

Review Essay

Perspectives on Natural Resources in the Global Economy: Polity Series Review

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Coffee, by Gavin Fridell. Cambridge: Polity Press, 2014. Pp. 192. \$19.95. ISBN 9780745670775

Coltan, by Michael Nest. Cambridge: Polity Press, 2011. Pp. 214. \$19.95. ISBN 9780745649320

Diamonds, by Ian Smillie. Cambridge: Polity Press, 2014. Pp. 208. \$19.95. ISBN 9780745672311

Fish, by Elisabeth DeSombre and J. Samuel Barkin. Cambridge: Polity Press, 2013. Pp. 185. \$19.95. ISBN 9780745650203

Food, by Jennifer Clapp. Cambridge: Polity Press, 2011. Pp. 200. \$19.95. ISBN 9780745649368

Timber, by Peter Dauvergne and Jane Lister. Cambridge: Polity Press, 2013. Pp. 204. \$19.95. ISBN 9780745649283

Polity's 'Resources' series is a set of scholarly books, each of them dealing with a single resource or resource-based commodity from a generally global or international perspective. As of this writing, nine books have been published in the series, six of which I review here. The series is a welcome contribution to interdisciplinary and overall critical perspectives on the social and environmental dimensions and implications of the international appropriation, production and exchange of natural resources. While there is no clear disciplinary bent or theoretical foundation running across the volumes, together the books develop a transnational perspective, stressing the linkages between specific sites of appropriation and production, on the one hand, and broader political economic networks of processing, finance, coordination, commercial distribution and social regulation, on the other. The books should serve as valuable references to researchers in academic, government and non-government institutional settings, but should also prove valuable for undergraduate teaching on contemporary natural resource industries and their social regulation.

Keywords: natural resources, political economy of resource industries, social regulation of natural resources, Polity 'Resources' series

INTRODUCTION

In each of the past 4 years, at the University of Toronto, I have taught (assisted by several dedicated and capable graduate students) a field course dealing with Toronto's *urban metabolism*. The course is essentially a hybrid (in multiple senses of the word) of environmental studies, urban geography and urban political ecology. Core themes have been (i) to excavate the material and symbolic dimensions of raw material and energy networks sustaining processes of urbanization over time, and (ii) to understand some of the ways in which these networks are implicated in everyday life and social reproduction in the city.

To some very significant extent, my point of departure for the course has been to develop via experiential learning some practical engagement with notions discussed by Erik Swyngedouw and Nik Heynen (2003). As they put it, '[t]here is no longer an outside or limit to the city, and the urban process harbours social and ecological processes that are embedded in dense and multilayered networks of local, regional, national and global connections' (p. 899). Why is this relevant to a review of Polity's 'Resources' series? It is relevant because during these past 4 years, I have been reminded of and amazed by how little we (myself, the TAs, the students) actually know about the networks of provisioning that sustain our daily lives. A trip to and tour of one of Toronto's main sewage treatment facilities, for instance, is gag-inducing, sobering and yet inspiring (because of the innovative approaches to metabolizing waste into clean water, including via organic and biodynamic means). A trip to a nearby limestone quarry, nestled among the trees atop the Niagara Escarpment formation ringing the city to the west and north, inevitably brings admissions from the students that they had absolutely no idea of the ubiquitous centrality of products derived from limestone (from glass to roads to cement to ... toothpaste!).

This is, of course, not a novel insight. One of the characteristic features of modern life and of capitalist networks of commodity circulation is the complex, dense and yet largely anonymous interconnectivity that links people and places across the globe. The sociological significance of this dense layering of anonymous interconnectivity animates, for instance, Marx's notion of commodity fetishism (1977 [1867]), the idea that capitalist commodification produces a quantitative and qualitative distancing between producers (and points of production) and consumers (and points of production) such that the products of material social relations between people (as well as material relations between people and non-human nature) take on the character of reified things unto themselves, seemingly independent (or mostly independent) of their social (and we should add ecological) origins. As Sayer (1987, 40) succinctly emphasized, in commenting on the enduring power of the commodity fetish idea, one of the defining features of our age is that '[p]roperties which things acquire entirely as a consequence of their standing in a specific set of social [and ecological] relations are mistakenly seen as inhering in, and explained by, the material qualities of those objects themselves'. The idea remains powerful in interpreting the character of the world around us. Indeed, in an ever-urbanizing world, it is crucial to examine and follow links between ostensibly distinct domains we consider 'the city' and 'the country' in order to understand their co-constitution. Thus the Polity 'Resources' series.

THE 'RESOURCES' SERIES

Polity's 'Resources' series is a set of scholarly books, each of which deals with a single resource or resource-based commodity. As of this writing, nine books have been published in the series, six of which I review here (because I was not asked to review the others). The exceptions are *Land* by Derek Hall, *Oil* by Gavin Bridge and Philippe Le Billon, and *Water* by David Lewis Feldman.

This series is a welcome contribution to interdisciplinary and generally critical perspectives on the social and environmental dimensions and implications of the international appropriation, production and exchange of natural resources. It also represents a diverse collection of perspectives. There is no clear disciplinary bent or theoretical foundation that runs across the volumes, save that the focus in each is transnational, stressing the linkages between specific sites of appropriation and production, on the one hand, and broader political economic networks of production, finance, coordination, commercial distribution and social regulation, on the other.

All that is available from the press in terms of explicit themes animating the books, at least publicly, comes from the promotional website for the series: '[w]e live in a world of diminishing resources. Demand for many fuels and minerals far exceeds supply and the global battles to access and control these key resources are intensifying. In this exciting new series leading international experts explore the geopolitical battles to access and control many of the world's natural assets. From oil to water, food to land, these provocative and illuminating books offer big-picture analyses of the complex power struggles at play, the problems and challenges to which they give rise and their implications for the future.' There is, for instance, no editorial comment from the series editors in the individual volumes themselves, and no statement by the authors about the relationship between the book in question and the series. We are, then, left to appraise the diversity and autonomy of the individual books for ourselves. That is not necessarily uncommon in book series; indeed, it may be more the norm. But since they are written by very different people working from quite different perspectives, it is a noteworthy feature of the books, taken as a collection, that may be seen as both a strength and also a weakness.

The strength lies in capturing some of the very different (and even starkly contrasting) ways of looking at resource-based capitalism, including the different scales of analysis mobilized, the degree to which formal and explicit conceptual or theoretical frameworks are mobilized, the different contributions that academics, activists and policy-makers can make, and the contrast between an emphasis on systemic forces (generally what might be called a political economy approach) versus the agency of specific individuals (a more humanistic thrust). This diversity is certainly evident across the six books I reviewed, though it must be said that each features some focus on international actors and institutions involved in shaping both the appropriation of resources as well as the social regulation of resource extraction and processing. All of the books also at least touch on the role of geopolitical forces influencing the international political ecology of resource-based capitalism in their respective spheres of emphasis, though the degree of emphasis on geopolitics varies widely.

The series' diversity is also something of a weakness in that it does not present much of a common front for thinking about production and trade in natural resources. One would be hard pressed to identify core features of a 'school of thought' in evidence here (other than perhaps an implicit commitment to an unspecified, general 'globalism' and broad political economy approach) and so, while there are examples of how to go about writing a monograph dealing with the international dimensions of specific resource-based capitalisms, there is no template. There are no explicit core features of a coherent political ecology mobilized across the individual books including, for instance, how to think about the ways in which biophysical dynamics are mobilized as forces of production, the role of social movements (including environmental social movements) or even a general perspective on contemporary international capitalism and its social regulation. Still, the series offers rich material that should serve important ends, including satisfying the curiosity of an educated lay public interested in the topics at hand, academics looking for background and contextual material to frame more place-based or institutionally specific research, activists looking to understand the broad dimensions of networks of production and exchange they may be seeking to influence, and teachers and students looking for course material relevant to contemporary natural resources and the global economy.

FOOD

Jennifer Clapp's take on the international political economy of food is motivated squarely, if implicitly, on the aforementioned notion of fetishism in so much as she stresses the importance of revealing the largely unseen complexity of the international food system. As she writes in the introduction, 'We often lack a full understanding of the human and natural conditions under which our food is produced and are short of full knowledge about who controls the various steps along the supply chains of the most basic and intimate resources necessary for survival' (p. 2). The book, in the main, represents an attempt to reveal some of this complexity, with a focus on the international and systemic dimensions of food and what she terms the 'world food economy'. Clapp's 'big picture' emphasis is something for which she is unapologetic. Indeed, in her words, '[t]his book aims to contribute to a deeper understanding of the global economic dimensions of food, with the hope that it will complement studies that are more local or more issue specific in nature' (p. 5).

Clapp's approach to her subject is one well suited to her emphasis on the global scale, drawing generally from an international political economy perspective, with emphasis on four key drivers of the world's global, and globally integrated, food system: (i) state support for a model of expansionist or productivist, high-input and -output commodity crop agriculture dating roughly to the 1930s, initiated largely by the industrialized nations and featuring large-volume exports of surplus food production; (ii) liberalization (albeit in geographically uneven and highly contradictory, asymmetric ways) of international trade in food, particularly since the 1994 Agreement on Agriculture; (iii) the growing influence of multinational or transnational private firms in the food sector, particularly in food processing, food distribution and retailing, and grain and other agricultural input production, with considerable vertical and horizontal integration between these segments of the corporate sector; and (iv) financialization, including via agricultural futures and other forms of speculation related to the food sector, intensified and expanded in subsequent to relaxation of regulatory restrictions during the 1980s and 1990s.

These four pillars of the world food market are subjected to in-depth analysis and discussion in four chapters (one for each) that comprise the core of the book. Clapp draws on a clear depth of knowledge that she possesses, her expertise in international political economy and environmental governance, and research relying mostly on secondary academic literature, policy reports and published statistics. The text is rich with data, and the book provides a comprehensive guide to the world food system. If the text seems slightly dry in places, this is probably because of the systemic or structural character of the processes Clapp emphasizes. For teaching purposes, the book might best be combined with case studies and profiles of people, places, lands and crops situated within the broad context that she provides.

Clapp concludes the book with a contrast between what she calls the 'dominant' vision of contemporary international agriculture and agricultural development, pushed by the World Bank, the G-8 and the G-20, emphasizing an increase in private capital investment (including land acquisition), public-private partnerships, technological improvement and market specialization focused on production for export. Clapp contrasts this model with alternatives emphasizing, variously:

- i fair trade over free trade, including – via the development of alternative commodity circuits and via the involvement of NGOs and states – providing new ways to connect consumers and producers and to alter the terms of trade in international food markets;
- ii food sovereignty (a diverse but powerful rallying cry, emphasizing the formal rights to autonomy and self-direction for food producers, communities and countries in shaping their own approach to food policy and agricultural development); and

- iii global food justice (primarily for workers, farmers and their communities engaged in the food sector), including formal rights to food within and between countries, and reform of unequal relations between the global North and the global South.

TIMBER

Timber makes a compelling companion to *Food* (I put them together merely because that is the order in which I read them). This book too is focused largely on the global scale, featuring a somewhat top-down perspective on the international trade in timber and wood products. It is also generally, I would say, a work of political economy, but the style of analysis and narration contrast with *Food*. For example, while there is a focus on the role of multinational corporations, a central narrative and analytical device of the book is a commodity chain approach, with emphasis in particular on the growing role of integrated big-box retailers to shape the timber trade.

Taking as their point of departure the serious social and ecological consequences of deforestation and forest land-cover change (not the same thing), Dauvergne and Lister give a nod to neo-Malthusian arguments locating ‘the problem’ with population growth leading to pressure on resources in the global South. But they then argue that getting at the ‘real’ driving forces of forest conversion, biodiversity loss, erosion of ecosystem services and the deprivation of forest-based communities due to the timber trade requires engaging with the ‘... deeper and longer ecological shadows of high consumption in the First World onto poor peoples and fragile environments in the Third World’ (p. 4).

Much of the book’s focus is on the role of ‘corporate powerhouses’ animating international timber products commodity chains, including Walmart. The reasons given for this focus on large corporate actors include the power of vertically integrated retailers and forest products companies in controlling (through formal and informal means) access to and control over forests, including: private rights over nominally public forests; the influence of such corporations on local communities and states in the management and regulation of forest resources and the production of commercial timber; and their influence on distribution and marketing to global markets. The thrust of the analysis, the authors argue, amounts not only to a critique of the current role of integrated multinational corporate actors, but also to recognition of the potential for a shift towards more socially and environmentally sustainable forest management that could be affected by these corporations within their supply chains. As Dauvergne and Lister write, ‘[t]ransforming global commodity chains that underpin a world capitalist economy that undervalues natural capital ... will require *internal* adjustments within corporate commodity chains – such as chain of custody eco-certification, carbon accounting, and life-cycle assessments’ (p. 26, emphasis in original).

The ‘guts’ of the book are comprised of four substantive chapters: ‘The Power of Big Retail’, ‘The Northern Forest and Paper Multinationals’, ‘The Rise of the Third World’ and ‘Consuming the South’. The first two, as their titles would suggest, focus on factions of capital (largely based in the global North) that drive the global timber and forest products trade. The ‘Rise of the Third World’ focuses on the emergence of nations in the global South, notably China, in the latter part of the twentieth century and into the twenty-first, not only in the provision of raw materials, but also, crucially, in the processing, export and domestic consumption of commercial wood fibre. The chapter also highlights the emergence and growing importance of Southern-based forest multinationals, including a concentration of emerging capitals in China, Brazil and Chile.

‘Consuming the South’ stresses the significance of the global South as a source of timber, and thus the importance of engaging with the social and environmental consequences of commercial timber appropriation in some of the least affluent and most vulnerable places in the world. The chapter also stresses the significance of demand for packaging materials as a ‘pull’ on commercial wood fibre resources, and the growing importance of China as a conduit in global timber commodity chains,

including timber secured from both legal and illegal logging. The conclusion is somewhat grim. And yet, the authors stress that the growing influence of big-box retailers as brokers between consumers and timber producers presents an opportunity to improve governance and the environmental trajectory of commercial timber production (a theme evident throughout the books, in which some will find echoes of Pollyanna). This theme comprises the emphasis of the final chapter, doubling as both conclusion and recipe for change based on corporate action, fuelled by a dialectic of internal (corporate socio-ecological responsibility, or CSR) and external forces (mobilization by states and civil society to force change). The discussion curiously stresses the largely abstract importance of big retail actors to effect change, and yet acknowledges the practical reality of glacial corporate-led change, the rampant greenwashing and weak compliance associated with CSR, and the problems created by weak state and other 'external' regulatory pressures. If the faith the authors place on the potential for progressive change to be secured through some combination of forced and voluntary action by big-box retail may strike some as unfounded, at least the authors make a set of claims with which to engage in scholarly and pedagogical debates about the current and future trajectory of commercial timber production and trade on a global scale.

FISH

For those who like to imagine, as I did, that eating fish is some qualified form of vegetarianism because the downsides of eating meat don't apply (e.g. placing unnecessary pressure on arable land by eating too far up the food chain, supporting socially and environmentally destructive factory and confinement livestock farming, and subjecting animals to meaningless lives followed by agonizing and anonymous deaths), this book is for you. Or maybe it is not for you. I read the book. I am off seafood.

DeSombre and Barkin adopt an approach somewhat in contrast with the flavours of international political economy offered by *Food* and *Timber* in that their focus is more specifically on the appropriation of fish (i.e. fisheries) and less on the downstream dimensions of seafood commodity chains. Moreover, their perspective is more a blend of natural resource economics and natural resource management than the kind of political economy approach taken in the other books I have reviewed. They specifically stress the distinctive character of fish as a natural resource, echoing what Arthur McEvoy (1986) memorably described as the 'fisherman's problem'; namely, the interaction of commercial market pressures with an ephemeral, fugitive resource, often subject to weak or absent property rights, the biological reproduction of which may be unpredictable or unknown, and the populations of which may respond in complex and chaotic ways to fishing pressure. These dynamics make effective social regulation of commercial, sport and subsistence fishing difficult. The authors prioritize the property problem, claiming that most fisheries, or at least most commercial fisheries, do not feature enduring property rights and are effectively open to all on a first come, first served basis.

While it is undoubtedly true that non-exclusive property regimes (or the complete absence of defined property rights) has been one of the most important to plague commercial fisheries the world over, the authors erroneously label fisheries that do not feature excludable rights as 'common pool', thereby conflating them with open-access regimes. Substantively, the error is not fatal, since the diagnosis in the book is genuinely informed by the open-access problem. But the important and well-established distinction between *actual* common pool resources or 'commons' – that is, those owned (formally or informally) exclusively by some identifiable collectivity – is thereby lost. The distinction is somewhat commonplace in the natural resources literature, particularly in the aftermath of the well-known and similarly confused argument famously made by Garret Hardin (1968) (upon whom the authors directly draw here), and its significance includes numerous documented examples

of relatively enduring, sustainable common property regimes, including in fisheries, in the past and up to this day that can serve to inform policy debates pertaining to over-taxed fisheries. It is disappointing to see this distinction missed here.

This matter of terminological and conceptual conflation aside, the book has significant strengths. The authors highlight what they call the 'issue structure' in open-access fisheries, including asymmetry between collective and individual interests, as well as the enduring amount of uncertainty in knowledge about the basic biology and ecology of many important fisheries. They also note the pervasive problem of water pollution, including both the contamination of fish species and the erosion of ecological conditions in fresh and marine habitats. The authors place great emphasis on the enduring problem of perverse government subsidies that too often perpetuate overfishing even when commercial appropriation, on its own, is unprofitable. All of these factors underpin rampant evidence of overfishing on a world scale and signs of ecological collapse in most of the world's most important fisheries and fishing grounds.

The rest of the book documents important dimensions of global fisheries and the fishing industry. Chapter two chronicles the expansion of commercial fisheries on a worldwide basis, with a focus on marine fish, since the 1950s, plateauing in the 1990s, and declining when measured in terms of catch per unit effort since. The authors note the importance of pelagic fishing, but also stress that about 90 per cent of ocean fish are caught within 200-mile national exclusive economic zones (EEZs). They also discuss important changes in fishing vessels and fishing gear and other technologies that propel growing rates of capitalization and make possible longer trips on the water, more invasive types of fishing, and methods of exploitation that push fish stocks (and often their associated ecological communities) to exhaustion. Chapter three examines the structure of the international commercial fishing sector, still less concentrated than many other economic sectors, but showing signs of growing concentration, particularly in fish processing and distribution. The authors distinguish and discuss some of the contrasting characteristics of industrial versus artisanal fishing, noting that artisanal fishing employs far more people, yet results in far less catch. They also note the economic importance of recreational fishing in some locales.

Chapter four is dedicated to looking more closely at regulation, with an emphasis on efforts to curb overfishing. The discussion includes an acknowledgement of the sporadic successes of local, self-organized efforts to control access and curb overfishing (i.e. to manage fish resources collectively and communally), a significant caveat to the aforementioned conflation of common property with open access. The authors document the introduction of EEZs, noting some of the perverse incentives and effects that resulted, including in some instances state support for intensifying fisheries exploitation within their EEZs as a form of economic development policy. The chapter then moves into a discussion of Regional Fisheries Management Organizations, which are voluntary multi-state entities aimed at cooperation and better management of international fisheries, including, for example, Pacific tuna and halibut. The chapter closes with a discussion of the rising importance of Marine Protected Areas for protecting breeding grounds, conserving fish stocks and recharging commercial fisheries, and also the emergence of privately held tradeable fishing quotas that provide both enduring rights to fish (thereby, in theory at least, easing the rush to catch fish before someone else does) and the right to sell those rights.

Chapter five offers an important and much-needed discussion of the rise of commercial aquaculture in the fisheries mix. The chapter documents the importance of aquaculture in offsetting declines in wild caught fisheries, but also points to some of the serious ecological and health issues associated with the often intensive, high-input, and chemically dependent raising of fish for human food in captivity. This chapter features welcome and insightful case studies involving tilapia, oysters, shrimp, salmon and the emerging bluefin tuna aquaculture sector. In the case of both salmon and bluefin tuna, the authors note that fish being raised in captivity are being fed with other kinds of fish

caught in open water, thereby seriously qualifying the notion that aquaculture takes pressure off of wild caught fisheries. The case studies are used to inform a discussion of the question as to whether or not '... fish farming can alleviate some of the pressure on the world's natural fish resources', with the answer, in the authors words, being decidedly 'mixed' and 'complicated' (p. 139).

The final chapter outlines some of the ways forward for individuals, governments and private firms. While the authors place considerable emphasis on the need for consumer and market-led reforms through such measures as certification, they also note the importance of government initiatives, notably to reduce support for economically and ecologically moribund fishing activities in the name of economic (often rural) development and the maintenance of 'traditional' lifestyles, while also embracing new regulatory approaches. This book is decidedly more 'free market' friendly than *Food* or *Timber*, and certainly more than others in the series. While some readers will find that this suits their sensibilities, others will not. So it goes. Either way, the book offers a wealth of up-to-date information, is fairly comprehensive, is well-written and will provide a valuable resource for scholarly and policy debates as well as in classrooms.

COLTAN

No doubt your first question was my first question: what exactly is coltan? It turns out that I did not know. The abbreviation 'coltan' is another name for tantalite ore, and is derived from the combination of columbite and tantalite. Tantalum is the name of the valuable metal that is extracted from tantalite ores. However, coltan specifically occurs in the eastern Congo region, and the name is used there. Because of the high profile of extreme violence arising over access to and control over coltan deposits in the region, the word 'coltan' has taken on a wider, popular and journalistic connotation as a reference to tantalite. The author explains this and commits to using the word 'coltan' in the book. only to refer to tantalite ores originating in the Democratic Republic of Congo (DRC), to use 'tantalite' to refer to ores containing tantalum more generally, and tantalum only in reference to the processed metal that is the reason for commercial interest in tantalite (largely for use in electronic devices and hi-tech industries). So why is the book called *Coltan* and not *Tantalite* or *Tantalum*? Good question.

This book contrasts sharply with the previous three discussed in that it is written by an independent scholar in a non-academic style (by which I mean, among other things, there is very little explicit focus on the conceptual foundations of the analysis). Moreover, there is more focus in this book than in any of the three discussed so far on the specifics of activist campaigns aimed at redressing socially and ecologically undesirable dimensions of, or impacts from, natural resource appropriation and processing. The book features considerable focus on the conflicts linked to mining tantalite, the reasons behind the conflict and international multilateral efforts to reduce violence. The book also offers a broader portrait of the global mining and processing of tantalite. Its central purpose, in the author's words, is to analyse '... the two issues that have come to define coltan politics: the relationship between coltan and ongoing violence in the Democratic Republic of the Congo ..., and contestation to reshape the global coltan supply chain' (p. 1).

The book is organized into five chapters. The first lays out some of the basic facts and addresses important misconceptions about the international trade in tantalite and tantalum. This includes a description of the important properties of tantalum and why it is useful in the production of electronic devices, as well as a portrait of the international market, and ebbs and flows in both prices and demand, over time. The author examines the importance of the stockpiling of tantalum-bearing ores and the effects of the accumulation and liquidation of these stockpiles (by governments and private firms) on international markets. He profiles the international distribution of tantalite reserves, noting that while the DRC and central African mining have

received considerable attention, more than 40 per cent of global reserves are in South America. However, these data stand in contrast with the geography of tantalite production, which the author estimates make Australia (30%), the DRC (21%) and Brazil (14%) as the big three, all in the context of generally upward production trends on a global basis since the mid-1990s. Since Australia's production comes from one single mine, and since that mine was mothballed in 2008 in the midst of the financial crisis of that year, the centrality of DRC production to the world's supply of tantalite is clear, though the author is at pains to caution against over-simplification. The general thrust of the chapter is to provide some very effective political economic context for tantalite price spikes in 2000 that ignited a rush for coltan in the DRC, the effects of which are still apparent: 'control [of mining deposits] by armed groups, new mining communities in national parks or where previously there were village societies organized around agriculture, and economic trading networks comprising Congolese citizens, private companies and military forces' (p. 30).

The second chapter provides a more detailed portrait of the international production of tantalite, again with an emphasis on debunking or qualifying popular images of chaotic and violent production conditions. As the author notes, most tantalite is produced from industrial mines. Where this is not the case, and instead more artisanal or small-scale production is the norm, production is still highly organized. The author goes on to note that while industrial, open-pit mines are important, because tantalum is very heavy and also quite chemically inert, tantalite is relatively easy to separate from surrounding materials using relatively low-tech, labour-intensive means. That makes tantalite highly suitable to artisanal mining, provided that it has the proper institutional framework, including the configuration of access rights. Nest places considerable importance, in this chapter and throughout the book, on the character and enforcement of property rights as influences on the potential for violent conflict at artisanal tantalite mining sites. The chapter includes an in-depth, detailed portrait of production conditions in the coltan-mining sector in the DRC and some of the issues associated with these conditions, including not only periodic violent struggles among different actors in the value chain, but also the impacts on local environments (including national parks) through demands for food and other supplies for workers. Nest notes that while most tantalite is sold on forward contracts with guaranteed prices, there is also a robust spot market. There are no forward contracts in the DRC because of the uncertainties associated with production conditions, making pursuit of some more economically, socially and environmentally stable production all the more difficult to achieve.

Chapter three features a specific focus on the association between coltan mining and violence, including sexual violence perpetrated by men against (mostly) women. Nest specifically notes that the three main social features of coltan mining in the DRC – namely violence, a weak state, and the prominence of armed militias in the trade – are all interconnected. He usefully historicizes the years of coltan conflict, linking contemporary struggles to colonial violence perpetrated by the mercenary armies of Belgium, and to postcolonial conflicts associated with the dictatorship of Mobutu Sese Seko and its aftermath. The portrait is detailed and nuanced, with emphasis on the development of ethnic tensions in the DRC surrounding citizenship rights for Congolese of Rwandan descent inflected through land title; exodus from Rwanda into the DRC in the wake of the Rwandan genocide; the overthrow of Mobutu in 1997; and the Congo war of 1998–2003. Nest discusses a sixth wave of violence following cessation of the Congolese war in the form of local conflicts among armed militias and the morphing of these conflicts into struggles over economic assets, including coltan deposits and the coltan trade. While Nest certainly notes and provides a detailed portrait of coltan as a conflict mineral, one of his main claims in the chapter is that violence in the coltan trade is a symptom of conflict rather than a cause. Coltan's significance, then, is not because it has generated specific or unique associations between natural resources and violence, but instead because of '... the way it has been used by activists to draw attention to a war neglected by the international community' (p. 104).

Chapter four is comprised of an analysis and discussion of advocacy campaigns centred around the coltan–violence nexus. Nest profiles ten different advocacy campaigns targeting the coltan trade, as well as seven other campaigns of a more general nature dealing with social and ecological conditions of mineral extraction and processing. Though the entire book is saturated with the kinds of nuanced observations that come from extended involvement with the issues, this chapter comes across as the most original research contribution and would make a good stand-alone case study assignment in a course on the role of NGOs in international advocacy and social regulation. There is much to digest in this chapter, but the take-home, in the author’s words, is that while campaigns both directed at and relevant to coltan (and other conflict minerals) have raised awareness, particularly in the global North, about violence and ecological degradation associated with mining in the DRC and elsewhere, ‘[t]he issues that make coltan and other mining contested today, such as access to land and contested property rights, remain unresolved and largely unaddressed ...’ (p. 158).

Nest ends the book with a fifth chapter looking ahead to the future politics of coltan and wondering about the future efficacy of consumer boycotts of coltan as markets for consumer electronics (and, in particular, mobile phones) shift to Asia and the global South. After analysing some of the industry dynamics and impacts associated with coltan boycotts, he focuses specifically on the growing role of China as a buyer for coltan and, more generally, the growing integration of Chinese capital and African mining. Though he is pessimistic in some respects about the future of coltan advocacy, Nest reminds us that, at the end of the day, the coltan story is a story about globalization, and the attempt by activists from civil society to contest and reform the coltan trade (and conflict minerals extraction and production more generally) by closing the gaps between producers and consumers. Nest attributes the success of activist campaigns to two key features: patience and optimism. One might well argue that there is more involved (some enduring ethical connection between people in far-flung places making humanitarian appeals work for instance), but the spirited faith in civil society from someone deeply engaged in the issues is refreshing.

DIAMONDS

Diamonds is more in the flavour of *Coltan* than *Food, Timber* or *Fish*. It is written by a non-academic and in a largely non-academic voice but, at the same time, has strong analytical and research foundations. In this case, Ian Smillie comes across very effectively as a committed and experienced activist with relevant expertise, including as a key player for the NGO coalition in shaping the formation of the Kimberley Process for certifying diamonds and helping to sever the link between violence and the diamond trade. The book is also, refreshingly and uniquely among the books I reviewed, written in the first person and from Smillie’s perspective. For those interested in the long arc of Africa’s so-called ‘blood diamond’ issue, this book provides that story, explaining how diamonds became an almost ideal vehicle for money laundering and the archetypal case for how governments and independent militias have used natural resources to finance war and violent repression.

Smillie’s brief introduction to himself, to diamonds and to the book is followed by six substantive chapters and a brief conclusion. Chapters two and three tell the backstory of the rise of the modern diamond industry, starting with the basic geology of diamonds and how they are brought to the surface via kimberlite volcanic ‘pipes’. Those that stay near the pipes are conducive to industrial scale, capital-intensive mining, but those spread more widely by erosive forces are alluvial diamonds that may lend themselves to low-tech, labour-intensive scouring of the landscape. Smillie documents the rise of the De Beer empire from South African roots, largely thanks to the efforts of Cecil Rhodes (of Rhodes Scholar fame) in crafting the basic architecture of a cartel the ruthless market stranglehold of which has been rivalled by few others. As Smillie writes, ‘[by] controlling the world’s supply of

diamonds and narrowing the London funnel through which they flowed, Rhodes created a model that would shape the industry too for more than a century, surviving a myriad of commercial challenges, American anti-trust laws, the Depression, two world wars, the end of colonialism, apartheid, and most of what Rhodes stood for' (p. 24). He goes on to explain how the constant threat from new entrants led the De Beers cartel to shift towards 'single channel marketing', facilitating domination of the global diamond trade through the end of the twentieth century. Smillie also documents the importance of marketing and the origins of De Beers' enduring 'diamonds are forever' slogan, cementing the link between romance and diamond gemstones.

With this background established, Smillie begins in chapter three to tell the story of blood diamonds in Africa and the ensuing international campaign to decouple diamonds from violent repression. He tells of his first exposure to the chaos of artisanal diamond mining in Koidu, Sierra Leone in the late 1960s, and the birth of blood diamonds from a fusion of criminal control of diamond smuggling with political rivalries spanning the Sierra Leone border with Liberia. Running amok in Sierra Leone, Charles Taylor's Liberian Revolutionary United Front '... perfected the art of child soldiering, enlisting girls as sex slaves and boys as killers, socialized into violence through drugs and murder, often of their own parents' (p. 52). Smillie documents the parallel turn to the diamond trade for revenue by Jonas Savimbi in Angola after the collapse of Soviet support in the early 1990s. In the Congo, Mobutu's postcolonial control of the diamond trade morphed into a foundation for Laurent Kabila's power, and a lynchpin of regional alliances and illicit resource trade used to finance war. Even Al Qaeda got in on the action. As Smillie writes, '[b]y the mid-1990s, at least 25 percent of the world's rough diamonds were in some way connected to money laundering, tax evasion, illicit behavior, and war ... And until the blood diamond campaign began, nobody in the industry – the place where diamonds were truly understood – said a word' (p. 67).

Smillie documents initial attention to the nexus of diamonds and armed conflict in Africa during the 1990s by the United Nations, and, based largely on the ineffectiveness of UN action, the emergence of concerted efforts from civil-society groups. NGOs Global Witness and Human Rights Watch, aided by Canadian Ambassador to the UN Robert Fowler and Partnership Africa Canada began to draw attention to the importance of the illicit trade in diamonds for raising funds to purchase weapons, making a mockery of UN sanctions. More and more focus came to bear on chain of custody issues and certification schemes aimed to shut illicit purveyors of diamonds out of the market. From these efforts emerged the Kimberley Process, well known not only as a breakthrough on the blood diamond issue, but also as a model for tackling the association between natural resource production and violence in the global South. Smillie explains the origins of the Kimberley Process in some detail (including insights on complex multilateral negotiating tactics). And while he does clearly appreciate the significance of the Kimberley Process breakthrough, he also frankly discusses the shortcomings and limitations of the approach, its gradual descent into bureaucratic apathy and the limitations to applying this model in other sectors. He devotes an entire chapter (six) to the nuances of compliance issues, working from case studies of specific countries, and stressing the ongoing problems of diamond smuggling, the thorny issue of developing a reliable database to track and report on the diamond trade, and the persistent problem of precisely defining blood diamonds.

The penultimate chapter is devoted to the relationship between the diamond trade and development in the global South, with a focus on the rise of the Diamond Development Initiative, which the author helped establish and for which he now serves as Chair. While a focus on this initiative may sound parochial, it does not come across so in the book. Rather, the account of the initiative flows directly from the issues raised in narrating the provenance and problems of the Kimberley Process. The DDI also serves as an intriguing example of partnerships between private industry, government and civil-society groups aimed at 'cleaning' up the image of a sector, not

arising from some abstract ethical impulse but, rather, as a response to scrutiny, in this case of blood diamonds by civil-society groups. Smillie discusses the three main emphases of the DDI from its inception: human rights, registration of artisanal miners and the establishment of ‘development’ diamonds analogous to a fair or ethical trading initiative.

In the closing chapter, Smillie reflects on the blood diamond era as many of the African conflicts that were fuelled (in part) by reliance on the diamond trade end. He also looks at emerging issues, including the manufacture of synthetic diamonds, and the formation of the Responsible Jewellery Council, an industry-led attempt to ‘clean up’ the mining, processing and selling of gold, diamonds and platinum. Smillie is not entirely dismissive of the RJC but he does point to issues, and echoes the sentiments of many involved in the struggle over independent versus corporate led fair, ethical and sustainable natural resource appropriation and processing: industry initiatives do not emerge in a vacuum, but need to be seen as responses to and complementary with initiatives from government and civil society.

COFFEE

Coffee is the last book in the series that I read. It is written by an academic, Gavin Fridell, and written very well indeed. In fact, the author’s writing style and argument is something of a blend of the tone of the aforementioned books, with an academic sensibility when it comes to discussion and mobilization of a formal conceptual and explanatory framework used to execute the analysis, and yet an activist sensibility in discussing the strengths and weaknesses (with emphasis on the latter) when it comes to CSR and, more generally, consumer or market-led campaigns to reform the coffee trade.

Fridell’s approach generally echoes the emphasis on international political economy evident in both *Food* and *Timber*, but with a more strongly articulated and specific intervention in debates concerning the political economy of international trade. Fridell deploys the notion of ‘statecraft’, drawing directly from Peter Gowan, but also geographer David Harvey’s (2003) geographical development of Giovanni Arrighi’s ideas concerning the expression of contemporary geopolitical power through contrasting but relational logics – one capitalist, the other territorial. Throughout the book, Fridell is keen to emphasize the falseness of notions of nominally free trade that circulate in both popular and scholarly discussions whereby the exercise of state power is seen as anathema to the operation of markets, particularly in debates about contemporary, ostensibly free or liberalized international trade. As he writes in the opening chapter, ‘... “free trade” is a complicated political, economic, and ideological “package” rooted in complex social, historical, and cultural forces. Politics and ideology are not side issues for free trade, but [are] rather central to it ...’ (p. 17). One of Fridell’s central aims in the book is, then, to document how states and the deployment of statecraft have shaped the historical ebbs and flows of the international coffee market and, in turn, the capacity of states, historically and in the future, to shape the uneven social and ecological conditions under which coffee is produced.

Chapters two and three provide historical background, with emphasis on the colonial foundations of the modern coffee trade and then twentieth-century price support mechanisms aimed at securing regular and equitable returns for coffee growers. Fridell notes the uptake of coffee as a luxury good in seventeenth-century Europe, a time when primary demand came from Muslim countries, where coffee was (and is) consumed in part as an alternative to alcohol. He then documents the rise of coffee consumption among the growing and increasingly urbanized working classes tied to the expansion of capitalism. And he discusses the transformation of pre-capitalist agrarian social relations in coffee growing areas of the global South (including, notably, central America) as smallholders competed with emerging large-scale coffee plantations. Fridell notes the parallel shift towards monocropping,

full-sun coffee bean cultivation techniques (primarily on the larger estates), displacing more traditional, multi-cropped and shade-grown techniques – which, ironically, are now the darlings of the eco-certified and bird-friendly coffee niches.

The relatively short chapter three examines attempts to regulate coffee prices on the international market during the twentieth century, including the emergence and then collapse of the International Coffee Agreement (ICA). From 1963 until it was suspended in 1989, the ICA, despite its problems, proved generally effective in managing trade volumes through quotas, supporting higher prices and reducing price volatility. This record, argues Fridell, compares favourably to the ‘free’ trade regime that has followed it from the perspective of coffee growers and coffee exporting countries: ‘[f]rom 1976 to 1989, the regular price of conventional coffee beans under the ICA system was close to or above what is today considered the “fair trade” price’ (p. 68).

Chapter four examines the post-ICA period, with emphasis on the active role of states in facilitating and supporting coffee production for export. Consistent with his argument throughout the book, Fridell is at pains to contrast the before- and after-ICA periods not as the collapse of state action in the coffee market but, rather, as a shift from collective state action to a more individuated, competitive form of state involvement. He provides support for this perspective in part through a focused, historically informed case study of the role of the Vietnamese state in promoting coffee production for export, not insignificant given that the emergence of Vietnam as a major coffee exporter is widely attributed with helping to cause over-supply and declining coffee prices on the international market during the later 1990s. Chapter four’s focus on coffee statecraft in the post-ICA era is complemented in the subsequent chapter by an examination of corporate power in the fair trade coffee market. Fridell emphasizes that the emergence of fair trading regimes must be seen not only as a response to neo-liberal reforms of the international coffee market since the 1980s, but indeed as being in many ways consistent with those reforms. This chapter also introduces the author’s main critiques of fair and ethical trading, namely that while consumers are given opportunity to ‘choose’, their choices are typically quite prescribed and come with little to no substantive information about the social and ecological conditions under which coffee is grown. Commenting in part on the Starbucks CSR campaign, Fridell observes pointedly that ‘[r]egardless of what ethical intentions individuals running the giant coffee transnationals may or may not have, in the end they run immense, hierarchical institutions designed with one primary objective: to enhance corporate profitability in order to survive, thrive, beat out competitors, and enrich private shareholders’ (p. 105).

The final chapter explores the contemporary state of play in the world coffee market, with emphasis on the pervasiveness of the cost–price squeeze (i.e. rising production costs, falling coffee prices) in coffee production. Fridell also notes the growing influence of the financial sector and financial speculation on the food sector in general and the coffee market in particular, echoing some of the material introduced by Jennifer Clapp in *Food*. After reviewing some environmental impacts associated with coffee production and the growing challenge of climate change, Fridell parallels the messages in both *Coltan* and *Timber* in stressing the growing significance of the global South not only in coffee production, but also in coffee consumption. This includes some fair trade initiatives emerging from and focused on Southern coffee markets. His conclusion is consistent with the message delivered throughout the book regarding the involvement of states in markets: ‘... we must break free of the intervention/non-intervention trap, challenge the dominant understandings of the free trade package, and place far greater emphasis on recognizing the political roots of what are so often seen as economic forces at work’ (p. 146). For Fridell, then, it is not enough for NGOs to target consumers and public awareness about the social and environmental consequences of coffee (and by extension, natural resource) commodification. States are central and need to be enlisted to the cause.

CONCLUSION

Six books in the Polity 'Resources' series, all dealing with the ways in which raw materials of various kinds, whether destined for essential or luxury uses, are appropriated into networks of capitalist production and commodity circulation for distribution in markets spanning the globe. If the series does nothing else, it reminds us that talk of the dematerialization and 'greening' of capitalism needs to be taken with a serious pinch of salt and, as often as not, reflects the displacement (often to places in the global South) or dispersion of negative social and environmental consequences associated with production, as much as the outright elimination of those consequences. Geography, it turns out, and specifically the stretching of commodity networks, matters a lot. Even if the spatiality of natural resource commodity chains is not an explicit theme in the books, the ways in which commodification in the age of globalization reworks relationships between people around the world, making them paradoxically both more interdependent and yet more and more subject to abstract processes beyond their immediate purchase, is strongly evident.

But these books, and by extension, the series, do more than that. The books provide important arguments about the dynamics of contemporary natural resource appropriation, with a generally global perspective and featuring, collectively, a pluralist, empirically rich political economy approach. As such, they may be expected to serve as reference guides for scholars, activists and policy-makers. They should also serve well in undergraduate classrooms, particularly, in my opinion, *Coltan*, *Diamonds* and *Coffee*.

Emphasizing the strengths of these books also requires acknowledging dimensions that at least some readers might be looking for that are not featured. These are not ethnographic studies, though *Coltan* and *Diamonds* are clearly informed by first-hand observation and experience on the part of the authors. There are some more in-depth case studies in some of the books that complement the more generally extensive approach of the series, including in *Fish*, *Coffee*, *Coltan* and *Diamonds*. And there is, surprisingly, almost no attention paid in any of the books save *Diamonds* to the semiotic dimensions of resources and how systems of material appropriation are tied to and informed by systems of meaning. Gramscians will be disappointed. Readers of this *Journal* in particular may be looking for more focus on production relations and the dynamics of social differentiation propelled by commercial appropriation of resources and associated landscapes. That is something of a theme in *Coffee*, but less so otherwise. There is certainly some attention to the specificity of property rights regimes, particularly in *Fish*, *Coltan* and *Diamonds*. But if there is a sociological focus across the books, it is the producer–consumer nexus and efforts to leverage consumer awareness in order to pressure corporate producers and aligned governments to improve social and ecological practices. I want to thank the respective authors for their work in writing these books, and this *Journal* for the privilege of engaging with the books.

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