

# Coal, Climate Justice, and the Cultural Politics of Energy Transition

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## Abstract

In the wake of the Paris Agreement on climate change, promises to phase out coal-fired power have suggested cause for optimism around energy transition globally. However, coal remains entangled with contentious development agendas in many parts of the world, while fossil fuel industries continue to flourish. This article discusses these entanglements through a climate justice lens that engages the cultural politics surrounding coal and energy transition. We highlight how recent struggles around phasing out coal have stimulated renewed critical debates around colonialism, empire, and capitalism more broadly, recognizing climate change as an intersectional issue encompassing racial, gender, and economic justice. With social movements locked in struggles to resist the development or expansion of coal mines, power plants, and associated infrastructure, we unpack tensions that emerge as transnational alliances connect disparate communities across the world. Our conclusion signals the need for greater critical engagement with how intersecting inequalities are coded into the cultural politics of coal, and how this shapes efforts to pursue a just transition.

Following the 2015 Paris Agreement on climate change, coal has been under unprecedented scrutiny. Under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC), world leaders committed to limiting temperature rises to “well below 2°C” above preindustrial levels (UNFCCC, 2015), and global efforts have been under way to accelerate a low-carbon transition, driving an energy revolution that has seen renewables overtake coal as the world’s largest source of installed power capacity (Clark 2016). Eliminating coal from the world’s energy mix has been identified as a priority in global efforts to reduce greenhouse gas emissions, and negotiations at the UNFCCC’s twenty-third Conference of the Parties (COP 23) in Bonn in 2017 appeared to signal its impending demise, with a grouping of more than twenty countries and subnational actors declaring their commitment to deliver “a rapid phase-out of traditional coal power” (Powering Past Coal Alliance 2017). While inviting skepticism—the alliance members produce just a fraction of the world’s coal-fired power between them<sup>1</sup>—the announcement was a significant milestone: a

1. Major coal consumers, such as China, India, Germany and the United States, were absent; most members were already in the process of retiring old coal plants, and collectively account for just three percent of coal use worldwide (BP Statistical Review of World Energy, 2017).

growing acknowledgment among elite actors that reliance on coal-fired power is no longer compatible with agreed climate goals. Significantly, China has also taken steps to limit coal use, investing heavily in renewables and halting construction of coal-fired power plants in fifteen regions. Even in the United States—where “Trump Digs Coal” featured as a slogan in the 2016 presidential campaign—the industry is in overall decline, with a raft of coal company bankruptcies and proposed measures to revive the industry proceeding on uncertain political ground (Walters 2018). There are also signs that private finance is turning away from coal, with major banks, insurers, and pension funds all terminating ties with the industry in response to the burgeoning fossil fuel divestment movement, which now claims to have shifted more than US\$ 7 trillion out of coal, oil, and gas worldwide.<sup>2</sup>

However, coal industries continue to flourish in many countries, persisting as a flashpoint of distinctively contentious cultural politics around fossil fuels. The unprecedented economic and political power of the fossil fuel industry and the historically close links between many states and companies involved in the exploration, extraction, and burning of hydrocarbons have complicated efforts to depart from incumbent, carbon-based energy regimes (Geels 2014; Healy et al. 2019). Indeed, prospects for a globally coordinated coal phase-out seem bleak; the ascent to power of pro-coal governments—in the United States, Japan, Australia, Poland, and elsewhere—has ushered in an era of weak and fragmented global governance, raising doubts about the nonbinding nature of the Paris Agreement at a moment when the very idea of multilateralism appears to be under attack. It is this context that will define, in hindsight, whether “the Paris Agreement constitutes a political success” (Dimitrov 2016). With unprecedented urgency, a 2018 Intergovernmental Panel on Climate Change (IPCC) report updated scientific warnings and called for “rapid, far-reaching and unprecedented changes in all aspects of society.” To limit temperature increases to 1.5°C, it noted that the use of coal needed to have “a steep reduction in all pathways and would be reduced to close to 0% (0–2%) of electricity” (IPCC, 2018). Yet the response from major coal-producing countries has been derisive; responding to the warning, Australia’s deputy prime minister immediately replied that Australia—the world’s largest coal exporter—would simply not change policies because of “some sort of report.”<sup>3</sup> This rhetoric turned the matter of science into an abstraction, portraying the report as remote and distant from citizens’ everyday concerns, and championed the view that business should “absolutely” continue as usual. In this article, we interrogate the cultural politics surrounding efforts to phase out coal, rethinking challenges around this process from a critical climate justice perspective, and point especially to perils of abstraction in political language. Australia’s deputy prime minister created an

2. A full list of divestment commitments is collated on the campaign website: <https://gofossilfree.org/divestment/commitments/>.
3. <https://www.theguardian.com/australia-news/2018/oct/09/australian-government-backs-coal-defiance-ipcc-climate-warning>.

abstraction out of coal (above) in one sense—as an energy issue. More widely, climate change has often been presented in international dialogue as a techno-managerial problem, creating abstractions out of “carbon markets” as part of emission “budgets” and national “inventories”; coal within global climate governance may be abstracted as carbon in a seemingly coherent world of science, material change, and policy. Yet coal, as carbon or energy, is easily divorced from culturally contested meanings in relation to lived, sociomaterial and context-specific struggles and historically constituted structures of power within which it is embedded (Chomsky and Striffler 2014; Erickson 2018; Malm 2013; Mitchell 2011). Outside the corridors of power, cynicism prevails over the resolve of policy makers to confront the incumbent power of corporate polluters and address local injustices of coal (Brown and Spiegel 2017). Abstractions generate simple logics; but technocratic and market-based approaches are being challenged from below by social movements demanding greater acknowledgment of how the contours of climate change are shaped by racialized, gendered, colonial histories and patterns of exploitation under capitalism. The erasure of these complex dynamics has hidden the politically charged nature of energy regimes, concerning who holds control over energy resources and infrastructures and how this molds social and political life in a broader sense.

As author and activist Naomi Klein (2015) notes, if taken seriously, climate change cannot be confined to one technical or political domain; it “changes everything.” The tendency to downplay this possibility and treat climate change as a “postpolitical” issue has prompted vociferous criticism from those seeking to highlight the ways in which energy is interwoven with fundamental questions pertaining to power, inequality, and justice that permeate throughout society and how the current energy transition might present an opportunity to reformulate dominant power relations (Kaijser and Kronsell 2014; Swyngedouw 2010; Urry 2014). This has in turn provoked ideas on “energy democracy” and a “just transition,” carving out space to challenge prevailing policy narratives and foreground social struggles pushing for an end to coal. At such a moment, it is therefore pertinent to consider coal’s fate in global political affairs, along with how cultural and material factors intersect to shape the new energy landscape: how might social mobilizations translate into the realization of a just transition without replicating the inequalities and deficiencies manifested in the incumbent carbon-based energy regime? What roles could critical scholarship play in reframing agendas? And how might such work be undertaken to identify potential pitfalls and dilemmas in the process, without muting demands for more emancipatory political transformations?

In this article, we advance two principal critiques. First, we emphasize the need for more recognition of the complex entanglements of coal within a wider political economy and the symbolic effects it produces in particular places. While discursive representation of coal as abstract carbon fails to acknowledge how coal inhabits diverse social and material worlds (Richardson and Weszkalnys 2014), our critical lens points especially to insights from energy

humanities literature, a growing field for challenging abstractions recurrent in environmental governance discourse. Lesley Head's work makes the incisive case for seeing energy transition from a cultural perspective, in her case weaving together intricacies of grief, other painful emotions, and hope—in coexistence—when making sense of human–nature relations (Head 2016). Also engaging the cultural politics of climate change, Bulkeley et al. (2016) unpack carbon transitions as working through various strategic devices, the mobilization of desires, and ways of articulating dissent. A cultural politics lens extends on previous writings about coal in *GEP*—Downie (2017) looked at the heterogeneity of business actors involved in (resisting and complying with policies around) coal in the United States; just as heterogeneity may be understood within industry segments, political governing cultures and cultures of resistance are marked by profound variations, the former allied to industry forces in heterogeneous state–industry liaisons. Second, and interrelatedly, we argue that there is a corresponding need to situate energy transitions within a broader context of political upheaval, opening up space to rethink dominant approaches through a critical climate justice lens. This provides a unique opportunity to replace the prevailing extractivist, growth-oriented development paradigm with alternatives attuned with demands articulated by social movements, geared toward democratization, decolonization, and a reappraisal of cultural values more broadly. Such a move puts attention to the varied gendered, racialized, and class-based injustices that intersect from extractive frontiers more widely in the chain of processes linked to transition from coal. To keep fossil fuels in the ground, radical new steps are needed, such as the proposal to create a new fossil fuel non-proliferation treaty (Simms and Newell 2018); with this, an ethic of resistance is needed around coal that addresses multiple intersecting social, cultural, and ecological injustices alongside mainstream framings of “energy transitions” at local and global scales.

We begin by tracing the structures of a global coal complex, enrolling an assemblage of financial, infrastructural, and political actors that facilitate the interconnected mining, transportation, and burning of coal as fossil energy. The next section considers the cultural and discursive framings of coal, contrasting prevailing hegemonic representations that have underpinned the coal industry with divergent narratives of climate justice advocates. We then proceed to examine these varied meanings of—and cultural politics surrounding—coal within climate justice movements; reviewing the experiences of both wealthier and poorer countries that have encountered resistance to major coal projects in recent years, we highlight how mobilization strategies have increasingly sought to combine disruptive actions initiated on ecological grounds with broader social and economic critique, alert to how mining is entangled with colonial and masculinist discourses and practices. Integrating these arguments, our conclusion reflects on the prospective political challenges of a coal phase-out, emphasizing how a just transition must attend to material inequalities and cultural predispositions alongside climate considerations if it is to succeed.

## COP 23 and the Coal Complex

Although world coal production fell by 6.2 percent in 2016—the largest drop on record—legal and policy frameworks designed to facilitate coal production continue to flourish in many parts of the world, with coal power continuing to generate over 40 percent of the world’s electricity (International Energy Agency 2016). Prior to the Paris climate accord, G20 countries alone were responsible for spending US\$ 88 billion a year subsidizing fossil fuel exploration (Bast et al. 2014), and the pattern of subsidies for coal—despite much criticism—has not abated. The gulf between symbolic promises and tangible political action remains vast, and despite the veneer of consensus around the overall need to curtail coal use, closer inspection reveals “conceptual holes and political ambivalences” (Hajer 1995, 1). Despite the rhetoric circulating at COP 23, signs have only become clearer that some governments’ subsidies and support measures for coal industries are set to continue or even increase—including controversial plans to exploit lignite coal reserves in Germany, which hosted the summit and sought to position itself as a climate leader as far back as the 1980s.<sup>4</sup> Various governments, most prominently the Trump administration but also Poland, India, Australia, and Spain, all oppose regulatory instruments to curb coal use and recent deals struck by the Chinese Development Bank and Singapore’s three biggest banks, DBS, OCBC, and UOB—together amounting to billions of dollars—to finance coal development in South Africa, Australia, and Indonesia (Fogarty 2018). In the absence of meaningful efforts to eliminate subsidies, tax breaks, and other financial benefits, plans for coal industries to expand continue apace, most notably in South and Southeast Asia, and public protests have tapped into broader concerns around nepotism, fraud, and corruption (Kotikalapudi 2016; Lahiri-Dutt 2016). In India, which has been rocked by a major coal scandal concerning the allocation of coal permits to public and private corporations, coal-mining subsidies totaled US\$ 2.3 billion in 2016 alone, US\$ 900 million more than that received by renewables in the same period. Meanwhile, the International Finance Corporation (IFC; the private investment arm of the World Bank) continues to fund a coal boom in several Asian nations, with forty-one new coal projects having acquiring funding despite a public commitment to stop financing such projects in 2013 (Global Subsidy Initiative 2017; Inclusive Development 2016). In 2017, the Philippine Movement for Climate Justice filed a complaint to the ombudsman regulating the IFC objecting to its funding for nineteen coal plants in the country.<sup>5</sup>

To situate the present global moment for curtailing coal, we suggest that in a similar vein to Michael Watts’ (2005) work on the “oil complex,” it is useful to think of a contemporary coal complex as a global assemblage of finance, infrastructure,

4. Successive governments have committed to Germany’s *Energiewende* (energy transition), with the aim developing community or municipally controlled renewable energy, and shifting reliance off nuclear power and fossil fuels (Hake et al. 2015).
5. Bretton Woods Project, 2017. Landmark climate-change complaint against IFC lodged in Philippines, last accessed March 20, 2019.

and expertise that together constitutes the political economy of coal and determines the speed and scale of its extraction, transportation, and eventual combustion. This complex involves contentious forms of capitalist culture that underwrite the perpetual cycle of mining and burning coal—and requires “identifying the organisation and character of the political economy in terms of a dominant pattern and driver of capital accumulation,” and how this is “underpinned by ... sets of institutional arrangements, state structures and policy paradigms, and the normalisation of the pattern of accumulation through ideologies and cultural practices” (Rosewarne 2016, 215). Tracing these relations and processes can help demystify the myriad political and economic networks through which coal travels before arriving at its final destination for consumption. While Watts (2005, 9.6) focuses his attention on the international political economy of oil (e.g., the activities of OPEC) and its tendency to precipitate violent cycles of “conflict, militarization and revolutionary upheaval,” we recognize coal’s own distinct (if related) history in provoking a broad realignment of social forces. In countries ranging from Britain to Bolivia and South Africa, mining has given rise to one of the most militant flanks of the labor movement, with strikes and sabotage by miners eliciting concessions from governments under what Mitchell (2011) describes as carbon democracy. According to him, the emergence of this union power helps explain the pivot to oil by Anglo-American elites in the latter half of the twentieth century, who mobilized significant levels of capital and expertise to facilitate and legitimate imperial access to reserves across the Middle East, where they could exercise greater control over the energy supply. Similarly, Barak (2015) has traced the paradoxical ways in which coal exports from Britain enabled a culture of subordination and political inequality to flourish in the Ottoman Empire in the nineteenth century—stabilizing and reinforcing authoritarian tendencies in the region, even as coal was providing the conditions for democratization in a domestic setting. These historical processes resonate with the contemporary political moment, where divisions are emerging between different “fractions of capital”—major oil companies retain considerable power and influence, positioning themselves as cleaner alternatives to coal and pushing natural gas as a “bridging fuel,”<sup>6</sup> while the coal industry itself has suffered from a spate of bankruptcies and, for much of Europe and North America, entered a period of terminal decline.

Nevertheless, international tensions around coal rhetoric at COP 23 reflect a variety of political cultures and trajectories that in some cases diverge sharply from the European and North American experiences. Coal has remained seductive for many nations whose political leaders have found it hard to resist the allure of a readily available fuel in their push for rapid industrialization. Lahiri-Dutt (2016), in her work on Indian collieries and their role in producing the “coal nation,” has shown how coal was instrumental to asserting a new

6. However, this approach neglects the lock-in effect and path dependency guaranteed by new high-carbon infrastructure (Unruh 2000).

postcolonial identity, with new modes of state sovereignty capable of managing its natural resources and overseeing gains in living standards for its population. Simultaneously, this has tended to accelerate the phenomenon of “accumulation by dispossession,” an ongoing process by which former commons are incorporated into circuits of capital accumulation, and is typical of large-scale mining operations where experiences of enclosure and displacement often mirror colonial patterns of exploitation (Bebbington et al. 2008; Gudynas 2013; Harvey 2003). Despoliation of the environment and violent conflicts at sites of extraction have thus been dismissed as unavoidable “trade-offs,” subordinated to the imperative to generate employment, increase state revenue, and broaden access to “cheap, reliable” energy. This can be observed in both “Pink Tide” governments of Latin America, such as Bolivia and Ecuador, and neoliberal administrations in Mozambique and Bangladesh (Büscher 2015; Chomsky and Striffler 2014; Kotikalapudi 2016). Even China—increasingly praised for its leadership on climate change, and despite president Xi Jinping’s ambition to create an “ecological civilisation”—witnessed a reversal from previous years’ modest decline in coal consumption, driven by a government-led infrastructure boom (*South China Morning Post* 2017). Although coal is now being replaced with renewable energy, the pace of transition is plagued by political inertia and the residual support it retains, bolstered by narratives of development, growth, and technological progress.

### Discursive Power in the Global Climate Regime

Critical scholarship in the field of political ecology emphasizes how “social natures” are both the product of biophysical processes and simultaneously attached to cultural formations of symbolic meaning, encouraging us to ask who is endowed with the power to define “resources,” for what purpose, and in whose interests (Bakker and Bridge 2006; Castree and Braun 2001; Richardson and Weszkalnys 2014). Social mobilizations against coal set the stage for competing visions of the future, attesting to the inseparability of energy from the social systems in which it is embedded and enmeshed with ideological constructions pertaining to its utility and value. The extent to which policy dilemmas are “rendered technical” (Li 2007) therefore downplays the role of power, struggle, and contestation in processes of resource extraction, infrastructure development, and technological change. These conflicts play out not only at the level of physical confrontation but also in terms of discursive hegemony, considering the ways in which voices connected to dominant institutions shape the norms and values that diffuse throughout society to rationalize or legitimate particular practices (Howarth 2010). It is therefore instructive to consider the narratives framing how various explanations and solutions to environmental problems are conceived and circulated in different arenas, foregrounding social processes and power relations to understand how “discourse coalitions” unite around particular storylines (Hajer 1995). Studying decision-making processes in international

climate policy, Roberts and Parks (2009, 128) consider the relationship dynamics between different epistemic communities involved, with diverging world-views, principles, and causal explanations embraced. They describe the “negotiated justice” that occurs when insiders—those working for governments or intergovernmental institutions and possessing “structural power”—adopt or import the ideas, knowledge, and approaches of “outsiders” from academia, NGOs, grassroots groups, or think tanks. Such dynamics are perhaps evident in the formation of the Powering Past Coal Alliance in Bonn during COP 23. However, while the commitment to a coal phase-out has been welcomed, it remains wedded to market logics, hailing “clean growth” as “an opportunity worth trillions of dollars” (Powering Past Coal Alliance 2017). As with the Paris Agreement itself, where political pressure weakened the resulting text to eliminate references to fossil fuel subsidies, carbon taxes, or the need to rein in vested corporate interests, and limited mention of historic responsibilities, intergenerational justice, human rights, and gender equity in the preamble (LeQuesne 2016; Okerere and Coventry 2016), the Powering Past Coal declaration is most notable for what is left absent, retaining a narrow economic focus at the expense of explicit recognition over its social and political ramifications.

The terms of the debate have been repeatedly restricted in global arenas; indeed, in the case of US president Trump’s rhetoric about leaving the Paris climate accord, it appears the chief interest has been precisely about the *manipulation* of the terms of the debate—more so that the actual generation of coal jobs themselves. Promises of clean coal have (largely) replaced outright climate denial in public coal industry discourse,<sup>7</sup> with proponents advocating increased efficiency, carbon offsets and trading, and carbon capture and storage (CCS) as a substitute for its replacement. However, this presents the Jevons paradox: increased efficiencies in resource use do not automatically (or even often) lead to an overall reduction in its consumption, and much vaunted CCS schemes have largely failed to materialize, with researched funding axed in the United Kingdom and flagship projects elsewhere struggling to overcome technological and financial constraints (European Academy Science Advisory Council 2018, Annex 7). As such contradictions are exposed, the “win-win” scenarios promulgated under the discourse of ecological modernization (cf. Hajer 1995) appear increasingly difficult to sustain.

In the UNFCCC, major disputes have revolved around the most appropriate strategies for curbing carbon emissions, with the perceived technical merits or pitfalls of state or market-led variants causing much consternation between negotiators. Yet arguably, coal’s reduction to abstract “carbon” in the global climate regime has itself been deeply problematic. As Anita Girvan (2017, 1039) observes, “there is no way to rid science of its cultural bearings, nor is there a way of decoupling stories from the material worlds they create,” and the epistemic

7. Although industry lobbying and misinformation campaigns persist, spreading pro-coal discourse through corporate funding of private foundations, research institutes and ‘astroturfing’ campaigns designed to distort debate with ventriloquised ‘grassroots’ voices (Bsumek et al. 2014).

dominance of technoscientific expertise in climate negotiations has tended to exclude other “ways of knowing,” with an attendant decline in public participation and accountability (see also Jasanoff 2015). Following the insights of Foucault, critical scholars have sought to highlight how “resource extraction is part of a regime of rule involving technologies, rationalities and institutions, made intelligible by regimes of truth that organise understanding and experience” (Rose, cited in Baviskar 2003, 5051). It is well established that the groups most exposed to the shocks and stresses caused by climate change—marginalized and poor communities comprising precarious and informal laborers, peasant farmers, Indigenous peoples, forest dwellers, residents of informal settlements, and women of all ages—are the most underrepresented in decision-making arenas, and this has a subsequent bearing on the framing and content of discussion. For example, Terry (2009) highlights how climate change remains trapped within a stereotypically “masculine” discourse centered on new technologies, large-scale economic instruments, and complex computer modeling, while tending to neglect how gender roles influence different people’s vulnerability to its impacts. The preponderance of neoliberal “green growth” narratives around energy transitions dismisses mounting evidence that policy measures introduced for the ostensible purpose of carbon reduction have already begun to replicate and compound patterns of exclusion and inequality (Bumpus and Liverman 2008; Büscher and Fletcher 2015; Fairhead et al. 2012). As Erickson (2018, 3) cautions, “the Anthropocene [discourse] and colonial environmentalism both mobilize crisis to obfuscate social differences. ... They both reassert a racialized jurisdiction through the threat of environmental destruction.” The abstractions and equivalences required to operationalize neoliberal climate “solutions,” such as carbon trading and offset schemes, have been critiqued for what Lohmann (2008) terms the production of ignorance: erasing historical and cultural contexts and replacing local knowledge, experience, and preferences with universal metrics of value determined by the market (see also Bracking 2015; Corbera and Brown 2010). Indeed, such programs are only made possible through what Tania Li (2014), in her work on land investments and property regimes, has labeled as inscription devices: “ways of seeing, counting, classifying and rendering some things visible while occluding others” (594). Such expositions of governmental and capitalist power, underpinned by theories derived from the European Enlightenment, harken back to Gayatri Spivak’s (1999) notion of sanctioned ignorance. This refers to the foreclosure of counterhegemonic intellectual traditions and selective filtering of knowledge in ways that allow for the replication of colonial structures, effectively silencing dissenting viewpoints that fall outside the purview of (Eurocentric) hegemonic thought.

Protests against coal have erupted in the past decade and now span across the world, targeting specific infrastructures (mines, ports, railroads, and power plants) as well as financial institutions lending to the fossil fuel industry. These showcase a variety of tactics and tensions—adversarial strategies, typified by disruptive actions and tending to circumvent traditional models of political

participation, if not eliding them altogether—that have coalesced into a broad if disparate movement referred to by Naomi Klein (2015) as *Blockadia* (see also Brown and Spiegel 2017; Martinez-Alier et al. 2016). Nevertheless, these mobilizations cannot be conceived of solely through the lens of climate change since they are animated by multiple grievances. This presents fresh dilemmas. As Kaijser and Kronsell (2014, 422) ask, “Which identities are promoted and serve as grounds for political action? And which identities become invisible in such projects?” Inevitably, certain identities are brought to the fore and mobilized strategically, highlighting the challenges facing climate justice advocates who aspire to build a broad and inclusive movement.

While climate change interacts with, and exacerbates, other stressors affecting the lives of poor communities, it might not be prioritized as the most pressing or significant of their problems (Thomas and Twyman 2005). As Sheila Jasanoff (2010, 237) comments, “climate is spatially unbounded. It is everywhere and nowhere, hence not easily accessible to imaginations rooted in specific places.” In recent scholarship, climate change has been conceptualized as a type of “slow violence” (Nixon 2011), highlighting otherwise imperceptible forms of harm that occur when violence is decoupled from its original causes as a consequence of gaps in time and space. At an international level, much attention is directed at structural inequalities of “ecologically unequal exchange” or “ecological debt” between regions and countries, occurring when energy and resources flow from the Global South to already affluent nations in the Global North and rich nations displace or “offshore” their own emissions to poorer countries (Roberts and Parks 2009). Yet such abstractions are difficult to translate and insert as issues of relevance to particular place-based struggles, and antioil protests play out differently according to the particular status afforded to coal in regional and national histories. Tensions concerning voice, power, and representation—whose messages get heard and what goals are prioritized—always remain present and harken to the fragility of alliance-building processes. In the case of Colombia, the world’s fifth largest coal exporter, noticeably different emphases and tactics are now at play in making economic arguments against coal, arguments that coal-mining developments replicate colonial violence, and arguments pinpointed on particular (devastating) health and social impacts at local scales (Chomsky and Striffler 2014; Healy et al. 2019). Similarly, the DeCOALonize Kenya campaign<sup>8</sup> has sought to draw continuity between anti-colonial struggles and current efforts to resist proposals for new coal-fired plants in the country, drawing attention to the replication of colonial logics and patterns of uneven development currently unfolding in national energy policy.

## Toward a Cultural Politics of Coal

At such a juncture, approaching coal through the lens of cultural politics—the recognition dimension of environmental justice—can help to illuminate the

8. <https://decolonise.africa/decolonizekenya/>.

challenges of consensus building around a coal phase-out and identify key social considerations to take into account during the process of transition. It becomes necessary to embed resource struggles within a larger symbolic economy, recognizing that resources perform multiple “roles” and are interpreted differently depending on location (Baviskar 2003). The logics and social character of mobilizations and protests are variable and contingent—they might presuppose particular power relations and cultural narratives around energy, labor, or care for the environment (derivative of local and national histories); be rooted in material experiences of hardship; or articulate “universal” values that transcend any immediate locality. And, just as resistance to coal is animated by various concerns, the residual support for coal is contingent on the diverse popular imaginaries that equate coal variously with working-class solidarity, masculinity, economic security, and the strength and prosperity of the nation (Bell and York 2010; Bodenhamer 2016; Girvan 2017; Herrero and Lemkow 2015; Lahiri-Dutt 2016; Perreault and Valdivia 2010). This literature—drawing from experiences across the world—is important in highlighting the core assumptions and beliefs that people employ to make sense of their social environment, in turn raising questions concerning how knowledge claims achieve hegemonic status. Recognizing the heterogeneity of cultural responses is vital to understanding how differing articulations of coal and climate change might influence the contours of the energy transition now under way. After all, “emblems mobilise bias in and out of environmental politics” (Hajer 1996, 247) and remain a critical tool for alliance building around particular agendas.

Understanding the complex cultural politics encoded in carbonscapes is critical to challenging the normalcy and perceived utility of coal that persists in some contexts and to identifying the ways in which interlocking inequalities structure social behavior at sites of extraction, power generation, and arenas of political decision-making. Arguably, the frictions generated in such spaces help to spur critical dialogue and introspection. Although the frame of climate justice has been used to denote justice in a narrow legalistic sense or merely to rectify economic inequalities between nation-states, as in the UNFCCC process, more radically—and in the sense used here, understood as part of a broader social movement—it is employed as praxis, to generate solidarities across scale around common grievances. In this sense, it is an “unsettled” term, constantly being (re)negotiated in response to the threat of co-optation, but ultimately still derivative of three co-constitutive logics: antagonism, the common(s), and solidarity (Chatterton et al. 2013). Acquiring land for mining or energy infrastructure often produces new divisions along the lines of gender, class, and ethnicity as a reconfiguration of property regimes, shifting labor practices, and the influx of capital combine to reorder social life. Indeed, the formation of extractive enclaves—spaces of enclosure emerging as extractive industries expanded into resource peripheries—can be witnessed in a variety of different contexts, as a growing body of scholarship makes clear.

Kirshner and Power (2015) detail how the promise of increased revenues from coal in Mozambique's Tete province has set in motion a new political economy geared toward transnational investment, with incentives and tax breaks to attract foreign capital. Yet this coal boom creates winners and losers, "as some groups benefit from and are integrated into global circuits of production whilst others suffer displacement and dispossession" (69). Similarly, Lahiri-Dutt et al. (2012) show how, in the Indian state of Jharkhand, coal production is encouraged for its revenue-generating potential and interwoven with discourses of nationbuilding and "development" despite a long association with forced land sales and dispossession of autochthonous, forest-dwelling *Adivasi* communities; resistance to mining has centered on the violent mining-induced displacement and inadequate compensation. In Bangladesh, the proposed Phulbari coal mine has ignited fierce protests despite state violence and criminalization. In this instance, livelihood and ecological threats were further amplified by the mobilization of broad sectors of society around transparency and anticorruption concerns, spurred by a series of opaque energy deals with private companies (Kotikalapudi 2016). For the Indigenous inhabitants of Kalimantan or Sulawesi in Indonesia, participation in environmental movements is tied up with the demand for land rights and can be partly regarded as a method of positioning employed to legitimate specific resource claims, drawing on "historically sedimented practices, landscapes, and repertoires of meaning, emerging through particular patterns of engagement and struggle" (Li 2000, 151). Fractures emerge along the lines not only of ethnicity but also of gender. While coal extraction in Kalimantan offers the prospect of income for men in the region, Lahiri-Dutt (2012, 458) highlights how "masculinities are inscribed onto the bodies of miners and into the mines themselves," leaving women to search for more precarious (seasonal and informal) forms of employment. With its discursive emphasis on science and technology, the UNFCCC is largely silent on these complex social realities, presenting further challenges for activists seeking to communicate clear and accessible climate justice narratives.

Rhetorical fantasies surrounding "beautiful, clean coal," as it was described in US president Trump's first State of the Union address<sup>9</sup>, have also been mobilized by government and industry voices to dissuade the general public over the need for a phase-out. For example, the proposed Galilee Basin coal project in Queensland, Australia, has been presented as a "clean coal" development by authorities on the basis that it is less carbon-intensive than the coal available at its eventual export market in India, while aligning with the national government's professed desire to position Australia as an "energy superpower" (Rosewarne 2016). Although dominant media narratives have tended to frame the conflict as a binary opposition of environmental protection versus jobs and economic growth, more critical accounts have sought to address the extractivist

9. <https://www.washingtontimes.com/news/2018/feb/4/donald-trump-push-for-beautiful-clean-coal-reignit/>.

logics operative in this scenario, drawing attention to how mining continues to replicate (settler-)colonial interests and world orders. Aboriginal struggles for respect and recognition—in this case, regarding the absence of consent from the Wangan and Jagalingou people to mine on their ancestral territories—are often missing from the public conversation. This cultural erasure is indicative of a deeper problem in terms of the presumed universality that plagues much environmental discourse: “what becomes solidified as white is not simply skin color, but the values of this universal subject—values of objectivity, of equality, of normalcy. Difference is understandable only in so much as it is different from the normalized ideal of whiteness” (Erickson 2018, 5). Counternarratives find resonance in artistic and cultural expressions, such as Garrwa painter Jacky Green’s vivid depiction of mining in Aboriginal territories,<sup>10</sup> that serve as a powerful indictment of the indifference displayed toward subaltern histories.

Cultural representations have also featured prominently throughout debates on mining in the Appalachian coalfields, albeit in a very different light. Although the coal industry’s regional significance as an employer has declined with mechanization, it retains public support due to selective memorialization and promotion of coal heritage, with moral worth attached to the coal-mining “way of life” (Lewin 2017). Economic and cultural identity is intimately tied to coal, a perception bolstered through the activities of industry-funded “grass-roots” groups like Friends of Coal (Bell and York 2010; Bodenhamer 2016). Although the impacts on the environment and public health are well documented, hegemonic masculinity has also deterred men from participation in environmental activism and contributed to a backlash against environmental justice groups as coal is aligned with conservative values (Bell and Braun 2010). By contrast, Herrero and Lemkow (2015) document how “environmentally blind” discourses gained headway following protests to preserve the Spanish coal industry in 2012, with a particular appeal to elements of the political Left. At a political moment when antiausterity street movements like the Indignados had galvanized public debate, coal advocates mobilized social imaginaries that idealized hypermasculine, working-class miners as emblems of struggle and resistance. Efforts to phase out coal therefore require a compelling image of the future that speaks to diverse economic, political, and cultural concerns alongside highlighting adverse ecological impacts. Addressing public anxieties around employment and supporting workers into new industries have constituted a critical part of this strategy.

## Energy Transition in Turbulent Times

A coal phase-out constitutes only one aspect of the sociotechnical transition now under way, and for communities whose lives are entangled with the

10. See, for example, work exhibited at the Cross Art Project: <http://crossart.com.au/97-2014-exhibitions-projects/256-jacky-green-flow-of-voices>.

hydrocarbon economy, a crucial concern is what will follow in its wake. As climate policies are introduced and the specter of potential job loss looms over polluting industries, the concept of a “just transition” has gained traction. It takes as its premise the principle that workers in the fossil fuel industry should not bear the economic brunt of a low-carbon transition, which would necessarily entail the downscaling and eventual replacement of their sectors by low-carbon industries. The idea was first proposed by trade unions and grassroots groups before its eventual adoption by world governments who pledged, under the Paris Agreement, to “take into account the imperatives of a just transition of the workforce” (United Nations Framework Convention on Climate Change 2015). The establishment of a Just Transition Centre by the International Trade Union Confederation has been significant in this regard, recognizing how such a transition requires sensitive planning and the allocation of resources to ensure workers do not lose out or can benefit from retraining. Concerns over the loss of skilled jobs in manufacturing, and the prospect of mass unemployment and social dislocation (as occurred in Britain following the pit closures of the 1980s), have historically been used as a device to pit workers against environmentalists and advance narrow sectional interests, although in recent years, great efforts have been made to build new solidarities that combine demands for economic, social, and environmental justice (Brown and Spiegel 2017; Schlembach 2011). A 2018 deal negotiated by the Spanish government to close down the country’s coal mines has been hailed by unions as a “model agreement,” promising € 250 million toward a transition package that will include early retirement schemes for ex-miners, environmental restoration work in pit communities, and reskilling schemes to equip workers for emerging green industries (Neslen 2018).

In recent years, social movements have experimented with “new vocabularies, social and spatial practices and repertoires of resistance” (Chatterton et al. 2013, 611), opening space to rethink notions of climate justice and envision the different possibilities that energy transitions might allow. Reflecting on mobilizations against the Phulbari coal project in Bangladesh, Kotikalapudi (2016) suggests that such controversies can create space for social learning and realignment of the goals in a given energy system, acting as a space to “operationalise democracy.” Particularly in countries where national leadership on climate change has been found wanting, the impetus for a just transition has been advanced most powerfully by environmental justice advocates at a grassroots level. While it would be amiss to speak of a singular climate justice movement or overly valorize the “local,” close engagement with the texture of specific regional and cultural histories—in tandem with a global sensibility—offers critically important windows into emergent postextractivist energy transitions. The activities of the Black Mesa Water Coalition (BMWC), a youth-led, intertribal group formed in 2001 to address issues of water depletion, natural resource exploitation, and public health within Navajo and Hopi communities, are instructive in this regard. While an agreement was signed in 1974 permitting Peabody Coal to lease land for mining inside the reserved area of the Navajo (Diné) Nation,

mining activities have long been a considerable source of controversy and tension between tribal members. While the original agreement was conditional on prioritizing jobs for tribal members, it closed in 2005, leaving behind a contaminated landscape. Concerns over deteriorating public health, water contamination, and climate change led to efforts by the BMWC to replace mining with an altogether different model of development, based on traditional Diné worldviews and values, cultivating alternative industries, such as a solar plants, food sovereignty projects, and woolcrafts. In this context, the concept of a just transition resonated with descriptions of Navajo (Diné) ontologies in sensing what the world is versus what the world should be, opening space to negotiate new identities and rekindle a sense of autonomy and control (Powell and Curley 2008). It is in this vein that Velicu and Kaika (2017, 313) consider shifting conceptions of justice as a necessary part of struggles to transcend extractivism, away from “foundational logics” of dialogic consensual politics rooted in normative and established channels of participation toward a “dissension politics” of disruptive intervention and cultural rupture, challenging the terms of engagement in which struggles occur. In this instance, the normative framing of justice as distribution, recognition, and participation is viewed as limiting, an inadequate expression for the more radically transformative social relations and ethical practice that the movement participants seek to embody. In pursuing energy transition away from coal and rejecting the prevailing global political economy of extractivism (and its logic of inevitable reliance on fossil fuels), experimental praxes engaging different worldviews, values, and ontologies continue to be renegotiated and modified by participants navigating an uncertain path forward toward an ecological and socially just future, necessarily evoking tensions in the process.

## Conclusions

In a turbulent era of political turmoil and ecological crisis, coal continues to fuel controversy and polarization in ever-changing ways. Despite unprecedented scientific consensus on the need for a global coal phase-out to mitigate climate change, many states and corporations have nevertheless sought to disavow warnings from the IPCC and others, doubling down on plans for expansion. This is evident in some of the world’s largest economies—under Putin’s leadership, the Russian government has moved to aggressively increase coal production and exports, while under the Trump administration, the US government has taken steps to rescue the coal industry from rapid decline, going so far as to propose the use of military bases as coal export conduits (Dlouhy 2018). Such acts speak to an extraordinary political moment in which coal is mobilized as a semiotic device within populist discourses of economic nationalism and “post-truth” politics but reveal little about how communities, workers, and activists caught within the nexus of hydrocarbon capitalism have themselves responded.

By unpacking the cultural politics of coal in diverse regional contexts, we draw attention to how lived experiences of individuals and communities remain crucial, often neglected and underappreciated considerations in the framing of energy transition debates. As the “global” energy transition proceeds at a pace that is perilously slow, resolute demands for climate justice can be viewed within this lens—to replace technomanagerial modes of governance with a collective response attuned to the harms perpetrated by contemporary forms colonialism, empire, and capitalism. This warrants an admission that coal cannot be reduced to an abstract, elemental status as “carbon” in the global climate regime; it is encoded with cultural meanings, shaped by historically constituted processes of dispossession, accumulation, and exploitation. In his research surveying the landscape of environmental policy making, Hajer (1995, 131) observes that “in the face of a dominant policy discourse that sought to understand new problems in old categories, the task of governmental critics was to change the very cognitive frames within which problems were perceived.” To this end, we remain alert to the ways in which hydrocarbon capitalism molds social and cultural life, inhibiting the far-reaching changes required to prevent further destabilization of the Earth’s climate. We caution against proposals for energy transition that rely on abstract market mechanisms and the addition of new technologies within incumbent energy regimes; such lenses are not just limiting—they can be obfuscating and dangerously so. Instead, there is need to depart—decisively and radically—from solutions circumscribed by neoliberal norms and to reinvigorate conversations about what a just transition might deliver, stimulating broader reflections on how the emancipatory promise of energy can become embedded into the fabric of everyday life.

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## References

- Bakker, K., and G. Bridge. 2006. Material Worlds? Resource Geographies and the "Matter of Nature." *Progress in Human Geography* 30 (1): 5–27.
- Barak, O. 2015. Outsourcing: Energy and Empire in the Age of Coal, 1820–1911. *International Journal of Middle Eastern Studies* 47: 425–445.
- Bast, E., S. Makhijani, S. Pickard, and S. Whitley. 2014. *The Fossil Fuel Bailout: G20 Subsidies for Oil, Gas and Coal Exploration*. London, UK: Overseas Development Institute.
- Baviskar, A. 2003. For a Cultural Politics of Natural Resources. *Economic and Political Weekly* 38 (48): 5051–5055.
- Bebbington, A., L. Hinojosa, D. H. Bebbington, L. Burneo, and X. Warnaars. 2008. Contention and Ambiguity: Mining and the Possibilities of Development. *Development and Change* 39 (6): 887–914.
- Bell, S., and Y. Braun. 2010. Coal, Identity and the Gendering of Environmental Justice Activism in Central Appalachia. *Gender and Society* 24: 794–813.
- Bell, S., and R. York. 2010. Community Economic Identity: The Coal Industry and Ideology Construction in West Virginia. *Rural Sociology* 75 (1): 111–143.
- Bodenhamer, A. 2016. King Coal: A Study of Mountaintop Removal, Public Discourse, and Power in Appalachia. *Society and Natural Resources* 29 (10): 1139–1153.
- BP. 2017. BP Statistical Review of World Energy 2017. Available at <https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/statistical-review-2017/bp-statistical-review-of-world-energy-2017-coal.pdf>, last accessed March 11, 2019.
- Bracking, S. 2015. Performativity in the Green Economy: How Far Does Climate Finance Create a Fictive Economy? *Third World Quarterly* 36 (12): 2337–2357.
- Brown, B., and S. J. Spiegel. 2017. Resisting Coal: Hydrocarbon Politics and Assemblages of Protest in the UK and Indonesia. *Geoforum* 85: 101–111.
- Bsumek, P., J. Schneider, S. Schwarz, and J. Peebles. 2014. Corporate Ventriloquism: Corporate Advocacy, the Coal Industry, and the Appropriation of Voice. In *Voice and Environmental Communication*, edited by P. Defoe, 21–43. London, UK: Palgrave MacMillan.
- Bulkeley, H., M. Paterson, and J. Stripple, eds. 2016. *Towards a Cultural Politics of Climate Change: Devices, Desires and Dissent*. Cambridge, UK: Cambridge University Press.
- Bumpus, A., and D. Liverman. 2008. Accumulation by Decarbonization and the Governance of Carbon Offsets. *Economic Geography* 84: 127–155.
- Büscher, B. 2015. Investing in Irony? Development, Improvement and Dispossession in Southern African Coal Spaces. *European Journal of Development Research* 27 (5): 727–744.
- Büscher, B., and Fletcher, R. 2015. Accumulation by Conservation. *New Political Economy* 20 (2): 273–298.
- Castree, N., and B. Braun. 2001. *Social Nature: Theory, Practice and Politics*. Oxford, UK: Blackwell.
- Chatterton, P., D. Featherstone, and P. Routledge. 2013. Articulating Climate Justice in Copenhagen: Antagonism, the Commons, and Solidarity. *Antipode* 45 (3): 602–620.
- Chomsky, A., and S. Striffler. 2014. Empire, Labour, and Environment: Coal Mining and Anticapitalist Environmentalism in the Americas. *International Labour and Working Class History* 85: 194–200.
- Clark, P. 2016. Renewables overtake coal as world's largest source of power capacity. *Financial Times* October 25, 2016.
- Corbera, E., and K. Brown. 2010. Offsetting Benefits? Analyzing Access to Forest Carbon. *Environment and Planning* 42: 1739–1761.

- Dimitrov, R. 2016. The Paris Agreement on Climate Change: Behind Closed Doors. *Global Environmental Politics* 16 (3): 1–11.
- Dlouhy, J. 2018. Trump Plan to Export Coal from Military Ports Draws Condemnation. *Bloomberg*, October 16. Available at <https://www.bloomberg.com/news/articles/2018-10-16/trump-plan-to-export-coal-from-military-ports-draws-condemnation>, last accessed March 11, 2019.
- Downie, C. 2017. Fighting for King Coal's Crown: Business Actors in the US Coal and Utility Industries. *Global Environmental Politics* 17 (1): 21–39.
- Erickson, B. 2018. Anthropocene Futures: Linking Colonialism and Environmentalism in an Age of Crisis. *Environment and Planning D: Society and Space*. Online first. <https://doi.org/10.1177/0263775818806514>.
- European Academy Science Advisory Council. 2018. *Negative Emission Technologies: What Role in Meeting Paris Agreement Targets?* EASAC Policy Report 35. Available at [https://easac.eu/fileadmin/PDF\\_s/reports\\_statements/Negative\\_Carbon/EASAC\\_Report\\_on\\_Negative\\_Emission\\_Technologies.pdf](https://easac.eu/fileadmin/PDF_s/reports_statements/Negative_Carbon/EASAC_Report_on_Negative_Emission_Technologies.pdf), last accessed March 11, 2019.
- Fairhead, J., Leach, M., Scoones, I. 2012. Green Grabbing: A New Appropriation of Nature? *Journal of Peasant Studies* 39 (2): 237–261.
- Fogarty, D. 2018. Singapore Banks DBS, OCBC and UOB Funding Coal Projects Despite Climate Risks: Study. *Straits Times*, January 20.
- Geels, F. W. 2014. Regime Resistance against Low-Carbon Transitions: Introducing Politics and Power into the Multi-level Perspective. *Theory, Culture, and Society* 31 (5): 21–40.
- Girvan, A. 2017. Trickster Carbon: Stories, Science, and Postcolonial Interventions for Climate Justice. *Journal of Political Ecology* 24 (1): 1038–1054.
- Global Subsidies Initiative. 2017. *India's Energy Transition: Mapping Subsidies to Fossil Fuels and Clean Energy in India*. Geneva, Switzerland: International Institute for Sustainable Development.
- Gudynas, E. 2013. Transitions to post-extractivism: directions, options, areas of action. Transitions to Post-extractivism: Directions, Options, Areas of Action. In *Beyond Development Alternative Visions from Latin America*, edited by J. M. Lang and D. Lokrani, 165–188. Permanent Working Group on Alternatives to Development. Amsterdam: Transnational Institute/Rosa Luxemburg Foundation.
- Hajer, M. 1995. *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford, UK: Oxford University Press.
- Hajer, M. 1996. Ecological Modernization as Cultural Politics. In *Risk, Environment and Modernity: Towards a New Ecology*, edited by S. Lash, B. Szerszynski, and B. Wynne, Chapter 11. London, UK: Sage.
- Hake, J., W. Fischer, S. Venghaus, and C. Weckenbrock. 2015. The German *Energiewende*: History and Status Quo. *Energy* 92: 532–546.
- Harvey, D. 2003. "Accumulation by Dispossession" in *The New Imperialism*. Oxford: Oxford University Press, 137–182.
- Head, L. 2016. *Hope and Grief in the Anthropocene: Re-conceptualising Human–Nature Relations*. New York, NY: Routledge.
- Healy, N., J. C. Stephens, and S. A. Malin. 2019. Embodied Energy Injustices: Unveiling and Politicizing the Transboundary Harms of Fossil Fuel Extractivism and Fossil Fuel Supply Chains. *Energy Research and Social Science* 48: 219–234.
- Herrero, A., and L. Lemkow. 2015. Environmentally Blind Discourses on Coal Extraction and the Idealization of the Miner in Spain. *Capitalism Nature Socialism* 26 (4): 215–235.

- Howarth, D. 2010. Power, Discourse, and Policy: Articulating a Hegemony Approach to Critical Policy Studies. *Critical Policy Studies* 3 (3–4): 309–335.
- Inclusive Development. 2016. “Disaster for Us and the Planet”: How the IFC Is Quietly Funding a Coal Boom. Available at <https://www.inclusivedevelopment.net/wp-content/uploads/2016/09/Outsourcing-Development-Climate.pdf>, last accessed March 11, 2019.
- Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5 Degrees*. Available at <https://ipcc.ch/report/sr15/>, last accessed March 11, 2019.
- International Energy Agency. 2016. *Medium Term Coal Market Report*. Available at [http://www.iea.org/bookshop/735-Medium-Term\\_Coal\\_Market\\_Report\\_2016](http://www.iea.org/bookshop/735-Medium-Term_Coal_Market_Report_2016), last accessed March 11, 2019.
- Jasanoff, S. 2010. A New Climate for Society. *Theory, Culture & Society* 27 (2–3): 233–253.
- Jasanoff, S. 2015. Future Imperfect: Science, Technology, and the Imaginations of Modernity. In *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*, edited by S. Jasanoff and S.-H. Kim, 1–22. Chicago, IL: University of Chicago Press.
- Kaijser, A., and A. Kronsell. 2014. Climate Change through the Lens of Intersectionality. *Environmental Politics* 23 (3): 417–433.
- Kirshner, J., and M. Power. 2015. Mining and Extractive Urbanism: Post-development in a Mozambican Boomtown. *Geoforum* 61: 67–78.
- Klein, N. 2015. *This Changes Everything: Capitalism vs. the Climate*. London, UK: Simon and Schuster.
- Kotikalapudi, K. 2016. Corruption, Crony Capitalism and Conflict: Rethinking the Political Economy of Coal in Bangladesh and Beyond. *Energy Research and Social Science* 17: 160–164.
- Lahiri-Dutt, K. 2012. The Shifting Gender of Coal: Feminist Musings on Women’s Work in Indian Collieries. *South Asia: Journal of South Asian Studies* 35 (2): 456–476.
- Lahiri-Dutt, K. 2016. *The Coal Nation: Histories, Ecologies and Politics of Coal in India*. London and New York: Routledge.
- Lahiri-Dutt, K., R. Balakrishnan, and A. Nesar. 2012. Land Acquisition and Dispossession: Private Coal Companies in Jharkhand. *Economic and Political Weekly* 47 (6): 39–44.
- LeQuesne, T. 2016. Revolutionary Talk: Communicating Climate Justice. MA thesis, University of California, Santa Barbara.
- Lewin, P. G. 2017. “Coal Is Not Just a Job, It’s a Way of Life”: The Cultural Politics of Coal Production in Central Appalachia. *Social Problems* 66 (1): 1–18.
- Li, T. M. 2000. Articulating Indigenous Identity in Indonesia: Resource Politics and the Tribal Slot. *Comparative Studies in History and Sociology* 42 (1): 149–179.
- Li, T. M. 2007. *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham, NC: Duke University Press.
- Li, T. M. 2014. What is Land? Assembling a Resource for Global Investment. Plenary lecture. *Transactions of the Institute of British Geographers* 39: 589–602.
- Lohmann, L. 2008. Carbon Trading, Climate Justice and the Production of Ignorance: Ten Examples. *Development* 51 (3): 359–365.
- Malm, A. 2013. The Origins of Fossil Capital: From Water to Steam in the British Cotton Industry. *Historical Materialism* 21 (1): 15–68.
- Martinez-Alier, J., L. Temper, D. Del Bene, and A. Scheidel. 2016. Is There a Global Environmental Justice Movement? *Journal of Peasant Studies* 43 (3): 731–755.
- Mitchell, T. 2011. *Carbon Democracy: Political Power in the Age of Oil*. New York, NY: Verso.
- Neslen, A. 2018. Spain to Close Most Coal Mines in €250m Transition Deal. *Guardian*, October 26.

- Nixon, R. 2011. *Slow Violence and the Environmentalism of the Poor*. Cambridge, MA: Harvard University Press.
- Okerere, C., and D. Coventry. 2016. Climate Justice and the International Regime: Before, During, and After Paris. *WIREs Climate Change* 7: 834–851.
- Perreault, T., and Valdivia, G. 2010. Hydrocarbons, Popular Protest and National Imaginaries: Ecuador and Bolivia in Comparative Context. *Geoforum* 41 (5): 689–699.
- Powell, D., and C. Curley. 2008. *K'ee, Hozhó*, and Non-governmental Politics on the Navajo Nation: Ontologies of Difference Manifest in Environmental Activism. *World Anthropologies Network* 4 (1): 109–138.
- Powering Past Coal Alliance. 2017. Powering Past Coal Alliance: Declaration. Available at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/660041/powering-past-coal-alliance.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/660041/powering-past-coal-alliance.pdf), last accessed March 11, 2019.
- Richardson, T., and G. Weszkalnys. 2014. Resource Materialities: Introduction. *Anthropological Quarterly* 87 (1): 5–30.
- Roberts, J. T., and B. C. Parks. 2009. Ecologically Unequal Exchange, Ecological Debt, and Climate Justice. *International Journal of Comparative Sociology* 50 (3–4): 385–409.
- Rosewarne, S. 2016. The Transnationalisation of the Indian Coal Economy and the Australian Political Economy: The Fusion of Regimes of Accumulation? *Energy Policy* 99: 214–223.
- Schlembach, R. 2011. How do Radical Climate Movements Negotiate Their Environmental and Their Social Agendas? A Study of Debates within the Camp for Climate Action (UK). *Critical Social Policy* 31 (2): 194–215.
- Simms, A., and P. Newell. 2018. We Need a Fossil Fuel Non-Proliferation Treaty—and We Need It Now. *Guardian*, October 23.
- South China Morning Post*. 2017. China Struggles to Cut Coal Use as World Loses Battle on Climate Change. December 13. Available at <http://www.scmp.com/news/china/policies-politics/article/2124187/world-losing-battle-climate-change-french-president>, last accessed March 11, 2019.
- Spivak, G. 1999. *A Critique of Postcolonial Reason: Towards a History of the Vanishing Present*. Cambridge, MA: Harvard University Press.
- Swyngedouw, E. 2010. Apocalypse Forever? Post-Political Populism and the Spectre of Climate Change. *Theory, Culture, and Society* 27 (2–3): 213–232.
- Terry, J. 2009. No Climate Justice without Gender Justice: An Overview of the Issues. *Gender and Development* 17 (1): 5–18.
- Thomas, D. S., and Twyman, C. 2005. Equity and Justice in Climate Change Adaptation Amongst Natural-Resource-Dependent Societies. *Global Environmental Change* 15 (2): 115–124.
- United Nations Framework Convention on Climate Change (UNFCCC). 2015. Adoption of the Paris Agreement, Conference of the Parties, 21st Session, Paris, 2015 (Paris). <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>, last accessed March 3, 2019.
- Unruh, G. 2000. Understanding Carbon Lock-In. *Energy Policy* 28: 817–830.
- Urry, J. 2014. The Problem with Energy. *Theory, Culture, and Society* 31 (5): 3–20.
- Velicu, I., and M. Kaika. 2017. Undoing Environmental Justice: Re-imagining Equality in the Rosia Montana Anti-Mining Movement. *Geoforum* 84: 305–315.
- Walters, J. 2018. Energy Agency Rejects Trump Plan to Prop Up Coal and Nuclear Power Plants. *Guardian*, January 9.
- Watts, M. 2005. Righteous Oil? Human Rights, the Oil Complex and Corporate Social Responsibility. *Annual Review of Environment and Resources* 30: 9.1–9.35.