2021). Rather, they highlight how the doctrines of international law are themselves often still implicated in historical harms, and thus inadequate for properly remedying the complex harms arising from cumulative, historical emissions.

Arguably, one of the key underlying reasons why the “no-harm” rule provides only a limited and very constrained tool for promoting climate reparations is that it, too, is structurally constrained by the logic of property. The “no-harm” rule was first articulated in relation to the environment in the 1941 *Trail Smelter* arbitration. The oft-cited ruling states that “under the principles of international law. . . no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.” *Trail Smelter Arbitration (United States v. Canada)* (1931–41), 3 RIAA 1905, 1965. This principle has subsequently been recognized as a customary norm of international law, preventing transboundary pollution, and has become “the fundamental building block of a system of international environmental protection” (Mickelson 1994, 220). However, despite the significance of this case, it is rare to see scholarly accounts that critically engage with the facts, circumstances, and context of the dispute. Instead, the case is reduced to “simplistic and abstract statements of principles” (*ibid.* at 224).¹⁰

Recent scholarship highlights the importance of critically revisiting this case. Sigrid Boysen argues that *Trail Smelter*, far from being the celebrated origin of international environmental law, is better understood as its “original sin,” given how the case has grounded international environmental principles on what is basically a property norm (Boysen 2021; Venzke 2022; Kulamadayil 2022). What the arbitration essentially did was transpose to the transnational level the domestic tort of nuisance, which protects property owners’ right to the quiet enjoyment of their property. The applicable standard is derived from the Latin maxim *sic utere tuo ut alienum non laedas*—use your own property so as not to harm that of another (Mickelson 1994, 220).

In particular, revisiting the facts and context of *Trail Smelter* shows how the arbitration tribunal framed damage in a very constrained and limited way—as economic damage or damage to property. This framing potentially has ongoing implications, especially for the racialized communities most vulnerable to the impacts of climate change. The *Trail Smelter* arbitration arose out of the sulfur dioxide pollution generated by a smelter operated by the Consolidated Mining and Smelting Company of Canada Limited, located in Trail, British Columbia, on the Columbia River, about eleven miles from the international border with the United States (Read 1963, 213). Initially, Canada and the United States sought to resolve the dispute through negotiations and established an International Joint Commission to evaluate and quantify the damage caused. Based on the commission’s report, Canada paid US\$350,000 in damages to the United States. However, the dispute persisted because the pollution, and resulting harm, continued.

In 1935, a special agreement was reached between the parties, Convention for the Settlement of Difficulties Arising from Operation of Smelter at Trail, British Columbia,¹¹ under which they agreed to constitute a tribunal (art. I) and set out the questions the tribunal was to decide (art. III) as well as other procedural matters. Critically, the parties specified that the tribunal should apply the law and practice of the United States as well as international law and practice (art. IV). The choice of United States law, rather than Canadian law, as the law applicable to the dispute was both deliberate and driven by a shared concern by both parties that Canadian nuisance law precedents were more “unfavourable to industrial enterprise,” while US precedents were perceived

¹⁰ Karin Mickelson’s contextual reading of the case foregrounds that “the quest for political and economic advantage’ plays a major, if not predominant, role in disputes of this kind” (Mickelson 1994, 232). She identifies four factors that were of crucial importance in determining the case: (1) “the importance of there being a clearly identified source of damage as well as clearly established harm”; (2) the perception of both sides that significant interests were at stake in the dispute; (3) that both sides realized that the risk of transboundary damage from industrial sources was reciprocal; and (4) an established history of cooperation between the two countries (*ibid.* at 227–29).

¹¹ U.S.-Can., Apr. 15, 1935, 1935 U.N.T.S. 74.

as “much more evenly balanced in their effect on industrial and agricultural enterprise” (Read 1963, 227).

The tribunal’s opening statement demonstrates a keen awareness that the role of the parties could easily be reversed, and that both parties had a shared interest in ensuring that “indemnity to damaged parties for proven damage shall be just and adequate,” but also that “unproven or unwarranted claims shall not be allowed.” *Trail Smelter Arbitration*, 3 RIAA at 1939. The tribunal’s decision recognized that it would not be advantageous to either party that “industrial effort should be prevented by exaggerating the interests of the agricultural community,” nor that the “agricultural community should be oppressed to advance the interest of industry” (*ibid.* at 1939). Thus, rather than developing a principle that would clearly prohibit pollution above specified thresholds, the tribunal sought to promote a delicate balance between industrial interests and interests in limiting pollution. This uneasy balance between the pursuit of industrial development and obligations to limit environmental harm has structured international environmental law.¹²

In considering the choice of law, however, the tribunal did not refer to the Special Agreement but rather determined that the “law followed in the United States in dealing with. . . the matter of air pollution. . . is in conformity with the general rules of international law.” *Trail Smelter Arbitration*, 3 RIAA at 1963. After noting that no decisions of an international tribunal relating to air pollution, or even water pollution, had been cited or even identified, it stated that “[t]here are. . . certain decisions of the Supreme Court of the United States which may be legitimately taken as a guide in this field of international law, for it is reasonable to follow by analogy, in international cases, precedents established by that court” (*ibid.* at 1964). The tribunal’s famous and oft-cited statement of principle—which has become foundational for international environmental law—was directly based on the (industry-friendly) principles of United States nuisance law. Specifically, in defining damage and delimiting the extent to which damages were recoverable, the tribunal referred to “decisions of the courts of the United States in suits between private individuals” (1966). The reliance on these precedents meant that the tribunal adopted a very narrow understanding of damage as “only things for which pecuniary loss could be proven,” thereby dismissing other intangible forms of injury (Rubin 1971, 261, 265).

In his analysis of the decision, Alfred Rubin suggests that relying on the more industry-favorable United States precedents meant that the decision “favors the polluter in continuing his polluting activities to continue as long as they do not cause ‘damage’ in the sense of direct injury measurable in money terms to the industrial or agricultural production of a second state” (Rubin 1971, 263). He is concerned that the case thus implies “that general international law permits a state to fail to regulate injurious effusions that drift into the territory of a second state, as long as the damage done is not directly translatable into a provable cash sum” (*ibid.* at 265). While the “no-harm” rule in international law has evolved since the *Trail Smelter* arbitration, the implicit proprietary logic arguably continues to influence how harm that needs to be prevented and compensated for is conceptualized.

Another potential hopeful avenue for seeking reparations for climate harm is human rights–based litigation seeking compensation for loss and damage (Wewerinke-Singh 2023). Margaretha Wewerinke-Singh analyzes rights-based climate litigation aimed at addressing loss and damage and seeking legal remedies including monetary compensation, corporate accountability, and addressing climate-induced displacement (*ibid.*). A number of such cases are pending in different jurisdictions, and Wewerinke-Singh is optimistic that they “reflect a move in climate litigation towards holding

¹² Koskeniemi (1984); see also Declaration of the United Nations Conference on the Human Environment, UN Doc. A/CONF.48/14/Rev.1 (1972), principle 21; Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26 (vol. I) (1992).

historical polluters accountable for loss and damage based on human rights” (552). However, she is also alert to ongoing challenges, including the barrier posed in some jurisdictions by the requirement to demonstrate “actual injury” or some form of economic loss. While there have, to date, been some “significant normative advancements and institutional breakthroughs,” these have, she notes, “fallen short of providing tangible redress for victims” due to both the “still-maturing state of rights-based climate litigation” and the “difficulties in translating legal principles into effective remedies in a complex, multi-jurisdictional and politically charged context” (552).

One of the few human rights cases where reparative remedy was awarded was *Billy v. Australia*, where the Human Rights Committee found Australia had violated Indigenous Torres Strait Islanders’ rights to family life and culture by failing to take adequate adaptation measures (Human Rights Committee 2022). The decision is highly significant as it was the “first time an international human rights body established state responsibility for human rights violations resulting from climate change impacts, and directed the state to make ‘full reparations’ to the victims” (Wewerinke-Singh 2023, 558). However, it is significant that the decision only found violations based on Australia’s failure to take adequate adaptation measures and did not discuss violations arising from Australia’s failure to take adequate mitigation measures. As such, it represents a “lost opportunity” (Voigt 2022) to develop human rights jurisprudence to address the legal responsibility of historical and ongoing polluters. Instead, a focus on adaptation measures—while undoubtably necessary—imposes obligations primarily on highly vulnerable and often financially constrained countries of the Global South. Philip Alston has harshly critiqued human rights bodies for evading issues of mitigation—“the issue of greatest importance for reversing the current trajectory”—and instead being “far more comfortable in addressing adaptation, impacts on particular groups and procedural rights than confronting the core causes of climate change itself” (Alston 2019, para. 24).

This focus on adaptation measures, rather than mitigation measures, reflects a broader tendency of human rights frameworks to avoid demanding structural changes to the international political and economic conditions necessary to realize human rights and instead focuses on state responsibility for human rights realization domestically. Similar dynamics have been observed in how human rights responded to the problem of economic inequality. In the 1970s, countries of the Global South argued that addressing global inequalities and structural injustice is a prerequisite for the realization of human rights, especially economic and social rights. Domestically, by the 1980s and 1990s, such arguments had been defeated and a more “individual” and less “structural” vision of human rights was institutionalized (Dehm 2018a; 2019).

At the heart of the tension between a more liberal tradition of human rights, focused on individual freedom, and a more counterliberal tradition of human rights, which has been much more attentive to how free markets and global trade relations pose threats to the effective enjoyment of human rights, is arguably the controversial question of a “right to property” (Lang 2011, chap. 2). The status of a “right to property” has been a key point of contention between these traditions. The right was included in the Universal Declaration of Human Rights (art. 17), but deliberately excluded from the International Covenants. In the late 1980s and early 1990s, the right to own property was affirmed in a series of human rights resolutions¹³ and experts argued that protection of the right to property was a central human rights concern and necessary for the realization of other rights (Rodríguez 1992; 1993). The right to property has been mobilized strategically to assert

¹³ GA Res. 41/132, UN Doc. A/41/925 (Dec. 4, 1986) (“Respect for the Right of Everyone to Own Property Alone as Well as in Association with Others and Its Contribution to the Economic and Social Development of Member States”); GA Res 45/98, UN Doc. A/RES/45/98 (Dec. 14, 1990) (“Respect for the Right of Everyone to Own Property Alone as Well as in Association with Others and Its Contribution to the Economic and Social Development of Member States”).

claims to land by Indigenous peoples, especially in the Inter-American human rights system (Engle 2010). However, the elevation of a “right to property” in the post–Cold War period also helped consolidate more neoliberal “trade-related, market-friendly human rights” (Baxi 2002, 132). It is not a stretch to say that the degree to which human rights law is capable of offering truly transformative and reparative responses to climate damages depends on the extent to which the human rights institutions, discourses, and imagination remain shackled by the constraints imposed by a logic of property, or the extent to which they can exceed and contest them.

This analysis foregrounds how international legal norms deployed to promote climate reparations, including transnational torts, the no-harm rule, and human rights remedies, are all to some degree constrained by a property logic. In a world structured by racial capitalism, where the distribution of property rights is highly unequal due to a violent history of colonial dispossession of Indigenous peoples and racialized land laws, relying on property norms to promote climate reparations will structurally disadvantage racialized peoples. As Tony Anghie argues, “Any discussion of reparations must begin by engaging with the process by which the world was transformed into property and by confronting the historical fact of the unprecedented dispossession that followed” (Anghie 2023, 90).

Additionally, the history of nuisance law cannot be told separately from the history of industrial pollution, with scholars noting how doctrinal changes made such pollution permissible (Antolini 2001; Garrells 2009). When nuisance law becomes subject to a utilitarian logic (Epstein 1979), it favors industrial development over corrective or racial justice. Moreover, there is a long history of property law torts such as nuisance being invoked to “exclude Blacks from spaces racialized as ‘white’” (Henderson and Jefferson-Jones 2020, 863; Godsil 2006). Relying on the proprietary logic of property in seeking remedies for climate harm reinforces rather than ameliorates the history of racialized, colonial dispossession and the inequalities of racialized regimes of property.

A transformative approach to climate reparations must thus foreground the *harms of dispossession*, rather than *harms to property*, in order to promote genuine reparations that contest rather than reinforce structural racism. This recognition that “contemporary international legal principles [may] present barriers to historical responsibility for climate change” highlights the need to, as former Special Rapporteur on contemporary forms of racism Tendayi Achiume recommended, “decolonize or transform this law” (Achiume 2022, para. 78). Similarly, Indigenous philosopher Kyle Powys Whyte has argued that because the “political relations established through settler colonialism are closely coupled with the infliction of anthropogenic environmental change” and these political relations simultaneously undermine Indigenous peoples’ cultural and political capacities to adapt to climate change, settler-colonial states have an obligation to acknowledge how harmful these current political relations are and “support stable and evolving respect for Indigenous self-determination” (Whyte 2021, 241). That is, reparations for loss and damage entail “political reconciliation,” including by reworking political relations frameworks such as treaties, in order to “radically repair the political relationships that the inflicted anthropocentric environmental change on Indigenous peoples” (ibid. at 241).

VII. Conclusion

This article seeks to draw attention to the legal architecture underpinning the way in which racial capitalism produces, distributes, and profits from climate harm and how racialized regimes of property rights structure the political economy of climate change. Three examples explore various ways in which racialized regimes of property produce and reproduce climate injustice.

First, the article shows how the historical appropriation of atmospheric space by countries of the Global North replicates and repeats colonial processes of appropriation, thereby denying racialized and colonized peoples around the world the capacity to determine their own development pathways and ensuring that the initial property allocation in the new carbon economy was structured by relations of inequality and dependency.

Second, it shows how international investment law, which works to maintain neocolonial relations, has continually expanded the category of property to protect and secure the right of (white) capital and is now operating to protect the interests of fossil capital. Against this background, the international legal frameworks used to address the harm of climate change, which were developed through direct analogies with the property tort of nuisance, are completely inadequate for addressing the racialized violence of climate change as they do not address the background legal questions of what harms are considered a harm to property, what rights and entitlements are considered property, and how such proprietary interests have been distributed.

The examples highlight both how the legal protection of property is preventing just and effective climate responses and how property regimes work to continually reproduce racial difference and racial inequality.

It is, therefore, unsurprising that in divergent strands of scholarship on racialized regimes of property, on Indigenous resurgence, and on ecological jurisprudence there is a converging argument about the need for property, as a legal form, to be radically reconceptualized. Property theorist Margaret Davies writes that “[r]e-forming property as an idea, a practice, and an institution in a way that is materially responsive and (for land) situated in space is one of the most significant adjustments required for a more resilient and sustainable social-ecological future” (Davies 2021, 15). These insights are echoed by other property scholars. Jill Fraley argues that property rights are “the single largest limitation on our ability to respond effectively to the climate crisis” (Fraley 2020, 94). Péter Szigeti suggests that because “property law holds the key to an ecologically respectful economy system,” the “starting point for the ecologization of law should be property law” (Szigeti 2021, 47–48). Others have highlighted how transforming international law for a more livable world will already require contending with legal protection of intellectual property, including reshaping the form of the patent (Saunders 2025).

Much of this critical scholarship on property draws explicitly on Indigenous struggles and Indigenous jurisprudence. For example, Margaret Davies, Lee Godden, and Nicole Graham suggest reimagining property “within a framework of habitat,” a project they see as inherently aligned with decolonization (Davies et al. 2021, 31). Indigenous jurists have sought to teach non-Indigenous scholars not to think about “struggles over land only as conflicts over property and/or territory” but rather “as struggles over the very meaning of the relationship between human societies and the broader ecological worlds in which they are situated” (Nichols 2020, 151). The legal structure of ownership of “land-as-property” entails a violent disembedding from place and physical entanglements, whereas land is necessarily “specific and unique, not universal and common” (Liboiron 2021, 46). The diverse and varied Indigenous jurisprudence thus offers ways of understanding land not as “property” but as a rationality that sustains relations of culture, belonging, obligation, and law (Black 2010).

Michi Saagiig Nishnaabeg scholar Leanne Simpson writes that “[t]he opposite of dispossession is not possession, it is deep, reciprocal, consensual attachment. . . . This is our power” (Simpson 2017, 43). In learning from other forms of law focused on relationality and responsibility, rather than rights and ownership, we might find ways to break free from the legal form of property and, in doing so, “break with the political order sustained by racial capitalism” (Bhandar 2018, 199)

while fostering more ecologically just modes of engagement. In the face of the ecological crisis, the difficult question of “how to collectively create the conditions for turning away from property as we know it” (ibid. at 200) is more urgent than ever.

REFERENCES

- Abimbola, Olumide, Joshua Kwesi Aikins, Tselane Makhesi-Wilkinson, and Erin Roberts. 2021. “Racism and Climate (In)Justice: How Racism and Colonialism Shape the Climate Crisis and Climate Action.” Heinrich Böll-Stiftung. <https://us.boell.org/en/2021/03/19/racism-and-climate-injustice-0?s=09>.
- Achiume, E. Tendayi. 2019. *Report of the Special Rapporteur on Contemporary Forms of Racism, Racial Discrimination, Xenophobia and Related Intolerance*. UN Doc. A/74/321, August 21. <https://digitallibrary.un.org/record/3827500?ln=en&v=pdf>.
- Achiume, E. Tendayi. 2022. *Ecological Crisis, Climate Justice and Racial Justice*. UN Doc. A/77/549, October 25. <https://www.ohchr.org/en/documents/thematic-reports/a77549-report-special-rapporteur-contemporary-forms-racism-racial>.
- Adkins, Lisa, Melinda Cooper, and Martijn Konings. 2022. “The Asset Economy: Conceptualizing New Logics of Inequality.” 23 *Journal of Social Theory* 15.
- Alam, Shawkat, Sumudu Atapattu, Carmen G. Gonzalez, and Jona Razzaque, eds. 2015. *International Environmental Law and the Global South*. Cambridge University Press.
- Alston, Philip. 2019. *Climate Change and Poverty: Report of the Special Rapporteur on Extreme Poverty and Human Rights*. UN Doc. A/HRC/41/39, July 16. <https://www.ohchr.org/en/documents/thematic-reports/ahrc4139-climate-change-extreme-poverty-and-human-rights-report>.
- Anghie, Antony. 2007. *Imperialism, Sovereignty and the Making of International Law*. Cambridge University Press.
- Anghie, Antony. 2023. “Rethinking International Law: A TWAIL Retrospective.” 34 *European Journal of International Law* 7. <https://doi.org/10.1093/ejil/chad005>.
- Antolini, Denise E. 2001. “Modernizing Public Nuisance: Solving the Paradox of the Special Injury Rule.” 28 *Ecology Law Quarterly* 755. <https://doi.org/10.15779/Z38P82S>.
- Arcuri, Alessandra. 2023. “On How the ECT Fuels the Fossil Fuel Economy: Rockhopper v Italy as a Case Study.” 7 *Europe and the World: A Law Review* 1. <https://doi.org/10.14324/111.444.ewlj.2023.03>.
- Arcuri, Alessandra, Kyla Tienhaara, and Lorenzo Pellegrini. 2024. “Investment Law v. Supply-Side Climate Policies: Insights from *Rockhopper v. Italy* and *Lone Pine v. Canada*.” 24 *International Environmental Agreements: Politics, Law and Economics* 193. <https://doi.org/10.1007/s10784-023-09622-w>.

- Baer, Paul, Glenn Fieldman, Tom Athanasiou, and Sivan Kartha. 2008. "Greenhouse Development Rights: Towards an Equitable Framework for Global Climate Policy." 21 *Cambridge Review of International Affairs* 649.
- Baxi, Upendra. 2002. *The Future of Human Rights*. 2nd ed. Oxford University Press.
- Bhambra, Gurminder K., and Peter Newell. 2022. "More than a Metaphor: 'Climate Colonialism' in Perspective." 2 *Global Social Challenges Journal* 179. <https://doi.org/10.1332/EIEM6688>.
- Bhandar, Brenna. 2018. *Colonial Lives of Property: Law, Land, and Racial Regimes of Ownership*. Duke University Press.
- Bhattacharyya, Gargi. 2018. *Rethinking Racial Capitalism: Questions of Reproduction and Survival*. Rowman & Littlefield.
- Birch, Kean, and Fabian Muniesa. 2020. "Introduction: Assetization and Technoscientific Capitalism." In *Assetization: Turning Things into Assets in Technoscientific Capitalism*, edited by Kean Birch and Fabian Muniesa, 1. MIT Press.
- Birrell, Kathleen, and Julia Dehm. 2021. "International Law and the Humanities in the Anthropocene." In *Routledge Handbook of International Law and the Humanities*, edited by Shane Chalmers and Sundhya Pahuja, 407. Routledge.
- Black, Christopher F. 2010. *The Land Is the Source of the Law: A Dialogic Encounter with Indigenous Jurisprudence*. Routledge-Cavendish.
- Blomley, Nicholas. 2022. *Territory: New Trajectories in Law*. Routledge.
- Bouckaert, Stéphanie, Araceli Fernandez Pales, Christophe McGlade, et al. 2021. *Net Zero by 2050: A Roadmap for the Global Energy Sector*. International Energy Agency. <https://www.iea.org/reports/net-zero-by-2050>.
- Boyd, David. 2023. *Paying Polluters: The Catastrophic Consequences of Investor-State Dispute Settlement for Climate and Environment Action and Human Rights*. UN Doc. A/78/168, July 13. <https://www.ohchr.org/en/documents/thematic-reports/a78168-paying-polluters-catastrophic-consequences-investor-state-dispute>.
- Boyd, Emily, Nate Hultman, J. Timmons Roberts, et al. 2009. "Reforming the CDM for Sustainable Development: Lessons Learned and Policy Futures." 12 *Environmental Science and Policy* 820.
- Boysen, Sigrid. 2021. *Die Postkoloniale Konstellation: Natürliche Ressourcen und das Völkerrecht der Moderne* [The Postcolonial Constellation: Natural Resources and Modern International Law]. Mohr Siebeck.
- Bullard, Robert D. 1993. *Confronting Environmental Racism: Voices from the Grassroots*. South End Press.
- Bullard, Robert D. (1990) 2018. *Dumping in Dixie: Race, Class, and Environmental Quality*. Routledge.

Bumpus, Adam G., and Diana M. Liverman. 2008. "Accumulation by Decarbonization and the Governance of Carbon Offsets." 84 *Economic Geography* 127.

Butler, Lynda L. 2022. "Property, Climate Change, and Accountability." In *The Routledge Handbook of Property, Law and Society*, edited by Nicole Graham, Margaret Davies, and Lee Godden, 287. Routledge.

Byrd, Jodi A., Alyosha Goldstein, Jodi Melamed, and Chandan Reddy. 2018. "Predatory Value: Economies of Dispossession and Disturbed Relationalities." 36 *Social Text* 1. https://epublications.marquette.edu/english_fac/519.

Cames, Martin, Ralph O. Harthan, Jürg Füssler, Michael Lazarus, Carrie M. Lee, Pete Erickson, and Randall Spalding-Fecher. 2016. *How Additional Is the Clean Development Mechanism? Analysis of the Application of Current Tools and Proposed Alternatives*. Study prepared for DG CLIMA. https://climate.ec.europa.eu/system/files/2017-04/clean_dev_mechanism_en.pdf.

Campbell, David, Matthias Klaes, and Christopher Bignell. 2010. "After Copenhagen: The Impossibility of Carbon Trading." LSE Law, Society and Economy Working Paper No. 22. https://eprints.lse.ac.uk/32841/1/WPS2010-22_CambellandKlaesandBignell.pdf.

Carney, Simon. 2016. *Climate Change, Equity and Stranded Assets*. Oxfam. <https://policy-practice.oxfam.org/resources/climate-change-equity-and-stranded-assets-620779/>.

Carrington, Damian. 2022. "Revealed: Oil Sectors 'Staggering' \$3bn-a-Day Profits for Past 50 Years." *Guardian*, July 21. <https://www.theguardian.com/environment/2022/jul/21/revealed-oil-sectors-staggering-profits-last-50-years>.

Chamberlain, James, and Nick Bernards. 2024. "Insurance and the Contradictions of the Climate-Development-Finance Nexus: The Case of the African Risk Capacity." *Competition & Change*, ahead of print, January 11. <https://doi.org/10.1177/10245294241226985>.

Childs, Mike. 2012. "Privatising the Atmosphere: A Solution or Dangerous Con?" 12(1/2) *ephemera: theory and politics in organization* 12.

Chimni, Bhupinder S. 2004. "International Institutions Today: An Imperial Global State in the Making." 15 *European Journal of International Law* 1. <https://doi.org/10.1093/ejil/15.1.1>.

Cohen, Morris R. 1927. "Property and Sovereignty." 13 *Cornell Law Quarterly* 8. <http://scholarship.law.cornell.edu/clr/vol13/iss1/3>.

Cole, Felipe Ford. 2022. "Race and the History of International Investment Law." *University of Chicago Law Review Online*, March 2. <https://lawreview.uchicago.edu/online-archive/race-and-history-international-investment-law>.

Colgan, Jeff D., Jessica F. Green, and Thomas N. Hale. 2021. "Asset Revaluation and the Existential Politics of Climate Change." 75 *International Organization* 586. <https://doi.org/10.1017/S0020818320000296>.

Collins, Dan. 2015. "Peruvian Farmer Demands Climate Compensation from German Company." *Guardian*, March 15.

<http://www.theguardian.com/environment/2015/mar/16/peruvian-farmer-demands-climate-compensation-from-german-company>.

Collins, Dan. 2022. "German Judges Visit Peru Glacial Lake in Unprecedented Climate Crisis Lawsuit." *Guardian*, May 27. <https://www.theguardian.com/environment/2022/may/27/peru-lake-palcacocha-climate-crisis-lawsuit>.

Crutzen, Paul J. 2002. "Geology of Mankind." 415 *Nature* 23.

Davies, Margaret. 2007. *Property: Meanings, Histories, Theories*. Routledge.

Davies, Margaret. 2021. "Re-Forming Property to Address Eco-Social Fragmentation and Rift." 12 *Journal of Human Rights and the Environment* 13.

Davies, Margaret, Lee Godden, and Nicole Graham. 2021. "Situating Property Within Habitat: Reintegrating Place, People, and Law." 6 *Journal of Law, Property, and Society* 1. <https://www.bit.ly/JLPS-DaviesGoddenGraham>.

De Jong, Irthe J. M. 2024. "Beyond the Turn to Human Rights: A Call for an Intersectional Climate Justice Approach." 28 *The International Journal of Human Rights* 738. <https://doi.org/10.1080/13642987.2023.2297315>.

Dehm, Julia. 2016. "Carbon Colonialism or Climate Justice: Interrogating the International Climate Regime from a TWAIL Perspective." 33 *Windsor Yearbook of Access to Justice* 129. <https://doi.org/10.22329/wyaj.v33i3.4893>.

Dehm, Julia. 2018a. "Highlighting Inequalities in the Histories of Human Rights: Contestations over Justice, Needs and Rights in the 1970s." 31 *Leiden Journal of International Law* 871.

Dehm, Julia. 2018b. "One Tonne of Carbon Dioxide Equivalent (1tCO₂e)." In *International Law's Objects*, edited by Jessie Hohmann and Daniel Joyce, 305. Oxford University Press.

Dehm, Julia. 2018c. "Reflections on Paris: Thoughts Towards a Critical Approach to Climate Law." 1 *Revue Québécoise de Droit International* 61. <https://doi.org/10.7202/1067014ar>.

Dehm, Julia. 2019. "Righting Inequality: Human Rights Responses to Economic Inequality in the United Nations." 10 *Humanity: An International Journal of Human Rights, Humanitarianism, and Development* 443.

Dehm, Julia. 2020. "Climate Change, 'Slow Violence' and the Indefinite Deferral of Responsibility for 'Loss and Damage.'" 29 *Griffith Law Review* 220.

Dehm, Julia. 2021. *Reconsidering REDD+: Authority, Power and Law in the Green Economy*. Cambridge University Press.

Dehm, Julia. 2023a. "Beyond Climate Due Diligence: Fossil Fuels, 'Red Lines' and Reparations." 8 *Business and Human Rights Journal* 151. <https://doi.org/10.1017/bhj.2023.30>.

Dehm, Julia. 2023b. "Legally Constituting the Value of Nature: The Green Economy and Stranded Assets." In *Constitutions of Value: Law, Governance, and Political Ecology*, edited by Isabel Feichtner and Geoff Gordon, 255. Routledge.

Dehm, Julia. 2025a. "Who Receives Reparations in the Context of Climate Change: Conflicting International Legal Claims." 119 *AJIL Unbound* 128. <https://doi.org/10.1017/aju.2025.10012>.

Dehm, Julia. 2025b. "The Evasion of Historical Responsibility? Colonialism, Temporality and Reparative Justice in the ICJ's Climate Advisory Opinion." *Verfassungblog* (blog). September 4. <https://doi.org/10.59704/fe7cf23ab4288541>.

Dietrich, Christopher R. W. 2017. *Oil Revolution: Anticolonial Elites, Sovereign Rights, and the Economic Culture of Decolonization*. Cambridge University Press.

Engels, Friedrich. 2001. *The Origin of the Family, Private Property and the State*. Wellred Books.

Engle, Karen. 2010. *The Elusive Promise of Indigenous Development: Rights, Culture, Strategy*. Duke University Press.

Epstein, Richard A. 1979. "Nuisance Law: Corrective Justice and Its Utilitarian Constraints." 8 *Journal of Legal Studies* 49.

Estes, Nick. 2019. *Our History Is the Future: Standing Rock Versus the Dakota Access Pipeline, and the Long Tradition of Indigenous Resistance*. Verso Books.

Evans, Simon. 2021. "Analysis: Which Countries Are Historically Responsible for Climate Change?" *CarbonBrief*, October 5. <https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/>.

Falzon, Danielle, Fred Shaia, J. Timmons Roberts, et al. 2023. "Tactical Opposition: Obstructing Loss and Damage Finance in the United Nations Climate Negotiations." 23 *Global Environmental Politics* 95. https://doi.org/10.1162/glep_a_00722.

Federici, Silvia. 2004. *Caliban and the Witch*. Autonomedia.

Felli, Romain. 2014. "On Climate Rent." 22 *Historical Materialism* 251.

Fernández, Araceli, and Thomas Spencer. 2023. *Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach*. International Energy Agency. <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach>.

Folkers, Andreas. 2020. "Air-Appropriation: The Imperial Origins and Legacies of the Anthropocene." 23 *European Journal of Social Theory* 611. <https://doi.org/10.1177/1368431020903169>.

Fraleay, Jill M. 2020. "Climate Change, Sustainability, and the Failure of Modern Property Theory." 104 *Marquette Law Review* 93. <https://scholarlycommons.law.wlu.edu/wlufac/655/>.

Franta, Benjamin. 2021. *Early Oil Industry Disinformation on Global Warming*. Taylor & Francis.

Ganguly, Geetanjali, Joana Setzer, and Veerle Heyvaert. 2018. "If at First You Don't Succeed: Suing Corporations for Climate Change." 38 *Oxford Journal of Legal Studies* 841. <https://doi.org/10.1093/ojls/gqy029>.

- Garrells, Mandy. 2009. "Raising Environmental Justice Claims Through the Law of Public Nuisance." 20 *Villanova Environmental Law Journal* 163. <https://digitalcommons.law.villanova.edu/elj/vol20/iss2/1>.
- Gathii, James Thuo. 2024. "Financing Climate Change Through a Racial Capitalism Lens." 41 *Wisconsin International Law Journal* 521. <https://doi.org/10.59015/wilj.MPJZ4503>.
- Gathii, James Thuo, and Ntina Tzouvala. 2022. "Racial Capitalism and International Economic Law: Introduction." 25 *Journal of International Economic Law* 199. <https://doi.org/10.1093/jiel/jgac025>.
- Ghosh, Emily, Anisha Nazareth, Eric Kemp-Benedict, and Sivan Kartha. 2023. *Climate Equality: Addressing Emissions Inequality for a Sustainable Future*. Stockholm Environment Institute. <https://policycommons.net/artifacts/8883550/climate-equality/9735269/>.
- Gilmore, Ruth Wilson. 2007. *Golden Gulag: Prisons, Surplus, Crisis, and Opposition in Globalizing California*. University of California Press.
- Godsil, Rachel D. 2006. "Race Nuisance: The Politics of Law in the Jim Crow Era." 105 *Michigan Law Review* 505. <https://repository.law.umich.edu/mlr/vol105/iss3/2>.
- Gonzalez, Carmen G. 2020. "Racial Capitalism and the Anthropocene." In *The Cambridge Handbook of Environmental Justice and Sustainable Development*, edited by Sumudu A. Atapattu, Camren G. Gonzalez, and Sara L. Seck, 72. Cambridge University Press.
- Gonzalez, Carmen G. 2021. "Racial Capitalism, Climate Justice, and Climate Displacement." 11 *Oñati Socio-Legal Series* 108. <https://doi.org/10.35295/osls.iisl/0000-0000-0000-1137>.
- Gonzalez, Carmen G. 2024. "Racial Capitalism, Climate Change, and Ecocide." 41 *Wisconsin International Law Journal* 479. <http://dx.doi.org/10.59015/wilj.VCPQ4704>.
- Gonzalez, Carmen G., and Athena Mutua. 2022. "Mapping Racial Capitalism: Implications for Law." 2 *Journal of Law and Political Economy* 127. <http://dx.doi.org/10.5070/LP62258224>.
- Graham, Nicole. 2010. *Landscape: Property, Environment, Law*. Routledge.
- Grear, Anna. 2015. "Deconstructing Anthropos: A Critical Legal Reflection on 'Anthropocentric' Law and Anthropocene 'Humanity.'" 26 *Law and Critique* 225.
- Green, Fergus, Olivier Bois Von Kursk, Greg Muttitt, and Steve Pye. 2024. "No New Fossil Fuel Projects: The Norm We Need." 384 *Science* 954.
- Guha, Ramachandra, and Joan Martínez-Alier. 2013. *Varieties of Environmentalism: Essays North and South*. Routledge.
- Harris, Cheryl I. 1993. "Whiteness as Property." 106 *Harvard Law Review* 1707. <https://harvardlawreview.org/print/no-volume/whiteness-as-property/>.

Hausfather, Zeke, and Pierre Friedlingstein. 2022. "Analysis: Global CO2 Emissions from Fossil Fuels Hit Record High in 2022." *CarbonBrief*, November 11. <https://www.carbonbrief.org/analysis-global-co2-emissions-from-fossil-fuels-hit-record-high-in-2022/>.

Heede, Richard. 2014. "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010." 122 *Climatic Change* 229. <https://doi.org/10.1007/s10584-013-0986-y>.

Henderson, Taja-Nia Y., and Jamila Jefferson-Jones. 2020. "# LivingWhileBlack: Blackness as Nuisance." 69 *American University Law Review* 863. <https://digitalcommons.wcl.american.edu/aulr/vol69/iss3/3>.

Hickel, Jason. 2020. "Quantifying National Responsibility for Climate Breakdown: An Equality-Based Attribution Approach for Carbon Dioxide Emissions in Excess of the Planetary Boundary." 4 *The Lancet Planetary Health* e399. [https://doi.org/10.1016/S2542-5196\(20\)30196-0](https://doi.org/10.1016/S2542-5196(20)30196-0).

Human Rights Committee. 2022. "Views Adopted by the Committee Under Article 5(4) of the Optional Protocol, Concerning Communication No 3624/2019." UN Doc. CCPR/C/135/D/3624/2019, September 22.

Indigenous Environmental Network. 2009a. "Indigenous Peoples' Guide: False Solutions to Climate Change."

Indigenous Environmental Network. 2009b. "No to CO2onialism! Indigenous Peoples' Guide: False Solutions to Climate Change." <http://www.uky.edu/~tmute2/nature-society/password-protect/nature-society-pdfs/Indigenous-Peoples-Guide-Env.pdf>.

Intergovernmental Panel on Climate Change. 2023. "Summary for Policymakers." In *Climate Change 2023: Synthesis Report*. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, edited by Core Writing Team, H. Lee, and J. Romero. IPCC.

Ireland, Paddy. 2024. *Property in Contemporary Capitalism*. Bristol University Press.

Jackson, Guy, Alicia N'Guetta, Salvatore Paolo De Rosa, et al. 2023. "An Emerging Governmentality of Climate Change Loss and Damage." 2 *Progress in Environmental Geography* 33. <https://doi.org/10.1177/27539687221148748>.

Kelley, Robin D. G. 2023. "Racial Capitalism: An Unfinished History." 46 *Ethnic and Racial Studies* 3562.

Khalfan, Ashfaq. 2023. *Climate Equality: A Planet for the 99%*. Oxfam. <https://policy-practice.oxfam.org/resources/climate-equality-a-planet-for-the-99-621551/>.

Knox, Robert. 2023. "International Law, Race, and Capitalism: A Marxist Perspective." 117 *American Journal of International Law* 55. <https://doi.org/10.1017/aju.2023.5>.

Knox, Robert, and Ashok Kumar. 2023. "Reexamining Race and Capitalism in the Marxist Tradition." 31 *Historical Materialism* 25. <https://doi.org/10.1163/1569206x-bja10012>.

Koskenniemi, Martti. 1984. *International Pollution in the System of International Law*. Suomalainen Lakimiesyhdistys.

Kulamadayil, Lys. 2022. "Placed in Between: The Natural Environment in International Law." 13 *Transnational Legal Theory* 466.

Lang, Andrew. 2011. *World Trade Law After Neoliberalism: Reimagining the Global Economic Order*. Oxford University Press.

Leiter, Andrea. 2022. "Protecting Concessionary Rights: General Principles and the Making of International Investment Law." 35 *Leiden Journal of International Law* 55.

Levenson, Zachary, and Marcel Paret. 2023a. "The South African Tradition of Racial Capitalism." 46 *Ethnic and Racial Studies* 3403. <https://doi.org/10.1080/01419870.2023.2219300>.

Levenson, Zachary, and Marcel Paret. 2023b. "The Three Dialectics of Racial Capitalism: From South Africa to the US and Back Again." 20 *Du Bois Review: Social Science Research on Race* 333. <https://doi.org/10.1017/S1742058X22000212>.

Liboiron, Max. 2021. *Pollution Is Colonialism*. Duke University Press.

Liverman, Diana M. 2009. "Conventions of Climate Change: Constructions of Danger and the Dispossession of the Atmosphere." 35 *Journal of Historical Geography* 279. <https://doi.org/10.1016/j.jhg.2008.08.008>.

Lohmann, Larry. 2006. *Carbon Trading: A Critical Conversation on Climate Change, Privatisation and Power*. Development Dialogue, no. 48. Dag Hammarskjöld Foundation.

Malm, Andreas. 2016. *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming*. Verso Books.

Markandya, Anil, and Mikel González-Eguino. 2019. "Integrated Assessment for Identifying Climate Finance Needs for Loss and Damage: A Critical Review." In *Loss and Damage from Climate Change: Concepts, Methods and Policy Options*, edited by Reinhard Mechler, Laurens M. Bouwer, Thomas Schinko, Swenja Surminski, and JoAnne Linnerooth-Bayer, 343. Springer.

Martínez-Alier, Joan. 2003. *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation*. Edward Elgar.

Marzal, Toni. 2021. "Quantum (In)Justice: Rethinking the Calculation of Compensation and Damages in ISDS." 22 *Journal of World Investment & Trade* 249. <https://doi.org/10.1163/22119000-12340209>.

Marzal, Toni. 2023a. "Critique of Valuation in the Calculation of Damages in ISDS: Between Law, Finance and Politics." In *Constitutions of Value: Law, Governance, and Political Ecology*, edited by Isabel Feichtner and Geoff Gordon, 181. Routledge.

Marzal, Toni. 2023b. "Polluter Doesn't Pay: The Rockhopper v Italy Award." *EJIL: Talk!* (blog), *European Journal of International Law*. January 19. <https://www.ejiltalk.org/polluter-doesnt-pay-the-rockhopper-v-italy-award/>.

- Mason-Case, Sarah, and Julia Dehm. 2021. "Redressing Historical Responsibility for the Unjust Precarities of Climate Change in the Present." In *Debating Climate Law*, edited by Benoît Mayer and Alexander Zahar, 170. Cambridge University Press.
- McDonald, Matt. 2023. "COP28 Climate Summit Just Approved a 'Loss and Damage' Fund. What Does This Mean?" *The Conversation*, December 1. <https://theconversation.com/cop28-climate-summit-just-approved-a-loss-and-damage-fund-what-does-this-mean-218999>.
- Mercado, Angely. 2022. "Climate Change Disasters Cost the World over \$100 Billion This Year." *Popular Science*, January 4. <https://www.popsci.com/environment/climate-disaster-cost-2021/>.
- Mickelson, Karin. 1994. "Rereading Trail Smelter." 31 *Canadian Yearbook of International Law / Annuaire Canadien de Droit International* 219.
- Mickelson, Karin. 2009. "Beyond a Politics of the Possible? South-North Relations and Climate Justice." 10 *Melbourne Journal of International Law* 411. https://commons.allard.ubc.ca/fac_pubs/229.
- Miles, Kate. 2013. *The Origins of International Investment Law: Empire, Environment and the Safeguarding of Capital*. Cambridge University Press.
- Millan, Laura. 2021. "Climate Change Linked to 5 Million Deaths a Year, New Study Shows." *Bloomberg*, July 8.
- Miller, David. 2009. "Global Justice and Climate Change: How Should Responsibilities Be Distributed? Parts I and II." 28 *Tanner Lectures on Human Values* 119.
- Miller, Robert J. 2019. "The Doctrine of Discovery: The International Law of Colonialism." 5 *Indigenous Peoples' Journal of Law, Culture, & Resistance* 35. <https://doi.org/10.5070/P651043048>.
- Moore, Jason W., ed. 2016. *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*. PM Press.
- Moore, Jason W. 2017. "The Capitalocene, Part I: On the Nature and Origins of Our Ecological Crisis." 44 *The Journal of Peasant Studies* 594.
- Moreton-Robinson, Aileen. 2015. *The White Possessive: Property, Power, and Indigenous Sovereignty*. University of Minnesota Press.
- Morgana, Elisa. 2024. *Scene-Setting Report: Report of the Special Rapporteur on the Promotion and Protection of Human Rights in the Context of Climate Change*. UN Doc. A/HRC/56/46, July 24. <https://docs.un.org/en/A/HRC/56/46>.
- Munshi, Sheraly. 2021. "Dispossession: An American Property Law Tradition." 110 *Georgetown Law Journal* 1021. <https://www.law.georgetown.edu/georgetown-law-journal/wp-content/uploads/sites/26/2022/08/Munshi-Dispossession.pdf>.
- Narulla, Harj. 2025. "The ICJ's Ruling Means Australia and Other Major Polluters Face a New Era of Climate Reparations." *Guardian*. 24 July. <https://www.theguardian.com/commentisfree/2025/jul/24/the-icjs-ruling-means-australia-and-other-major-polluters-face-a-new-era-of-climate-reparations>.

Natarajan, Usha. 2012. "TWAAIL and the Environment: The State of Nature, the Nature of the State, and the Arab Spring." 14 *Oregon Review of International Law* 177. <https://hdl.handle.net/1794/12605>.

Nedelsky, Jennifer. 1990. "Law, Boundaries, and the Bounded Self." 30 *Representations* 162.

Nichols, Robert. 2020. *Theft Is Property! Dispossession and Critical Theory*. Duke University Press.

Nichols, Shawn. 2018. "Expanding Property Rights Under Investor-State Dispute Settlement (ISDS): Class Struggle in the Era of Transnational Capital." 25 *Review of International Political Economy* 243.

Nixon, Rob. 2011. *Slow Violence and the Environmentalism of the Poor*. Harvard University Press.

Okafor, Obiora Chinedu. 2020. *International Solidarity and Climate Change: Report of the Independent Expert on Human Rights and International Solidarity*. UN Doc. A/HRC/44/44, April 1. <https://docs.un.org/en/A/HRC/44/44>.

Pahuja, Sundhya. 2011. *Decolonising International Law: Development, Economic Growth and the Politics of Universality*. Cambridge University Press.

Paret, Marcel, and Zachary Levenson. 2024. "Two Racial Capitalisms: Marxism, Domination, and Resistance in Cedric Robinson and Stuart Hall." 56 *Antipode* 1802. <https://doi.org/10.1111/anti.13054>.

Park, K-Sue. 2022. "The History Wars and Property Law: Conquest and Slavery as Foundational to the Field." 131 *Yale Law Journal* 1062. <https://yalelawjournal.org/article/property-and-sovereignty-in-america-a-history-of-title-registries-jurisdictional-power>.

Parks, Bradley C., and J. Timmons Roberts. 2010. "Climate Change, Social Theory and Justice." 27 *Theory, Culture and Society* 134. <https://doi.org/10.1177/0263276409359018>.

Peel, Jacqueline, Hari M. Osofsky, and Anita Foerster. 2017. "Shaping the 'Next Generation' of Climate Change Litigation in Australia." 41 *Melbourne University Law Review* 793.

Peet, Richard, and Michael Watts, eds. 1996. *Liberation Ecologies*. Routledge.

Perrone, Nicolás M. 2017. "The Emerging Global Right to Investment: Understanding the Reasoning Behind Foreign Investor Rights." 8 *Journal of International Dispute Settlement* 673.

Perrone, Nicolás M. 2021. "Oil Companies Don't Deserve Reparations for Fossil Fuel Bans. They'll Still Want Them." *Guardian*, April 19. <https://www.theguardian.com/commentisfree/2021/apr/19/oil-companies-dont-deserve-reparations-for-fossil-fuel-bans-theyll-still-want-them>.

Pistor, Katharina. 2019. *The Code of Capital: How the Law Creates Wealth and Inequality*. Princeton University Press.

- Pörtner, Hans-O. 2023. "Summary for Policymakers." In *Climate Change 2022: Impacts, Adaptation and Vulnerability—Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by Hans-O Pörtner, 1. Cambridge University Press.
- Read, John E. 1963. "The Trail Smelter Dispute." 1 *Canadian Yearbook of International Law* 213.
- Riley Case, Sarah. 2023. "Looking to the Horizon: The Meanings of Reparations for Unbearable Crises." 117 *American Journal of International Law* 49. <https://doi.org/10.1017/aju.2023.4>.
- Roberts, J. Timmons, and Bradley C. Parks. 2009. "Ecologically Unequal Exchange, Ecological Debt, and Climate Justice: The History and Implications of Three Related Ideas for a New Social Movement." 50 *International Journal of Comparative Sociology* 385.
- Robinson, Cedric J. 2020. *Black Marxism: The Making of the Black Radical Tradition*. Revised and updated 3rd edition. University of North Carolina Press.
- Rocha, Marcia, Mario Krapp, Johannes Gütschow, Louise Jeffery, Bill Hare, and Michiel Schaeffer. 2015. *Historical Responsibility for Climate Change—from Countries Emissions to Contribution to Temperature Increase*. Climate Analytics. <https://climateanalytics.org/publications/historical-responsibility-for-climate-change-from-countries-emissions-to-contribution-to-temperature-increase>.
- Rodríguez, Luis Valencia. 1992. *Preliminary Report on the Means Whereby the Rights of Everyone to Own Property Alone as Well as in Association with Others Fosters, Strengthens and Enhances the Exercise of Other Human Rights and Fundamental Freedoms*. UN Doc. E/CN.4/1992/9, January 23.
- Rodríguez, Luis Valencia. 1993. *The Right of Everyone to Own Property Alone as Well as in Association with Others*. UN Doc. E/CN.4/1994/19, November 25.
- Rubin, Alfred P. 1971. "Pollution by Analogy: The Trail Smelter Arbitration." 50 *Oregon Law Review* 259.
- Salzman, Rachel Ward. 2010. "Distributing Emission Rights in the Global Order: The Case for Equal Per Capita Allocation." 13 *Yale Human Rights and Development Journal* 281. <https://openyls.law.yale.edu/server/api/core/bitstreams/f406fac7-9032-4c1c-9b62-8ca2d46ec32a/content>.
- Saunders, Anna. 2025. "International Law as Industrial Discipline: Patent Form and Legal Transformation." PhD diss., University College London.
- Sealey-Huggins, Leon. 2018. "'The Climate Crisis Is a Racist Crisis': Structural Racism, Inequality and Climate Change." In *The Fire Now: Anti-Racist Scholarship in Times of Explicit Racial Violence*, edited by Azeezat Johnson, Remi Josph-Salisbury, and Beth Kamunge, 99. Zed Books.
- SEI, Climate Analytics, E3G, IISD, and UNEP. 2023. *Production Gap Report 2023: Phasing Down or Phasing Up? Top Fossil Fuel Producers Plan Even More Extraction Despite Climate Promises*. <https://doi.org/10.51414/sei2023.050>.
- Serres, Michel. 2010. *Malfesance: Appropriation Through Pollution?* Translated by Anne-Marie Feenberg-Dibon. Stanford University Press.

- Shue, Henry. 2014. "Changing Images of Climate Change: Human Rights and Future Generations." 5 *Journal of Human Rights and the Environment* 50.
- Simpson, Leanne Betasamosake. 2017. *As We Have Always Done: Indigenous Freedom Through Radical Resistance*. University of Minnesota Press.
- Sornarajah, Muthucumaraswamy. 2015. *Resistance and Change in the International Law on Foreign Investment*. Cambridge University Press.
- Sultana, Farhana. 2022. "The Unbearable Heaviness of Climate Coloniality." 99 *Political Geography* 102638. <https://doi.org/10.1016/j.polgeo.2022.102638>.
- Supran, Geoffrey, Stefan Rahmstorf, and Naomi Oreskes. 2023. "Assessing ExxonMobil's Global Warming Projections." 379 *Science* eabk0063. <https://doi.org/10.1126/science.abk0063>.
- Szigeti, Péter D. 2021. "A Sketch of Ecological Property: Toward A Law of Biogeochemical Cycles." 51 *Environmental Law* 41.
- The Climate Case. 2025. "Saul vs. RWE." <https://rwe.climatecase.org/en>.
- Tienhaara, Kyla. 2018. "Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement." 7 *Transnational Environmental Law* 229. <https://doi.org/10.1017/S2047102517000309>.
- Tienhaara, Kyla, and Lorenzo Cotula. 2020. *Raising the Cost of Climate Action? Investor-State Dispute Settlement and Compensation for Stranded Fossil Fuel Assets*. International Institute for Environment and Development. <https://www.iied.org/17660iied>.
- Tienhaara, Kyla, Lisa Johnson, and Michael Burger. 2020. "Valuing Fossil Fuel Assets in an Era of Climate Disruption." *Investment Treaty News*, June 20. https://www.iisd.org/itn/en/2020/06/20/valuing-fossil-fuel-assets-in-an-era-of-climate-disruption/#_ftn1.
- Tienhaara, Kyla, Rachel Thrasher, B. Alexander Simmons, and Kevin P. Gallagher. 2022. "Investor-State Disputes Threaten the Global Green Energy Transition." 376 *Science* 701.
- Tienhaara, Kyla, Rachel Thrasher, B. Alexander Simmons, and Kevin P. Gallagher. 2023. "Investor-State Dispute Settlement: Obstructing a Just Energy Transition." 23 *Climate Policy* 1197.
- United Nations. 2012. "Press Conference on Request for International Court of Justice Advisory Opinion on Climate Change." February 3. http://www.un.org/press/en/2012/120203_ICJ.doc.htm.
- Venzke, Ingo. 2022. "Review of *Die Postkoloniale Konstellation: Natürliche Ressourcen und das Völkerrecht der Moderne* [The Postcolonial Constellation: Natural Resources and Modern International Law], by Sigrid Boysen." 33 *European Journal of International Law* 716. <https://doi.org/10.1093/ejil/chac036>.

Voigt, Christina. 2022. "UNHRC Is Turning Up the Heat: Human Rights Violations Due to Inadequate Adaptation Action to Climate Change." *EJIL: Talk!* (blog). September 26. <https://www.ejiltalk.org/unhrc-is-turning-up-the-heat-human-rights-violations-due-to-inadequate-adaptation-action-to-climate-change/>.

Welsby, Dan, James Price, Steve Pye, and Paul Ekins. 2021. "Unextractable Fossil Fuels in a 1.5 °C World." 597 *Nature* 230.

Wemaere, Matthieu, Charlotte Streck, and Thiago Chagas. 2009. *Legal Ownership and Nature of Kyoto Units and EU Allowances*. Oxford University Press.

Westra, Laura. 2008. *Environmental Justice and the Rights of Indigenous Peoples: International and Domestic Legal Perspectives*. Earthscan.

Wewerinke-Singh, Margaretha. 2023. "The Rising Tide of Rights: Addressing Climate Loss and Damage Through Rights-Based Litigation." 12 *Transnational Environmental Law* 537. <https://doi.org/10.1017/S2047102523000183>.

Wewerinke-Singh, Margaretha. 2025. "Harmonizing Sources, Hardening Duties: Inside the ICJ's Advisory Opinion on Climate Change." *Verfassungblog* (blog). August 11. <https://verfassungsblog.de/inside-the-icjs-advisory-opinion-on-climate-change/>.

Whyte, Kyle Powys. 2021. "Indigenous Peoples, Climate Change Loss and Damage, and the Responsibilities of States." In *Research Handbook on Climate Change Law and Loss & Damage*, edited by Meinhard Doelle and Sara L. Seck, 223. Edward Elgar.

Witze, Alexandra. 2024. "Geologists Reject the Anthropocene as Earth's New Epoch—After 15 Years of Debate." 627 *Nature* 249.

Wolfe, Patrick. 2016. *Traces of History: Elementary Structures of Race*. Verso Books.

Wood, Mary Christina. 2021. "Atmospheric Recovery Litigation Around the World: Gaining Natural Resource Damages Against Carbon Majors to Fund a Sky Cleanup for Climate Restoration." In *Research Handbook on Climate Change Law and Loss & Damage*, edited by Meinhard Doelle and Sara L. Seck, 304. Edward Elgar.

Yamin, Farhana. 1999. "Equity, Entitlements and Property Rights Under the Kyoto Protocol: The Shape of 'Things' to Come." 8 *Review of European, Comparative & International Environmental Law* 265.

Yandle, Bruce. 1999. "Grasping for the Heavens: 3-D Property Rights and the Global Commons." 10 *Duke Environmental Law and Policy Forum* 13.