

BOOK REVIEW SYMPOSIUM

THIS CHANGES EVERYTHING: CAPITALISM VS. THE CLIMATE

Book by

Naomi Klein

New York:
Simon & Schuster
2014

Introduction to Symposium by

John C. Finn

Reviews by

Noel Castree, Juan Declet-Barreto, Leigh Johnson, Wendy Larner, Diana Liverman, and Michael Watts

Interview with Naomi Klein

John C. Finn

Abstract:

In Naomi Klein's latest book, *This Changes Everything: Capitalism vs. the Climate* (Simon & Schuster, 2014), the activist, journalist, and author lays out an argument that will probably be familiar to many readers of *Human Geography*. Carbon is not the problem, but rather a symptom of the real problem: global capitalism. The purpose of this *Human Geography* book review symposium is to give serious academic consideration to Klein's ideas, arguments, and visions of a carbon-free future. Thus in the pages that follow, six geographers—Noel Castree, Juan Declet-Barreto, Leigh Johnson, Wendy Larner, Diana Liverman, and Michael Watts—weigh in with their

readings and critiques of Klein's book. Following these six reviews and concluding the symposium is the full text of the hour-long interview conducted by John Finn with Klein in late 2014.

Keywords:

Blockadia, Capitalism, Climate Change, Extractivism, Political Ecology, Social Movements

Simposio de Reseñas

Esto lo Cambia Todo: El Capitalismo versus el Clima

Introducción al simposio

Resumen

En el más reciente libro de Naomi Klein (*Esto lo Cambia Todo: El Capitalismo versus el Clima*, editado por Simon and Schuster, 2014), la militante, periodista y autora propone un argumento que posiblemente resulte familiar para los lectores de *Human Geography*. El dióxido de carbono no es el problema, sino más bien un síntoma del verdadero problema: el capitalismo global. El objetivo de este simposio de reseñas de *Human Geography* es el de considerar seriamente las ideas, argumentos y visiones de un futuro libre de dióxido de carbono de Klein. Aquí, seis geógrafos (Noel Castree, Juan Delect-Barreto, Leigh Johnson, Wendy Larner, Diana Liverman y Michael Watts) expresan sus lecturas y críticas al libro de Klein. Siguiendo a las seis reseñas y la conclusión del simposio, incluimos el texto completo de la entrevista de una hora que John Finn le hiciera a Klein a fines de 2014.

Palabras clave: Blockadia, Capitalismo, Cambio Climático, Extractivismo, Ecología Política, Movimientos Sociales.

Introduction

This Changes Everything: Capitalism vs. the Climate

John C. Finn

Department of Sociology, Social Work, and Anthropology, Christopher Newport University

In Naomi Klein's latest book, *This Changes Everything: Capitalism vs. the Climate* (Simon & Schuster, 2014), the activist, journalist, and author lays out an argument that will probably be familiar to many readers of *Human Geography*. Carbon is not the problem, but rather a symptom of the real problem: global capitalism. The purpose of this *Human Geography* book review symposium is to give serious academic consideration to Klein's ideas, arguments, and visions of a carbon-free future. While not techni-

cally an academic book, in an interview I conducted with Klein in November 2014 she made it very clear that she sees herself as more than an "activist journalist" (her term), placing her work at the intersection of academic research and social activism. She told me:

I find it a little hard to classify exactly what I am at this point in time. I'm not just a working journalist. I write books that take as long to write as it takes to get a PhD. There are teams of researchers helping me, we set up little research institutes... we set up our own system of peer reviewing the material... I used to call myself an activist journalist when I was doing more journalism. Now, I think I'm an activist once I've written the book. I organize my life around this period of retreat and research and writing that doesn't actually leave a whole lot of room for activism. Although what I'm trying to do is produce material that is genuinely useful to movements... I do see my role as a writer, creating intellectual tools that are useful to movements one way or another. Then once they're done, I also feel a real responsibility to the movement that inspired my work and I do feel myself to be a part of.

In the pages that follow, six geographers—Noel Castree, Juan Delect-Barreto, Leigh Johnson, Wendy Larner, Diana Liverman, and Michael Watts—weigh in with their readings and critiques of Klein's book. Following these six reviews and concluding the symposium is the full text of the hour-long interview I conducted with Klein. Before moving on, though, I think it's worth providing a brief overview of her book.

Klein begins by laying out the scientific, economic, and political reality of our current situation. She describes the frightening scenarios for 2°C, 4°C, and 6°C warming that could potentially trigger "nonlinear tipping elements" (13) and foretell calamitous disaster on a scale that humans might not be able to survive. She identifies a global economic order entrenched in extractive carbon-based mass-production and mass-consumption that has led us to this situation. And

she outlines a political system in the US, the world's second largest carbon emitter, which seems not only unable to do anything about carbon pollution, but whose legislative branch is now run by a political party that overwhelmingly dismisses the science of climate change. All this leads her to an interesting and counter-intuitive conclusion: the climate-denying Right actually understands exactly what is needed: systemic change that overthrows global capitalism. To the Right this is precisely the reason to pretend that global warming is a hoax. To Klein, though, equally wrong are many, if not most on the left who believe that global carbon emissions can be reduced to such a level so as to avoid catastrophic climate change *without* systemic change. Indeed, the only times in recent history where we have witnessed the kind of large-scale reductions in carbon emissions necessary have been precisely when capitalism is failing—during economic collapses or deep recessions—which leads her to conclude that we are too late for any fix within a capitalist system: “our economic system and our planetary system are now at war” (21). Gradual and incremental change is no longer an option. We have to leave behind the “fetish of centrism” (22), for only radical change will suffice.

Throughout nearly 600 pages (including 60 pages of notes) Klein makes her case in this ambitious polemic. Part 1—“Bad Timing”—is the diagnosis. She draws out the tangled web of links between global capitalism and climate change, making the (not unproblematic) argument that it was an unfortunate coincidence in timing that our scientific understanding of a changing climate and the ascent and spread of neoliberalism, a driving force behind the rapid global rise of carbon emissions, happened at essentially the same time. In doing so she makes a forceful case for the need of systemic changes to the nature of our economic system rather than partial fixes within that system. She outlines a set of policies at all geographical scales (global, national, regional, and local) that would catalyze this systemic shift—a reclaiming of the commons, the development of a truly progressive taxation system in which the polluter pays (i.e. a fix for the “market failure” that is carbon pollution), and the creation of government agendas and spending

programs geared toward a zero-carbon economy—and she examines both the successes and failures of cases where these policies have been put into place.

Part 2—“Magical Thinking”—is Klein’s “take-down” of many of the largest elements of the modern environmental movement. Specifically, she sets her sights on “big green,” “green billionaires,” and the entire field of geoengineering. And her critique is ruthless. It turns out that nearly all major green groups have deep ties to the fossil fuel industry. Conservation International, The Nature Conservancy, the Conservation Fund, WWF (originally the World Wildlife Fund), the World Resources Institutes have all received direct funding from BP, Shell, ExxonMobil, American Electric Power, Chevron, etc. Representatives from BP America, Chevron, and Shell all sit on The Nature Conservancy’s Business Council, and the former CEO of Duke Energy is on the organization’s board of directors. All these groups, and many others, also have their endowments partially invested in the fossil fuel industry. And as if that weren’t enough, The Nature Conservancy actually has its own oil wells on a Texas wildlife preserve that it controls. You read that correctly. *Yes*, The Nature Conservancy is actually extracting hydrocarbons on a Texas wildlife preserve that it “rescued” from Mobil several decades ago. It gets worse:

Under the stewardship of what *The New Yorker* describes as ‘the biggest environmental nongovernmental organization in the world’—boasting over one million members and assets of roughly \$6 billion and operating in thirty-five countries—an endangered species has been completely wiped out from one of its last remaining breeding grounds, on which the organization earned millions drilling for and pumping oil and gas (195).

Her critique, though, doesn’t stop with the “big greens.” She skewers the “green billionaires” (e.g. Richard Branson) next, before moving on to a thorough critique of the entire concept of geoengineering. “The solution to pollution is... pollution?” she asks (256). This is, Klein argues, exactly “how the shock doctrine works: in the desperation of a true

crisis all kinds of sensible opposition melts away and all manner of high-risk behaviors seem temporarily acceptable” (277).

Finally in Part 3—“Starting Anyway”—Klein’s turns optimistic, perhaps radically optimistic, in reviewing the range of decentralized, climate-based social movements emerging worldwide. She speaks of “blockadia”—“a roving transnational conflict zone that is cropping up with increasing frequency and intensity wherever extractive projects are attempting to dig and drill, whether for open-pit mines, or gas fracking, or tar sands oil pipelines” (294-295)—and of community organizing to preserve local landscapes from the long, extractive tentacles of the fossil fuel industry. She describes a fossil fuel divestment campaign that she argues is beginning to delegitimize the industry, and an indigenous rights movements emerging around the world. When there is a crisis of capitalism, when banks and industries are in free-fall, governments seem to have no problem marshaling trillions, often on the backs of everyday citizens through imposed austerity, to “save” the economy. And though the global economic elite has not declared climate change a crisis, that doesn’t mean that a mass movement can’t force the issue:

Slavery wasn’t a crisis for British and American elites until abolitionism turned it into one. Radical discrimination wasn’t a crisis until the civil rights movement turned it into one. Sex discrimination wasn’t a crisis until feminism turned it into one. Apartheid wasn’t a crisis until the anti-apartheid movement turned it into one. In the very same way, if enough of us stop looking away and decide that climate change is a crisis worth of Marshall Plan levels of response, then it will become one, and the political class will have to respond, both by making resources available and by bending the free market rules that have proven so pliable when elite interests are in peril (6).

Only recently, Klein explains early on in the book, she was a climate change denier—not the same brand of denier as Donald Trump or Heartland Institute or

Jim Inhoff (the climate change denying chairperson of the U.S. Senate Committee on Environment and Public Works)—but rather a denier by reason of her refusal to engage with the issue and her behaving “as if there was nothing wrong with the shiny card in my wallet attesting to my ‘elite’ frequent flier status” (3). Her condemnation of nearly all of us comes just a few lines later:

A great many of us engage in this kind of climate change denial. We look for a split second and then we look away. [...] And we don’t have to do anything to bring about this [catastrophic] future. All we have to do is nothing. Just continue to do what we are doing now, whether it’s counting on a techno-fix or tending to our gardens or telling ourselves we’re unfortunately too busy to deal with it. All we have to do is *not* react as if this is a full-blown crisis. All we have to do is keep on denying how frightened we actually are. And then, bit by bit, we will have arrived at the place we most fear, the thing from which we have been averting our eyes. No additional effort required (3-4).

But then, with almost a whiplash quality, she turns from this dark assessment to perhaps the broadest and brightest claim of the book: that climate change is an impending disaster ripe with opportunity, not just for radical environmental change, but also for a significant reordering of the global political, economic, and social order. She writes:

I began to see all kinds of ways that climate change could become a catalyzing force for positive change—how it could be the best argument progressives have ever had to demand the rebuilding and reviving of local economies; to reclaim our democracies from corrosive corporate influence; to block harmful new free trade deals and rewrite old ones; to invest in starving public infrastructure like mass transit and affordable housing; to take back ownership of essential services like energy and water; to remake our sick agricultural system into something much

healthier; to open borders to migrants whose displacement is linked to climate impacts; to finally respect Indigenous land rights—all of which would help to end grotesque levels of inequality within our nations and between them (7).

And though Elizabeth Kolbert recently quipped in the *New York Review of Books* this is “a rather tall order,” Klein remains stubbornly optimistic; this

is precisely what she means when she says that *this changes everything*.

References

Kolbert, E. (2014) Can Climate Change Cure Capitalism? *New York Review of Books*. Accessible at <http://www.nybooks.com/articles/archives/2014/dec/04/can-climate-change-cure-capitalism>

Reviewed by

Noel Castree

*Department of Geography and Sustainable Communities
University of Wollongong, Australia*

*School of Environment, Education and Development
University of Manchester, England*

Sadly, this doesn't change very much

The hopeful title of Naomi Klein's latest book belies its ultimate message. After five hundred and thirty three pages of sharp analysis and pointed prose I was left rather deflated. At one point Klein quotes an ecological activist who rightly notes that resistance and alternatives are integral strands to the DNA of social change (405). Her book describes the many examples of both abroad in the world today. But by the end the reader has too few reasons to believe that either can seed a new international order founded on less economic inequality, more inclusive decision-making and greater care for the non-human realm. The question is: does this reflect flaws in Klein's analysis or is it an all-too-accurate reflection of how formidably concentrated power now is in the hands of selfish and careless elites? My aim in this commentary is to provide an answer. I pursue this by explaining how Klein addresses two other questions. I'll come to both presently, but first something about the “this” that, in Klein's view, stands to “change everything.”

Klein's argument is predicated on the potential of anthropogenic climate change to alter all aspects

of our fossil-fuel dependent lives (especially in the wealthy West and the BRIC countries). Since climate change is invisible (unlike the weather), this is the same as saying that the implications of climate science are now so radical that they will (or should) make us all recognise the insanity of our situation. This—namely, representations of past, present and future climatic conditions—is what stands to change everything in Klein's view. The book's early pages recount her relatively late realisation that the scientific evidence and predictions demand an urgent root-and-branch reform of capitalism, better still a revolution against this mode of production. Climate change, she rightly notes, is far, far more than an “environmental issue.” It is caused by, and must be addressed by altering, economic processes, cultural norms, and political systems simultaneously. Later Klein points to various climate scientists who openly acknowledge how frightening the implications of their research are. Some of these now fear an average atmospheric temperature increase of 4 degrees Celsius or more with the next 150 years. In geological terms that is an epic rate of change, with momentous implications for agriculture, industry, energy systems and much else besides.

In this light, two questions arise. First, why have the profound societal implications of climate science been virtually ignored by political economic elites for so many years? The well-known failure of the 2009 United Nations meeting in Copenhagen to forge an effective international agreement to reduce greenhouse gas emissions was a stark example of how the “is” of science does not readily compel an “ought” in the realms of political decision-making. The simultaneous bail-out of bankrupt banks by tax-payers in the USA and elsewhere was an equally stark reminder that what counts as a “crisis” worth addressing is contingent on who possesses most definitional authority in the public domain. The second question is: what social forces might bridge the fact-value/science-action divide and break the power of the “one percent” who seem oblivious to the rights and needs of the “ninety nine percent,” never mind of polar bears or mountain gorillas?

The first two parts of Klein’s book address the former question. They do so in a multi-tiered fashion. She argues that business elites get far too much of their wealth from ventures that dependent directly or indirectly on extracting and utilising fossil fuels. She further argues that these elites now exert too much influence on elected political leaders and control too much of the news media. But the contradiction between elite economic interests and measures to avert catastrophic climate change is only part of Klein’s analysis. Asking why many ordinary people do not challenge elites to address the climate problem, she points to the hegemony of neoliberal ideology. This ideology renders privatisation of public goods and services “common sense,” so too deregulation of business (including trade) and lower corporate taxation (paid for with cuts to public spending). Despite the huge inequalities and injustices it has produced, it has also seduced two generations of consumers with plentiful and affordable commodities, albeit at great environmental cost (and much household indebtedness). As Klein puts it, “... the liberation of world markets, a process powered by the liberation of unprecedented amounts of fossil fuel from the earth, has dramatically sped up the process that’s liberating Arctic ice from existence” (20-21). While climate science makes a far-reaching critique of neoliberalism logically necessary, Klein argues that free

market ideology now permeates our very sense of self. As such it is a powerful counter-revolutionary force. For over 30 years it has fostered a culture of individualism, competitiveness and acquisitiveness. As she puts it, very many ordinary people are “locked in,” bound by chains they in some sense “choose” to wear.

As if this was not bad enough, Klein’s analysis pushes even further. For her, neoliberal ideology is layered on top of a much older worldview that permeates Western societies and their former colonies. This “extractivist” mentality, as she terms it, goes back to at least Francis Bacon’s influential writings. It is “a non-reciprocal, dominance-based relationship with the earth, one purely of taking. It is the opposite of stewardship ...” (169). As Klein sees it, this worldview is shared by many on the Left, the Right and in the centre-ground. Though neoliberalism has benefitted from its prior existence, Klein’s point is that it is not enough to assail neoliberalism alone because extractivism is as much a problem as this regime of accumulation is.

In part two of *This Changes Everything*, entitled “Magical thinking,” Klein argues persuasively against current attempts to tackle climate change that propose to turn problems into solutions without challenging root causes. She takes issue with the attempts of “big Green”—namely, large environmental organisations like The Nature Conservancy—to push companies and governments towards “market-based solutions.” She reveals the green-washing perpetrated by billionaire greens like Virgin boss Richard Branson. And she points-out the risks of science-led proposals to use geoengineering as a Plan B when we should really be implementing Plan A—that is, a fundamental reform (or removal) of both neoliberal capitalism and of extractivism as a cultural norm.

Part three (“Starting anyway”) has its work cut-out to persuade readers that there is a way of weakening elite power, of replacing neoliberal ideology and of superannuating extractivism. It is full of inspiring stories drawn from all points of the compass. The acts of resistance Klein recounts she calls Blockadia, which is “not a specific location ... but rather a roving transnational conflict zone that’s cropping up with increasing frequency and intensity wherever extractive projects are

attempting to dig and drill ...” (294-295). Blockadia aims to challenge, not compromise with, the ways of thinking and acting that got us into the climate crisis Klein hopes will catalyse a new socio-environmental order. But for such an order to eventuate she notes that a few activist-minded citizens alone cannot be the trigger. Instead, “extraordinary levels of social mobilization” (459) are needed. Here she takes inspiration from historic campaigns against slavery and the recent Arab Spring and the Occupy movement—all of which involved a wide cross-section of various societies.

This Changes Everything was five years in the making. It is a very well researched book courtesy of Klein’s own globe-trotting efforts and those of two research assistants. It is a powerful indictment of neoliberalism and extractivism. Its call for a more democratic, egalitarian and environmentally benign future where collective goods loom large is uplifting, even if some will regard it as lacking sufficient revolutionary conviction.

Yet ultimately Klein’s diagnosis of what is wrong about our world is detached from her analysis of what is needed to make things better. By the end of the book I could not see how Blockadia, allied with the powerful insights of climate science, might inspire the sort of sea-change Klein rightly believes is urgent and necessary. Indeed, at various points in the book she betrays her own doubts (see p. 26 and p. 420). Her reference to the anti-slavery campaigns of the 19th century in Part 3 also slightly smacked of desperation, as if the recent grass-roots struggles against authority

were too fleeting to serve as true inspiration. In fact, at one point in *This Changes Everything* Klein worries that Blockadia’s lack of institutional solidity and ideological unity are critical weaknesses. Even if they were not, she gives readers little reason to believe that the millions who do not want to change everything can have their hearts and minds altered by those who do. As her early chapter on climate change scepticism acknowledges, the power of reason—be it embodied in science or the climate justice movement—cannot by itself instigate a societal domino-effect.

Despite itself, *This Changes Everything* is thus a lesson in despair. Klein is not an academic researcher. She is a public intellectual—one of the very few global public intellectuals alive today. Yet her use of two talented aides and her existing high profile (meaning she is made aware of countless stories about power and resistance) suggest her analysis is not fundamentally awry. That’s deeply worrying both for her and her many readers. There’s something deeply geographical in all this. Klein at various points notes how the local movements constituting Blockadia typically emerge from attachment to place. Rootless and mobile, global capital—which has co-opted the political class in many countries—remains free to use its extraordinary monetary power to its own neoliberal, anti-ecological ends. As labour geographers and others have argued for many years, until anti-capitalist forces can mount a coordinated, worldwide assault capitalism will remain the only force capable of changing everything.

Reviewed by

Juan Declet-Barreto

*Natural Resources Defense Council,
Washington, D.C.*

Climate change already changed everything

An indictment of the reigning neoliberal free-market ideology and practices fueling the drive towards catastrophic levels of global carbon emissions, Naomi Klein’s *This Changes Everything: Capitalism vs. The Climate* is a promising addition among main-

stream publications dealing with climate change and the search for solutions. In this volume, Klein (who has described herself as an “activist journalist”) identifies both the “corporate globalization process” and “market fundamentalism” (19) as the socio-economic and political drivers of global emissions, climate change, and lack of decisive action to counter them.

For Marxist geographers and other critical scholars, there is enough in the opening of Klein's intervention to take her seriously as a critical voice that understands the structural socio-political and economic processes that shape climate change. For example, Klein lays out very explicitly—without using the language of Marxists—that inaction to curb climate change is essentially an expression of the asymmetries of class struggle:

[We] are stuck [on climate inaction] because the actions that would give us the best chance of averting catastrophe—and would benefit the vast majority—are extremely threatening to an elite minority that has a stranglehold over our economy, our political process, and our major media outlets (18).

For Klein, globalization (at least the kind instigated by transnational corporations since the 1990s) cemented the framework for deregulation in the global scheme of production and exchange of commodities, which resulted in a vertiginous ramping up of carbon emissions from increased industrial and transportation activities. This process was aided by a market fundamentalism that “systematically sabotaged our collective responsive“ (19) to climate change, blocking significant action by government and business to curb emissions just as the scientific community's warnings on the need to reduce the rate of emissions growth were being heard.

But for all of Klein's insights on the political economy of globalization, neoliberal capitalism, and carbon emissions, she ascribes the precipitous rise of carbon pollution and global corporate power to an unfortunate serendipity of social and climatic phenomena during the 1990s. To be sure, Klein is not an academic or critical scholar, but if her aim is to take on the current configuration of global capital and its consequences for socio-environmental dislocations due to climate change, she could draw on the extensive work by Marxists on how capital constantly shapes and reshapes the world in the pursuit of profits. Simply put, there is no accidental coincidence of emissions, neoliberal power, and unheeded climate scientists' warning. As Harvey has said of the rise of

neoliberalism, “[t]ransformations of this scope and depth do not occur by accident” (2005: 1), but were instead a progression of the global reconfiguration of capital that began in the 1970s, with a potent symbolic watershed moment granted by the signature and ratification of NAFTA in the 1990s.

Notwithstanding the lack of deep analysis of the long-term historical progression of capital and neoliberal power in shaping carbon emissions, Klein provides welcome detail of the inner workings of neoliberalism in a critical, supporting process at home in the U.S: the manufacture of public consent (to reword Herman and Chomsky's (2008) phrase) for climate change denial among broad sectors of the U.S. population (namely conservative voters and elected officials). She zeroes in on The Heartland Institute, perhaps the most prominent (and well-funded) think-tank dedicated to blocking both the recognition of climate science and measures to curb carbon emissions in the U.S. In her account, the classes that groups like Heartland represent understand all too well the revolutionary meaning of recognizing the reality of climate change, and of taking collective action to curb it: recognition implies acknowledging the neoliberal project as a social, political, and especially environmental failure for most of the world, overwhelmingly benefitting a small global elite at the expense of the majority of the world's population. But this is not the only class dimension of climate inaction, or more importantly for Klein's argument, of action for curbing emissions within the existing global production scheme. Klein urges regular citizens of the developed world to re-evaluate our own tacit acceptance of a production and consumption lifestyle enabled by the neoliberal project that, as of 2014, has taken us into 400 parts per million of CO₂, and challenges civil society to create a broad, people-based movement to counter the growth-obsessed global political economy that is driving carbon emissions.

Klein also engages in a biting critique of the environmental movement in general, and environmental non-profit organizations (NGOs), “green billionaires”, and “geoengineering” in particular, for working within the ideological and material constraints of neoliberal capitalism to craft solutions for curbing

carbon emissions. The problem, according to Klein, is not just that many of the largest environmental NGOs have fossil fuel stocks in their investment portfolios, or that a coalition of environmental NGOs provided cover to the neoliberal agenda by actively supporting the passage of NAFTA. Something baser (pun intended) is at work: the technical solutions proffered do not seek to alter the capitalist system, but rather to work within the existing framework to pursue carbon reductions that fall well below those that are needed to achieve no more than 2°C mean global temperature increases. This is a problem, Klein explains, because the fundamental relationship that requires redress is capitalism itself. In taking on both the course of action of environmental groups and the haphazard ventures promulgated by the field of geoengineering (e.g., entrepreneur Russ George's dumping of large amounts of dust iron in the ocean to create a massive algal bloom carbon sink), Marxist geographers will recognize a conjunctural instance of Harvey's spatial fix enabled by technological and monetary capital surpluses that require circulation.

Klein exposes as inadequate the framing of solutions to emissions within the "business as usual" practices of deregulated capitalism. The most salient proof is that global emissions have subsided significantly and for multiple consecutive years only during periods of economic contraction like those of the 1930s and 1970s, certainly not due to deliberate emissions reduction actions. She contrasts today's—ineffective, she argues—market-oriented coordination of large environmental organizations with hydrocarbon global interests to the 1970s "Golden Age" of environmental legislation, citing the bevy of bedrock federal environmental standards erected largely through litigation and direct action during this time in the United States and Canada. In her view, the environmental movement today has been co-opted by market fundamentalism to unabashedly create a market for those who were previously the target of litigation and direct environmental action. I would counter that the environmental movement is not solely focused on collaboration with global capital. Its various agents pursue varied tactics to engage polluters, which have ranged historically from direct action, litigation, to sabotage, direct confrontation, and civil disobedience, to pro-market

engagement, business coalitions, and grassroots and grasstops organizing. Certainly, the profiting from Texas oil wells by The Nature Conservancy, the Environmental Defense Fund collaborative research with the fracking industry (allowing it to choose data used for conducting methane leak research), and the active participation of enviros in the failed 2010 cap-and-trade legislation, cast serious doubts on the environmental movement's claims as countering forces independent from polluting capital. The main lesson that emerges from Klein here is that large corporate organizations (no matter their profit-oriented or environmentally-minded goals) cannot be counted on, on their own, to provide decisive measures to combat the environmental catastrophe of carbon emissions. What is missing is a broad, grassroots movement of people exerting pressure from below. This claim was first presented by sociologist Theda Skocpol's (2013) scathing rebuke of the role of environmentalists in the U.S. Climate Action Partnership's collaboration with hydrocarbon and energy conglomerates in the failed cap-and-trade bill of 2010, and is echoed by Klein in her volume.

It is precisely to this main lesson that Klein turns, in the final part of *This Changes Everything*, to provide hopeful examples of the feasibility of constructing a mass movement from the ground up to demand an end to the socio-ecological depredations of global capital. She describes "Blockadia" (coined by the Tar Sands Blockade movement) as a sort of nomadic, transnational geography of conflict that pops up organically in resistance to various kinds of resource extraction projects. Blockadia cannot be narrowly defined as just an environmental movement, but as a spontaneous and coordinated effort to demand true participatory democracy and a rescaling—from the global towards the local—of the exploitation of natural resources. Klein devotes a lot of time to describing these movements and their potential to exert pressure for a more just commons at the intersection of the agenda of environmental conservationists and the everyday struggles of people in resource-rich areas of the world to maintain their livelihoods.

There is a lasting impression made by Klein's anecdotes on grassroots struggles in the Niger Delta

(oil and gas), first-hand accounts from her own journalistic work in Ierissos, Greece (copper mining) and First Nation lands in Canada (organized against shale gas operations), among others. From this narrative we can derive an outline of what a transnational and inclusive movement to anthropogenic climate change may look like and what it should struggle for. First, that such a movement should have the capacity to support emerging local struggles in every corner of the world. Second, that, as the catastrophic record of neoliberal extractive power has recently reiterated (she reminds us of the glaringly callous response of British Petroleum to the Gulf of México oil spill), global capital cannot be trusted to extract resources in a way that is safe for people and environments, requiring people to demand restrictions on extraction. The lessons are obvious also for the large environmental NGOs: “chummy green partnerships” (336) with global interests should be abandoned and replaced with demands to adopt methods that don’t force a choice between human and environmental livelihoods and economic development. But here Klein’s framing runs into the limits imposed by the lack of an analysis grounded on historical materialism and a structural, long-view understanding of the logic of capital. As long as the process of accumulation for accumulation’s sake (Marx 1990: 742) continues to envelop the world unrestrained, economic benefits (exchange value-seeking) will trump benefits to human and biophysical environments (social value-seeking). Manifold and deeply unjust uneven developments will continue throughout regions and locales across the world as global capital’s socio-spatial practices engage in ever more rapacious forms of natural resources extraction. Certainly, if the class condition and interests of large environmental organizations afford them privileged access to influence—through legislation, litigation, or partnerships—the policies and practices of the fossil fuel industry, these organizations are not unique in framing how to curb carbon emissions within the rules of neoliberal capitalism. For the most part, many regionally or locally-focused (governmental or otherwise) entities in developed countries argue for solutions predicated on the existing neoliberal framework. Many municipalities in the U.S, for example, are developing and implementing climate action plans to counter the public health, service

delivery, and urban infrastructure threats posed by global (i.e., led by carbon emissions) and local (e.g., driven by urban heat islands) warming, often wielding the language of sustainability (as surveyed in Hewitt *et al.* 2014). In this context—among environmental NGOs and local/regional government alike—“sustainability” is narrowly operationalized as a paradigm for the exploitation of natural resources that ensures the continuation of capital accumulation (e.g., local taxes, urban planning fees, “urban living” styles of consumption) while achieving, coincidentally, human and environmental well-being goals. By design, accumulation is subsumed to well-being so that the essence of sustainability is to not disrupt the “business as usual” of capital accumulation. I find this relevant to examining Klein’s text because she does not engage in how the sustainability discourse—especially in the relationship of environmental NGOs with Big Oil—preempts people-centric climate action. As Marcuse told us some time ago, “the simple criterion of sustainability does not get us far” (1998, 108).

Naomi Klein provides us with a good dose of doom and gloom on the urgency for climate action. Her book presents an interesting—though limited by the standards of Marxist scholarship—analysis of the relationship between capital and carbon emissions, and the drive to accelerate fossil fuel extraction. She also offers a credible case on the pitfalls of environmental conservation organizations’ failed, previous engagements with the polluter industry, but also a way forward. In the end, she changes tone to a more upbeat proposal of what the prospects for a movement for averting the looming climate change catastrophe may look like.

References

- Harvey, D. (2005) *A Brief History of Neoliberalism*. New York: Oxford University Press.
- Herman, E. S., and Chomsky, N. (2008). *Manufacturing Consent: The Political Economy of the Mass Media*. New York: Random House.
- Hewitt, V., Mackres, E., and Shickman, K. (2014) *Cool Policies for Cool Cities: Best Practices for Miti-*

gating Urban Heat Islands in North American Cities. Accessible at <http://www.aceee.org/research-report/u1405>.

Marcuse, P. (1998) Sustainability is not enough. *Environment and Urbanization*, 10 (2): 103-112.

Marx, K. (1990) *Capital Volume I: A Critique of Political Economy*. London and New York: Penguin Classics.

Skocpol, T. (2013) Naming the Problem: What It Will Take to Counter Extremism and Engage Americans in the Fight Against Global Warming. Prepared for the *Symposium on the Politics of America's Fight Against Global Warming*, Harvard University, 14 February 2013. Accessible at: http://www.scholarsstrategynetwork.org/sites/default/files/skocpol_captrade_report_january_2013_0.pdf

Reviewed by

Leigh Johnson

*Department of Geography
University of Zurich*

On crises and peculiar endurance

As I write, helicopters thump overhead, each one cutting a predictable path to the southeast. For residents on the eastern outskirts of Zurich, this is our annual signal that the World Economic Forum (WEF) is about to begin—the elites have arrived here in their private jets (1700 this year) and must now be ferried the last 75 miles to Davos *via* one of the most carbon-intensive means of transport on the planet, where Al Gore and Pharrell Williams will evangelize about environmental responsibility. While there, we are told, they will discourse about the threats identified in the WEF's annual Global Risks Perception Survey, the report of which accompanies the meeting. The “most likely” immediate global risks making the list this year? Interstate conflict, extreme weather events, and failure of national governance. The “most impactful”? Water crises—with “failure of climate change adaptation” taking fifth place (WEF 2015). The specter of climate change, environmental degradation, and even “ecosystem collapse” in the Perception Survey ineluctably raises and complicates the question that Klein sets out to answer: why, knowing what we do about the grave threats climate change poses to the continuation of life as we know it, have “we” not managed to change course? In other words, what accounts for the peculiar endurance of the contemporary configuration of power between capital and state in such a time

of crisis? And given such endurance, how, if at all, is it possible to “change everything”?

The answer to the first question, according to Klein, does not lie in lack of awareness, individual selfishness, or unwillingness to change. Contesting Gore's analogy between inaction on climate change and the proverbial boiled frog that fails to jump out of the pot as it is gradually heated, she writes: “the truth is that humanity has tried to jump quite a few times... The problem is that the money that perverts the political process acts as a kind of lid, intercepting that survival instinct and keeping us all in the pot” (150). While we cook, we are presented with (and fall victim to) all manner of “magical thinking,” hoping that geoengineering technology, carbon offset markets, and/or green billionaires are on the verge of saving us. The Davosians, as it were, have settled on “solutions” that will keep the political class in its position of head chef, allow disaster capitalism to expand its operations, open up new avenues for green accumulation with the help of Big Green environmental groups, and keep the lid on the beginnings of any “effervescent rebellions.” Meanwhile, the culture of cheap consumption—inextricably bound with consumer credit and debt—locks Western and emerging consumers in to high carbon lifestyles. But as of late, the overheating frog has grown increasingly energetic and difficult to contain: this is the doing of Blockadia, “a roving transnational

conflict zone that is cropping up...wherever extractive projects are attempting to dig and drill,” particularly to extract unconventional oil and gas supplies (294-295).

One of the more puzzling questions of Klein's tome revolves around the identity of this frog, this “we.” She celebrates that one of the great coups of Blockadia has been to bring conservative populists shoulder-to-shoulder with indigenous movements in “Cowboys and Indians” alliances to block the advance of “extreme extractivism,” noting that the fear of contaminated water has become a singularly compelling and unifying rallying cry (witness, again, water crisis topping the list of the WEF's risks survey). But if indeed “we are all in the sacrifice zone now” (315), one wonders what kind of politics are immanent to this zone. Though dripping with irony, the fact that Exxon CEO Rex Tillerson joined an anti-fracking lawsuit must be cause for alarm rather than celebration.

That international elite forums like the WEF continue grappling with climate change suggests that they do not quite have it all sewn up. Indeed we need to know more about the schisms and splits within elites and between segments of capital, which will be differentially able to exploit or avoid the uneven spatial and temporal impacts of climate change. (For instance, a consortium of major property-casualty insurers have just announced the launch of a “Micro-insurance Venture Incubator” at the WEF.) Certain political factions will likewise have greater or lesser ability to displace the burden of climate change-linked devaluations arising via geophysical processes or deliberate policies (Sayre 2010) onto states and taxpayers. And as Joel Wainwright and Geoff Mann (2013: 3) have pointedly framed the problem, beyond climate change's immediate environmental impacts, “the looming political-economic formations [that climate change may well induce] are no small part of our peril... If we do *not* achieve massive social reconstruction—as seems highly likely to us—...what processes, strategies, and social formations will emerge and become hegemonic?” What is required, then, is a Gramscian analysis of both the “political forces that produce the potentiality of collapse, and the ways in

which those forces might themselves be transformed by that potentiality” (Wainwright and Mann 2013: 4). Although Klein does not address Wainwright and Mann's call directly—and certainly never parleys with Gramsci despite deftly explaining the power of neoliberal market logic as culturally hegemonic common sense—her book might be reasonably interpreted as an attempt to sketch out such relations of force. Yet it is maddeningly evasive about following these relations to their conclusions, yielding an analysis that is strategically schizophrenic and tactically insufficient. In what follows I work through two particularly central sets of relations for which Klein's argument leads to a cul-de-sac.

Contributing to the confusion in both regards are the series of nominal alternatives with which Klein brackets the debate: techno-“monsters” vs. homeostatic nature, male dominance/extractivism vs. female regeneration, neoliberal “deregulated capitalism” vs. local energy cooperatives and small businesses, global schemes vs. infinitely multiplied smaller solutions, jargon-generators of global finance vs. plain-talking goat farmers. In each case, she sides with the latter, embracing a militant particularism that dictates a retreat to an essentializing politics of nature, regeneration, and purity.

First, it is difficult to believe that the rousing yet fragmented efforts of Blockadia to derail extreme extractivism can galvanize a movement in which “suddenly, everyone” is on board. Part of this implausibility arises from the quasi-religious politics of fear and revelation through which Klein sees radicalization taking place: new generations of (white) activists in settler colonies are learning from indigenous groups' “relationships of reciprocity and interconnection with the natural world” and absorbing worldviews “that are the antithesis of extractivism” (182). Although Klein is quite clear that marginalized social groups—particularly indigenous people and people of color—are bearing the brunt of extreme extraction's predations, she insists that “we're all in the same sinking boat” (314). And while this must be read as an agitational claim to spur “the movement” to embrace the cause of marginalized survival as its own, it is fair to expect some concrete assessment of the ways in which a fight

to defend immediate rights to survive and regenerate might produce strategy and tactics distinct from those of an environmental movement that can, for the time being, buttress itself from climate change impacts. As Braun and McCarthy (2005) have argued in light of the identity of Hurricane Katrina's victims, too much emphasis has been placed on the universality of the sovereign ban: it is "hardly the case" that "we are all potentially subjects who might be cast outside political life" (804). Klein celebrates that much of Blockadia holds the recuperation of the rights of those cast out subjects as its political premise, but seems oblivious to the often crude utilitarianism of this move: the treaty rights of the Pacific Northwest Lummi are the "ace in the hole" of Washington state anti-coal activists; indigenous rights in general are "a tremendous gift" for the legal tools they give the "cash-rich-but-rights-poor" elements of the movement (380-382).

Utilitarianism in itself is not reason enough to dismiss such tactics, but the checkered past of such alliances, and the unequal gains and losses to which they expose both sides, should at least be acknowledged. As evidenced in environmentalists' use of Amazonian indigenous groups' symbolic capital to advance rainforest protection campaigns,

for all the apparently sympathetic and benign inclinations the environmentalists' rhetoric...displays towards the Indians, it conceals an element of paternalism and intolerance that can easily come to the fore whenever the Indians betray its expectations. If a good Indian is a pure Indian...an Indian who falls prey to western seduction (selling lumber, making pacts with the military, striking deals with corporations) is denigrated and doomed to fall lower than the white wheeler and dealer (Ramos 1994: 79-80).

Klein acknowledges the seduction of fossil fuel contracts, nowhere demonstrated with as much irony as in Greenland, where the recently empowered home-rule government is pushing ahead with offshore drilling while acknowledging this action will exacerbate climate change. The "moral imperative," she says, lies with non-Natives to provide real assistance,

jobs, services, and alternatives to the "quick and dirty deals with extractives" that indigenous groups will be under increasing pressure to make, thanks to the simple reproduction squeeze induced by climate change (385). Fair enough—yet this leaves the kernel of capitalist relations untouched, and simultaneously presupposes a pristine alternate universe "where non-extractive ways of life still flourish" (321).

I by no means want to dispute the existence of non- and more-than-capitalist worlds, but rather beg for some circumspection when positing the conditions of their proliferation. For instance, Klein gives only superficial consideration to disagreement within and between indigenous communities regarding consent to extraction in exchange for cash and (often meager) human development improvements. Likewise she provides little more than anecdotes to support the bold claim that renewable energy can be a viable alternative to extraction for indigenous groups at the global scale (398). More than anything, the text perpetuates the all-too-familiar trope for which Tania Li has recently excoriated social movements: ignoring the ways in which capitalist relations often emerge *not* via dramatic and outrageous acts of dispossession, but rather through the "routine and insidious forms" of competition and reproduction squeezes (2014: 8). Disregard for these processes leads movements to replicate naïve "expectations that deeply impoverished people will somehow sustain relations of care and be protected by their social institutions from the full blast of capitalist competition" (181). As Li points out, the prior existence of such protective institutions cannot always be assumed, particularly on frontiers where land is abundant—a finding certainly relevant to expanding extractive frontiers, but especially to enclosures for the sugar, oil palm, and corn biofuel crops (and solar arrays?) of the future. In other words, while it may well reduce carbon emissions, green rather than extractive investment on native lands is no panacea for emerging relations of differentiation and competition in the countryside; indeed it could well accelerate them.

This is symptomatic of the book's second dead end, namely that the political and economic tactics Klein advocates are highly unlikely to accomplish the

scale of redistribution and financing required. If we accept her premise that there is “no scenario in which we can avoid wartime levels of public spending” (108)—as seems plausible—then the sourcing and securing of such finance are of no little import. She proposes a familiar menu for progressives: phasing out fossil fuel subsidies, cutting military budgets, and instituting an array of new taxes, including a financial transaction tax, a billionaire’s tax, and a carbon tax (114–115). Still, the big money to fund the transition must ultimately come “from the state, collected from the profits of fossil fuel companies in the brief window left while they are still profitable” (401). After pointing out the obvious fact that such a diversion of profits won’t be voluntary (254), she suggests how activists can affect the necessary shift in political tides such that such legislative action becomes plausible. The ratchet is none other than the divestment campaign led by Bill McKibben and 350.org, which urges foundations, university endowments, and other investment funds with a public mission to divest from fossil fuel companies in order to “chip away at the social license with which these companies operate” while advocating reinvestment in alternative energy and local economies (354). According to Klein, divestment is the movement’s crowning achievement: “No tactic in the climate wars has resonated more powerfully” (354).

The problem is that divestment in and of itself does little to erode the political power of the fossil fuel giants. In fact, recent years have seen ExxonMobil drastically increase the amount of stock it buys back relative to the stock it sells, and like many other energy majors, the company raises less funds from stock sales than it does by borrowing in financial markets (Laban 2010; for a similar trend in mining extractives, see Emel 2002). Hence the mechanisms by which divestment could “bankrupt [companies’] reputations and take away their political power” (355) are wooly at best. Despite its arguably feeble resort to what Emel (2002) calls the “green disciplining of capital,” Klein hopes divestment might be the beginning of a more radical debate: it “might even create the space for a serious discussion about whether these profits are so illegitimate that they deserve to be appropriated and reinvested in solutions to the climate crisis” (355).

In fact, this debate is already happening. Take for instance the recent proposal advanced by the Climate Justice Programme and Greenpeace to levy a heavy tax on the biggest “Carbon Majors”—using Heede’s (2014) calculation of these polluters’ historical emissions from 1854 to the present—to compensate countries for loss and damage suffered as a result of climate change (Richards and Boom 2014). At a side event of the 2014 UNFCCC Subsidiary Body meetings in Bonn, I watched the renown Yeb Sano, the Philippines’ delegate to the convention, celebrate such a levy as “an idea whose time has come” with the potential to reverse the financial crisis in which the UNFCCC Adaptation Fund finds itself. This is all to say that regardless of the traction divestment may have as a reformist cause on North American university campuses, the debate has (and must) move well beyond shareholder investment decisions. And in order to accomplish a massive appropriation of fossil fuel profits, the climate justice movement will have to develop a strategy and corresponding tactics far larger and more systematic than what the fragmented Blockadia and divestment movements have been able to muster.

Let us be clear about the task Klein is proposing: redistributing the surplus of a class whose ambitions for organizing accumulation at the planetary level have gone so far as to support geoengineering expressly as a technique to perpetuate tar sands extraction, and to scheme to reinject CO₂ sucked out of the atmosphere back into the earth for use in Enhanced Oil Recovery. In other words, a class that will not easily give up those helicopters, no matter whether or not the climate movement can convince shareholders to trade in their Exxon stock.

At times, Klein seems to recognize the magnitude of the challenge. She is at her most radical in Chapter 12, “Sharing the Sky,” where she identifies the Global North’s “serial thefts of land, labor, and atmospheric space” as securing its historical privilege and advocates for global reparations for carbon debts (416). Likewise in the Conclusion she calls for moratoriums on fossil fuel extraction that would force energy companies and petrostates to forfeit trillions of dollars in unamortized investments and future profits alongside vast invest-

ments in “zero-carbon, disaster-ready societal transformations” (452). Instead of incremental policies like a carbon tax, she suggests progressives would do better to organize around guaranteed minimum income grants to discourage the meaningless work that fuels further emissions, and to encourage “aggressively applying our labor toward restoration” of communities and ecosystems (448).

How is this all to be done? One has to wonder if the five years it took to produce the book ultimately turned Klein into more of a radical than the first eleven chapters suggest, as she suddenly invokes Frantz Fanon to call for a redistribution of wealth “no matter how devastating the consequences” (459). She champions such demands as vital to the “unfinished business of liberation” begun by abolitionist, anti-colonial, and women’s movements, the first two of which “forced ruling elites to relinquish practices that were still extraordinarily profitable, much as fossil fuel extraction is today” (455). Yet even those “most heroic social justice movements won on the legal front but suffered big losses on the economic front” (458)—in the form of reverse reparations commanded by former slave holders, indebtedness and unequal terms of trade with former colonial parent states, crumbling housing, eviscerated schools, and unremunerated domestic care work. This, then, is the unfinished business of liberation that the climate justice movement must take on in order to affect both an economic transformation and a moral one—for which Frederick Douglass serves as her abolitionist inspiration. And then, she flinches: “let’s take for granted that we want to do these radical things democratically and without a bloodbath, so violent...revolutions don’t have much to offer in the way of road maps” (452). But as Klein undoubtedly knows, Douglass and Fanon were both proponents of violent struggle to accomplish liberation; she even acknowledges the “in no way bloodless” struggles that were necessary to bring down the curtain on slavery and colonialism (456). So one is left wondering how to square the circle: are the popular uprisings on which she pins her final hopes the crucible of a new society? Or are they just as vulnerable to reactionary counterattack as the gains of abolition?

Rereading Fanon in the chapter from which Klein quotes (“On Violence in the International Context”), I could not help remarking that—contrary to Klein’s title—*this* actually changes nothing. Pointing out the dead end of the ujamaa development models based on human labor that characterized so many post-colonial African states, Fanon contended in 1961:

Perhaps everything needs to be started over again: The type of exports needs to be changed, not just their destination; the soil needs researching as well as the subsoil, the rivers and why not the sun. In order to do this, however, something other than human investment is needed. It requires capital, technicians, engineers, and mechanics (57).

Today, the stakes for elaborating such a red/green credit to facilitate the payment of debts both social and ecological have grown even higher than when Fanon wrote, thanks to their perpetual displacement to the planetary scale: “If through lack of intelligence—not to mention ingratitude—the capitalist countries refus[e] to pay up, then the unrelenting dialectic of their own system would see to it that they are asphyxiated” (59).

References

- Braun, B. and McCarthy, J. (2005) Hurricane Katrina and Abandoned Being. *Environment and Planning D: Society and Space* 23: 802-809.
- Emel, J. (2002) An Inquiry into the Green Disciplining of Capital. *Environment and Planning A* 34: 827-843.
- Fanon, F. (2004 [orig. 1961]). *The Wretched of the Earth*. New York: Grove Press.
- Heede, R. (2014) Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854–2010. *Climatic Change* 122 (12): 229–241.

Labban, M. (2010) Oil in parallax: Scarcity, markets, and the financialization of accumulation. *Geoforum* 41: 541-552

Li, T.M. (2014) *Land's End: Capitalist Relations on an Indigenous Frontier*, Durham: Duke University Press.

Ramos, A.R. (1994) From Eden to Limbo: The Construction of Indigenism in Brazil. In Bond, G. and Gilliam, A., (eds.). *Social Construction of the Past: Representation as Power*. London: Routledge, 74-88.

Richards, J.A. and Boom, K. (2014) *Carbon Majors Funding Loss and Damage*. Berlin: Heinrich Böll Stiftung, Publication Series Ecology 39.

Sayre N.F. (2010) Climate Change, Scale, and Devaluation: The Challenge of Our Built Environment. *Washington and Lee Journal of Energy, Climate, and the Environment* 1: 93-105

Wainwright, J. and Mann, G. (2013) Climate Leviathan *Antipode* 45: 1-22.

World Economic Forum. (2015) *Global Risks 2015, 10th Edition*. Geneva: World Economic Forum. Accessible at http://www3.weforum.org/docs/WEF_Global_Risks_2015_Report.pdf.

Reviewed by

Wendy Larner

*School of Geographical Sciences
University of Bristol*

In *This Changes Everything: Capitalism versus the Climate*, journalist and political commentator Naomi Klein has written a truly terrific book that ranges across multiple fields to make a clear and impassioned argument for the need for profound economic transformation in order to meet the challenges of climate change. Based on the compelling argument that our economic system and planetary system are now at war, her analysis draws from science, economics, geo-politics, psychology and ethics to claim that the current climate crisis will require a fundamental transformation in the ways we live, the values we hold, and the activities we engage in. Despite the seriousness of her topic, and the tenor of her previous works, this not a pessimistic tome focused only on the selfish actions of complicit politicians, corporate players and relatively privileged Western communities. Significant attention is also paid to the diverse forms of climate activism, indigenous politics and alternative economies actively building new structures and relationships in and through what Klein describes as the “rubble of neoliberalism.”

As numerous reviews of this book have already suggested, her analysis sets the stage for the mainstreaming of environmental concerns into wider social justice struggles. In making the case for a profound economic transformation as the only viable response to the current climate crisis, she takes seriously the need for new cultural values, and encourages us all to “dream in public,” searching for “new stories to replace those that have failed us.” She identifies the intellectual and political connections we need to make; from arguments that public ownership is the best vehicle for the development of renewables and redistributive climate mechanisms, to the recognition that human and non-human actors are deeply intertwined with each other. This is also a deeply personal book, connecting Klein’s own challenges around pregnancy with those facing the planet, making the connection between the fragility of human bodies and that of nature more generally. Finally, it is a beautifully written book, compelling in its vision and conviction.

I have been asked to provide a further book review but it would be futile (and indeed completely beyond

me) to pick holes in the argument Klein presents in *This Changes Everything*. While the book is regularly described by reviewers as a polemic, very few polemics are as well based in scientific research and empirical evidence as this one. Indeed, few academic books are as carefully evidenced and argued as this one is. On finishing reading it my overwhelming reaction was that of admiration and awe for a magnificent achievement. This was followed by a feeling of chagrin, perhaps even a little jealousy. For what Naomi Klein has done with this book is deliver on the long held political ambitions of our discipline. She has pulled together the extensive evidence from the physical sciences, social sciences and humanities to develop a book aimed at changing the way the human world thinks and, hopefully, acts in the face of the potential devastation facing the planet. In short, this is a geographical manifesto for our deeply dangerous and profoundly uncertain times.

So why didn't a geographer—or even a team of geographers—write this book? Surely global environmental change is our academic terrain. We are the discipline that prides itself on providing an intellectual home for diverse forms of knowledge engaged with understanding physical-human relationships, including those that constitute climate change. We are also active in the very domains that Naomi Klein describes. Leading physical geographers will have been present in the American Geophysical Union meeting she discusses in the opening to the concluding chapter, presenting their research on relevant topics such as climate modelling, hydrological processes, geomorphology and glaciology amongst others. Both human and physical geographers are involved in the research on geo-engineering and other global scale technological interventions discussed in this book, and human geographers have long analysed the processes of geo-economic and geo-political power that underpin these contemporary manifestations of corporate power. Geographers have also worked hard to make visible already existing political experiments and environmental alternatives, and have led the new more-than-human research agendas emerging from the recognition that the “biosphere is a player” (267). So why haven't we been able to pull our disciplinary knowledge together to deliver in the way this book

does? Indeed (and I will not be the only person to point this out) why does the term geography not even feature in the index?

The most straightforward answer—to give everyone the benefit of the doubt—is that this is ultimately a North American book (even though it was simultaneously released in multiple markets), and because the discipline of geography is less visible in that region than others our work is captured under other labels. But perhaps this absence is also a reflection of a more profound issue that might encourage us to reconsider our accepted disciplinary practices. Over the last few decades geographers have silo-ed themselves in ways that would make it enormously difficult to undertake the research collaborations that would allow a book such as this to be produced. Rather than collaborating within the discipline, we have tended to reach out to our academic colleagues beyond the discipline. Physical geographers working on climate change are much more likely to be collaborating with earth scientists than with human geographers. Environmental science and environmental studies are becoming fields of their own, often reflected in institutional restructuring and/or the renaming of departments. Human geographers are leading the spatial turn in the wider social sciences, and cultural and historical geographers are orienting themselves towards the environmental humanities.

This means that many geographers know less about each other's research than we should. How many physical and human geographers truly respect each other's domains, and could engage together in the deep way that would give rise to an integrated analysis such as this one? Do many human geographers fully understand how scientific problems are framed in the field of climate change, the diverse networks of expertise involved, and the various intermediaries that are now part of this complex research edifice? Correspondingly, do physical geographers appreciate the extent to which neoliberalising processes of state service provision and market devolution are refiguring the responsibilities of the state and its political actors, and how uncertain, and increasingly volatile, economic landscapes exacerbate decision-making criteria and timescales? Then there are divisions

within physical and human geography; for example, how many economic geographers are working with cultural geographers under the label “new materialisms”? Are environmental geographers and indigenous geographers engaged in the conversations that would allow for the mobilising of alternative epistemologies of nature and the reshaping of research programmes that would ensue?

My worry is that the discipline of geography, which should be ideally placed to provide the intellectual leadership that would meet Naomi Klein’s demand for economic transformation and planetary justice,

may have missed the boat (again?). So, and to invoke Klein herself, in addition to hoping that we do indeed have enough time for the impossible, my “dreaming in public” is for a renewed and invigorated geography that better understands its intellectual significance and academic potential in the current moment. In the meantime geographers should use *This Changes Everything* as a core first year undergraduate text, and seek to build on the momentum it will create by educating a cohort of young people who better understand the physical and human geographies of climate change, and can work for the socially just economic and environmental future this planet needs.

Reviewed by

Diana Liverman

*Institute of the Environment
University of Arizona*

I’m glad a voice as strong and passionate as Naomi Klein’s has joined the conversation about climate change. She writes with conviction, anger, and detail about the serious risks of climate change and the resource extraction that drives the greenhouse gas emissions that are warming the planet. Her books inspire students, researchers, activists and media attention with their advocacy and calls to action. She bases her work in that of others and acknowledges the agency of grassroots protest.

I agree with many of her arguments—about the urgency of climate change, the problematic alliances between the state, business and environmental groups, and the important role of citizens, indigenous peoples, and communities in reducing emissions but also in bringing political pressure for climate action. I appreciate that she calls for system change, not just individual action, and for state regulation, not market based cap and trade. I sympathize with her guilt about the hypocrisy of our high carbon lifestyles including her own travel, and with her connection from the loss of biodiversity and climate change risks to children to her own infertility struggles.

I am always glad to see popular (in the best sense) authors bring attention to the issues I care about, but there are elements of the book that are frustrating. While applauding the efforts of southern activists the book has a subtle northern bias especially to an abundance of North American and European examples and politics. While women scientists may be cited in the notes only a few are quoted in the text. Some of the leading critical scholars are overlooked, especially geographers, political ecologists and international relations scholars working on the political economy and discourse of climate governance. There are no graphics or photos for this topic where images, data and art have been so powerful. The discussion of business and capital lacks nuance because it mostly lumps together sectors with very different vulnerabilities to climate change, dependence on fossil fuel, and relationships to the state and international climate governance. And for a book that begins with a fair amount of optimism about solutions to climate change, there are too few scalable and materially significant solutions discussed towards the end of the book. Some key actions, such as eating less meat are overlooked, and the role of state action such as that in California or New South Wales are missed.

Homework

Given my career as a geographer and one of many women who have worked for decades on climate change it is not really surprising that I read the book with an eye to any acknowledgment of the contributions of women scientists and of geographers. While the critique below may seem a bit self-serving I am using the opportunity of this review to introduce my fellow geographers to important scholars and ideas that Klein overlooked. While I appreciate that Klein gives credit and voice to many women activists and political leaders, and understand that this is a popular not academic book, I wish that she had taken greater advantage of the work of women scientists (natural and social) and of the insights of geographers. Klein clearly appreciates research and science, frequently quoting and interviewing “famed” scientists—such as Kevin Anderson, Jim Hansen, Mike Mann, Alan Robock—all of them admittedly important voices in climate science. Klein and her research assistants have compiled plenty of references to academic literature to support the book’s arguments and while some of the notes include references to articles written by women researchers—including Susan Solomon and Corinne le Quéré—the voices of women scientists are, for the most part, missing from the text especially in terms of being quoted as primary sources of expertise. Susan Solomon is one of the world’s leading climate scientists who discovered the ozone hole, led the IPCC and writes on the irreversibility of global warming (Solomon 2007; Solomon et al. 2009). Corinne le Quéré is the director of the UK Tyndall Center (where Klein’s key informant, Kevin Anderson is a deputy director), and is a leading expert on the carbon budget. Their insights would add to the scientific basis of Klein’s argument. It’s almost as if women are cast as the activists, and men as the scientific experts, in her story. I’m almost ready to accuse Klein of what Kate Raworth has called “Manthropocentric” thinking—the perception that men are the only scientists doing anything about global environmental change (Raworth 2014). To be sure she does highlight the work of a handful of excellent women scholars—Alice Bows, Robyn Eckersley, Kari Norgaard, Sunita Narain, and Naomi Oreskes—but there were just too few women scientists quoted for a field that has

hundreds of distinguished female scholars around the world.¹

Among other women scientists who could have been interviewed or cited in Klein’s book we might benefit from hearing from Jim Hansen’s NASA colleague Cynthia Rosenzweig, who advised New York on planning for adaptation before and after Hurricane Sandy after a distinguished career leading international research on climate and agriculture (Rosenzweig and Parry 1994; Rosenzweig and Solecki 2014). From other parts of the world, insights into the increasing number and impacts of extreme events could be offered by Argentinian climate scientist Caroline Vera (Vera et al. 2006), Mexico’s Cecilia Conde (Conde et al. 1997; Conde et al. 2013), South Africa’s Coleen Vogel (Vogel 2005; Vogel, Koch, and Van Zyl 2010) or Australia’s Ann Henderson-Sellers who led the World Climate Research Program (McGuffie and Henderson-Sellers 1997; Phelan, Henderson-Sellers, and Taplin 2013). On emission reductions, IPCC lead author Diana Ürge-Vorsatz heads the Central European center on energy and is a great source for energy efficiency and policy (Ürge-Vorsatz and Novikova 2008; Ürge-Vorsatz et al. 2014). I might also offer the expertise of an outstanding Scandinavian triumvirate of climate governance scholar Karin Bäckstrand, oceanographer Katherine Richardson, and geographer Karen O’Brien—who have offered so much in terms of leadership and scholarship on climate governance, climate science and the need for socioeconomic transformation (Bäckstrand and Lövbrand 2006; O’Brien et al. 2007; Bäckstrand 2008; Richardson, Steffen, and Liverman 2011; O’Brien and Barnett 2013).

It was also disappointing not to find more reference to the work and insights of geographers, men and women, who have had much to say about climate change and capitalism. Our discipline has been in the forefront of work on globalization, political economy and climate change, not only as academics, but also as activists and policy advisors.

¹ In the hope of increasing awareness of the contributions of women to climate science and global change we are developing a Wikipedia page listing dozens who have made a difference to our thinking (see “women in global environmental change” or “women in climate change”).

What might these voices and sources have added, other than balancing the quotes and notes, inspiring those looking for female role models, and making some of us feel better about the impact and value of our work?

Geographers have had a lot to say about vulnerability to climate change and its links to the unequal landscapes of capitalism. Decades ago Anne Kirkby, Ben Wisner, Phil O'Keefe, Ken Hewitt, and Michael Watts pioneered in showing how the political economy of inequality, capitalism and colonialism made people vulnerable to droughts and other disasters around the world (Kirkby 1974; O'Keefe, Westgate, and Wisner 1976; Wisner, Westgate, and O'Keefe 1976; Hewitt 1983; Watts 1983). They took their insights beyond the academy to work with development agencies and NGOs in efforts to reduce vulnerability and expose the structural roots of disaster impacts. Their work prefigures the analyses of the unequal impacts of Katrina or Sandy and could add much to Klein's analysis of climate equity and the tensions between who causes climate change and who is affected by it.

There is also a broader history of geographers highlighting the risks of climate change much earlier than the 1988 Toronto conference that Klein uses as a major benchmark of scientific and public awareness. Ann Henderson Sellers and Jill Williams/Jaeger did some of the initial climate model analyses that raised the concerns that Jim Hansen and others then publicized (Williams, Barry, and Washington 1974; Williams and Calderon 1978; Williams 1980; Jaeger 1983; Shine and Henderson-Sellers 1983). From the 1970s Bob Kates and Gilbert White were highlighting the human dimensions of climate change and impacts on the poor and were influencing the establishment of UN and national policies (Holdgate and White 1977; Burton, Kates, and White 1978; Williams and Calderon 1978; Kates 1979; Jaeger 1983; Kates, Ausubel, and Berberian 1985).

At the same time critical geographers were reading and developing Marxist explanations of an environmental crisis rooted in a capitalist mode of production. While much of the work was focused on understanding and reducing climate vulnerability

(Liverman 1990), there was also penetrating analysis on the social production of nature under capitalism and the uneven consequences of industrial expansion that presages Klein's connections of climate to capital (Smith and O'Keefe 1980, Waterstone 1985). As Smith and O'Keefe (1980: 37) stated "Exposure to the environment produced under capitalism is universal, but the consequence of this exposure are far from uniform."

Many geographers who wrote on the political economy of hazards and climate began to identify with the emerging and vibrant field of political ecology in the 1980s and 1990s (Rocheleau, Thomas-Slayter, and Wangari 1996; Blaikie and Brookfield 1987; Bryant 1992; Peluso 1992;). As with women in climate science, there are plenty of books and articles by political ecologists on neoliberalism, environment, trade and climate, and yet they are mostly overlooked in Klein's book. Political ecology has contributed groundbreaking critiques of the neoliberalization of water, forests, biodiversity, climate and energy and provides much support for Klein's arguments about the globalization of nature (Hecht 1985; Bryant 1997; Castree 1999; Robbins 2004; Bakker 2005; Peet, Robbins, and Watts 2011).

For example, Klein focuses much of the book on the collisions of neoliberalism and climate and ways in which market environmentalism and trade influence emissions and vulnerability. This has parallels to Karen O'Brien and Robin Leichenko's much cited work on "double exposure" to globalization and global environmental change (O'Brien and Leichenko 2000; Leichenko and O'Brien 2008) and to the work of Hallie Eakin and others on how NAFTA and neoliberalism interacted with climate issues in Mexico (Appendini and Liverman 1994; Eakin 2006). Leichenko and O'Brien provided a careful analysis of how economic restructuring and globalization were remaking the geography of vulnerability and emissions, creating winners and losers, and raising issues of climate justice. While Klein, a powerful voice in the anti-globalization movement discusses NAFTA in her chapter on trade, Eakin and others provide the evidence for how trade interacts with climate on the ground, showing that free trade has not been

uniformly bad for Mexico's farmers but has presented them with complex challenges as institutions for land, water, agricultural subsidies and trade have shifted. Some farmers have taken advantage of NAFTA to sell to new markets while others have chosen to move or work in other sectors. And why, in all the discussion of capitalism and neoliberalism do we find no hint of the brilliant David Harvey, who has motivated so many to explore privatization, commodification, dispossession and other processes of neoliberalism including their impacts on nature (Harvey 2001, 2005, 2014)?

Political ecologists also offer some useful insights into the changing geographies of oil and energy (Bridge 2010) and I was surprised not to find references to Michael Watts important work on oil in Nigeria in Klein's discussion on the tragedy and political economy of the Ogoni oil region (Watts 2004, 2006, 2011; Watts and Ibaba 2011). Watts provides a sustained analysis of the oil assemblage, connecting the global political economy of oil to his deep regional knowledge of Nigeria providing an intense, detailed and nuanced analysis of the crisis of oil and human rights in the Niger Delta. His work, which includes collaborations with Nigerian scholars and activists, and acting as a witness for villagers in human rights cases, would have illuminated Klein's interviews with activists and others in the region.

Klein is extremely critical of the carbon markets and includes a discussion of carbon offsets and their problems. She focuses mostly on the initial problems of the offset regime—when carbon finance flowed to industrial gas reductions rather than more sustainable local renewable projects. While early profits from industrial offsets provided little benefit to the poor or the climate there is some evidence that offsets that are more socially sustainable and produce additional and material emission reductions are possible depending on technology and governance (Lovell and Liverman 2010; Bumpus and Liverman 2011). And while academics and activists have rushed to judge offsets as good or bad it is important to respect the rights of local people to make choices about their development options (Bebbington 1993).

In terms of connecting the carbon and offset markets back to a broader analysis of climate and capitalism, geographers have contributed a body of work that includes theory—especially around ideas of capital accumulation, neoliberalism, commodification of climate, the construction of markets, and carbon discourses—and studies of how offsets work on the ground in terms of their material effectiveness and social impacts (Bond and Dada 2004; Bailey 2007; Bumpus and Liverman 2008, 2011; Boyd 2009; Lovell and Liverman 2010; Lovell 2010; Lansing 2011).

Klein also spends much less time than I would have expected on the emerging political economy of forest carbon and the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD), especially given its connections to indigenous rights and social movements. The work of geographers and others on the political economy of forest offsets and their governance has drawn on more general work on neoliberalism and forests and has added valuable case studies, overviews and statistical analyses to the debate over offsets (Brown and Corbera 2003; Osborne 2011; Beymer-Farris and Bassett 2012; Osborne 2014).

This is all to say that the book could have benefited from some of the pioneering critical contributions of geography, and especially from contemporary work in political ecology.

Solutions

One of the contradictions of the Anthropocene is the link between poverty alleviation and solutions to climate change. On the one hand, major improvements in the status of women—incomes, reproductive rights, healthcare, education—have produced a dramatic decline in fertility rates as women choose to have fewer children (Hartmann 1995; Sanderson 2013). Even for those who reject Malthusian explanations of environmental degradation the slowing and turn around in population growth in association with women's choices has to hold some good news for the biosphere. Maintaining and expanding the rights and options for women is an important part of the climate solution not only because of their fight for climate justice—which

Klein does highlight—but also because it results in a lower population, lower carbon emissions scenario.

On the other hand, as people emerge from poverty—as they have in millions over the last couple of decades—they consume more, and this consumption is often connected to energy use or other greenhouse gas emissions. Whilst we can certainly worry about how globalization connects these consumers to trade and its environmental impacts, perhaps the focus should be on low carbon pathways out of poverty that do not judge consumption but minimize its environmental impacts. There are some compelling examples of low carbon development that benefit the disadvantaged in the book—renewable energy on tribal lands, community energy systems, transition towns—but there are not enough examples of how to scale up low carbon development for the millions emerging from poverty in Africa and Asia (Casillas and Kammen 2010; Newell and Mulvaney 2013; Pachauri et al. 2013).

Klein provides some interesting accounts of German climate policy, especially the commitment to renewables, and has fascinating critical discussion of provincial policies in Canada. But the book could include the important case of the state of California, one of the world's largest economies (and a major greenhouse gas source), which has taken serious steps to reduce emissions through the Global Warming Solutions Act of 2006 and various regulations that seek to reduce emissions 25% to 1990 levels by 2020. To be sure, California's climate policy includes some carbon trading (and associated environmental justice and offset concerns) and is only just starting to bite (emissions have declined about 2% since 2000 while population increased 11% for a 10% reduction in per capita emissions). But the state has strong regulations for energy conservation and efficiency, requires utilities to source from renewables and import lower carbon electricity, and pushes high-speed rail, alternative fuel vehicles and auto fuel standards. California is driving its own emissions down but also influencing business and utilities who wish to sell into the state or set uniform policies that meet California standards (Franco et al. 2008; Klinsky 2015).

Finally, in terms of solutions to climate change it is astonishing that Klein does not raise the issue of livestock emissions as they are so closely connected to her concerns with globalization. She talks a lot about methane from fracking but not from the expanding global livestock herd which produces more methane, even in the US (Kirschke et al. 2013; Nisbet, Dlugokencky, and Bousquet 2014). The livestock industry contributes at least 15% of all emissions and at least 35% of methane emissions and worldwide consumption is growing rapidly, doubling from 20 kg/capita in 1960 to more than 40 kg/capita in 2010. Eating less meat is a fast track option for rapid emission reductions because of methane's high global warming potential (23 times that of CO₂) and short atmospheric residence time. The potential for reductions is not just the methane but also the carbon dioxide from energy used and the nitrous oxides from fertilizer use in the food system (Goodland 1997; Steinfeld et al. 2006; Garnett 2009).

Theorizing capital(s)

A final comment speaks to the subtitle: Capitalism vs. the Climate and to the way the book mostly presents capital and business as unified bads for the climate, including the partnerships between business and environmental groups. Geographers have provided a much more nuanced analysis of capitalism and its relation to the state and civil society, which provide a basis for successful solutions and transformations. Gibson-Graham have shown us that capitalism is not “out there” but is a messy part of our everyday lives and that we need to rethink our understanding of economies as highly differentiated into ontologies that include both capitalist and non-capitalist enterprises and markets. They call for analysis that looks for spaces of possibility and difference, not just neoliberal destruction, domination and oppression, and that recognizes the diverse partnerships between business, labor, state and citizens that can create alternatives within and beyond the varieties of capitalism (Gibson-Graham 2006; Gibson-Graham 2008; Gibson-Graham 2011).

Business is fragmenting around the climate problem. There are the fossilized and subsidized energy companies who are opposing climate policy at every step and there are the more nimble multinationals that

actually favor regulation to create a level playing field for an energy transition in which they are confident they can compete. There are the businesses that see new sources of profit in the green economy, carbon markets, climate consultancy, renewable technologies and geoengineering. And there are those facing the second contradiction of capital (Leff 1992; Harvey 2014) as climate change undermines their supply chains, the health of their workers, their infrastructure and their profits. This is where the work of climate governance scholars such as Leigh Johnson, Dan Levy, Peter Newell, Chuks Okereke and Matt Paterson can offer both insight and strategy. I was especially surprised not to find some mention—at least in the notes—of books such as *Climate for Change: Non-State Actors and the Global Politics of the Greenhouse* (Newell 2006), *The Business of Global Environmental Governance* (Levy and Newell 2005), *Climate Capitalism: Global Warming and the Transformation of the Global Economy* (Newell and Paterson 2010), or *Governing Climate Change* (Bulkeley and Newell 2010), where Peter Newell and his coauthors draw on the work of theorists of globalization, political economy, and social movements (such as Polanyi, Gramsci and Foucault) as well as their own experiences working with NGOs to provide precise diagnoses of the climate crisis and responses (Levy and Newell 2005; Newell 2006; Okereke 2007; Okereke 2007; Newell and Paterson 2010; Bulkeley and Newell 2010; Newell 2013; Johnson 2014).

Concluding comment

While this review may come across as special pleading for acknowledgement of academic work it is also intended as a roadmap for readers back into some of the important critical work in geography, governance and political ecology that can provide depth and context for those inspired by Naomi Klein's book.

References

Appendini, K. and Liverman, D. (1994) Agricultural Policy, Climate-Change and Food Security in Mexico. *Food Policy* 19: 149-164.

Bäckstrand, K. (2008) Accountability of networked climate governance: The rise of transnational climate partnerships. *Global Environmental Politics* 8: 74-102.

Bäckstrand, K. and Lövbrand, E. (2006) Planting trees to mitigate climate change: Contested discourses of ecological modernization, green governmentality and civic environmentalism. *Global Environmental Politics* 6: 50-75.

Bailey, I. (2007) Market Environmentalism, New Environmental Policy Instruments, and Climate Policy in the United Kingdom and Germany. *Annals of the Association of American Geographers* 97: 530-550.

Bakker, K. (2005) Neoliberalizing nature? Market environmentalism in water supply in England and Wales. *Annals of the Association of American Geographers* 95(3): 542-565.

Bebbington, A. (1993) Modernization from below: An Alternative Indigenous Development? *Economic Geography* 69: 274-292.

Beymer-Farris, B.A. and Bassett, T.J. (2012) The REDD menace: Resurgent protectionism in Tanzania's mangrove forests. *Global Environmental Change* 22: 332-341.

Blaikie, P. and H. Brookfield. (1987) *Land degradation and society*. London: Methuen.

Bond, P. and Dada, R. (2004) *Trouble in the Air: Global Warming and the privatised atmosphere*. Durban SA: Center for Civil Society.

Boyd, E. (2009) Governing the Clean Development Mechanism: global rhetoric versus local realities in carbon sequestration projects. *Environment and Planning A* 41: 2380-2395.

Bridge, G. (2010) Geographies of peak oil: The other carbon problem. *Geoforum* 41: 523-530.

- Brown, K. and Corbera, E. (2003) Exploring equity and sustainable development in the new carbon economy. *Climate Policy* 3: S41-S56.
- Bryant, R. (1992) Political Ecology: An emerging research agenda in Third-World studies. *Political Geography* 11: 12-36.
- Bryant, R.L. (1997) *Third world political ecology*. Psychology Press.
- Bulkeley, H. and Newell, P. (2010) *Governing climate change*. New York: Routledge.
- Bumpus, A.G. and Liverman, D.M. (2008) Accumulation by decarbonization and the governance of carbon offsets. *Economic Geography* 84: 127-155.
- . (2011) Carbon colonialism? Offsets, greenhouse gas reductions, and sustainable development. In D. Peet, P. Robbins, and M. Watts (eds.). *Global Political Ecology*. New York: Routledge, 203-224.
- Burton, I., Kates R.W., and White, G.F. (1978) *The environment as hazard*. New York: Oxford University Press.
- Casillas, C.E. and Kammen, D.M. (2010) The energy-poverty-climate nexus. *Renewable Energy* 300: 200.
- Castree, N. (1999) Political ecology: global and local. *Progress in Human Geography* 23: 314.
- Conde, C., Liverman D., Flores, M., Ferrer, R., Araujo, R., Betancourt, E., Villarreal G., and Gay, C. (1997) Vulnerability of rainfed maize crops in Mexico to climate change. *Climate Research* 9: 17-23.
- Conde, C., Vinocur, M., Gay, C., Seiler, R., and Estrada, F. (2013) Climatic threat spaces in Mexico and Argentina. In N. Leary, C. Conde, J. Kulkarni, A. Nyong, and J. Pulhin (eds.). *Climate Change and Vulnerability*. New York: Routledge, 279-306.
- Eakin, H. (2006) *Weathering risk in rural Mexico: Climatic, Institutional and Economic Change*. Tucson: University of Arizona Press.
- Franco, G., Cayan, D., Luers, A., Hanemann, M., and Croes, B. (2008) Linking climate change science with policy in California. *Climatic Change* 87: 7-20.
- Garnett, T. (2009) Livestock-related greenhouse gas emissions: impacts and options for policy makers. *Environmental Science & Policy* 12: 491-503.
- Gibson-Graham, J.K. (2006) *The End of Capitalism (as We Knew It): A Feminist Critique of Political Economy*. Minneapolis: University of Minnesota Press.
- . (2008) Diverse economies: performative practices for 'other worlds'. *Progress in Human Geography* 32: 613-632.
- . (2011) A feminist project of belonging for the Anthropocene. *Gender, place and culture* 18: 1-21.
- Goodland, R. (1997) Environmental sustainability in agriculture: diet matters. *Ecological Economics* 23: 189-200.
- Hartmann, B. (1995) *Reproductive rights and wrongs: the global politics of population control*. Boston, MA: South End Press.
- Harvey, D. (2001) *Spaces of Capital: Towards a Critical Geography*. New York: Routledge.
- . (2005) *A Brief History of Neoliberalism*. Oxford: Oxford University Press.
- . (2014) *Seventeen Contradictions and the End of Capitalism*. Oxford: Oxford University Press.

Hecht, S. (1985) Environment, Development, and Politics: Capital Accumulation and the Livestock Sector in Eastern Amazonia. *World Development* 13: 663- 684.

Hewitt, K. (1983) *Interpretations of calamity from the viewpoint of human ecology*. Winchester, MA: Allen & Unwin.

Holdgate, M.W. and White, G.F. (1977) *Environmental Issues (SCOPE Report)*. London, New York: Wiley.

Jaeger, J. (1983) *Climate and energy systems: A review of their interactions*. Chichester, UK: John Wiley & Sons.

Johnson, L. (2014) Geographies of securitized catastrophe risk and the implications of climate change. *Economic Geography* 90: 155-185.

Kates, R.W. (1979) Climate and Society: Lessons from Recent Events. In *Proceedings of the World Climate Conference*. Geneva: World Meteorological Organization, 682-691.

Kates, R.W., Ausubel, J., and Berberian, M. (1985) *Climate impact assessment: studies of the interaction of climate and society*. New York: John Wiley & Sons.

Kirkby, A.V. (1974) Individual and community responses to rainfall variability in Oaxaca, Mexico. In G. F. White (ed.). *Natural Hazards: Local, National, Global*. Oxford: Oxford University Press, 119-128.

Kirschke, S., Bousquet, P., Ciais, P., Saunois, M., Canadell, J.G., Dlugokencky, E.J., Bergamaschi, P., Bergmann, D., Blake, D.R., and Bruhwiler, L. (2013) Three decades of global methane sources and sinks. *Nature Geoscience* 6: 813-823.

Klinsky, S. (2015) Justice and Boundary Setting in Greenhouse Gas Cap and Trade Policy: A Case

Study of the Western Climate Initiative. *Annals of the Association of American Geographers* 105: 105-122.

Lansing, D.M. (2011) Realizing carbon's value: discourse and calculation in the production of carbon forestry offsets in Costa Rica. *Antipode* 43: 731-753.

Leff, E. (1992) A second contradiction of capitalism? Notes for the environmental transformation of historical materialism. *Capitalism Nature Socialism* 3: 109-116.

Leichenko, R. and O'Brien, K. (2008) *Environmental change and globalization: Double exposures*. Oxford: Oxford University Press.

Levy, D.L. and Newell, P.J. (2005) *The business of global environmental governance*. Cambridge, MA: MIT Press.

Liverman, D.M. (1990) Vulnerability to Global Environmental Change. In R.E. Kasperson (ed.). *Understanding global environmental change*. Worcester, MA: Clark University.

Lovell, H. and Liverman, D. (2010). Understanding carbon offset technologies. *New Political Economy* 15: 255-273.

Lovell, H.C. (2010) Governing the carbon offset market. *Wiley Interdisciplinary Reviews-Climate Change* 1: 353-362.

McGuffe, K. and Henderson-Sellers, A. (1997) *A Climate Modelling Primer*. Chichester, UK: John Wiley & Sons.

Newell, P. (2006) *Climate for change: Non-state actors and the global politics of the greenhouse*. Cambridge: Cambridge University Press.

———. (2013) *Globalization and the environment: Capitalism, ecology and power*. New York: John Wiley & Sons.

- Newell, P. and Mulvaney, D. (2013) The political economy of the 'just transition'. *The Geographical Journal* 179: 132-140.
- Newell, P. and Paterson, M. (2010) *Climate capitalism: global warming and the transformation of the global economy*. Cambridge: Cambridge University Press.
- Nisbet, E.G., Dlugokencky, E.J., and Bousquet, P. (2014) Methane on the rise—again. *Science* 343: 493-495.
- O'Brien, K. and Barnett, J. (2013) Global Environmental Change and Human Security. *Annual Review of Environment and Resources* 38: 373-391.
- O'Brien, K., Eriksen, S., Nygaard, L.P., and Schjolden, A. (2007) Why different interpretations of vulnerability matter in climate change discourses. *Climate Policy* 7: 73-88.
- O'Brien, K.L. and Leichenko, R.M. (2000) Double exposure: assessing the impacts of climate change within the context of economic globalization. *Global Environmental Change-Human and Policy Dimensions* 10: 221-232.
- O'Keefe, P., Westgate, K., and Wisner, B. (1976) Taking the naturalness out of natural disasters. *Nature* 260: 566-567.
- Okereke, C. (2007) An Exploration of Motivations, Drivers and Barriers to Carbon Management: The UK FTSE 100. *European Management Journal* 25: 475-486.
- Okereke, C. (2007) *Global justice and neoliberal environmental governance: ethics, sustainable development and international co-operation*. New York: Routledge.
- Osborne, T., Bellante, L., and vonHedemann, N. (2014) *Indigenous Peoples and REDD+: A Critical Perspective*. Cusco, Peru: Indigenous Peoples Biocultural Climate Change Assessment Initiative.
- Osborne, T.M. (2011) Carbon forestry and agrarian change: access and land control in a Mexican rainforest. *Journal of Peasant Studies* 38: 859-883.
- Pachauri, S., van Ruijven, B.J., Nagai Y., Riahi, K., van Vuuren, D.P., Brew-Hammond, A., and Nakicenovic, N. (2013) Pathways to achieve universal household access to modern energy by 2030. *Environmental Research Letters* 8: 024015.
- Peet, D., Robbins, P., and Watts, M. (2011) *Global political ecology*. London: Routledge.
- Peluso, N.L. (1992) The Political Ecology of Extraction and Extractive Reserves in East Kalimantan, Indonesia. *Development and Change* 23: 49.
- Phelan, L., Henderson-Sellers, A., and Taplin, R. (2013) The Political Economy of Addressing the Climate Crisis in the Earth System: Undermining Perverse Resilience. *New Political Economy* 18: 198-226.
- Raworth, K. (2014) Must the Anthropocene be a Manthropocene? *The Guardian*. Accessible at: <http://www.theguardian.com/commentisfree/2014/oct/20/anthropocene-working-group-science-gender-bias>.
- Richardson, K., Steffen, W., and Liverman, D. (eds.). (2011) *Climate change: Global risks, challenges and decisions*. Cambridge: Cambridge University Press.
- Robbins, P. (2004) *Political ecology: A critical introduction*. Chichester, UK: John Wiley & Sons.
- Rocheleau, D.E., Thomas-Slayter, B.P., and Wangari, E. (1996) *Feminist political ecology: global issues and local experiences*. London: Routledge.

Rosenzweig, C. and Parry, M.L. (1994) Potential impact of climate change on world food supply. *Nature* 367: 133-138.

Rosenzweig, C. and Solecki, W. (2014) Hurricane Sandy and adaptation pathways in New York: Lessons from a first-responder city. *Global Environmental Change* 28: 395-408.

Sanderson, W.C. (2013) *The end of world population growth in the 21st century: New challenges for human capital formation and sustainable development*. New York: Routledge.

Shine, K. and Henderson-Sellers, A. (1983) Modelling climate and the nature of climate models: a review. *Journal of Climatology* 3: 81-94.

Smith, N. and O'Keefe, P. (1980) Geography, Marx and the Concept of Nature. *Antipode* 12: 30-39.

Solomon, S. (2007) *Climate change 2007-the physical science basis: Working group I contribution to the fourth assessment report of the IPCC*. Cambridge: Cambridge University Press.

Solomon, S., Plattner, G.K., Knutti, R., and Friedlingstein, P. (2009) Irreversible climate change due to carbon dioxide emissions. *Proceedings of the National Academy of Sciences* 106: 1704-1709.

Steinfeld, H., Gerber, P., Wassenaar, T., Castel, V., Rosales, M., and De Haan, C. (2006) *Livestock's long shadow*. Rome: Food and Agriculture Organization of the United Nations.

Ürge-Vorsatz, D. and Novikova, A. (2008) Potentials and costs of carbon dioxide mitigation in the world's buildings. *Energy Policy* 36: 642-661.

Ürge-Vorsatz, D., Tirado Herrero, S., Dubash, N.K., and Lecocq, F. (2014) Measuring the Co-Benefits of Climate Change Mitigation. *Annual Review of Environment and Resources* 39: 549-582.

Vera, C., Higgins, W., Amador, J., Ambrizzi, T., Garreaud, R., Gochis, D., Gutzler, D., Lettenmaier, D., Marengo, J., and Mechoso, C. (2006) Toward a unified view of the American monsoon systems. *Journal of Climate* 19: 4977-5000.

Vogel, C. (2005) "Seven Fat Years and Seven Lean Years"? Climate Change and Agriculture in Africa. *IDS Bulletin* 36: 30-35.

Vogel, C., Koch, I., and Van Zyl, K. (2010) "A Persistent Truth"-Reflections on Drought Risk Management in Southern Africa. *Weather, Climate, and Society* 2: 9-22.

Waterstone, M. (1985) The equity aspects of carbon dioxide-induced climate change. *Geoforum*, 16, 301-306.

Watts, M. (1983) *Silent violence: food, famine, & peasantry in northern Nigeria*. Berkeley: University of California Press.

———. (2004) Resource curse? Governmentality, oil and power in the Niger Delta, Nigeria. *Geopolitics* 9: 50-80.

———. (2006) Empire of Oil: Capitalist Dispossession and the Scramble for Africa. *Monthly review* 58: 1-17.

———. (2011) Blood oil: The anatomy of a petro insurgency in the Niger Delta, Nigeria. In A. Behrends; S. Reyna; and G. Schlee (eds.). *Crude Domination: An Anthropology of Oil*. New York: Berghahn Books, 49-80.

Watts, M.J. and Ibaba, I.S. (2011) Turbulent Oil: Conflict and Insecurity in the Niger Delta. *African Security* 4: 1-19.

Williams, J. (1980) Anomalies in temperature and rainfall during warm Arctic seasons as a guide to the formulation of climate scenarios. *Climatic Change* 2: 249-266.

Williams, J., Barry, R., and Washington, W. (1974) Simulation of the atmospheric circulation using the NCAR global circulation model with ice age boundary conditions. *Journal of Applied Meteorology* 13: 305-317.

Williams, J. and Calderon, R. (1978) Carbon dioxide, climate and society. *Environment International* 1: 277-278.

Wisner, B., Westgate, K., and O'Keefe, P. (1976) Poverty and disaster. *New Society* 37: 546-548.

Reviewed by

Michael Watts

*Department of Geography
University of California, Berkeley*

All or Nothing?

It bears repeating that we are in deep shit. It is to the great credit of Naomi Klein that she has, as arguably one of English-speaking world's great public intellectuals (and as we discover someone with a massive carbon footprint produced in the service of that public), powerfully conveyed the gravity of the multi-faceted crisis that we all front as a consequence of centuries of using the atmosphere as a vast carbon toilet. *This Changes Everything* is a polemic, that is to say it is a critical invective aimed at everyone, and insofar as it is the product years of travel and engagement with a host of activists ("stakeholders" as the neoliberal lexicon would have it) and a deployment of a raft of research assistants, it inevitably opens itself up to the critique—compellingly laid out here by Diana Liverman—that it does not do justice to the scholarly work of men and women who have been laboring in the climate change trenches for decades. [Parenthetically let me say that one thing Klein is not in a position to discuss but arises from within academia and is now widespread in the policy world, is the way in which the language of climate adaptation is drawn from evolutionary biology has been welded on to resilience theory to produce what amounts to an entirely new industry devoting to "adapting" to the inevitable, a set of practices which are consistent with, and rooted in, the intersection of market-thinking and risk theory (see Taylor 2015, Watts 2015). It is an example of what Foucault (2008) calls becoming an entrepreneur of the self]. Whether this citational fidelity matters

too much given the audience Klein has in mind is an open question. If her accounting of the science is off, or her interpretation of particular cases or movements or programs is at variance with the academy, then I suppose we have reasons to grouse. Elizabeth Kolbert has provided one critique along these grounds, and doubtless there are others (I have my own beefs for example with her interpretation that part of the world Klein discusses, namely the "blockadia" launched in the oil-producing Niger Delta of Nigeria).

But for the most part the broad contours of what Klein lays out in Part One (*Bad Timing*) and Part Two (*Magical Thinking*) of her book seem to be if not uncontested, then utterly compelling. At the heart of both of these parts of the book is the claim that neoliberal thought and practice (a perfect storm of deeply embedded extractivism with circuits of global capital accumulation and dispossession) has not simply "helped overheat the planet." There is a deeper sense in which capital has captured what passes at the climate change movement—whether the non-profit world or "green billionaires"—and in ideological terms so saturated the media environment that the intrinsic problems of organizing around a problem the effects of which are inter-generational and, in a sense, "invisible" (from the vantage of "the now") that any sense of "what is to be done" must imply that we need "a change in everything." It is not simply that climate change has been driven in historically conjunctural ways by neoliberalism, it is that the structures of our hydrocarbon capitalism are radically incompatible

(the second contradictions of capital?) with any way out of the climate change box. So when the Right or the climate deniers say that climate change is a Trojan Horse to abolish capitalism, they are she says quite right. This is, I suppose, the good news and the bad news. There is a relation between ecological survival and alternatives to free-market fundamentalism; the task is overthrowing capitalism. So where does that leave us?

Let me say that there is much about this book that is commendable. I found the account of the complicity among a number of important conservation organizations and finance capital and Big Oil very powerful; likewise the critique (but also the deep influence) of how the financialization of contemporary capitalism has produced a belief that we can actually finance our way out of the climate (catastrophe bonds, carbon pricing) is compelling. It was refreshing to see a full-blown questioning of a powerful vein of Left extractivism; and while not totally original, the deconstruction job on those duplicitous types like Richard Branson and Tom Steyer who duck all the tough questions was timely and unflinching. In all of this she sometimes comes close to a 1960s sort of Malthusianism—finite resources means we have to radically scale down—and in her desire to deny the logic of “there’s a technological (and big technological) fix to everything” mentalite, she doesn’t provide an entirely satisfying critique of nuclear energy or the prospects for hydro-fusion either. I also found Klein’s attempt to link her own trials and tribulations with human reproduction and fertility to the crisis of the planet, well, quite strained and honestly a little strange not least because the (ultimately wonderful) outcome of Klein and her husband’s run-in with the human fertility-business complex and their trying and difficult efforts to have a child—the frame she provides for the “right to regenerate”—were successful for reasons that were, in the end, inexplicable and ineffable.

But perhaps all of this amounts to trivial sorts of criticism? I have on offer two alternatives, one flows from the other. The first is that much turns in Klein’s account on the politics of the blockadia. Klein is a ceaseless traveller alighting upon the climate warriors in the Global North and South. I find it hard to assess

all of this. Much is made certainly of indigenous groups around the world struggling to confront Big Oil. The Niger delta where I have worked is one. But the picture here is complex and contradictory because its politics are a rough and tumble mixture of self-interest, local politics, crime, constitutional reform and environmental and human rights. Some of these militants want more from oil, not less of it. And my suspicions are that among Canadian First nations the picture is mixed too in terms of the robustness and the orientations of its members. None of this is to deny that such—all—movements are not part of a global landscape on which the transition to a low carbon economy is being vigorously contested. But, to use a metaphor from James Scott (*Weapons of the Weak*), I am not convinced that all of these climate warrior polyps amount to the sort of reef that Klein feels is necessary or capable of “changing everything.” Which brings me to my second point. Political ecologists have written at length about the awkward political character of environmental problems as fictitious commodities. While climate change may be fundamentally grounded in the operations of capital, it is not a narrowly class phenomena. By which I mean everyone is vested in survivability. It is not a problem solely of the exploited classes. To this extent why might one not look at the power and contributions of middle class movements say in Shanghai (wealthy Chinese who do not want their kids to die from air pollution) or fractions of capital whose resource base and self interests rests on resources compromised by climate change (say Pepsi in India). Naturally some fractions of capital *are* deeply invested in running with oil and gas to the bitter end. But they are fractions of a whole, and *their* leverage is substantial. None of this is naively suggesting that “progressive” fractions of capital are going to produce what Klein wants. My point is that there is a larger landscape—a vast political space—on which the politics of change can shift, and perhaps quickly producing contingent and perhaps unexpected political coalitions. Klein’s picture offers a different political palette and it rests on, in my view, if not a heavy dose of utopian thinking then a great deal of optimist thinking about blockadia. My question is: what are the degrees of freedom within which things might change that do not produce an alternative to capitalism but might in the short-medium term vastly

reduce emissions (if not necessarily seen the end of extractivism... a very tall order in itself). I am not naïve. Because even if this configuration of forces might push the frontier of carbon-emissions downward as it were, there remains the question of whether given the sorts of numbers the global climate change community regularly trots out about how rapidly things need to happen, what sort of difference it might make. When I look at the US Congress right now I would be the first to admit that there is good reason to assume, to quote a climate scientist who appears in *This Changes Everything*, “we’re fucked.” But maybe that should not deter us. My point is simply to raise the question of whether the politics of climate change really turns on the sort of binaries that Klein lays out.

References

- Foucault, M. (2008) *The Birth of Biopolitics*. London: Palgrave.
- Taylor, M. (2015) *The Political ecology of Climate Change Adaptation*. London: Routledge.
- Scott, J. (1987) *Weapons of the Weak*. New Haven: Yale University Press.
- Watts, M. (2015) Now and Then: the origins of political ecology and the rebirth of adaptation as a form of thought. In McCarthy, J. and Perrault, T., (eds.). *Handbook of Political Ecology*. London: Routledge.

Interview by

John C. Finn

*Department of Sociology, Social Work, and Anthropology
Christopher Newport University*

This interview was recorded on November 14, 2014.

John Finn (JF): I’d actually like to start not with a question about your book but rather with a “historic deal” between the US and China that was announced just a couple of days ago to reduce carbon emissions from both countries throughout the coming years.

Naomi Klein (NK): This historic deal is taking place in the context of accelerated free trade agreements between China and the US, China and Canada, and other markets, which are all about liberating the flow of goods and encouraging more consumption. Whatever gains are contained in the deal are going to be undone by the broader context is a question that needs asking for sure. These sorts of baby steps in the right direction are occurring in the context of this unrelenting push for a model of so-called “free trade” that fuels a really wasteful and emissions-intensive form of consumption. We’re still speeding down that highway in the wrong direction and at the same

time as there are these small indications in the right direction.

I do think it is significant what Obama does on Keystone in the next little while, because he really has kicked the can down the road in terms of emission reduction targets he has made. All the hard stuff kicks in when he’s out of office, and so something he can do now, instead of just talk, is say no to the Keystone XL Pipeline. If he doesn’t, then he’s locking in an infrastructure for a very high carbon energy source that is designed to last for decades down the road and really making his successors work harder, making it all more unlikely that they will meet even these paltry targets. He’s definitely sending mixed messages, sending out various trial balloons. And you know they can’t force his hand, it does require presidential approval. It’s just the question of whether or not he’s going to, how far he’s going to stick his neck out.

JF: Your book struck me as somewhat dialectical, simultaneously terrifying and almost utopian. You lay out these situations for 2° and 4° and 6° warming that on the upper level could foretell the

kind of calamitous global disaster that humans might not survive. Add to that the current global economic and political order. And you look at all of this and you see a situation ripe for opportunity, not just for environmental change but also for significantly reordering the global political, economic, and social order. Maybe I'm just a pessimist but while I think there is a lot to your diagnosis, I don't know... Especially with the time frame we're working under, can you convince to be an optimist about this?

NK: Well I think if I didn't convince you in the book I probably won't be able to do so in this interview. And I think that the book has inspired a range of responses that says a lot about our individual state and where we on the spectrum of hope and despair at any given moment. I think Americans in particular are in a state of deep despair right now. I've launched the book simultaneously in Canada, the UK, and the US, and launching it in the US was a very different experience than launching it elsewhere. Because progressive Americans are in a state of despair and I can't fix that on my own. I can't convince you or anyone else who really feels that this is hopeless. I *am* making an argument that the fact that it is this bad is potentially a more powerful tool than any we're currently using to change a system that *needs* radical change. You know I think part of the reason why we all feel so much despair in the face of the American political system is that it is so deeply broken. This is what I hear more than anything else. Speaking about the book to the room full of people the question and answer period turns in to group therapy a little bit. And it always comes back to the fact that people feel that the system *itself* is broken. So it doesn't matter what you think or what you do, it's non-responsive, it's not democratic. That's true no matter what issue you work, and that sense of despair goes well beyond climate. I think we feel more despair in the face of climate because it is so incredibly absurd. I mean if we look at what's happening right now with Keystone, that you can have a political class that's just so craven that they would put the political fortunes of one senator, in the hopes that Mary Landrieu might do better in her run-off, above the interest of the planet. I mean it is so crazy, but yet that is what is happening. And

so I think there's a way that climate sort of heightens what we already know, which is that this is just an amazingly corrupt system.

And I'm not being alarmist, I'm in fact being conservative. I very consciously do not quote those climate scientists that go furthest out on a limb with this stuff. That four to six degrees is coming from World Bank studies, Waterhouse Cooper, it was vetted by James Hansen, Michael Mann, Peter Gleick. In that particular section I wanted it to be as conservative as possible, scientifically. Because I don't need to exaggerate the science or get into arguments about whether or not I'm exaggerating the science. The science is scary enough and so all we have to do is actually just look at it. And that's why I start the book the way I do, trying to capture the way in which all of us are in this state of knowing and not knowing about climate change. How we look at it with fleeting glances, because I think in some ways it's too hot to handle. If we really believed things are as bad as climate scientists are telling us they are, wouldn't we have to fight differently? Wouldn't we have to organize ourselves differently? Wouldn't we make different kinds of arguments? Wouldn't the tenor of those arguments be different? And maybe we're not ready to go there yet, I don't know. I think this is a powerful argument that is not being used. That's also why I make the argument that the Right understands this better than the Left, than the liberals, in the sense that the head of the Heartland Institute understands that if this climate science is real, then they instantly lose the argument. The only reason this hasn't happened is because the Left isn't really making the argument.

But I don't think you should be hopeful in the absence of social movements that are organizing on the scale that they should be organizing. My book is a call for a level of organizing and response that is not happening. So should we be hopeful now? Without that, no, there's no reason to be hopeful. But should we do what we can to try to change those dynamics and build that movement? Well, that's the political question of our lives. That's what makes it different than the threat of nuclear war, which was also an existential threat. That actually required an action, we needed to press a button, someone needed to decide

to do it. Whereas with climate change, no one needs to take a decision. We're already doing it.

JF: In a recent article in *Salon*, Sean McElwee argues that a major problem for progressives is that many on the left, and especially on the populous left, don't understand the concept of ideology. They don't understand how ideology functions in society to shape worldviews and to shape belief systems, thus shaping actions of the population. He writes it's common to hear the left "write and argue as though the entire American political system is controlled by a small cabal of business or political leaders conspiring to fool the masses" (McElwee 2014: np). But it's not that simple, right? In the US we're beyond just consumerism. Consumerism is patriotic. And limiting our ability to consume, however recklessly, is framed as and, here's the thing, is widely believed to be limiting our freedom. I guess my question for you is: how do you account for and confront this kind of widespread and deeply entrenched ideology of consumerism?

NK: First of all, it is a relatively recent phenomenon in that there is a tradition of frugality in the United States just a couple of generations back. I think in many ways this ties back to the first book I wrote, *No Logo*, which was about the elevation of the lifestyle brand and the way that neoliberalism didn't just wage war on the public sphere, but as the public sphere shrank and as we became more atomized, the role of shopping in our sense of self and identity increased so that we get to the point where when somebody says, "You can't shop as much." It feels like a personal attack, an attack on the self, not a change in behavior that you can adapt to, it feels much more personal. And that's the success of that lifestyle branding that predates the '90s but soared in that period. There's no doubt that that's a challenge and that's why in the book I argue that we won't win without an ideological battle, that we won't win without a shift in worldview and values.

And the counterargument is: *well, there's no time for that, we have to just focus what we can in the short term*. But the fact of the matter is this: that's what we've been trying doing for two and a half decades

when it comes to climate change. And we're going backwards. So you know it is possible that going for a leap as opposed to these little baby steps could be a more practical strategy. Which is to say, what is called practical in the mainstream climate discussion, what is seen as serious? It already has a track record of unmitigated failure: it's more serious to talk about a carbon tax than to talk about having a battle of worldviews, right? Except for what evidence is there that we're anywhere close to passing a carbon tax? I mean, James Inhofe is going to be Chair of the Senate environment committee. So why not go big? Because this sort of incremental approach is not working. It's not even delivering the incremental changes that wouldn't get us there.

JF: One source of tension I felt while reading your book has been kind of the tension between local, bottom-up solutions and approaches and universal, top-down policy prescriptions. On the one hand, for a long time in your work you have argued for decentralization, for more local empowerment. On the other hand you open the book talking about a Marshall Plan for the Earth and other massive, top-down, universal governmental projects. I'm just wondering if you can just talk us through that tension between the universal and local.

NK: Well I do think that are ways of resolving that tension in the way that we design policy, which is why I spend a fair amount of time on what *is* working about the German transition. I think it is a really good example of how movements can win policy victories, which we need examples of these days. Angela Merkle, she's not lefty and yet she's introduced the most ambitious energy transition platform of any non-Scandinavian government in the industrialized world, and she did this in large part under pressure from the anti-nuclear movement in Germany, and the broader environmental movement. Post Fukushima it was accelerated and I think that that's another good example of inverse *Shock Doctrine*, a response to a disaster that pushes progressive solutions.

The design of that energy transition in Germany, it has a bold national plan, bold national targets in

terms of what percentage of Germany's energy is going to come from renewables by which year and a national feed-in tariff program so that it isn't just local. At the same time, it's a feed-in tariff program that encourages local ownership, collective ownership, and decentralization of all kinds. So I think it's a good example of how you can reconcile the need for change at scale without resorting to centralized state solutions that often replicate bad patterns of remoteness and unresponsiveness and non-democratic tendencies. I think in Europe this discussion is a little further along in thinking about the idea of the commons and how there can be non-private control over resources, either energy, or water, or land, that are more democratic and less bureaucratic, but are not just you and six friends starting a co-op. So I do think we have a few examples we can point to of trying to resolve that tension. I think it's a work in progress. I think that in some areas the policy prescriptions are straight forward and part of problem is just thinking about the end of the book being the only part of the book that's looking at responses. In fact they're woven throughout the first section of book, right? In terms of where you get the money and how you could have a degrowth strategy that did not put the entire onus on the poor and that also fought inequality and created jobs. One of the things I really wanted to do with this book is have it not be one of those books that was all critique for the first 500 pages, and then have a short chapter on solutions at the end. Which I think is a bad tendency among nonfiction writers and it's one I've definitely had in the past. I try to have those responses woven through without being overly prescriptive because that's just not the kind of writer I am. I've read the reviews; I know that people want me to tell them exactly what the next economy looks like. It may be a personal failure of mine, but I actually don't think that it's my role to do that. I feel like I can point people in directions. I feel a book like this can start some really great discussions.

I set out to write a book that accurately diagnosed the problems and could be a tool to weave together different movements, to fight for that next economy, and to provide some of the principles that need to animate that next economy. But in terms of laying a blue print for it, I understand why people crave that,

but that's the not the book I intended to write, or that I think I could write. I concede the point that the book is stronger on critiques than it is on what the next economy needs to look like. But politically I really believe that the process of mapping that out, first of all should be specific to different places and should be a democratic process. Maybe that sounds like a cop-out, but I really do believe that.

There are a couple of things we're doing with the book and the film that my husband has been directing as I've been doing the book. I find that film is a little bit better at some things than books. And that's why we made our film, *The Take*, about the occupied factory movement in Argentina. I didn't write a book about that because generally I feel that I don't like to read books like that. Maybe it's just me, but part of it I think what worked about that is that people got to go in this factory and hear the workers in their own voices. The film is very much imbedded in these resistance movements and as they resist extraction projects, and try to build a regenerative economy. It's not a blueprint either but I think it takes us a little bit further along. The film is not a documentary of the book by any means, it's not a bunch of talking heads, it's not me making the argument on tape. It is the various stories of these movements. So we have that coming and then on the website, "This Changes Everything," there's something we're calling the "Solutions Gallery" and it's this cooperative of writers who did this book called *Beautiful Trouble* and now they're doing a book called *Beautiful Solutions* which is highlighting different solutions that are working, that are alternative economic models beyond capitalism.

But then the other thing that we're trying to figure out is how we can use the space that is created with this book and the film to bring movements together to actually have this more forward-looking discussion. And so we've done a little bit of that, we've had two gatherings. We had one in the Bay Area and we had one in New York around the Climate March. There we had a day-long session with people from labor and climate justice, food justice, racial justice like the Wal-Mart campaigns, fast food workers, that kind of thing, and just getting a whole bunch of people together in a room that aren't usually in a room to try

to talk about what would a just response to climate change look like. That's one of the things I'm most excited about for the next year is using the film as a kind of convergence, really as an excuse to get people in a room together to do some visioning.

JF: In the recent *New York Times* review of your book, Rob Nixon describes not only this work but all of your work—*No Logo*, *Shock Doctrine*, and *This Changes Everything*—as your anti-globalization trilogy. How do you react to this characterization of being “anti-globalization”?

NK: It's a bit of a throwback, that term, right? We don't really use it; you don't even hear it that much any more. I mean, at the time, we always said it's not an anti-globalization movement. On the liberal end, it's an anti-corporate globalization movement and on the left side an anti-capitalist globalization movement, and that remains true. I never even understood the word “globalization,” and I don't use it as you can see in the book. I talk about this particular *model* of corporate globalization, which was a pseudonym for corporate liberation movement. So I've never liked the term. It's conflated too many things at once, in a way that was never useful.

I should say it, I'm tremendously grateful for that review and I'm a big fan of Nixon's writing. But what he took issue with—and it has come up in a few reviews, and I'm a bit confused by it—is this issue of: Is it anti-neoliberal? Or is it anti-capitalist? A few reviewers have made the claim that the case I'm making is against neoliberalism and not against capitalism. And I think I'm really clear in the book, and I don't know how I could be any clearer: it's both. The tools that we needed to respond to this crisis when it hit in the late 80s and 90s, were the very tools that were under fire by the neoliberal project: regulation, taxation, the very idea of collective action in society, and so on. The advancement of free trade created more barriers. But because we have waited as long as we have, and we now need to cut our emissions as deeply as we need to, we now have a conflict not just with neoliberalism, but a conflict with capitalism because it challenges the growth imperative. So I realize this is a two-stage argument, but it's both.

JF: What do you see as your role writing on environmental science and on policy from the perspective of a journalist and an activist?

NK: I find it a little hard to classify exactly what I am at this point in time. I'm not just a working journalist. I write books that take as long to write as it takes to get a PhD. There are teams of researchers helping me, we set up little research institutes. So I don't think this is just sort of a classic, journalistic book, as I think *No Logo* was. The amount of research and fact checking, and also we set up our own system of peer reviewing the material. I don't think it is accurate to just describe it as just a journalistic work. So I don't know exactly how to describe it, I think it's sort of a weird hybrid.

In terms of activism, I used to call myself an activist journalist when I was doing more journalism. Now, I think I'm an activist once I've written the book. I organize my life around this period of retreat and research and writing that doesn't actually leave a whole lot of room for activism. Although what I'm trying to do is produce material that is genuinely useful to movements. I see my role as a writer, creating intellectual tools that are useful to movements one way or another. Then once they're done, I also feel a real responsibility to the movement that inspired my work and I do feel myself to be a part of.

There's one thing I would add in terms of this question about a non-scientist writing this: I would say that the main way we dealt with that was by relying on the kindness of climate scientists to be really patient and helpful with explaining and also reading and rereading parts of the book. Because it was really important to me that the debate be focused on these bigger political questions, these bigger ideological questions. It would have been such a shame to get sidetracked by just sloppiness on my part. And that may yet happen, but two months into it I feel really pleased that we haven't made it easy for people. I have to overwhelming share credit with my incredible researcher, Rajiv Sicora.

JF: In the last 30-35 years both within geography and beyond, a substantial group of researchers, educators, and authors have developed the field

of political ecology. It now consists of more than 20 major books, hundreds of academic articles, probably thousands of courses taught around the world, and there's really no mention of political ecology in your book. Why not?

NK: Well, I'm sure it's fair enough. I think it's probably a fair enough challenge and I think one of the pitfalls of writing a really interdisciplinary book is that I'm not going to be 100% up on the literature in any of the fields. I was keenly aware of the fact that in every field that I touch on, and I touch on a lot of them, I'm standing on so many shoulders. There are six pages of acknowledgements and all I can think of are the people I forgot. Part of it, in writing for a popular audience as opposed to an academic audience, is that there's a constant name checking in academic writing and in popular writing there's a lot less of it. Just for readability and flow and I think that does run the risk of people feeling unacknowledged, especially when I'm getting all of this popular attention and they haven't. I feel bad about that if I screwed that up.

JF: Kate Raworth recently wrote in *The Guardian* that a better name for the Anthropocene might be the "Manthropocene." Compared to the number of male scientists who you cite, you cite really few women scientists and researchers. Why are there so many men compared to women cited in your work?

NK: You think that that's true? I'm not sure. I feel like I was aware of that in the first half of the book. I feel like in the second half of the book that the balance shifts. But I was aware of it in the first half of the book, and I think it's definitely true in terms of the climate science and in some of the more wonky tax stuff, although I'm always quoting Kevin Anderson and Alice Bows-Larkin more than anybody else. Part of it is just there was a certain team of climate scientists who just helped us a lot, and they were all men, that is true and that's not good. Then the geoengineering world is overwhelmingly male.

I find the climate debate to be overwhelmingly male dominated even though the field is not. In terms of people who make the most noise, who blog

the most, who get heard... Part of what I'm trying to do with this book is make people who don't feel welcome in this world, feel like they could also talk about climate change. And part of it is that it's a very *very* wonky world. There's the science side of it but then there's the policy world, which is just as male-dominated if not more. And even the big green groups: Even though the environmental justice movement is overwhelmingly led by women at the grassroots level, there have been some very strong analyses looking at how male-dominated the big green groups are. But I would think that a book like mine should try to fix some of that, in terms of who is treated as an expert. I don't think I did enough. I certainly tried not to replicate that. I think it's fair enough to say in terms of the climate science that most of the climate experts, besides, Alice, are men, Alice and Penny Chisholm. I did think it's funny, too, about people who get cited. It's a self-reinforcing cycle in terms of who gets cited. People worry more about offending men because they tend to have bigger egos.

I think a lot of the most important and wisest voices in the book are women and many of them women of color, like Arundhati Roy and Angélica Navarro, who I start the book with, and lots more. The film in particular I think does a better job than the book of upending some of these notions of who is an expert.

JF: Ok, last question: Given how highly politicized that climate change is, especially in the US, and really the strong politicization of everything in American politics right now, are you concerned that your book might simply further the politicization of this issue, that it might actually backfire, making broad based climate action—exactly the kind of climate action that we need—even harder?

NK: I get the concern, but I can't see how it could be more politicized than it already is in terms of how it's perceived on the right. I mean, the Left, Liberals are scared of the book. But the Right, you know, they already thought this. This is the whole point. But one of the things that's so frustrating about Obama is that he gets all of the backlash as if he was doing something, as if he was doing something radical. So

he may as well! That's assuming he actually wants to. Given that he gets treated as a socialist when he does the most minor neoliberal reforms, he may as well go a little bit further. I don't think that the Right in the United States could be more convinced that climate change is a socialist plot, so I'm not all that worried about it. The other issue is just that this book is disruptive to the current narrative, but it's not as if that narrative was working. It's not as if I'm coming into a movement, a climate movement, that was moving from strength to strength and introducing an argument that could sabotage it. I'm introducing a debate into a movement that is losing, big time, on every front. So, I don't think we have anything to lose in trying a different approach. There's a huge amount of fear and I acknowledge that it is risky. If I were doing this 15 years ago or 10 years ago even, I think

that that argument would have carried more weight. I've said this in other interviews, we tried it their way: pretending we could do this and no one would even notice. And it didn't work. So let's try telling the truth and see what happens.

Acknowledgements

Thanks to Colleen Garrison for her assistance with this interview.

References

McElwee, S. (2014) *Believe it or not: Karl Marx is making a comeback*. Salon. Accessible at: http://www.salon.com/2014/06/22/believe_it_or_not_karl_marx_is_making_a_comeback.

