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Chapter 1

CRITICAL RESOURCE GEOGRAPHY: AN INTRODUCTION

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Abstract

The Routledge Handbook of Critical Resource Geography offers a toolkit of critical, reflexive, and speculative approaches for studying resources and the socioecological systems with which they are co-constitutively entangled. This chapter introduces two fundamental ideas about critical resource geography that emerge from the Handbook's contents: first, that the critical analysis of resource systems and their historical and contemporary geographies is integral for understanding the state of the world; second, that doing critical resource geography involves ongoing reflection on how, why, and for whom academic knowledge production about resources matters. To advance these propositions, this chapter situates the descriptor "critical" in critical resource geography and outlines key trajectories of intellectual-political analysis within this body of scholarship, organized around two thematic areas: "(Un)knowing the World of Resources" and "Unbounding the World of Resources." Together, these sections outline a heuristic device, "resource-making/world-making," that builds from and further develops relational forms of thinking central to resource geography. Then, the chapter provides an overview of the objectives and contents of the Handbook's four main sections. Finally, the concluding section elaborates on the motivations that prompted this volume and invites readers to engage with the world of critical resource geography and the possibilities it presents.

Introduction

This Handbook is about the state of knowledge of one of Geography's most cherished objects of study: resources. Resources can include a broad range of things, including but not limited to physical entities, that are regularly disentangled from their existing relations and incorporated as parts or fragments within other sets of relations, in order to fulfill a promise. Resources, for example, are often thought of as means to an end, instruments to realize a goal or state, such as a life free of suffering or a "higher" level of socio-economic development. Think of hydrocarbons extracted from the underground and refined to generate energy, or guano harvested from island ecosystems to fertilize depleted soils, or tuna captured from the oceans to meet food market demands. But resources, and the promises that they are expected to fulfill, are not simple or straightforward. Resources require systems of "resource-making" (Kama 2020; Li 2014; Richardson and Weszkalnys 2014), each with its own infrastructures, logics, temporalities, and valuation systems. Removing something from its existing relations in order to incorporate it as a resource into a new set of relations requires thought and action, all based on architectures of valuation through which some things and relations are rationalized as more valuable than others. This, in turn, raises questions about who is making these value judgements, in what context these

valuations make sense and become dominant, and how systems of resource-making affect different constituencies in varied and uneven ways.

The systems through which resources are made and circulate have compounding effects, shaping the world and how people experience and know it. The idea for this Handbook emerged in the context of an expansion of “critical” resource-centered scholarship examining the relationship between resource systems and the uneven worlds they create (see, for example, Bakker and Bridge 2006; Bridge 2009; Furlong and Norman 2015; Huber 2018; Lawhon and Murphy 2012; Kama 2020; Robbins 2002). Broadly, this research coheres around three key elements: an approach that positions the resource itself as the analytical starting point; an emphasis on the interrelated materiality and spatiality of resources and resource systems; and a concern for unequal power relations, distributive outcomes, and the ethical dimensions of these systems. Thematically, the focus is often on the capitalist production, distribution, and consumption of “established” resources — that is, entities whose identities as resources are relatively well-consolidated (e.g., copper, oil, tuna) — as well as the emergence of new socio-spatial “frontiers” for these, as seen, for instance, in the march of hydrocarbon and mineral-mining operations offshore and into deeper waters. Scholars also examine how an increasing array of things-in-the-world are abstracted, monetized, and incorporated into social life as “novel” resources, or in resource-like ways: things such as human tissues, wildlife, parasites, and ecosystem services. Across this body of scholarship, researchers are attentive to the contestations and crises — from climate change, to species extinction, to toxic contamination — that are generated by dominant (that is, capitalist) modes of resource production, consumption, management, and disposal. And scholars are increasingly interested in resource futures (e.g., green transitions and degrowth) as well as worlds that exist (or might exist) without or against the notion of resources.

This editor’s introduction and the chapters that follow in this Handbook examine various dimensions of the promises of resources and their worlds. Collectively these contributions revisit geographical thought and bridge disciplinary divides to prompt (other) ways for thinking with and about resources. Two fundamental ideas about critical resource geography have emerged from the contents of the chapters that follow and have come to underpin this Handbook project.

The first is that *the critical analysis of resource systems and their historical and contemporary geographies is integral for understanding the state of the world*. Resources have long been central components of the political-economic systems of coloniality, patriarchy, and racial capitalism that have made and continue to remake the contemporary world. For example, the hunt for and trade in valued materials like furs, gold, and silver drove European colonialism from its earliest days (Galeano 1971; Wolf 1982; Yusoff 2018). In the Americas, the centuries-long oppression of enslaved peoples in large-scale commodity production (e.g., cotton, sugar, tobacco) was central to the rise of the integrated nineteenth-century Atlantic economy and its extension to the rest of the world (Inikori 2020; Mintz 1986), while unfree labor of multiple kinds built the infrastructures (e.g., railroads) that made this integration possible. Throughout, Indigenous societies were relocated, exploited, or eliminated to secure land and resources for settler colonialism and imperial expansion (Dunbar-Ortiz 2014; Lowe 2015; Wolfe 2006). These histories of colonialism, slavery, environmental degradation, and imperial trade in resources deepened uneven development and structural forms of inequality (Du Bois 1910; Johnson 2018; Pulido 2018) and seeded collective memories of loss, harm, and disenfranchisement at the center

of transnational struggles to end systemic oppression (Erakat 2019; Kubat 2020; Moaveni and Tahmasebi 2020; Nagar and Shirazi 2019; Roy 2020). Resources are central to the contemporary social world and the processes that sustain and organize it.

The second idea underpinning this volume is that *doing critical resource geography involves ongoing reflection on how, why, and for whom the academic production of knowledge about resources matters*. This Handbook is grounded in social science critical theory, which acknowledges, challenges, and seeks to change the status quo that tends to promote the wellbeing of some at the cost of the dehumanization and devaluation of others (Agger 1998; Fay 1987; Horkheimer 1972; see Peet 2000 for a distinction between radical and critical geography). Critical scholarship is diverse in its intellectual alignments and territories — Noel Castree (2000, 956) calls it an “umbrella” term — but is oriented by a common interest in working at the “political edge” (Blomley 2006, 88) of research, teaching, and advocacy practices. Nonetheless, critical scholarship can lose this political edge when it becomes normalized and institutionalized. As Ryan Cecil Jobson (2020) argues, many established modes of doing academic work — from how scholars perform research to where and how they seek professional validation — can narrow how this knowledge production matters and to whom. One result can be a “positional superiority” (Said 1979; Smith 2012) that locates authority with researchers rather than the people and communities being researched (compare with Tuck 2013). Recognizing these risks, this Handbook prioritizes a “restless form of thinking” (Buchanan 2010) that is attentive to who carries out and validates studies on resources and how; to the ways in which scholarly “conceptions of the world” (Gramsci 1985) matter to the study resources; and to the question of for whom this knowledge is produced. This restless approach entails resisting the urge to codify or “fix” the character of practical (and political) responses to socioecological inequities and acknowledging that universalist conceptions of liberation can risk reproducing rather than changing the status quo (Burkhart 2016; Robinson 2000).

In its totality, this Handbook offers a toolkit of critical, reflexive, and speculative approaches for studying resources and the socioecological systems with which they are co-constitutively entangled. The remainder of this introductory chapter sets the stage for what follows. The next section situates the descriptor “critical” in critical resource geography and outlines key trajectories of intellectual-political analysis within this body of scholarly work. The following section of the chapter offers an overview of the objectives and contents of the Handbook’s four main sections, while the concluding section elaborates on the motivations that prompted us to produce this volume and extends an invitation to readers to engage with the world of critical resource geography.

Situating the *critical* in critical resource geography

We use the descriptor “critical” to refer to an intellectual-political method of identifying how things become resources, as well as the work that these resources do in the world. Three broad questions animate critical resource geography:

- How do resources matter to the material organization of human societies?
- How do resources become meaningfully present in the world and what makes this possible?
- What would another world of, or without, resources look like?

Dictionary entries offer a useful entry point into how, in practice, critical analysis works in resource studies. Definitions provided in dictionaries are imbued with archival authority and reflect knowledge as a curated product of its geopolitical time (Lepore 2013). These entries are what French-Algerian philosopher Jacques Derrida ([1974] 2016) called dominant forms of “coded” reality. For Derrida, how people write about and narrate the world — for instance in defining words and in recording these definitions in dictionaries — both represents the world and bounds what is possible to know as real.

For example, in the *Oxford English Dictionary (OED)*, aimed for an Anglo audience, “resource,” in the singular, may refer to “a means of supplying a deficiency or need; something that is a source of help, information, strength, etc.” In the plural, the term may refer to “stocks or reserves of money, materials, people, or some other asset, which can be drawn on when necessary;” or to “the collective means possessed by a country or region for its own support, enrichment, or defence.” In these definitions, resources are assumed to have a fixed presence in the world and a universal relationship to people. Moreover, there is an implied singular audience: these definitions seem to suggest that any person in this world, regardless of their histories, beliefs, and experiences, would relate to resources in a similar way — that is, as things-in-the-world that have been (or could be) abstracted from their existing relations and used according to perceived individual or social needs.

How resources exist in the world is coded in the language used to represent them. For example, words laced within the *OED* definitions — enrichment, materials, means, possessed, reserve, source, stock — are central to common understandings of what one gets when “nature” and “resources” are fused into “natural resources.” It is into this category that “societies place those components of the non-human world that are considered to be useful or valuable in some way,” as Gavin Bridge (2009, 1219) notes. Natural resources, then, according to popular or default conception, are materials or phenomena “found in nature” — gold, natural gas, squid, water, wind, etc. — that people make use of (once possessed) to satisfy some want or need, including that of turning a profit by selling to others (enrichment). Sardinian intellectual Antonio Gramsci (1971, 347) referred to such default ideas as *senso commune*. Translated into English as “common sense,” these are held-in-common beliefs — a kind of collective knowledge — that people encounter as already self-evident truths. And as is further implied by other terms woven into the *OED* definitions — reserve, source, stock — common-sense understandings of natural resources lean toward the static and ahistorical: These are things that exist as results of physical processes outside of human thought and intervention.

Just as some ideas about what resources *are* have become common sense, so too have certain notions about the social *effects* of their existence and exploitation. For instance, one common-sense idea is that patterns of wealth and poverty in the world can be explained by the uneven geographical distribution of natural resources. The idea here is that environmental factors — namely the presence or absence of resources in any given territory — shape if not determine the economic-development possibilities of the territory’s peoples. Such conclusions would seem to flow logically if one operates from the default position that natural resources are things “found in nature” that have value and/or utility. And the seemingly self-evident hinging of economic

development to resource presence and exploitation that characterizes this line of thinking has been present in much mainstream post-WWII development theory (e.g., Rostow 1960).

Yet, evidence challenges such common-sense ideas. While one can point to examples of countries that have (apparently at least) had success in “mobilizing” their resource endowments to promote economic growth — Botswana, Canada, and Norway are oft-cited examples — there are myriad cases that tell different stories: stories of intensive resource extraction linked to environmental degradation, poverty, and marginalization, rather than broad-based social and economic development (Bebbington et al. 2008; Bunker 1985; Galeano 1971; Himley 2019; Valdivia 2018). Examples like these latter ones have led to other ideas that have themselves become common sense — at least within certain academic and policy circles — and that fall under the moniker of the “resource curse.” As its name suggests, this concept is meant to convey the idea that the presence of valuable resources may be — and often is — a bane not blessing, and research in this area ties large-scale resource exploitation to a variety of economic, political, and social problems, from civil unrest to corruption to economic “underperformance” (Auty 1993; Karl 1997; for reviews see Bebbington et al 2008; Le Billon 2005). In this line of thinking, resource “abundance” *can* benefit a country economically, including by enhancing the flow of capital goods and investment, but only *if* governments manage and tax resource exploitation effectively (Auty 1993). Alternatively, cases in which resource exploitation does not sustain economic growth and decrease poverty signal a problem of “mismanagement.” The “paradox of plenty” (Karl 1997) — the apparent inability of many developing countries to effectively use resource wealth to boost their economies — has informed policies focused on liberalizing resource sectors, enhancing the competitiveness of non-resource sectors, and reducing the influence of “weak” rent-seeking institutions (Badeeb, Lean, and Clark 2017; Karl 2005).

Critical resource scholarship questions and destabilizes these sorts of common-sense understandings of resources, including by stripping resources themselves as well as ideas about them of their taken-for-grantedness, their very “naturalness.” The aim is to deconstruct what seems familiar about resources — to make resources *strange* (compare with Li 2014) — in order to gain a fuller and thus more responsible understanding of their complex role in the world. Deconstruction can make visible how the dominant graphing of the world elevates some groups of people as authorized producers of knowledge — for example, of resources, and their curses and cures — while others are devalued or excluded entirely (Derrida [1974] 2016; Smith 2012). Critical resource scholars do so by tracing the material and discursive conditions under which resources are produced, and by asking questions like: From whose position are certain components of the world identified and partitioned as resources? Who governs the making of things as resources? Whose interests are served by these practices of resource-making?

In the case of the so-called resource curse, for example, Michael Watts and Nancy Lee Peluso (2013) acknowledge that resources can be a powerful entry point to examine the organization of societies. However, they caution against “commodity determinism,” and rather than assume the inevitability of state pathologies and failures in countries “rich” in resources, they call for an approach that traces how resources and societies are *co-constituted*. This relational approach is “sensitive to the histories and geographies of the political economic settings” of resources (Watts and Peluso 2013, 192). Adopting it brings analytical attention to the mechanisms and power relations through which resources and societies are recursively constructed, as well as to the

tensions and contradictions emerging in the process. In a similar vein, other critical scholars eschew functionalist analyses to detail the historically and geographically specific ways in which the making of resources is imbricated with the making of diverse socio-political dynamics and phenomena, from finance to expertise to infrastructures to democratic communities (Himley 2019; Koch and Perreault 2019; Marston 2019; Mitchell 2011; Valdivia 2008).¹

This example of the resource curse and approaches to deconstructing it exemplify two important points about critical analyses of resources and resource systems. First, critical resource scholarship questions the hegemony of certain resource knowledges and the concomitant erasure of experiences and voices that typically results from the knowledge-making practices of dominant actors. Second, in studies about resources and their role in social life, critical inquiry reveals the “artificial unity” (Foucault 1978, 143) of taken-for-granted understandings of resources. In doing so, critical inquiry demonstrates that neither hegemonic ways of knowing nor the social orders these forms of knowledge function to sustain are inevitable. No idea, belief, desire, politics, or definition is conclusive, since we are unable to grasp the totality of relations and dimensions of life that make possible the world-as-we-know-it (Derrida [1974] 2016; see also Harris 2015).

Looking for the complicated roots of things and ideas that have become accepted as self-evident is more than a scholarly pursuit. It is a project of social transformation that entails an intentional listening for dissent and difference — what Catherine Walsh (2019) calls *gritos* and *grietas* (yells and cracks) — in the ontology of resource-thinking, in order to carve out space for ways of knowing and being that are currently subjected by existing relations of power (Grosfoguel 2019; Leyva Solano and Icaza Garza 2019). In other words, critical resource scholarship examines and learns from the tensions of looking at the world — and the role of resources in it — from both dominant and subaltern positions of knowing, with the ultimate aim of contributing to more just and equitable socioenvironmental futures.

Next, we offer a curated “tour” of critical resource scholarship from geographers and allied scholars that identifies key approaches in this body of work. Together, the following two sub-sections outline a heuristic device, which we call “resource-making/world-making,” that builds from and further develops the relational forms of thinking that have long been central to resource geography. The concept of “resource-making,” emerging out of anthropology and informed by science studies, focuses attention on the practices and political projects through which specific parts of complex, heterogeneous physical worlds “are rendered into knowable and exploitable resources” (Kama 2020, 335; see also Li 2014; Richardson and Weszkalnys 2014). By “world-making,” we refer to the ways in which socioecological worlds are (un)made in and through the making, circulation, consumption, and disposal of resources (compare with de la Cadena 2015; Tsing 2015). By placing these in dialectical relation — that is, by examining the interplay and co-production of resource-making and world-making — we seek to deconstruct and make strange both the fixity of resources *and* the worlds in which resource ontologies make sense.

In the first of these sub-sections, we explore work that seeks to understand what we call the World of Resources, including the logics, tendencies, and dynamics of the resource systems through which things (materials, processes, phenomena, ideas) are abstracted from their original relations to be inserted — as “resources” — into new ones, principally for the purpose of wealth

accumulation. This analytical project is underlain by two interrelated ideas: first, as noted above, that the critical analysis of historical and contemporary resource geographies is integral for making sense of the world; and, second, that knowing the World of Resources requires *unknowing* common-sense notions of resources and their role in society. Then, in the following subsection, we turn to scholarship that begins from an analytical position of ontological pluralism — that is, from the idea that the World of Resources is but one of the worlds that exist (or might exist in the future). From this analytical position, this scholarship derives a political proposition that the epistemological and ontological limits of the World of Resources must be “unbounded” to allow for other ways of organizing socio-ecologies to flourish. Together, we consider these sections and the scholarship they contain to offer a “double perspective” (Jarvis 1998, 23) for examining resources and resource worlds.

(Un)knowing the World of Resources

Critical-geographical studies of resources and the systems responsible for their making, circulation, consumption, and disposal — what we call the World of Resources — mobilize a relational analytic. Relational analysis of socioecological dynamics is not new in geography or specific to critical-geographical scholarship on resources. Thinking relationally is a hallmark of geographic analysis that insists on the openness of the relations, ideas, and beliefs that constitute what we know as “space” (Jones 2009, Massey 2005) and is a tool for resisting and countering positivist science that splits an external nature from human society (see, e.g., Smith and O’Keefe 1980). In relational analyses, material conditions (and ideas about them) are assumed to be constantly in flux, and if there is one constant, it is that the world is not stable but always changing (Marx and Engels 1970).

In resource geography, relational approaches are often traced to the work of Erich Zimmermann, nearly a century ago. Zimmermann’s (1951, 15, emphasis in original) much-cited aphorism, “Resources *are* not, they *become*,” has become a shorthand for signaling that resources are neither fixed nor finite. Rather, resources emerge through material and ideational processes that in turn are linked to social understandings of utility and value (see also Bakker and Bridge 2006; Bridge 2009; Furlong and Norman 2015; Harvey 1974). From this perspective, nothing simply exists as a resource, waiting to be encountered and — à la one of the *OED* definitions cited above — “drawn on when necessary.” Rather, the “resourceness” of any given material or phenomena — the very identity of the thing as a resource — is historically and geographically contingent. It is subject to change over time and space in relation to evolving and conflict-laden debates over what is valuable, and as a result of the positioning of the thing — with its particular biophysical qualities — in relation to other things and processes: capital, infrastructure, knowledge, laws, markets, norms, technology, etc. (Hennessy 2019; Tsing 2005). Key to this perspective, then, is that resources are “irreducibly social rather than simply ‘natural’” (Banoub 2017, 1).

Zimmermann’s notion of resource becoming also has limits. For one, it may hide the design, intentionality, agency, and work that go into stabilizing what Tania Murray Li (2014) refers to as “resource assemblages.” In geography, the term “assemblage” signals a constructionist perspective that emphasizes the emergence, multiplicity, and indeterminacy of things that appear to have a unity — things like land, crude oil, or minerals. Assemblages are collectives of things that come together (e.g., human, organic, inorganic, and technical things) and retain

heterogeneity, but also appear to hold together into a provisional (revisable) socio-spatial formation that blurs divisions between social and material and structure and agency (Collier and Ong 2005; DeLanda 2006, cited in Anderson and McFarlane 2011).

The notion of “resource-making” used in this introductory chapter draws on this sort of assemblage thinking. Studying resources-as-assemblages makes visible the various agents, interests, and practices that intersect in the making of resources, or that are necessary to make such an effort thinkable in the first place. Resource-making scholarship places significant emphasis on the “materiality” of resources, a term that “can elide different and even incompatible ontological commitments” (Bakker and Bridge 2006, 6), but that can also function to interrogate how the World of Resources works, and for whom.

Thinking with the materiality of resources is, to put it simply, conflictive, and complicated. On the one hand, acknowledging that nonhuman entities participate in social outcomes through their presence and characteristics, without acknowledging the resource systems that capture these, echoes dangerous commodity and environmental determinisms that reproduce colonial extractive logics (Harvey 1974) — recall our discussion of the “resource curse.” On the other hand, acknowledging the capacity and availability of nonhuman entities to form bonds of intelligence and intention with humans opens the possibility of asking about the locus of agency (and what and whom is recognized as having personhood) and to devise other, less damaging, world-making projects (Burkhart 2016; de la Cadena 2015; Grefa Andi 2020). As Karen Bakker and Gavin Bridge (2006, 8) urge, quoting Elizabeth Grosz (1994: xi), resource scholars cannot escape the sticky question of materiality; critical resource geographers need to think about materiality “in ways that are simultaneously physical and cultural, that admit the significance of the physical but which also recognize that ‘materiality is uncontainable in physicalist terms alone.’” Acknowledging the materiality of resource-making reveals how other-than-human entities redistribute and decenter what is recognized as agency, and reconfigures understandings of a biophysically and culturally heterogeneous world (Braun and Whatmore 2010; Fitzsimmons 1989; Gandy 2003; Lave 2012).

Starting with how resources are assembled, instead of how they simply “become,” also provides an entry point for thinking through the other things — or, other worlds — that are made in and through the making of resources. For instance, through an ethnography of the creation of the Crater Mountain Wildlife Conservation Area in Papua New Guinea, Paige West (2006) examines how biodiversity was made into a resource, and how the resource-making process in turn constructed and reconfigured ideas of space, place, environment, and society. Amy Braun’s (2020) study of the algae biotech sector reveals resource-making and the malleable idea of “sustainability” as co-produced through techno-scientific, institutional, and discursive practices. This co-production has enabled algal product developers to leverage spectacular — if unrealized — sustainability stories (e.g., micro-algae biofuels that replace fossil fuels, algal based aquaculture feed that can reduce wild fisheries depletion) to attract speculative investment, financial capital, and public funds. Likewise, Matthew Fry and Trey Murphy (under review) trace how coupled narratives of “potential” and visual “conjurations” — such as maps and graphs depicting locations, volumes, and values of the subsurface — not only suggested possible modes of existence for Mexico’s national geologic resources, but also laid groundwork for transforming

Mexico's historically state-owned, controlled, and regulated extraction regime into a liberalized sector that is open to and relies on private investment.

The nexus of resource-making and state-making has also been of keen interest to critical resource scholars (see Bridge 2014). Scholarship in this vein has examined how states enable resource mobilization and capital accumulation through scientific and political practices and has revealed how resource-making shapes socio-ecological relations around which “the state” coheres (Braun 2000; Hecht and Cockburn 2010; Peluso and Vandergeest 2001; Swyngedouw 1999). In one influential example, Fernando Coronil (1997) describes how oil appears to have “magical” properties that afford the Venezuelan state legitimacy via resource extraction wealth. Materiality also figures into the resource-state nexus. Studies reveal that the state power brokered via resource sovereignty, often described as “resource nationalism,” is not national alone and is often intimately linked to the nature of the resource in question (and, of course, to how this resource is known via science, mapping, and other techniques of legibility), as well as to citizens’ relationships with the resource. For example, in his study on oil and resource sovereignty in the Ecuadorian Amazon, Angus Lyall (2020) shows how consent to oil production in Kichwa territories is mediated by infrastructure and services that meet state-sanctioned markers of citizenship — electrification, roads, and urban-like housing — a relationship to resources that underscores the legacies of colonial capitalism deeply rooted into the social fabric of the contemporary nation-state. In the case of subterranean minerals, state sovereignty over resources can be expressed when landlord states develop property regimes for the subsurface, but sovereignty is only actualized when the property regime attracts transnational mining capital to undertake extraction (Emel, Huber, and Makene 2011). In cases such as regional oilfields (Valdivia 2015), transboundary conservation parks (Lunstrum 2013), and highly migratory fish populations (Havice 2018), in which a resource is “shared” or bridges discrete national territory, resource sovereignty is negotiated among states, entangled in regional geopolitics, and materializes with and through the object of desire and its rendering through scientific knowledge, extractive practices, and regulations.

The notion of resource “becoming” may also conceal the forms of exclusion, marginalization, oppression, and violence that enable the making and continuity of resource assemblages. For example, drawing on anti-racist intellect, Kathryn Yusoff (2018) traces how extraction has become a defining idiom and grammar of resource-making. Yusoff starts with Blackness as a subjectivity and a knowledge position from which to identify how geology, as an epistemic regime, has shaped notions of the human and the inhuman. Specifically, her analysis zeros in on how hegemonic geologic knowledge — what she calls “White Geology” — matters to the making of resources. She channels Aimé Césaire (1972) and Denise Ferreira da Silva (2007) to draw attention to the colonial violence and anti-Blackness that underpin relations of “exchange” and “property” in global resource trade, “from the cut hands that bled the rubber, the slave children sold by weight of flesh, the sharp blades of sugar, all the lingering dislocation from geography, dusting through diasporic generations.” And, focusing on a concept that has come to dominate some resource scholarship of late, the Anthropocene, Yusoff (2018, xiii) draws on Christina Sharpe (2016) to caution against universalizing narratives that make absent the racialized violence inherent to resource extraction: “If the Anthropocene proclaims a sudden concern with the exposures of environmental harm to white liberal communities, it does so in the

wake of histories in which these harms have been knowingly exported to black and brown communities under the rubric of civilization, progress, modernization, and capitalism.”

Resources, then, do not innocently “become.” And neither do the common-sense meanings attached to the term “resources.” So far, we have reviewed works that illustrate the making of resource-entities (land, sugar, biodiversity, etc.) and the imbrication of their resource-making systems with processes of world-(un)making. Another important line of analysis traces the emergence of “resources” as a social category imbued with particular meanings, including the “default” meanings we noted above. Here, an especially useful reference is Vandana Shiva’s (2010) essay titled “Resources” in *The Development Dictionary: A Guide to Knowledge as Power*. Like the *OED* entries cited above, this is a dictionary entry, though this time the archive of terms is explicitly organized to level a critique of how “development-as-growth strains human relations and fundamentally threatens the biosphere” (Sachs 2010, vi).

Shiva identifies a radical shift over time in the meaning of “resource.” Whereas in the early modern period the concept “highlighted nature’s power of self-regeneration and called attention to her prodigious creativity,” with the advent of colonialism and industrialism, its meaning changed, coming to refer to “those parts of nature which were required as inputs for industrial production and colonial trade” (Shiva 2010, 228; see also Merchant 1980). As a result, “[n]ature has been clearly stripped of her creative power; she has turned into a container for raw materials waiting to be transformed into inputs for commodity production” (Shiva 2010, 228). This shift in the meaning of resource was propelled by dramatic changes to the systems of access to and control over the “natures” — forests, agricultural lands, aquatic environments, and the like — that people relied upon for their material wellbeing, a transformation Shiva (2010) refers to as the destruction of nature as commons. Shiva’s relational analysis ties shifting connotations of the term “resource” to long-term political-economic transformations. This allows her to identify violent dispossession as an inherent and ongoing characteristic of the material history of the category of resource, rather than as a contingent side-effect of the historical exploitation of nature by humans (see also, Bridge 2009; Hall 2013; Simpson 2019).

Shiva’s analysis dovetails with historical materialist analyses that focus on the dynamics and tendencies of capitalism and that place resources and resource-making at the center of capitalist societies’ “metabolic” relationships with non-human natures (see, e.g., Swyngedouw 1999). For instance, critical scholarship has highlighted how the geopolitics and geoeconomics of globalized capitalism are rooted in the violent re-organization of webs of life, and that contemporary ecological crises are borne out of the intersection of race, class, and gender in capitalism’s environmental history (Moore 2010a, 2010b). This form of critique builds from Karl Marx’s ([1867] 1976, 683) insights into capitalism’s tendency to undermine, in his words, “the original sources of all wealth — the soil and the worker,” and his conceptualization of “primitive accumulation,” a process Marx considered to involve the expropriation and enclosure of the means of production (land and resources included) for purposes of capital accumulation (see De Angelis 2001; Federici 2004). Driving these critiques is the idea that the capitalist exploitation of resources and labor is inherently extractive, vampiric, and incompatible with human flourishing and equity.

The scholarship reviewed in this sub-section revolves around two broad questions: What *are* resources and how can we understand their *role* in the world? Driving these questions is the idea that understanding the World of Resources *matters*. And yet, we also recognize that even a relational approach to resources that aims to deconstruct dominant or common-sense understandings risks reproducing the idea that resources are the undeniable material basis of contemporary life (compare with Gibson-Graham 2008). There is a tension, then, within critical resource geography, a project that places at the core of its intellectual-political mission a concept — *resource* — that is intrinsically tied to and embodies the colonial and capitalist subjugation of people and environments. Rather than trying to resolve this tension, the scholarship grouped under the next sub-section moves towards a different goal: to make space for worlds beyond resources.

Unbounding the World of Resources

While the works reviewed thus far call into question the historical-geographical fixity of resources, this section features scholarship that starts from a position of ontological pluralism to unsettle the idea of a singular, universal world. To be clear, this position is not supplemental to that described in the previous sub-section. Rather it is rooted in a commitment to overcome the extractive colonialism inherent to the World of Resources by elevating other ways of knowing/being altogether. Broadly, this scholarship seeks to “unbound” the World of Resources by provincializing the history and geography of capitalist worlds. This work starts from the proposition that resource ontologies make sense within what Arturo Escobar (2018, following Law 2015) calls One-World World (OWW), or the idea that everyone lives within a single world, made up of *one* underlying reality, *one* nature, and *many* cultures. The problem with this “imperialist notion” (Escobar 2018, 86) is that it negates the knowledges and experiences of those excluded by dominant modes of world-knowing. Put differently, if we design worlds and worlds design us back (Willis 2006), then to move beyond the OWW requires decentering the dualist ontology of separation, control, and appropriation that has progressively become dominant in the colonial geo-logics of patriarchal capitalism.

How does this unbounding of the World of Resources work? We interpret this happening in two moves. Similar to Dipesh Chakrabarty’s (1992) proposition to “provincialize” Europe, the first step is writing into the historical geographies of resources the ambivalences, contradictions, uses of force, tragedies, and ironies that attend the World of Resources (see sub-section above). This critique aims to transcend the totality of liberal constructions of the state, race, and citizenship, as well as the naturalness of capital relations. The next move is speculative, and transformative. It starts with acknowledging that the end of the World of Resources has *already happened* — prefigured in apocalyptic visions, speculative fiction, disaster films, and biblical texts — and that the time is here to create a new world atop its ruins (e.g., Baldy 2014; Fiskio 2012; Gumbs 2018; Roy 2006; Saunders 2013; Tsing et al. 2017). Acknowledging the intellectual debts of those who have long challenged resource ontologies in social movements, decolonial, Indigenous, feminist, and post-humanist scholarship, among others, is fundamental to this orientation (Todd 2016).

Among those creating space for other ontologies after the end of the World of Resources is the Zapatista National Liberation Army (Ejército Zapatista de Liberación Nacional, or EZLN). As Reyes (2015) describes, the EZLN has conducted a profound systematic analysis of the structural crisis of capitalism — in both Mexico and the rest of the world — that has led them to declare a

“war against the geopolitics of knowledge” (Leyva Solano 2017, 161). In short, the EZLN conceives of capitalist systems as forms of life that have genocidal tendencies (Reyes 2016). According to the Zapatistas, to change this world might be too hard, maybe impossible. Instead, it may be better to build a new one where many worlds fit. To counter capital’s genocidal tendencies, the Zapatistas have conceptualized a world beyond capitalism, what they call “another geography” (Reyes 2015), built upon Indigenous forms of institutionality that germinate from their “*semilleros*” — their own seedbanks of experience — and that unbounds the colonizing practices of state and capital that rule over peoples and territory. Rather than try to fix or make demands upon the existing world and its political institutions, the Zapatistas are actively working to create different forms of governance, justice, health, economic sustainability, as well as new forms of global solidarity (Grubacic and O’Hearn 2016). For the EZLN, “theoretical concepts” and critical reflection serve as a step towards deciphering and imagining what it might take to end the dynamics and tendencies of contemporary capitalism (EZLN 2015), and with it, the modes of resources described in the prior section.

Another example of challenges to the World of Resources is the “Land Back” movement, a collective of Indigenous scholars, communities, and activists, primarily based in North America, who demand their rightful place in keeping land alive and spiritually connected. The idea behind Land Back is that a return to territorial self-affirmation and self-determination is fundamental to Indigenous livelihoods; getting back in touch with Indigenous languages, ancestral land relations, and traditional familial and governing systems is a step towards healing kin relations with other beings. In order for this to happen, the territorial logistics of the World of Resources — such as treaties, private property, the policing of private ownership, and geopolitical borders — must be interrupted. Land Back is not a new concept of resistance; it is the continuation of hundreds of years of Indigenous struggle against land theft. Like the case of the Zapatista *semilleros*, the preservation and recognition of Indigenous ways of knowing and Indigenous intelligence is central to challenging the World of Resources (Grefa Andi 2020; Kohn 2013; Simpson 2017; Somerville 2017; Tricot 2009; Whyte 2013). In these “conceptions of the world” (Gramsci 1985), how we understand ourselves in relation to each other, to the world, and in the ordinary aspects of social life, is fundamental to socio-ecological transformation. “Indigenous knowledge and land co-constitute each other,” and it is time to “bust open” the settler legal systems that make the logistics of Land Back difficult to imagine and put into action (Longman et al. 2020, no page).

Academic studies drawing on Black, Indigenous, and decolonial epistemologies echo the need for unbounding the World of Resources, challenging the primacy of “resources” as a way of organizing human thought and action, and imagining and experimenting with ways to think with resources otherwise, or not at all. For example, contributors to a special issue of *Environment and Society* called “Indigenous Resurgence, Decolonization, and Movements for Environmental Justice” underscore that resource systems and politics must be unbound to, first, make visible the worlds that co-produce them, and second, to counter dominant positions that claim that, in matters of global environmental change, “we are all in this together.” As Jaskiran Dhillon (2018, 1) puts it, inclusionary politics in matters of environmental crises must be received with suspicion: “[I]n the wake of a planet-wide movement riddled with idioms about ‘saving our home,’ there has been a tidal wave of interest in Indigenous knowledge(s) about the land, water, and sky — a desire to ‘capture and store’ the intergenerational wisdom that speaks to the

unpredictable path lying ahead.” Dhillon’s intentional use of the idiom of resources — capture, store, usefulness, adaptive solutions — offers an “anticolonial counterscript” that troubles the politics and effects of unreflexive inclusivity. It puts front and center the conditions of global colonization, elimination, and disenfranchisement, upon which knowledge is built (Spice 2018; Yazzie 2018).

These decolonial engagements, in turn, demand answers to important questions. Are critical resource scholars ready to unbound the World of Resources? What would this unbounding look like for a body of academic scholarship that positions resources as its primary analytical concern? Has “resources,” as a language, concept, and method for studying the world reached its useful limit? These questions get at the crux of debates surrounding critical resource geography, and critical inquiry more generally. As examined throughout this introductory chapter, critical scholarship aims to effect change through transformative insight — for example, by making “strange” the World of Resources. Critical resource geography also champions progressive praxis that unbounds some parts of this World of Resources — for example, by aligning with the thinking and being of social movements and oppressed peoples to challenge the status quo of capitalist resource systems. As Noel Castree and Melissa Wright (2005, 2) remind critical scholars, “to bring the undiscussed into discussion; to stray beyond established perimeters of opinion” and “to render the familiar ... strange” is a hallmark of critical scholarship, but it is not enough. It cannot be its end. To remain engaged in restless thinking means that making familiar forms strange is but one step towards producing worlds where these familiar forms and consequences of resource-systems are unacceptable.

What is in this Handbook?

This Handbook is a polyvocal collection of scholarship that mobilizes the terms and framings of resource geography, while at the same time working to make sense of the deep-rooted tensions within this arena of research, teaching, and praxis. In this section, we outline the conversations that emerge from the contents of the 36 chapters that make up the remainder of this volume. As we considered how to introduce the contents of this rich collection, brief descriptive summaries of each chapter seemed unsatisfying. Such summaries could never do justice to the intellectual-political project of each chapter nor effectively contribute to advancing the propositions and objectives of this field of study. Thus, we have chosen to introduce the Handbook’s contents by inductively drawing on chapters in each of the volume’s four sections to identify overarching themes as well as points of generative tension. In each individual chapter, readers will find references to other contributions in the volume; by following these clues, the reader can engage with the productive debates and intersections that unfold across chapters. We hope that this approach to introducing the contents of the Handbook motivates readers to explore the chapters that follow, to engage them on their own terms, and to consider how they individually and collectively contribute to critical resource geography.

Chapters in Section One, “(Un)Knowing Resources,” offer distinct entry points for thinking critically about the ontological status of resources (i.e., what resources *are*) and the epistemological frameworks through which we come to know them. Broadly, the chapters advance one of the long-standing intellectual-political objectives of critical resource scholarship: to make resources strange by destabilizing dominant or common-sense understandings of them. To do this, the contributing authors draw on diverse social-science scholarship (e.g., materiality,

feminist and queer approaches to political economy, Indigenous epistemologies, Geohumanities, Science and Technology Studies) and employ a range of methods, including literature reviews, reflections on research experiences, and empirical analysis. The chapters offer different ways for (un)knowing resources, in terms of their material and discursive make-up as well as the practices and forces that are responsible for their construction. While there are complementarities across some of the chapters' framings for (un)knowing resources, there are also tensions. One of these is between, on the one hand, calls to unbound resource geographies through analytical approaches that capture the multiple ontologies of resources and the non-inevitability of the worlds that are spun through their making and, on the other, calls to reject resource ontologies altogether — and, thus, “resources” as an operational concept — as a necessary step toward liberation. Chapters in this section are written by Helene Ahlberg and Andrea Joslyn Nightingale (Chapter 2), Kolson Schlosser (Chapter 3), Karen Bakker and Gavin Bridge (Chapter 4), Kårg Kama (Chapter 5), Skye Naslund and Will McKeithen (Chapter 6), and Andrew Curley (Chapter 7).

Chapters in Section Two, “(Un)Knowing Resource Systems,” examine the nature, components, and logics of resource systems. Some chapters emphasize system-wide compulsions and tendencies characteristic of the World of Resources, for example, in the relationships of resources and resource-making to dominant structures and ideologies of economic, political, and social organization (e.g., capitalism, gender, race, nationalism). Others examine resource systems through the vantage point of a particular location, whether that be an actor (e.g., corporations), a site (e.g., municipalities, borders), or an object or figure of study (e.g., dogs). Throughout, authors are attuned to how historical and contemporary resource geographies have been made through the social transformation of biophysical environments for particular purposes. Collectively, they highlight the need to conceptualize resource-making as a spatial *and* temporal process with specific logics, regularity, and ends. Through their emphasis on questions of agency and power vis-à-vis resources and resource-making, and through the use of various analytical categories (discourse, enclosure, geopolitics, plantation, profit, and value, among others), the chapters underscore the co-constitutive role that resources play in unequal power relations, exploitation, marginalization, and oppression at multiple scales. Chapters in this section are written by Sharlene Mollett (Chapter 8); Ashley Fent (Chapter 9); Danielle M. Purifoy (Chapter 10); Tom Perreault (Chapter 11); Kathryn Furlong, Martine Verdy, and Alejandra Uribe-Albornoz (Chapter 12); Heidi J. Nast (Chapter 13); Matthew T. Huber (Chapter 14); Paul S. Ciccantell (Chapter 15); and Liam Campling (Chapter 16).

Chapters in Section Three, “Doing Critical Resource Geography: Methods, Advocacy, and Teaching,” reflect on what constitutes scholarly engagement in critical resource geography. The contributing authors recognize their situated knowledges and reflect on their relative privilege in knowledge production to examine their experiences as academics, advocates, and teachers embedded in diverse social locations of resource-making (and un-making). Together, these chapters reveal that there is no singular way to do critical resource geography and that the geographical study of resources becomes “critical” at least in part through the form and nature of praxis. The first three chapters — written by Eloisa Berman-Arévalo (Chapter 17); Emily Billo (Chapter 18); and Christine Biermann, Stuart N. Lane, and Rebecca Lave (Chapter 19) — reflect on the ethics of knowledge production and methodological choices therein. The next six chapters trace the institutional relationships that shape, enable, and constrain resource scholarship and

advocacy. Contributors consider their relationships with corporations, farmers, government agencies, social movements, and other actors as they reflect on their political commitments as critical resource scholars. Contributing authors include: Elizabeth Shapiro-Garza, Vijay Kolinjivadi, Gert Van Hecken, Catherine Windey, and Jennifer J. Casolo (Chapter 20); Anthony Bebbington, Ana Estefanía Carballo, Gillian Gregory, and Tim Werner (Chapter 21); Patrick Bond and Rahul Basu (Chapter 22); Christopher Courtheyn and Ahsan Kamal (Chapter 23); Adrienne Johnson (Chapter 24); and Elvin Delgado (Chapter 25). Section Three concludes with two chapters focused on pedagogical practice in field- and classroom-based learning environments (respectively) designed to engage students in the critical analysis of resource systems. The authors of these two chapters are Nicole Fabricant (Chapter 26) and Conor Harrison and Kathryn Snediker (Chapter 27).

Chapters in Section Four, “Resource-Making/World-Making,” examine case studies of the co-constitution of resource-making and world-making in diverse historical-geographical contexts. These chapters analyze various types of resources — e.g., carbon, human tissues, salmon, and soy — in relation to diverse dimensions of world-making — e.g., citizenship, colonialism, knowledge production, conservation, mapping, and identity formation. Together, these chapters challenge the boundaries around which resources are defined, emphasizing resource-making as an historical and historically contingent process. This serves as an important reminder that resources — and the worlds in which these are recursively enmeshed — are not just “made” but constantly “remade,” or made differently. In showing what is and what has been, these authors implicitly or explicitly raise possibilities of what future worlds might be. Chapters in Section Four are written by Gustavo de L. T. Oliveira (Chapter 28); Annah Zhu and Nancy Lee Peluso (Chapter 29); Elizabeth Lunstrum and Francis Massé (Chapter 30); Beatriz Bustos-Gallardo (Chapter 31); Elspeth Probyn (Chapter 32); Maria Fannin (Chapter 33); Wim Carton and Karin Edstedt (Chapter 34); Anna Zalik (Chapter 35); Lisa M. Campbell, Noella J. Gray, Sarah Bess Jones Zigler, Leslie Acton, and Rebecca Gruby (Chapter 36); and Joe Bryan (Chapter 37).

Our invitation

Throughout the production of this Handbook, we, as editors, have been motivated by a series of restless concerns. The first has been a desire to prompt ongoing reflection on the ethical and normative dimensions of working within the arena of critical resource geography, including on how our work can contribute to transitions towards more just worlds. Our hope is that this Handbook can nurture what Sofia Villenas (2019, 156) calls “vigilant, critical love,” or “the obligation to open up rather than close off the possibilities for response by others, in order to imagine a more humanizing and just world.” Critical resource scholarship is about identifying the limits of how we make sense of resources, unlearning the dominance of universalizing truths that subjugate other ways of existing, and making room for other possible ways of knowing and being in the world (Ranganathan and Bratman 2019). This disruption is not meant to “cancel” already existing geographic approaches to studying resources but to build with and against widely used concepts and frameworks so as to generate a more attuned understanding of the work resources do, and whose experiences are centered in resource geography. We understand persistent critical reflection on the “conduct” (Foucault 1982, 789) of resource geography, including in regards to how we work with (or against) assumptions, ideas, and framings, as central to the field.

Second, as editors, we spent time thinking through the boundaries of critical resource geography as a scholarly field as well as its cannon — one in which we are all steeped and that we recognize and name as having developed within a primarily heteropatriarchal, white-male space for commoditizing knowledge production. This structural-architectural formation favors particular understandings of space, place, and relationality and has created certain ideas about the knowledges and topics that have come to be seen as “foundational.” While, throughout our editorial process, we have worked with many of the field’s principal concepts and analytics, we are also aware — increasingly so through our engagements with Handbook authors — of the limits of some of these, of the tensions that reside within and among them, and of potential lines of flight.

Third, and related to the previous point, while this Handbook proposes that there is something we can call *critical* resource geography, our goal is not to bound critical practice. Rather, our graphing of the World of Resources and its unbounding aims to make space for unlearning and decentering dominant or common-sense ideas in order to make room for other geographies (Eaves 2020). Thus, this collection does not lead us to the declaration of a “field” or a set of norms or principles about what resource geography is, or what it should be, or to a singular notion of how to “do” resource geography. Rather, it is a book about the possibilities of resource geography, an approach that involves opening the category “resource” for examination and inquiry.

Finally, as Natalie Oswin (2020) notes, academic change is not everything. While creating the space for intellectual conversations about resources and resource-making is one part of the critical work we have identified here, it is even better if these conversations generate a response in realms of action beyond academic production. This desire for more-than-academic change is the explicit normative aim of many engaged in this field (and many authors in this Handbook) and is rooted in a desire to do work that contributes to a broader rethinking/reshaping of the academy and the world. This includes pedagogy wherein, as teachers, critical resource geographers work with students to address habits of thought, reading, writing, observing, and being in the world to understand the deep meanings, causes, social contexts, and consequences of any action or event. We hope this Handbook can contribute to this goal. Its contents demonstrate the importance of multiple forms of engagement — in research, writing, teaching, service, and activism, among others — to critical resource geography as a field of practice.

We invite you to use this Handbook to engage with critical resource geography, and to work with or against its assumptions, ideas, and framings.

Endnotes

¹ Another critique of work on the “resource curse” highlights that its analytical focus on the nation-state ignores the multiscale economic networks in which resource-making activities are enmeshed, and fails to attend to how the uneven distribution of costs and benefits across these networks shapes the development implications of resource exploitation in any locale (Bridge 2008).

Reference List

- Agger, Ben. 1998. *Critical Social Theories: An Introduction*. Boulder, CO: Westview Press.
- Auty, Richard M. 1993. *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London: Routledge.
- Anderson, Ben, and Colin McFarlane. 2011. "Assemblage and Geography." *Area* 43 (2): 124-127.
- Badeeb, Ramez Abubakr, Hooi Hooi Lean, and Jeremy Clark. 2017. "The Evolution of the Natural Resource Curse Thesis: A Critical Literature Survey." *Resources Policy* 51: 123–134.
- Bakker, Karen, and Gavin Bridge. 2006. "Material Worlds? Resource Geographies and the 'Matter of Nature'." *Progress in Human Geography* 30 (1): 5–27.
- Baldy, Cutcha Risling. 2014. "Why I Teach *The Walking Dead* in my Native Studies Classes." *Nerds of Color*, April 24. <https://thenerdsofcolor.org/2014/04/24/why-i-teach-the-walking-dead-in-my-native-studies-classes/>
- Banoub, Daniel. 2017. "Natural Resources." In *The International Encyclopedia of Geography: People, the Earth, Environment and Technology*, edited by Douglas Richardson, Noel Castree, Michael F. Goodchild, Audrey Kobayashi, Weidong Liu, and Richard A. Marston. New York: John Wiley & Sons. doi: 10.1002/9781118786352.wbieg0496.
- Bebbington, Anthony, Leonith Hinojosa, Denise Humphreys Bebbington, María Luisa Burneo, and Ximena Warnars. 2008. "Contention and Ambiguity: Mining and the Possibilities of Development." *Development and Change* 39 (6): 887–914.
- Blomley, Nicholas. 2006. "Uncritical Critical Geography?" *Progress in Human Geography* 30 (1): 87–94.
- Braun, Amy. 2020. "Producing 'Sustainability' through Ocean Resource Making." PhD diss., University of North Carolina at Chapel Hill.
- Braun, Bruce. 2000. "Producing Vertical Territory: Geology and Governmentality in Late Victorian Canada." *Cultural Geographies* 7 (1): 7–46.
- Braun, Bruce, and Sarah J. Whatmore. 2010. "The Stuff of Politics: An Introduction." In *Political Matter: Technoscience, Democracy and Public Life*, edited by Bruce Braun and Sarah Whatmore, ix–xl. Minneapolis: University of Minnesota Press.

Bridge, Gavin. 2008. "Global Production Networks and the Extractive Sector: Governing Resource-Based Development." *Journal of Economic Geography* 8 (3): 389–419.

Bridge, Gavin. 2009. "Material Worlds: Natural Resources, Resource Geography and the Material Economy." *Geography Compass* 3 (3): 1217–1244.

Bridge, Gavin. 2014. "Resource Geographies II: The Resource-State Nexus." *Progress in Human Geography* 38 (1): 118–130.

Buchanan, Ian. 2010. "Negative Dialectics." In *A Dictionary of Critical Theory*. Oxford: Oxford University Press.

<https://www.oxfordreference.com/view/10.1093/acref/9780199532919.001.0001/acref-9780199532919-e-469>

Bunker, Stephen G. 1985. *Underdeveloping the Amazon: Extraction, Unequal Exchange, and the Failure of the Modern State*. Chicago: The University of Chicago Press.

Burkhart, Brian. 2016. "'Locality is a Metaphysical Fact'—Theories of Coloniality and Indigenous Liberation Through the Land: A Critical Look at Red Skin, White Masks." *Indigenous Philosophy* 15 (2): 2–7.

Castree, Noel. 2000. "Professionalisation, Activism, and the University: Whither 'Critical Geography'?" *Environment and Planning A* 32 (6): 955–970.

Castree, Noel, and Melissa W. Wright. 2005. "Home Truths." *Antipode* 37 (1): 1–8.

Césaire, Aimé. 1972. *Discourse on Colonialism*. New York: Monthly Review Press.

Chakrabarty, Dipesh. 1992. "Provincializing Europe: Postcoloniality and the Critique of History." *Cultural Studies* 6 (3): 337–357.

Collier, Stephen J., and Aihwa Ong. 2005. "Global Assemblages, Anthropological Problems." In *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*, edited by Aihwa Ong and Stephen J. Collier, 3–21. Malden, MA: Blackwell Publishing.

Coronil, Fernando. 1997. *The Magical State: Nature, Money, and Modernity in Venezuela*. Chicago: The University of Chicago Press.

Da Silva, Denise Ferreira. 2007. *Toward a Global Idea of Race*. Minneapolis: University of Minnesota Press.

De Angelis, Massimo. 2001. "Marx and Primitive Accumulation: The Continuous Character of Capital's 'Enclosures'." *The Commoner* 2: 1–22.

de la Cadena, Marisol. 2015. *Earth Beings: Ecologies of Practice Across Andean Worlds*. Durham, NC: Duke University Press.

DeLanda, Manuel. 2006. *A New Philosophy of Society: Assemblage Theory and Social Complexity*. New York: Continuum.

Derrida, Jacques. (1974) 2016. *Of Grammatology*. Baltimore: John Hopkins University Press.

Dhillon, Jaskiran. 2018. "Introduction: Indigenous Resurgence, Decolonization, and Movements for Environmental Justice." *Environment and Society* 9 (1):1–5.

Du Bois, W. E. B. 1910. "The Souls of White Folk." *The Independent*. August 10.

Dunbar-Ortiz, Roxanne. 2014. *An Indigenous Peoples' History of the United States*. Boston: Beacon Press.

Eaves, LaToya. 2020. "Fear of an Other Geography." *Dialogues in Human Geography* 10 (1): 34–36.

Ejército Zapatista de Liberación Nacional (EZLN). 2015. *El Pensamiento Crítico Frente a la Hidra Capitalista: Participación de la Comisión Sexta del EZLN*. Chiapas: EZLN.

Emel, Jody, Matthew T. Huber, and Madoshi H. Makene. 2011. "Extracting Sovereignty: Capital, Territory, and Gold Mining in Tanzania." *Political Geography* 30 (2): 70–79.

Erakat, Noura. 2019. *Justice for Some: Law and the Question of Palestine*. Stanford: Stanford University Press.

Escobar, Arturo. 2018. *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Durham, NC: Duke University Press.

Fay, Brian. 1987. *Critical Social Science: Liberation and Its Limits*. Ithaca: Cornell University Press.

Federici, Silvia. 2004. *Caliban and the Witch: Women, the Body, and Primitive Accumulation*. New York: Autonomedia.

- Fiskio, Janet. 2012. "Apocalypse and Ecotopia: Narratives in Global Climate Change Discourse." *Race, Gender, and Class* 19 (1): 12–36.
- Fitzsimmons, Margaret. 1989. "The Matter of Nature." *Antipode* 21 (2): 106–120.
- Foucault, Michel. 1978. *History of Sexuality Volume One: An Introduction*. Translated by Robert Hurley. New York: Random House.
- Foucault, Michel. 1982. "The Subject and Power." *Critical Inquiry* 8 (4): 777-795.
- Fry, Matthew, and Trey Murphy. Under review. "How Burgos Geo-Imaginaries Effected Change in Mexico's Hydrocarbon Governance." *Political Geography*.
- Furlong, Kathryn, and Emma S. Norman. 2015. "Resources." In *The Wiley Blackwell Companion to Political Geography*, edited by John Agnew, Virginie Mamadouh, Anna J. Secor, and Joanne Sharp, 424–437. Malden: Wiley Blackwell.
- Galeano, Eduardo. 1971. *Las Venas Abiertas de América Latina*. Mexico City: Siglo Veintiuno Editores.
- Gandy, Matthew. 2003. *Concrete and Clay: Reworking Nature in New York City*. Cambridge: MIT Press.
- Gibson-Graham, J. K. 2008. "Diverse Economies: Performative Practices for 'Other Worlds.'" *Progress in Human Geography* 32 (5): 613–632. doi: 10.1177/0309132508090821.
- Grefa Andi, Fredy Rafael. 2020. "Sacha Runa Values and Resurgence: Implications on Payments for Ecosystem Services – the Programa Socio Bosque in the Northern Ecuadorian Amazon." PhD diss., University of North Carolina at Chapel Hill.
- Gramsci, Antonio. 1971. *Selections from the Prison Notebooks*. London: Lawrence and Wishart.
- Gramsci, Antonio. 1985. *Selections from Cultural Writings*. London: Lawrence and Wishart.
- Grosfoguel, Ramón. 2019. "Epistemic Extractivism: A Dialogue with Alberto Acosta, Leanne Betasamosake Simpson, and Silvia Rivera Cusicanqui." In *Knowledges Born in the Struggle: Constructing the Epistemologies of the Global South*, edited by Boaventura de Sousa Santos and Maria Paula Meneses, 203–218. New York: Routledge.
- Grosz, Elizabeth. 1994. *Volatile Bodies: Toward a Corporeal Feminism*. Bloomington: Indiana University Press.

- Grubacic, Andrej, and Denis O'Hearn. 2016. *Living at the Edges of Capitalism: Adventures in Exile and Mutual Aid*. Berkley: University of California Press.
- Gumbs, Alexis P. 2018. *M Archive: After the End of the World*. Durham: Duke University Press.
- Hall, Derek. 2013. "Primitive Accumulation, Accumulation by Dispossession and the Global Land Grab." *Third World Quarterly* 34 (9): 1582–1604.
- Harris, Vance. 2015. "Hauntology, Archivry, and Danditry: An Engagement with Derrida and Zapiro." *Critical Arts* 29 (1): 13–27.
- Harvey, David. 1974. "Population, Resources, and the Ideology of Science." *Economic Geography* 50 (3): 256–276.
- Havice, Elizabeth. 2018. "Unsettled Sovereignty and the Sea: Mobilities and More-Than-Territorial Configurations of State Power." *Annals of the American Association of Geographers* 108 (5): 1280–1297.
- Hecht, Susanna, and Alexander Cockburn. 2010. *The Fate of the Forest: Developers, Destroyers, and Defenders of the Amazon*. Chicago: Chicago University Press.
- Hennessy, Elizabeth. 2019. *On the Backs of Tortoises: Darwin, the Galápagos, and the Fate of an Evolutionary Eden*. New Haven: Yale University Press.
- Himley, Matthew. 2019. "Extractivist Geographies: Mining and Development in Late-Nineteenth- and Early-Twentieth-Century Peru." *Latin American Perspectives* 46 (2): 27–46.
- Horkheimer, Max. 1972. "Traditional and Critical Theory." 188–243 in *Critical Theory; Selected Essays*. New York: Herder and Herder.
- Huber, Matthew. 2018. "Resource Geographies I: Valuing Nature (Or Not)." *Progress in Human Geography* 42 (1): 148–159.
- Inikori, Josphe E. 2020. "Atlantic Slavery and the Rise of the Capitalist Global Economy." *Current Anthropology* 61 (S22): S159–S171.
- Jarvis, Simon. 1998. *Adorno: A Critical Introduction*. New York: Routledge.
- Jobson, Ryan Cecil. 2020. "The Case for Letting Anthropology Burn: Sociocultural Anthropology in 2019." *American Anthropologist* 122 (2): 259–271.

Johnson, Walter. 2018. "To remake the World: Slavery, Racial Capitalism, and Justice." *Boston Review*, 20 February. <http://bostonreview.net/forum/walter-johnson-to-remake-the-world>

Jones, Martin. 2009. "Phase Space: Geography, Relational Thinking, and Beyond." *Progress in Human Geography*. 33 (4): 487–506.

Kama, Kårg. 2020. "Resource-Making Controversies: Knowledge, Anticipatory Politics and Economization of Unconventional Fossil Fuels." *Progress in Human Geography* 44 (2): 333–356.

Karl, Terry Lynn. 1997. *The Paradox of Plenty: Oil Booms and Petro-States*. Berkeley: University of California Press.

Karl, Terry Lynn. 2005. "Understanding the Resource Curse." In *Covering Oil: A Reporter's Guide to Energy and Development*, edited by Svetlana Tsalik and Anya Schiffrin, 21–30. New York: Open Society Institute.

Koch, Natalie, and Tom Perreault. 2019. "Resource Nationalism." *Progress in Human Geography* 43 (4): 611–631.

Kohn, Eduardo. 2013. *How Forests Think: Toward an Anthropology Beyond the Human*. Berkeley: University of California Press.

Kubat, Amoke. 2020. "A Moment of Silence: 'Rest' by Amoke Kubat." *Star Tribune*, September 13. <https://www.startribune.com/a-moment-of-silence-rest-by-amoke-kubat/572385552/>

Lave, Rebecca. 2012. *Fields and Streams: Stream Restoration, Neoliberalism, and the Future of Environmental Science*. Athens: University of Georgia Press.

Law, John. 2015. "What's Wrong with a One-World World?" *Distinktion: Scandinavian Journal of Social Theory* 16 (1): 126–139.

Lawhon, Mary, and James T. Murphy. 2012. "Socio-Technical Regimes and Sustainability Transitions: Insights from Political Ecology." *Progress in Human Geography* 36 (3): 354–378.

Le Billon, Philippe, ed. 2005. *The Geopolitics of Resource Wars: Resource Dependence, Governance and Violence*. London: Frank Cass.

Lepore, Jill. 2013. *The Story of America: Essays on Origins*. Princeton: Princeton University Press.

Leyva Solano, Xotchtil. 2017. "Part 1: Movementscapes: Geopolitics of Knowledge and the Neo-Zapatista Social Movement Networks." In *The Movements of Movements: Part 1: What Makes Us Move?*, edited by Jai Sen, 161-184. Oakland: PM Press.

Leyva Solano, Xochitl, and Rosalba Icaza Garza, eds. 2019. *En Tiempos de Muerte: Cuerpos, Rebeldias, Resistencias*. Buenos Aires: Consejo Latinoamericano de Ciencias Sociales.

Li, Tania Murray. 2014. "What is Land? Assembling a Resource for Global Investment." *Transactions of the Institute of British Geographers* 39 (4): 589–602.

Longman, Nickita, Emily Riddle, Alex Wilson, and Saima Desai. 2020. "'Land Back' Is More than the Sum of Its Parts: Letter from the Land Back Editorial Collective." *Briarpatch*, September 10. <https://briarpatchmagazine.com/articles/view/land-back-is-more-than-the-sum-of-its-parts>

Lowe, Lisa. 2015. *The Intimacies of Four Continents*. Durham, NC: Duke University Press.

Lunstrum, Elizabeth. 2013. "Articulated Sovereignty: Extending Mozambican State Power through the Great Limpopo Transfrontier Park." *Political Geography* 36: 1–11.

Lyall, Angus C. 2020. *The Millennium City: Oil Politics and Urbanization in the Northern Ecuadorian Amazon*. PhD diss., University of North Carolina at Chapel Hill.

Marston, Andrea. 2019. "Strata of the State: Resource Nationalism and Vertical Territory in Bolivia." *Political Geography* 74: 102040.

Marx, Karl. (1867) 1976. *Capital: A Critique of Political Economy Volume I*. Translated by Ben Fowkes. London: Penguin Books.

Marx, Karl, and Friedrich Engels. 1970. *The German Ideology: Part One*. New York: International Publishers.

Massey, Doreen. 2005. *For Space*. London: Sage.

Merchant, Carolyn. 1980. *The Death of Nature*. London: Wildwood House.

Mintz, Sidney Wilfred. 1986. *Sweetness and Power: The Place of Sugar in Modern History*. New York: Penguin.

Mitchell, Timothy. 2011. *Carbon Democracy: Political Power in the Age of Oil*. Brooklyn, NY: Verso.

Moaveni, Azadeh, and Sussan Tahmasebi. 2020. "End US Sanctions Against Iran so that We Can Fight Coronavirus with All Our Might." *The Guardian*, March 21.
<https://www.theguardian.com/commentisfree/2020/mar/21/end-us-sanctions-iran-fight-coronavirus-pandemic>

Moore, Jason W. 2010a. "'Amsterdam is Standing on Norway' Part I: The Alchemy of Capital, Empire and Nature in the Diaspora of Silver, 1545–1648." *Journal of Agrarian Change* 10 (1): 33–68.

Moore, Jason W. 2010b. "'Amsterdam is Standing on Norway' Part II: The Global North Atlantic in the Ecological Revolution of the Long Seventeenth Century." *Journal of Agrarian Change* 10 (1): 188–227.

Nagar, Richa, and Roozbeh Shirazi. 2019. "Chapter 44: Radical Vulnerability." In *Keywords in Radical Geography: Antipode at 50*, edited by Antipode Editorial Collective, 236–242. Hoboken: John Wiley & Sons.

Oswin, Natalie. 2020. "An Other Geography." *Dialogues in Human Geography* 10 (1): 9–18.

Peet, Richard. 2000. "Commentary: Celebrating Thirty Years of Radical Geography." *Environment and Planning A* 32: 951–953.

Peluso, Nancy Lee, and Peter Vandergeest. 2001. "Genealogies of the Political Forest and Customary Rights in Indonesia, Malaysia, and Thailand." *The Journal of Asian Studies* 60 (3): 761–812.

Pulido, Laura. 2018. "Racism and the Anthropocene." In *The Remains of the Anthropocene*, edited by Gregg Mitman, Robert Emmett, and Marco Armiero, 116–128. Chicago: University of Chicago Press.

Ranganathan, Malini, and Eve Bratman. 2019. "From Urban Resilience to Abolitionist Climate Justice in Washington, DC." *Antipode*. Advance online publication. doi: 10.1111/anti.12555.

Reyes, Álvaro. 2015. "Zapatismo: Other Geographies Circa 'The End of the World.'" *Environment and Planning D: Society and Space* 33 (3): 408–424.

Reyes, Álvaro. 2016. "The Zapatista Challenge: Politics After Catastrophe." *Cultural Dynamics* 28 (2): 143–168.

- Richardson, Tanya, and Gisa Weszkalnys. 2014. "Introduction: Resource Materialities." *Anthropological Quarterly* 87 (1): 5–30.
- Robbins, Paul. 2002. "Obstacles to a First World Political Ecology? Looking Near without Looking Up." *Environment and Planning A* 34 (8): 1509–1513.
- Robinson, Cedric J. 2000. *Black Marxism: The Making of the Black Radical Tradition*. Chapel Hill: University of North Carolina Press.
- Rostow, Walt Whitman. 1960. *The Stages of Economic Growth: A Non-Communist Manifesto*. New York: Cambridge University Press.
- Roy, Arundhati. 2006. *An Ordinary Person's Guide to Empire*. Delhi: Penguin Books India.
- Roy, Arundhati. 2020. "The Pandemic is a Portal." *Financial Times*, May 23. <https://www.ft.com/content/442546c6-9c10-11ea-adb1-529f96d8a00b>
- Sachs, Wolfgang. 2010. "Preface to the New Edition." In *The Development Dictionary: A Guide to Knowledge as Power*, 2nd ed., edited by Wolfgang Sachs, xix–xxvii. London: Zed Books.
- Said, Edward Wadie. 1979. *Orientalism*. New York: Vintage.
- Saunders, Robert A. 2013. "Zombies in the Colonies: Imperialism and Contestation of Ethno-Political Space in Max Brooks' *The Zombie Survival Guide*." In *Monstrous Geographies: Places and Spaces of the Monstrous*, edited by Sarah Montin and Evelyn Tsitas, 19–46. Leiden: Brill.
- Sharpe, Christina. 2016. *In the Wake: On Blackness and Being*. Durham, NC: Duke University Press.
- Shiva, Vandana. 2010. "Resources." In *The Development Dictionary: A Guide to Knowledge as Power*, 2nd ed., edited by Wolfgang Sachs, 228–242. London: Zed Books.
- Simpson, Leanne Betasamosake. 2017. *As We Have Always Done: Indigenous Freedom through Radical Resistance*. Minneapolis: University of Minnesota Press.
- Simpson, Michael. 2019. "Resource Desiring Machines: The Production of Settler Colonial Space, Violence, and the Making of a Resource in the Athabasca Tar Sands." *Political Geography* 74: 102044.

- Smith, Linda Tuhiwai. 2012. *Decolonizing Methodologies: Research and Indigenous Peoples*. 2nd ed. London: Zed Books.
- Smith, Neil, and Phil O'Keefe. 1980. "Geography, Marx and the Concept of Nature." *Antipode* 12 (2): 30–39.
- Somerville, Alice Te Punga. 2017. "The Great Pacific Garbage Patch as Metaphor: The (American) Pacific You Can't See." In *Archipelagic American Studies*, edited by Brian Russell Roberts and Michelle Ann Stephens, 324–338. Durham, NC: Duke University Press.
- Spice, Anne. 2018. "Fighting Invasive Infrastructures: Indigenous Relations against Pipelines." *Environment and Society* 9 (1): 40–56.
- Swyngedouw, Erik. 1999. "Modernity and Hybridity: Nature, *Regeneracionismo*, and the Production of the Spanish Waterscape, 1890-1930." *Annals of the Association of American Geographers* 89 (3): 443–465.
- Todd, Zoe. 2016. "An Indigenous Feminist's Take on the Ontological Turn: 'Ontology' Is Just Another Word for Colonialism." *Journal of Historical Sociology* 29 (1): 4–22.
- Tricot, Tito. 2009. "El Nuevo Movimiento Mapuche: Hacia la (Re)Construcción del Mundo y País Mapuche." *Polis: Revista Latinoamericana* 24. <http://journals.openedition.org/polis/1584>
- Tsing, Anna Lowenhaupt. 2005. *Friction: An Ethnography of Global Connection*. Princeton: Princeton University Press.
- Tsing, Anna Lowenhaupt. 2015. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press.
- Tsing, Anna Lowenhaupt, Heather Anne Swanson, Elaine Gan, and Nils Bubandt, eds. 2017. *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*. Minneapolis: University of Minnesota Press.
- Tuck, Eve. 2013. "Commentary: Decolonizing Methodologies 15 Years Later." *AlterNative: An International Journal of Indigenous Peoples* 9 (4): 365–372.
- Valdivia, Gabriela. 2008. "Governing Relations Between People and Things: Citizenship, Territory, and the Political Economy of Petroleum in Ecuador." *Political Geography* 27 (4): 456–477.

- Valdivia, Gabriela. 2015. "Oil Frictions and the Subterranean Geopolitics of Energy Regionalisms." *Environment and Planning A* 47 (3): 1422–1439.
- Valdivia, Gabriela. 2018. "'Wagering Life' in the Petro-City: Embodied Ecologies of Oil Flow, Capitalism, and Justice in Esmeraldas, Ecuador." *Annals of the American Association of Geographers* 108 (2): 549–557.
- Villenas, Sofia A. 2019. "Pedagogies of Being with: Witnessing, Testimonio, and Critical Love in Everyday Social Movement." *International Journal of Qualitative Studies in Education* 32 (2): 151–166.
- Walsh, Catherine E. 2019. "(Decolonial) Notes to Paulo Freire: Walking and Asking." In *Educational Alternatives in Latin America*, edited by Robert Aman and Timothy Ireland, 207–230. Cham, Switzerland: Palgrave Macmillan.
- Watts, Michael, and Nancy Lee Peluso. 2013. "Resource Violence." In *Critical Environmental Politics*, edited by Carl Death, 184–197. New York: Routledge.
- West, Paige. 2006. *Conservation is Our Government Now: The Politics of Ecology in Papua New Guinea*. Durham, NC: Duke University Press.
- Whyte, Kyle Powys. 2013. "On the Role of Traditional Ecological Knowledge as a Collaborative Concept: A Philosophical Study." *Ecological Processes* 2 (1): 7. <https://doi.org/10.1186/2192-1709-2-7>
- Willis, Anne-Marie. 2015. "Transition Design: The Need to Refuse Discipline and Transcend Instrumentalism." *Design Philosophy Papers*. 13 (1): 69-74.
- Wolf, Eric R. 1982. *Europe and the People without History*. Berkeley: University of California Press.
- Wolfe, Patrick. 2006. "Settler Colonialism and the Elimination of the Native." *Journal of Genocide Research* 8 (4): 387–409.
- Yazzie, Melanie K. 2018. "Decolonizing Development in Diné Bı́keyah." *Environment and Society* 9 (1): 25–39.
- Yusoff, Kathryn. 2018. *A Billion Black Anthropocenes or None*. Minneapolis: University of Minnesota Press.
- Zimmermann, Erich W. 1951. *World Resources and Industries: A Functional Appraisal of the Availability of Agricultural and Industrial Materials*. New York: Harper.