

‘Staying with the Trouble’*: Environmental Justice for the Anthropocene-Capitalocene

Having first emerged in the United States (US) as a fundamentally place-based critique of the racially unequal distribution of environmental toxins and risks,¹ the environmental justice movement—and the discourse of environmental justice—has expanded over time to embrace a broadening and deepening range of concerns. The field of environmental justice is now a highly energetic assemblage of responses—activist, community-based, scholarly and professional—to multi-layered and radically material forms of injustice.

Some scholars, attempting to delineate the field’s central concerns, have mapped out taxonomies of environmental justice scholarship and activism. The broad organisational structure of this book draws on Kuehn’s environmental justice taxonomy,² which is included in this research collection, and which in turn draws on three earlier articles included alongside it, in *Part 1: Environmental Justice: Taxonomies and Conceptualisations*.

Kuehn identifies four categories of environmental justice: *distributive justice*, *procedural justice*, *corrective justice* and *social justice*. The organisation of this collection shadows that taxonomy—but reformulates it, and includes publications that reflect the instabilities and overlaps haunting each category: *Part 2: Environmental Justice: Distributive Patterns, Structural Tilt*; *Part 3: Environmental Justice: Procedural Justice, Relational Recognition*; *Part 4: Environmental Justice: Identifiable Wrongs, Corrective and Retributive Reparations*; *Part 5: Environmental Justice: Interrogating the Socio-Political*. This collection also adds an additional category of environmental justice, which explicitly brings to the foreground the urgency of ontological justice. This is a theme arguably starting to emerge, though relatively inchoately as yet, in some recent environmental justice scholarship: *Part 6: Environmental Justice: Ontological Justice and the Politics of Meaning*. Some of the readings in this last category might take some readers in an unfamiliar direction, but the question of ontological justice—which re-imagines and resituates the ‘human’ while expanding ethical consideration for the more-than-human victims of injustice—is now vitally important. Accordingly, the theme is given explicit emphasis in this collection as an important and future-facing horizon for environmental justice aspirations. (The theme emerges in various strands of engagement and critique in the readings throughout the collection, but is the overt focus of Part 6.)

The justification for foregrounding ontological justice as an important aspect of environmental justice reflects three contemporary realities: First, that climate warming is producing mal-distributed, predictable, highly uneven and globally salient forms of injustice affecting all species and forms of lively materiality. Secondly, that the best new science and philosophy demonstrates that ‘foregrounding material factors and reconfiguring our very understanding of matter are prerequisites for any plausible

* ‘Staying with the Trouble’ is Donna Haraway’s way of coining the world-making task facing humans and non-humans entangled in the crises of the Anthropocene-Capitalocene. The phrase drives at the ‘ongoingness’ of the skillful engagements required in making the world more ‘liveable’—and is a rich and useful way of thinking about the task of environmental justice in the 21st century. Haraway’s important work is referenced below when drawn upon: see DJ Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Duke University Press: Durham and London, 2016) for Haraway’s discussion of her powerful characterisation of world-making task as a the human-non-human collaboration, and of the ‘Chthulucene’, Haraway’s alternative figuration for the Anthropocene-Capitalocene.

¹ RD Bullard, ‘Dismantling environmental justice in the USA’ (1999) 4/1 *Local Environment* 5–20; B Bryant ‘History and issues of the Environmental Justice Movement’ in GR Visgilio and DM Whitelaw (eds.), *Our Backyard, A Quest for Environmental Justice* (Lanham: Rowman and Littlefield, 2003) 3–24.

² RR Kuehn, ‘A Taxonomy of Environmental Justice’ (2000) 30 *Environmental Law Reporter* 10681–10703.

account of co-existence and its conditions in the 21st century'.³ This is a reality making the question of ontological justice central to any meaningful contemporary account of environmental justice—*minimally* as part of an urgently necessary re-imagining of 'the human'. Thirdly, that the life-consuming nature of the multiply layered ontological injustices enacted by predatory global corporate neoliberalism now makes the foregrounding of ontological struggle as an explicit dimension of environmental justice struggles a political necessity.

Obviously, the readings in this collection could have been organised in other ways. Different readings could also have been selected. This collection makes no special claim to authority. It simply offers a selection of environmental justice texts, framing them against an overt concern with the 21st century urgency of addressing deepening patterns and practices of ontological injustice.

Before introducing the selected environmental justice readings, I offer an outline critical reading of the current historical conjuncture in order to highlight what makes this particular reading of 'environmental justice' apt. First, and reflecting the concern in this collection with environmental justice as ontological justice, it seems essential to acknowledge the deep ontological and epistemological inadequacy of the term 'environmental' and of the construct of 'the environment'. Secondly, it also seems important to admit key challenges and tensions haunting the meanings of 'justice'. Thirdly, it seems vital wholeheartedly to embrace the tradition of environmental justice scholarship and activism that locates 'environmental justice' against the past and current production of 'environmental injustices'—only, here, to do so in explicit relation to the Anthropocene-Capitalocene (of which, more below).

'The Environment': Eco-diction, Objectifications and Power

First, it seems essential to admit that the notions of 'the environment' and of the 'environmental' reflect an ontological and epistemological reductionism intrinsic to multiple overlapping forms of injustice—including the range of injustices broadly designated as 'environmental'. While environmental justice scholarship has broadened its notion of 'environment' to embrace, not just the 'natural world', but 'where one lives, works, plays, and goes to school',⁴ it is still common to encounter in environmental justice scholarship a relatively limited, anthropocentric understanding of 'the environment', reflecting a particular kind and degree of human centrality to the world.

Anthropocentrism, of course, is an ontology overtly asserting the centrality of the human. However, it is not necessarily committed to the centrality or inclusion of *all* human beings. There is, I will argue, a lack of genuine inclusiveness in anthropocentrism, which turns out to be central to patterns of injustice to which environmental justice discourse and activism responds. This lack of inclusion will be addressed shortly. First, however, it is important to look at the objectification performed by anthropocentric ontology. It seems important to account for, in other words, the *objectifications* intrinsic to the construct of 'the environment' itself.

The French etymology of the term 'environment' (*en Vire* ('to turn around [something]')) alludes to a central *something* around which *something else* revolves, as Philippopoulos-Mihalopoulos has argued.⁵ The something—the 'pivot'—is *the 'human'*

³ D Coole and S Frost (eds.), *New Materialisms: Ontology, Agency and Politics* (Durham: Duke University Press, 2010), at 2.

⁴ Kuehn, n 2 above, 10681.

⁵ A Philippopoulos-Mihalopoulos, 'Towards a Critical Environmental Law', in A Philippopoulos-Mihalopoulos (ed.), *Law and Ecology: New Environmental Foundations* (Abingdon: Routledge (2011) 18-38, at 22: the word derives from '*en*' (in) and '*vire*' ('to turn')—'This implies an inside that stands erect and an outside

subject, which stands at the assumed/constructed onto-epistemic ‘centre’ of ‘reality’.⁶ The ‘human’ subject against which ‘the environment’ is constructed—and here I again allude to the lack of inclusiveness in anthropocentrism—is an emphatically Eurocentric construct in relation to which all ‘others’—and most *especially* ‘nature’—are objectified.⁷ Ontology is—and always was—inescapably at stake in such objectifications. The subject-object relations intrinsic to the term ‘the environment’ drive a reductive wedge that cuts a binary split through the lively material entanglements between humans and more-than-human ‘nature’. And this objectification, which is well exposed by a wide range of critical scholarship, emerges in particularly pernicious contemporary forms.

As Luke has demonstrated, contemporary environmental objectification emerges in forms of panoptic neoliberal ‘environmentality’ dedicated to the production of ‘eco-knowledge’ and ‘geopower’ in the service of the global economy.⁸ Meanwhile, a selective anthropocentric ‘eco-diction’ drives the scripts by which, as Luke puts it, ‘nature’ is made to ‘speak’ as ‘environment’.⁹ Yet for all the reductionism, managerialism, strategies of control, and injustices enacted in its name, there is still no clear definition of what ‘the environment’ actually *is*. Surveying the historical and contemporary usage of the term, Luke argues that it ends up signifying something too all embracing to be meaningful.¹⁰ It is, accordingly, available to a wide range of underlying agendas.

Searching for some ground upon which the term might yield a core meaning, Luke offers a genealogical analysis of the word ‘environment’, tracing it back to its older historical linguistic roots and deployments:

In its original sense, which is borrowed by English from Old French, an environment is an action resulting from, or the state of being produced by a verb: ‘to environ’. And environ-ing as a verb is, in fact, a type of strategic action. To environ is to encircle, encompass, envelop, or enclose... to environ a site or a subject is to beset, beleaguer, or besiege that place or person. An environment, as either the means of such activity or the product of these actions, now might be read in a more suggestive manner. It is the encirclement, circumscription, or beleaguerment of places and persons in a strategic disciplinary policing of space.¹¹

The ‘environment’ emerges from Luke’s analysis as a series of ‘sites of supervision’, and ‘environments can be disassembled, recombined and subjected to the disciplinary designs of expert management... redirected to fulfil the ends of other...scripts’: ‘Environing’, Luke explains, ‘engenders “environmentality”, which embeds instrumental rationalities in the policing of ecological spaces’.¹²

Such eco-policing is far from benign. That much, at least, is made apparent by environmental justice scholarship critiques of the environmental protection paradigm.

that surrounds us, the dervish-like outside that whirls like frilly skirt around a stable pivot ... not only stable, fixed and unyielding but significantly “central”.

⁶ This argument is central to the work of Lorraine Code, on ecological epistemology: L Code, *Ecological Thinking: The Politics of Epistemic Location* (Oxford: OUP, 2006).

⁷ A Weber, *Enlivenment: Towards a Fundamental Shift in the Concepts of Culture and Politics* (Berlin: Heinrich Boll Foundation, 2012) at 14 argues that since Descartes, ‘the sciences, whether natural, social or economic, try to grasp the world as if it were a dead, mechanical process that could be understood through statistical or cybernetic analyses . . . [as a] dead res extensa’. This process is thoroughly exposed by C Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution* (New York: Harper Collins, 1990).

⁸ TW Luke, ‘On Environmentality: Geo-Power and Eco-Knowledge in the Discourses of Contemporary Environmentalism’ (1995) 31 *Cultural Critique* 57-81.

⁹ *Ibid.*, 59. Luke traces this process as emerging between the 1960s and the 1990s.

¹⁰ *Ibid.*

¹¹ *Ibid.*, 64.

¹² *Ibid.*, 65.

Bullard, for example, in an early and much celebrated environmental justice text,¹³ exposes the US environmental protection regime as a legitimating device for the production and distribution of environmental injustices. It is no coincidence, relatedly, that 21st century environmental injustices reflect deadly convergences between the neoliberal commodification and financialisation of ‘nature’ and the intensifying governance operations by which ‘the environment’ is constructed as the primary space of neoliberal accumulation. ‘The environment’ is increasingly forced to serve a capitalist ‘development’ discourse—precisely as a cloaking device for the neoliberal appropriation of life itself.¹⁴ An extensive planetary land grab, legitimated by the ‘rational planning of the planet for Northern security’¹⁵ thus enacts the wide-ranging predatory ‘environing’ of the Global South, entrenching systemic patterns of environmental injustice¹⁶—often in the name of environmental protection and conservation, and even of justice and human rights.

Environmental justice scholarship, therefore, which rightly reacts to such patterns of predation, needs further to politicise the very *definition* of ‘the environment’. Most especially, it is vital to challenge the ontological reductionism at stake in the construct of ‘the environment’ and to expose the depth and breadth of what is at stake in an urgently needed ontological politics¹⁷ for the 21st century—and beyond.

Justice: The Impossible Horizon?

Justice is a slippery idea, caught between core traditions that divide it into the binary of corrective and distributive justice, and those that seek to construct a more unitary conception. Addressing the tensions between these traditions, and repositioning justice against three temporal horizons, Ackerman argues that it is their respective temporal horizons that imbue theories of justice with their particular significance. His analysis provides a useful insight into the way in which various different conceptions of environmental justice function.

For Ackerman, for example,

the most important—and appealing—thing about corrective justice is its principled refusal to abandon the frame of lived experience, its insistence on understanding the problem of justice in terms that make sense within the narrow temporalities in which life is actually experienced from day to day. Rather than seek relief from disruption in the reorganization of social processes whose character only displays itself over large tracts of time, corrective justice focuses remorselessly on the particular people who disrupt particular experiences at particular moments.¹⁸

Distributive justice, by contrast, recognises the dependency of particular relations of justice upon the distribution of basic resources, focusing attention on patterns of socio-economic and other forms of distributed access to fundamental means of

¹³ Bullard, n 1 above, 11.

¹⁴ P McMichael, ‘The land grab and corporate food regime restructuring’ (2012) 39:3-4 *The Journal of Peasant Studies* 681-701; C Corson and KI MacDonald, ‘Enclosing the global commons: the convention on biological diversity and green grabbing’ (2012) 39/2 *The Journal of Peasant Studies* 263–283.

¹⁵ McMichael, *ibid*, 685, citing W Sachs (ed.) *Global Ecology* (London: Zed Press, 1993) at 20.

¹⁶ C Gonzalez, ‘Bridging the North-South Divide: International Environmental Law in the Anthropocene’ (2015) 32 *Pace Environmental Law Review* 407-434.

¹⁷ I am indebted to Arturo Escobar for this terminology: A Escobar, ‘Commons in the Pluriverse’ in D Bollier and S Helfrich (eds.) *Patterns of Commoning* (Amherst, Mass: The Commons Strategies Group, 2015) 348-360.

¹⁸ B Ackerman, ‘Temporal Horizons of Justice’ (1997) *The Journal of Philosophy* 299-317, at 303-4.

empowerment that facilitate a free choice of modes of life.¹⁹

While environmental justice expresses itself both as corrective and as distributive justice, it also embraces Ackerman's third conception, 'relational justice'. Relational justice moves beyond the temporal present at the heart of corrective justice towards the kind of justice that 'requires us to respect each others' right to tell stories of a certain kind about our ongoing relationships'.²⁰ If corrective justice protects the horizon of lived experience, relational justice protects 'the very possibility of meaningful participation in ongoing activities ...' and demands recognition 'as fellow creatures in the search for a meaningful life'.²¹ Environmental justice expresses such justice, partially at least, with its emphasis on procedural rights. It also expresses it in a related mode, as political and/or democratic rights—carving out spaces in which those excluded by the uneven, tilted structures of environmental decision-making processes might find fuller respect and inclusion.²²

These overlapping and sometimes conflicting temporalities of justice, however, are all caught by a core paradox of justice, which concerns the impossible horizon of justice as futurity. Futurity reflects the fact that justice is always not-yet—and that every instantiation of 'justice' leaves open—and sometimes even produces—multiple unaddressed, remaining and emergent forms of present and future *in*justice. Justice is always therefore both utopian and inadequate. Justice, in short, is a promise that never fully arrives—and that law can never deliver.²³

An increasingly important limitation of dominant conceptions of justice concerns their anthropocentrism. Anthropocentrism in conceptions of justice, including 'environmental justice', is a matter of grave contemporary concern not only because of the increasing irrationality of anthropocentrism in the light of new scientific insights and developments fraying the priority of the human—but also because anthropocentrism is often—in any case— itself a form of patterned unevenness constructed *between* human beings and intrinsic to patterns of environmental injustice—themes to which I will shortly return.

Put simply, the automatic priority of the human is increasingly unsustainable for justice-based thinking. The patterns and forms of injustice characterising contemporary eco-violations affect multiple forms of life. All life forms—right down to the level of the genomic—are consumptively appropriated by neoliberalism's 'One World World'.²⁴ Anthropocentric notions of justice fall increasingly short of the necessary degree of critical attentiveness to the breadth and intensity of the oppression enacted by this intransigent order of power. Environmental justice scholarship predominantly responds, of course, to the (mal)distribution of environmental injustices between humans and human communities. But what of all the non-human planetary co-inhabitants without whose intimately constitutive labours humans could not—in any case—live at all? Such concerns, surely, are now central to issues of environmental justice between humans, in any case. However, if that breadth of ontological justice vision seems a step too far for some readers, there is the related question of human justice that cannot be laid aside

¹⁹ Ackerman.

²⁰ Ackerman, at 306.

²¹ *Ibid.*

²² See, for example, Kaswan's conception of political justice, in A Kaswan, 'Environmental Justice: Bridging the Gap Between Environmental Laws and "Justice"' (1997) 47 *The American University Law Review* 221-301.

²³ This futurity reflects, for example, Derrida's conception of the absolute impossibility of justice, and analogous conceptions of human rights as forms of impossible justice—always 'not yet': C Douzinas, *The End of Human Rights: Critical Thought at the Turn of the Century* (Oxford: Hart, 2000); P Patton, 'Derrida, Politics and Democracy to Come' (2007) 2/6 *Philosophy Compass* 766-780.

²⁴ Escobar, above n 17, 348.

even out of anthropocentric squeamishness: how is environmental justice *meaningfully* to respond to those human communities that *do* value the non-human co-makers of their shared worlds? Epistemic injustice, minimally, is central to the colonising violence enacted by neoliberalism and by the Eurocentric epistemological order.²⁵ The epistemic exclusion of marginalised human communities is already a well-established central concern for environmental justice activists and scholarship—including for indigenous environmental activists and scholarship.²⁶ Justice for such communities must surely embrace the importance of the ontologies they live by.

The extension of an ontological-justice politics to embrace the non- and more-than human is a central component, I suggest, of any future-facing justice work adequately attentive to the kind, and depth, of ‘trouble’ ‘we’ are all in. Indeed, I would go beyond concerns for epistemic justice to argue that embracing a non-anthropocentric conception of justice, and understanding the nature of justice as a futural search for living well, demands a new ontological vision and resistive practices of ‘ongoingness’, of the kind that Haraway imagines when she invites ‘us’ to ‘stay with the trouble’.²⁷ There is a non-negotiable need, in other words, to continue the un-finishable work of co-negotiating the multiple, interwoven modes of human and non-human living that shape the fabric of the world and condition justice and injustice alike. Ontological justice—even *if* we were to attempt, unrealistically, to limit it just to humans—now demands an understanding in which humans are but one partner among many. Ontological justice means facing up to the fact that humans cannot remain the central referent around which ‘environmental’ matters revolve.

Patterns of Environmental Injustice—The Anthropocene-Capitalocene

In choosing to ‘stay with the trouble’, environmental justice scholarship and action will need, of course, to continue its bold and important tradition of attending closely to the patterns and production of ‘environmental’ *injustice/s*. This well-established environmental justice strategy (well represented in this collection) necessarily, I would argue, means taking into account the patterns of injustice enacted by anthropocentric reductionism itself. Anthropocentrism tends to operate against the very communities most marginalised by law and by the foundations of the current international legal order.²⁸ These patterns come into especially sharp relief in the Anthropocene-Capitalocene.

Haraway explicitly positions her call to ‘stay with the trouble’ against the backdrop of ‘the Anthropocene’, which is in a very real sense dominated by a (Eurocentric) Promethean construct of ‘mankind’²⁹ whose eco-destructive activities are ‘projected to last over very long periods’.³⁰ ‘Mankind’, as Crutzen puts it, is now ‘central ... to geology and ecology’ as a result of anthropogenic impacts upon ‘earth and

²⁵ Ibid.

²⁶ R Tsosie, ‘Indigenous People and Environmental Justice: The Impact of Climate Change’ (2007) 78 *University of Colorado Law Review* 1625-1677.

²⁷ DJ Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Duke University Press: Durham and London, 2016).

²⁸ A Grear, ‘Towards ‘Climate Justice’? A critical reflection on legal subjectivity and climate injustice: Warning signals, patterned hierarchies, directions for future law and policy’ (2014) Special Edition *Journal of Human Rights and the Environment* 103-133.

²⁹ PJ Crutzen, ‘Geology of Mankind’ (2002) 23 *Nature* 415.

³⁰ Ibid.

atmosphere ... at all, including global scales'.³¹ The Anthropocene presents a planetary horizon of risk, reflecting 'large-scale human modification of the Earth System, primarily in the form of climate change, the most salient and perilous transgression of Holocene parameters'³²—and in that sense, frames contemporary environmental justice reflections, especially at the global scale.

Environmental justice questions cannot convincingly be separated, moreover, from the fact that the terminology of the 'Anthropocene' does not fairly refer to the human species as a whole.³³ Nor can environmental justice questions ignore the inseparable fact that anthropocentrism relentlessly reflects systemic and predictable hierarchies of significance fundamental to the production of environmental injustices: The anthropocentrism of the Anthropocene reflects the historical dominance of a particular, historically privileged 'hu/man' and 'his' industrialising aspirations for total control and exploitation of lively materiality.³⁴ Questions of environmental justice cannot, in the final analysis, be disentangled from the relentless priority accorded to the juridical trope (which we can name *Anthropos/homo juridicus/homo economicus*) that emerges from critical interrogation as an intrinsically Eurocentric, individualist and exceptionalist construct.³⁵ This trope is an acquisitive, willful and self-seeking entity separated from 'nature' and from its own 'embodiment' by an impossibly disembodied rationality. And Haraway is surely right to implicate the necro-drive at the heart of this construct when she argues that the best figuration for *Anthropos* is 'fossil-making man burning fossils'.³⁶ The privileges and violations masked and performed by certain mainstream Eurocentric Anthropocene origin-accounts³⁷ reflect stubborn patterns of privilege and violation in the foundations of the legal order—patterns replicated in, and highlighted by, environmental injustices. 'Fossil-making man burning fossils' is scarcely representative of all humanity—even now.

Notwithstanding the misleadingly ecumenical Anthropocene notion that 'the human being has become something much larger than the simple biological agent that he or she always has been [... and that h]umans now wield a geological force',³⁸ despite the impact of 'humanity' as a collective force, and notwithstanding potential solidarities represented by a new 'negative' human 'universal' produced by collective human vulnerability in the face of the climate crisis,³⁹ it remains a vital task of justice to keep a consistent focus on the systemic production of unevenness.⁴⁰ And a focus on unevenness, after all, is one of the most powerful, longstanding and important critical contributions of environmental justice scholarship. It gains, however, more extensive and radical implications in the Anthropocene-Capitalocene.

No one should assume that the Anthropocene is evenly produced, or that 'we' are all in the Anthropocene crisis on equal terms, or ignore

³¹ PJ Crutzen, 'The Anthropocene' in E Ehlers and T Krafft, *Earth System Science in the Anthropocene* (Berlin and Heidelberg: Springer, 2006) 13-18, 16.

³² A Malm and A Horborg, 'The Geology of Mankind? A Critique of the Anthropocene Narrative' (2014) 1/1 *The Anthropocene Review* 62-69 at 63.

³³ Ibid.

³⁴ Ibid.

³⁵ A Grear, 'Deconstructing Anthropos: A Critical Legal Reflection on "Anthropocentric" Law and Anthropocene "Humanity"' (2015) 26/3 *Law and Critique* 225-249.

³⁶ D Haraway, 'Anthropocene, Capitalocene, Chthulucene: Staying with the Trouble, a lecture given by Haraway at the University of California, Santa Cruz, on 5th September 2014, available at <https://vimeo.com/97663518> (last accessed 1st July 2018), at 10.02.

³⁷ KD Morrison, 'Provincializing the Anthropocene' (2015) 673 *Seminar* 75-80.

³⁸ D Chakrabarty, 'The climate of history: Four theses' (2009) 35 *Critical Inquiry* 197-222, 206.

³⁹ Ibid.

⁴⁰ On the centrality of unevenness to the global order see R Radhakrishnan, *Theory in an Uneven World* (Oxford: Blackwell, 2003).

the realities of differentiated vulnerability on all scales of human society: witness Katrina in black and white neighborhoods of New Orleans, or Sandy in Haiti and Manhattan, or sea level rise in Bangladesh and the Netherlands, or practically any other impact, direct or indirect, of climate change. For the foreseeable future – indeed, as long as there are human societies on Earth – there will be lifeboats for the rich and privileged. If climate change represents a form of apocalypse, it is not universal, but uneven and combined.⁴¹

Environmental injustices underline the truth of this last statement. The multiple assemblages of injustices folded into the species-flattening universalism of *Anthropos* highlight the continuing necessity for ongoing critical attention to unevenness. If anything, such unevenness is becoming even more entrenched. The Anthropocene is marked by an intensifying set of patterns reflecting a

rift between the richest and the rest; the multiplication of zones of exclusion and marginalization; deepening entanglements of oppression between marginalized humans, non-human animals and ecosystems at the hands of the neoliberal order; corporate land grabs forcing communities in the Global South off their lands in order to securitize the Global North; profoundly uneven distributions of vulnerability and resilience; and the intensifying eco-governmentality (and ‘neoliberalization of nature’) enacted by international environmental law and governance structures.⁴²

Indeed, the uneven nature of the Anthropocene has led some, including Haraway, to suggest that the Anthropocene should also be named ‘the Capitalocene’.⁴³ Such a shift in terminology has at least the virtue of signaling the way in which the currently dominant Anthropocene narrative ‘represents an effort to expand (rather homogenized) European historical experiences, frameworks and chronologies onto the rest of the world ... and hides a disturbing extension of colonial discourse into a postcolonial world’.⁴⁴

The Anthropocene-Capitalocene is marked by highly *predictable* patterns of environmental injustice: distributive, social, procedural, corrective, and ontological. Unevenness is central to it and to the scale of the global.⁴⁵ And the global (which is inextricably linked with the Anthropocene in the policy imagination of bodies such as the Intergovernmental Panel on Climate Change) is *highly specific* in its origins.⁴⁶ Unevenness is—and always was—central to capitalism’s coloniality. It is a fundamental characteristic of the voracious turbo-capitalist accumulation marking global neoliberalism, which authorises the ongoing, pathological pursuit of ‘primitive accumulations and extractions, organisations of labour and productions of technology of particular kinds for the extraction and maldistribution of profit’.⁴⁷

⁴¹ Malm and Hornborg, above n 32. The authors cite A Malm, ‘Sea wall politics: Uneven and combined protection of the Nile Delta coastline in the face of sea level rise’ (2013) 39 *Critical Sociology* 803–832; A Malm and S Esmailian, ‘Ways in and out of vulnerability to climate change: Abandoning the Mubarak Project in the northern Nile Delta Egypt’ (2012) 45 *Antipode* 474–492.

⁴² A Grear, “‘Anthropocene, Capitalocene, Chthulucene’: Re-encountering Environmental Law and its ‘Subject’ with Haraway and New Materialism’ in L Kotze (ed.) *Environmental Law and Governance for the Anthropocene* (L Kotze (ed.) (Oxford: Hart Publishing, 2017) 77–95, 82.

⁴³ Haraway, above n 36; JW Moore, *Anthropocene or Capitalocene? Nature, History and the Crisis of Capitalism* (Oakland CA: Kairos, 2016).

⁴⁴ Morrison, above n 37 at 75–6.

⁴⁵ Radhakrishnan, above n 40.

⁴⁶ Haraway, n 36 above, at 14.02.

⁴⁷ *Ibid.*, at 16.51.

It should be remembered—in any case—that industrialisation (which stands at the heart of Crutzen’s Anthropocene account) was itself a fundamentally uneven project. Steam technology, and the deployment of steam-power by ‘an infinitesimal fraction of the population of *Homo sapiens* in the early 19th century’, reflected the Eurocentric, capitalist mission inherent to the

[t]he rationale for investing in steam technology . . . [which] was geared to the opportunities provided by the constellation of a largely depopulated New World, Afro-American slavery, the exploitation of British labour in factories and mines, and the global demand for inexpensive cotton cloth. . . . [A] clique of white British men literally pointed steam-power as a weapon — on sea and land, boats and rails — against the best part of humankind, from the Niger delta to the Yangzi delta, the Levant to Latin America. Capitalists in a small corner of the Western world invested in steam, laying the foundation stone for the fossil economy.⁴⁸

Law was fundamental to these developments and the international legal system is predicated upon them.⁴⁹ Hierarchical patterns visible in coloniality remain intransigently in place—and anthropocentrism, certainly legal anthropocentrism, cannot really be understood without taking them into account. The non-white, non-male, non-property-owning, allegedly non-rational ‘others’ constructed by privileging the trope of the rational white male property-owning European subject are—as environmental justice scholarship attests to time and time again—*still* disproportionately placed in the way of industrial hazards and subjected to unjust levels of environmental risk and toxicity.⁵⁰ Capitalism’s long and destructive dependency on the fossil fuel economy⁵¹—and the production of the Anthropocene climate crisis⁵²—are engines of intensifying anthropocentric environmental injustices. This intensification drives uneven and pathological *impositions* of vulnerability and precarity at multiple, overlapping and interpenetrating scales—including the global.

The Anthropocene-Capitalocene dynamics and patterns highlighted here are legible as a crisis produced by anthropocentric Eurocentric human hierarchies.⁵³ These Eurocentric hierarchies are implicated in the environmental injustices of global order itself.⁵⁴ In short, the Anthropocene-Capitalocene is an epoch of eco-violation. It brings into full view a logic in which the trajectories of earlier periods reach new, increasingly uneven and unjust, levels of intensity. Such injustices are so structurally fundamental to the present, indeed, that the current ecological crisis cannot really be understood without them.⁵⁵ Nor can environmental injustice be adequately understood, I suggest, without

⁴⁸ Malm and Horborg, n 32 above, at 63-64.

⁴⁹ A Anghie, *Imperialism, Sovereignty and the Making of International Law* (Cambridge: CUP, 2005).

⁵⁰ This is a central theme in much environmental justice scholarship.

⁵¹ J Dangerman and HJ Schellnhuber, ‘Energy Systems Transformation’ (2013) *PNAS* E549-E558 (available at www.pnas.org/cgi/doi/10.1073/pnas.1219791110) (Date of last access: 18 Feb 2016).

⁵² M Koch, *Capitalism and Climate Change: Theoretical Discussion, Historical Development and Policy Responses* (Palgrave Macmillan, Basingstoke 2012). See also, P Newell and M Paterson, *Climate Capitalism: Global Warming and the Transformation of the Global Economy* (Cambridge University Press, Cambridge 2010).

⁵³ Gear, above n 28.

⁵⁴ C Gonzalez, ‘Bridging the North-South Divide: International Environmental Law in the Anthropocene’ (2015) 32 *Pace Environmental Law Review* 407-434.

⁵⁵ This is a central concern for Malm and Horborg, n10 above. See also the work of Bookchin, for whose social ecology account *intra*-species practices of domination were causally decisive for practices of ecological destruction: M Bookchin, *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy* (Oakland: AK Press, 2005).

grasping the depth, seriousness and implications of these intensifying patterns and trajectories. Environmental justice cannot now be sought, in short, without appreciating environmental injustices as manifestations of radical ontological injustice.

To be clear, not only the lives of marginalised groups of humans are now at risk from the ‘neoliberalization of nature’:⁵⁶ *All of contemporary and future life* is at stake—but unevenly. Responses to environmental crises are increasingly dominated by dense networks of corporate-managerial-regulatory structures imposing a spectacular range of ‘grabs’ and expulsions as multiple species and living systems are ‘enviored’ in the name of ‘ecological sustainability’, the ‘global commons’, ‘food security’, and so forth. The question of ontological justice then—including for all the lively non-human beings and systems caught up in these patterns⁵⁷—simply cannot be ignored.

It is my conviction that any adequate response to the challenges marking environmental justice struggles in the Anthropocene-Capitalocene will require opening environmental justice more profoundly and explicitly to a radically material, more entangled, way of seeing, feeling and being. Environmental justice will require, to borrow Morton’s words, ‘thinking the ecological thought’, which ‘is difficult: it involves becoming open—open forever, without the possibility of closing again’.⁵⁸ Environmental justice must therefore be coded into a passionate commitment to the *ongoingness* of ‘staying with the trouble’. This means staying reflexively and critically alert—not only to issues of race, class, culture, gender and so on (urgent as those are)—but *also* to the mundane violations of the non-human partners that anthropocentrism has for so long instrumentalised. This instrumentalisation, it bears repeating, also reflects, in any case, hierarchical oppressions between humans operated in the cause of environmental preservation, governmentality, ‘conservation’ (‘ecocolonialism’) and so forth.⁵⁹

Environmental justice, then, is a particularly powerful way of ‘staying with the trouble’, and must necessarily aspire to the co-weaving of liveable futures—not only for humans differentially affected by unevenness and injustice but also for the myriad non-human partners with which and with whom humans are inevitably entangled and co-constituted.

If Harvey is right to argue that it may not be possible ‘ever to talk about justice as anything other than a contested effect of power within a particular place at a given time’,⁶⁰ then environmental justice can only ever be persistently—and knowingly—incomplete. Its ethical imperatives and futural justice demand attentive study of environmental injustices while staying fluidly critical, in passionate dedication to the multiple forms of ‘ongoingness’ required. Environmental justice will need, in short, more consciously and consistently to operate through forms of critical ontological politics, centrally committed to ‘thinking the ecological thought’, to staying permanently open—never closing again—as it reaches towards the horizon of its own futurity.

And so, our readings begin.

⁵⁶ J McCarthy, ‘Commons as counterhegemonic projects’ (2005) 16/1 *Capitalism Nature Socialism* 9-24, 11.

⁵⁷ See, for example, A Collard and J Contrucci, *The Rape of the Wild: Man’s Violence against Animals and the Earth* (Bloomington: Indiana University Press, 1988); DA Nibert, *Animal Rights, Human Rights: Entanglements of Oppression and Liberation* (Oxford: Rowman and Littlefield, 2002); DA Nibert, *Animal Oppression and Human Violence: Domesecration, Capitalism, and Global Conflict* (New York: Columbia University Press, 2013).

⁵⁸ T Morton, *The Ecological Thought* (Cambridge, Mass: Harvard University Press, 2010), 8.

⁵⁹ M Checker, ‘Eco-Apartheid and Global Greenwaves: African Diasporic Environmental Justice Movements’ (2008) 10/4 *Souls* 390-408, 397-8.

⁶⁰ D Harvey, *Justice, Nature and the Geography of Difference* (Oxford: Blackwell, 1996), 329.

The Readings

The readings within each section of this collection are presented in chronological order, the earliest first—the latest last.

Part 1: Environmental Justice: Taxonomies and Conceptualisations

The readings selected for this section, as noted above, provide a provisional taxonomical/mapping and/or narrative account of environmental justice—grappling with the complexity of the field and its insurgent energies, while offering accounts that convey core meanings of environmental justice. Taken together, the readings in this section of this collection provide a clear, important, and energetic overview of the key characteristics of the struggle against environmental injustices, indicate the broad historical background of environmental justice, and identify its core conceptions of justice.

Robert D Bullard, in ‘Overcoming racism in environmental decision making’ conducts an excoriating critical analysis of the patterns of injustice legitimated by the ‘environmental protection paradigm’ in the United States (US). Bullard—who is a widely recognised environmental justice scholar credited with drawing early attention to patterns of environmental justice—accuses the environmental protection paradigm of having

institutionalized unequal enforcement; traded human health for profit; placed the burden of proof on the ‘victims’ rather than on the polluting industry; legitimated human exposure to harmful substances; promoted ‘risky’ technologies such as incinerators; exploited the vulnerability of economically and politically disenfranchised communities; subsidized ecological destruction; created an industry around risk assessment; delayed clean up actions and failed to develop pollution protection as the overarching and dominant strategy (at 11).

This paradigm, Bullard argues, has led to a non-random pattern of distribution in which environmental risks are unfairly distributed to low income and minority communities. He argues that such ‘unequal environmental protection undermines three basic types of equity: procedural, geographic and social’ (at 12), and proposes, in response, five environmental justice principles: the right to protection; the prevention of harm; shifting the burden of proof to the polluter; obviating proof of intent to discriminate; and targeting resources to redress inequities. Taken together, these principles constitute a ‘framework for environmental justice’ incorporating a legislative strategy explicitly aimed at making discriminatory environmental distribution both unlawful and costly.

Alice Kaswan, in ‘Environmental Justice: Bridging the Gap Between Environmental Laws and “Justice”’, responds to fiery civil rights-centred critiques of environmental law with an attempt to ‘bridge the gap’ between environmental laws and justice by offering an exploration of ‘some of the conditions under which environmental laws can contribute to social and political debates about fair treatment’ (at 233). Kaswan offers her analysis in order to explore and evaluate the ‘positive role that environmental laws could play in the pursuit of social justice’ (ibid). Her account of environmental justice is decisively influenced by the history of the environmental justice movement, and embraces two key modes of environmental justice. First, ‘distributional justice’ (which Kaswan also terms ‘distributive justice’), which addresses the unequal distribution of environmental benefits and burdens and, secondly, ‘political justice’, which addresses the struggle for inclusion in the decision-making processes that determine the distribution of environmental benefits and burdens. Kaswan’s analysis, like Bullard’s, focuses on the US,

where grassroots, community-based environmental justice movement activism first emerged, taking their lead from the civil rights activism that preceded them.

Dorceta E Taylor, in 'The Rise of the Environmental Justice Paradigm: Injustice Framing and the Social Construction of Environmental Discourses', deploys social movement theory to analyse environmental justice rhetoric and the emergence of what she calls the 'environmental paradigm'. One of Taylor's key concerns is to explore the ideological foundations of the environmental justice movement and to understand its extraordinary energy and influence on other environmental paradigms. A central insight offered by Taylor's account is the idea that the environmental justice paradigm is just one of a set of environmental framings. The environmental justice paradigm, Taylor argues, employs an 'injustice frame' (at 523), and 'unlike prior attempts at environmental framing, the [environmental justice movement] makes the injustice frame explicit—a master frame so to speak. It is the first sector of the environmental movement to examine human-human and human-nature relations through the lens of race, class and gender' (ibid).

Robert R Kuehn's contribution, 'A Taxonomy of Environmental Justice' responds to the complexity and multivalent nature of environmental justice with an attempt to map the field. Kuehn points out the complications emerging from 'the term's international, national, and local scope' (at 10681), the breadth of its definition of 'the environment' ('where one lives, works, plays, and goes to school' (ibid)), and the breadth of environmental justice's concerns: public health; natural resource conservation; worker safety; exploitation of indigenous peoples; Global North-South inequity; environmental racism and the uneven distribution of environmental risks and benefits (ibid). In response to this complexity, energy and breadth, Kuehn introduces his fourfold taxonomy of environmental justice as *distributive justice*, *procedural justice*, *corrective justice* and *social justice*.

Notable in all these accounts is the way in which the predominant anthropocentrism of the environmental justice movement emerges into view. Even the expanded definition of the environment as 'where one lives, works, plays and goes to school' (Kuehn, 10681) signals the centrality of human life to the framework. This anthropocentrism is an ambivalent contribution to environmental justice concerns. On the one hand, an insurgent passion for human beings in the justice-seeking energies of environmental justice is an important and necessary form of political concern, especially for those whose lives are blighted by unjust, disproportionate exposure to toxic levels of environmental risk. On the other hand, the (uneven) centrality of the 'human' is also intrinsic to the patterns of injustice feeding the unequal distribution of risk and toxicity—as was argued above. In short, distributive patterns reflecting the closures of anthropocentrism itself are *key* to the 'geographies of injustice'⁶¹ expressing the multiple, intersecting forms of systemic disparity at the heart of environmental justice issues.

We now turn to readings that reflect upon the distributive patterns fundamental to environmental injustice as features of structural unevenness and systemic disparity.

Part 2: Environmental Justice: Distributive Patterns, Structural Unevenness

In 'Empowerment as the Key to Environmental Protection: The Need for Environmental Poverty Law', Luke W Cole directly addresses the injustice of uneven patterns of privilege and predation key to environmental racism-based critiques through the intersecting lenses of class, income inequality and poverty. Cole argues that 'race

⁶¹ U Baxi, 'Geographies of Injustice: Human Rights at the Altar of Convenience' in R Craig (ed), *Torture as Tort: Comparative Perspectives on the Development of Transnational Human Rights Litigation* (Oxford: Hart, 2001) 197–212.

plays perhaps a more significant role than poverty in the siting of environmentally dangerous facilities' (at 625-7) but notes the poverty of black communities compared to white, middle class communities. Cole's central concern is to 'define' (in a manner sensitive to racial disparities in the distribution of poverty, marginalisation and exclusion from decision-making and political processes (see 628-632)) "environmental poverty law" in the context of lawyering for social change and social justice' (at 621). His aim is to bring environmental and poverty lawyers into mutual recognition of the intersection between their disciplines, in order better to address the unfair burden of pollution afflicting low income areas and communities. Cole joins his voice to many of those in the environmental justice movement when he rejects environmental law for being 'a legal solution to a political problem' (at 647ff), identifying environmental law as 'the problem' and as a 'tactical mistake' (at 649). Environmental issues, Cole argues, are issues of 'life and death' (at 634), and—critical of the way in which 'environmental laws legitimate the pollution of low income neighborhoods' (at 642), argues that a new 'environmental poverty law should not only fight for environmental protection, but must be part of a broader push towards social and economic justice' (at 634). Environmental poverty law, moreover, is 'the only type of environmental legal work which will truly save the planet' (at 683).

Sheila Foster, in 'Justice from the Ground Up: Distributive Inequities, Grassroots Resistance, and the Transformative Politics of the Environmental Justice Movement', takes readers closer to the grassroots of the environmental justice movement and its indispensable critique of structural unevenness. Foster, in a sense, opens a particularly intimate window into the very heart of Cole's important argument, taking her readers into the environmental justice struggles of the poor African-American residents of Chester, Pennsylvania, by tracing their attempt to prevent waste facilities being clustered in their community. Foster argues that 'grassroots struggles form the core of any epistemological understanding of the [environmental justice] movement and the content of its claims' (at 776). She invokes Chester as a hinge linking grassroots struggle with a broader structural critique (at 778), presenting a fiery account of the distributive framing of environmental justice questions, which, she argues, 'overlooks issues of causation and agency, and obscures underlying social processes' (ibid) while failing to account adequately for the underlying political unevenness driving environmental injustices. It is essential, Foster argues, to take the structural processes and social relations constituting inequalities into fuller account.

When local grassroots groups are able to link their victories in the environmental realm to broader political and economic struggles, the potential exists to redefine existing power relations, to unsettle cultural assumptions about race and class, and to create new political possibilities for historically marginalized communities in local decision-making processes (at 779).

In 'Indigenous People and Environmental Justice: The Impact of Climate Change', Rebecca Tsosie examines where 'Native peoples', fit 'within the current perspectives on "environmental justice"' (at 1627). Broadening the conception of environmental justice to embrace the structurally uneven impacts of climate change and the emergence of the 'climate justice' movement and discourse, Tsosie argues that contemporary discussion of environmental justice 'requires us to evaluate the global impact of climate change on indigenous peoples in disparate and unique environments' (at 1628). These are communities upon which the impacts of climate change fall 'disproportionately'—especially 'Native peoples in regions such as the Arctic and Pacific, where the environment is closely tied to indigenous lifeways' (at 1628). Tsosie argues that climate change adaptation strategy is genocidal for indigenous peoples. Instead of

sweeping indigenous communities off their lands through climate adaptation programs, there should be recognition of a right of indigenous self-determination. Such a right would place requirements on nation states to adopt a mitigation strategy aimed at avoiding ‘catastrophic harm’ to indigenous communities, and would rest on human rights norms, which can better reflect the rich cultural values of indigenous peoples than can existing protections based on sovereignty claims and/or on tort-based compensation.

Melissa Checker, in ‘Eco-Apartheid and Global Greenwaves: African Diasporic Environmental Justice Movements’, positions environmental justice against both climate change and predatory neoliberalism. Drawing on the discourse of ‘eco-apartheid’ (at 391), Checker examines how activists in the contemporary African diaspora confront the neoliberalisation of their natural resources and struggle against present and future environmental injustices. Checker notes that ‘environmental siting processes in the United States and conservation projects in the global South now almost always claim to be “community-based” and “participatory”’ (at 392)—but in reality enact familiar exclusions and epistemic closures under the guise of ‘neoliberal multiculturalism’ (ibid). The challenge of negotiating the tensions generated around environmental justice by such dynamics is reflected in complicated shifts between various identities deployed by environmental justice activists, who navigate a complex convergence between a colonial past and present (including ‘ecocolonialism aka conservation’ (at 397)), regional and transnational social movement alliances and diasporic identities. Checker situates her analysis in case studies based in the US and in South and Central America—studies framed by the global unevenness structuring relations between global North and global South.

Central to such patterns of distributive/distributional environmental injustice, arguably, is a radical failure of recognition. The geographies of marginalisation and exclusion produced by such unfair structural patterns are contested and resisted by environmental justice strategies for political inclusion and by a widespread struggle for meaningful participation. Grassroots efforts, in this process, often have to engage with various institutional, political and legal avenues of audibility in the form of procedural and rights-based processes. These processes, of course, have varying degrees of integrity and effectiveness, as the readings in the next section reveal.

Part 3: Environmental Justice: Procedural Justice, Relational Recognition?

Daniel J Fiorino in ‘Citizen Participation and Environmental Risk: A Survey of Institutional Mechanisms’ is concerned with the fact that ‘the standard approaches to defining and solving risk problems are more technocratic than democratic in their orientation’ and that ‘institutions for drawing the lay public’s views into policy deliberations are rarely studied and only occasionally tested’ (at 227). Fiorino, who is opposed to a technocratic approach privileging the epistemic role of an informed elite, identifies three arguments against the technocratic orientation: first—a substantive argument turning on the soundness of lay judgements; secondly, a normative argument drawing on democratic inclusion, and thirdly, the instrumental argument that effective lay participation lends risk decisions more legitimacy and leads to better results (at 227-8). Fiorino focuses his analysis on the normative argument. He assesses five participatory mechanisms: public hearings, initiatives, public surveys, negotiated rule making and citizens review panels, drawing the conclusion that ultimately, the case for participation is fundamentally a normative one emerging from the importance of democratic ideals (at 239).

Gordon Walker, in ‘Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice’ embraces multiple emergent forms of

environmental justice responsive to insurgent energies. Walker turns to the ‘claim making of environmental justice activists and academic researchers’ (at 615), exploring ‘multiple forms of spatiality [that] are entering our understanding of what it is that substantiates claims of environmental injustice in different contexts’ (at 615). Walker rejects the ‘simple geographies and spatial forms evident in much “first-generation” environmental justice research[,which] are insufficient and inadequate to the tasks of both revealing inequalities and understanding the processes through which these are (re)produced’ (ibid). Against this naïve form of spatiality, Walker understands space as being socially and performatively constructed. His analysis focuses on the spatialities deployed within ‘the evolving environmental justice frame and [considers] the implications of both the particularities and the diversity that is revealed’ (ibid). Walker argues that what is needed is a ‘multidimensional understanding of the different ways in which environmental justice and space are co-constituted’ (ibid). Structuring his analysis through the framework of three different conceptions of justice—justice as *distribution*, *recognition* and *procedure*, Walker examines the spatialities implicated in each, ultimately seeking to move ‘beyond the distributional’ and to provide an ‘integrated understanding of what the spatiality of environmental justice can constitute’ (at 616).

Astrid Ulloa, in ‘Perspectives of Environmental Justice from Indigenous Peoples of Latin America: A Relational Indigenous Environmental Justice’, takes readers beyond procedural inclusion to draw attention to deeper and more inclusive forms of relationality so often truncated by mainstream procedural environmental justice mechanisms. Frequently complexly excluded from meaningful participation in participatory structures, indigenous peoples have forged demands based on claims for territorial and political self-determination and autonomy. Ulloa argues that recently such claims have evolved into ‘demands for environmental self-determination, due to processes of discursive, symbolic, and de facto appropriation of [indigenous] bodies, territories and natures’ (at 175). This claim amounts to a rallying call for ‘a cultural vision of environmental justice that includes indigenous peoples’ rights and nonhumans’ rights under [indigenous] conceptions of ancestral law and justice’ (ibid). Importantly, building upon indigenous understandings and praxis expands the impact of critiques of exclusory environmental injustices, laying bare the multi-layered, multi-dimensional reciprocities of a much *wider relationality*—or what Ulloa calls ‘relational indigenous environmental justice’. Ulloa’s contribution emphasises, albeit implicitly, the centrality of ontological justice to environmental justice. Her argument draws direct attention to how indigenous environmental claims also embrace territory itself—and non-humans—as important elements of environmental justice questions.

Joshua C Gellers and Christopher Jeffords in ‘Toward Environmental Democracy? Procedural Environmental Rights and Environmental Justice’ turn to alternative normative sources for environmental justice inclusion—reaching towards an account of environmental democracy. The authors point out the relative lack of attention paid to the effect of constitutionally entrenched procedural environmental rights (PERs) on the promotion of environmental justice. Such rights typically embrace access to information, access to justice and participation in environmental matters—and Gellers and Jeffords argue that the lack of attention given to them is ‘surprising given that [they] may constitute “the most important environmental addition to human rights law since the 1992 Rio Declaration on Environment and Development”’ (at 100).⁶² Offering an empirical analysis in support of their argument, Gellers and Jeffords demonstrate that PERs—in particular those addressing access to information—enhance efforts to obtain

⁶² Citing A Boyle, ‘Human Rights and the Environment: Where Next?’ (2012) 23/3 *European Journal of International Law* 613-642, 616.

environmental justice. The authors are overtly critical of ‘green theorists’ who assess PERs by the degree to which they result or do not result in ‘substantive improvements to the environment’ (at 105), because such an ‘instrumental critique does not hold’: It is based on flawed premises and overlooks the contribution of PERs to ‘democracy, environmental justice, and social sustainability’, which increase the likelihood of environmental benefits (ibid). In this sense, Gellers and Jeffords offer an implicit critique of a binary formulation of environmental sustainability and social inclusion. Their account demonstrates that PERs enhance a wide and creative range of participatory activities in the construction of environmental justice and are important sources for the democratisation of public discourse. PERs are ‘a useful tool’, not only ‘for promoting environmental justice [but also for] achieving sustainability’ (116).

Taken together, these contributions undermine a separation between the ‘social’ and the ‘environmental’. The realities of socio-environmental entanglements mean that injustices traverse all forms of meaning-making and modes of living. The most promising approaches seem to allude, directly or indirectly, to the power of a non-binary ontology in which multiple relational considerations can enter the frame of analysis and response.

The next section reflects on the role of tort law as a mode of response to environmental injustice. It exposes the multiply layered environmental injustices imposed by failures to provide corrective and retributive redress to affected individuals and communities—as well as the significance of indeterminacy in the generation of policy responses to environmental disaster.

Part 4: Environmental Justice: Identifiable Wrongs, Corrective and Retributive Reparations

Kathy Seward Northern, in ‘Battery and Beyond: A Tort Law Response to Environmental Racism’ offers a sustained reflection on a broadly corrective approach to the intractability of patterns of environmental injustice as manifested in the unfair distribution of risk and toxic exposure to racial minority communities in the US. Northern argues that while ‘tort doctrine is widely used by advocates in both the environmental and civil rights movements, few proponents have argued for tort-based approaches in the context of environmental racism’ (at 491). Tort, Northern points out, is ‘a battleground of social theory’ (at 557). She builds a careful analysis of socio-political distributions of injustice, before offering the law of intentional torts as an approach through which to address environmental racism. Framing tort law as a powerful corrective tool for the vindication of individual rights, Northern puts forward a proposal for the recognition of a new tort lying ‘beyond battery’ (which she sees as a useful but limited response to exposure to environmental toxins): the tort of ‘racially disproportionate exposure to environmental burdens’ (at 577-596).

Tseming Yang, in ‘Environmental Regulation, Tort Law and Environmental Justice: What Could Have Been’ likewise embraces the progressive critical potential of US tort law. Addressing the critiques aimed at environmental law by environmental justice advocates and activists, Yang experiments with the possibility of ‘what could have been’ had ‘the environmental regulatory revolution not happened’ (at 607): ‘How might environmental justice activists have fared within the confines of tort law?’ Yang argues that tort law may well have produced more potent environmental justice outcomes than have been produced by the explosion in environmental regulation—but rather than seeking to prove that proposition, offers his thought experiment as a way of illuminating ‘the deficiencies of the existing environmental regulatory system’ and providing ‘some insights into the changes that are necessary to improve it’ (at 608). Yang concludes that the counter-factual reality he constructs points to the necessity of facing up to the distributive consequences of ‘choice among competing regulatory systems with different distributional effects’ (at 628). Tort law possibilities highlight not only the case for

environmental justice, but offer a promising critique of ‘the government’s choice of the existing regulatory system over a tort law system that might have existed in a counterfactual world’ (ibid)—suggesting that addressing environmental injustice concerns can be seen as an important aspect of rendering such regulatory and policy choices more legitimate.

Peter Atkins, Manzurul Hassan and Christine Dunn, in ‘Environmental irony: summoning death in Bangladesh’, complicate assumptions concerning scientific and technical knowledge relied upon in constructing responses to environmental disaster and injustice. Their contribution focuses on the centrality and inescapability of indeterminacy. The authors address the arsenic poisoning crisis afflicting over 30 million water users in Bangladesh, arguing that rather than eschewing indeterminacy, policy responses to such environmental crises and injustices should acknowledge and embrace it: ‘A discussion of indeterminacy is not in our view a counsel of ignorance and failure but, rather, such a common feature of the sociology of scientific knowledge that it needs to be embraced if effective policies are to be formulated’ (at 2700). The authors focus on the contingency of truth instantiated by the irony of indeterminacy in relation to ‘the major dimensions of uncertainty concern[ing] the spatial unpredictability of arsenic concentration; the nature of lay knowledges and capabilities; the definition of safety thresholds; the technology of field testing; and problems associated with diagnosis and treatment’ (at 2702). Such indeterminacy has, of course, the virtue of presenting the important epistemic case for embracing complexity, incompleteness of knowledge and a fundamental level of openness to uncertainties. Refreshingly central to the analysis offered by Atkins, Hassan and Dunn is an appreciation, moreover, of the agentic significance of non-human actants and the fact that ‘artefacts have the capacity to construct social order’ (at 2703). The authors’ contribution thus anticipates—and underlines—the importance of opening environmental justice to onto-epistemic parameters lying beyond an anthropocentric notion of human agency—as well as pointing to the indeterminacy that demands more complexity-responsive, scientifically informed environmental justice and legal policy making.

Upendra Baxi, in ‘Writing about impunity and environment: “The silver jubilee” of the Bhopal catastrophe’, offers a searing critique of the layered failures of corrective and retributive justice in the case of the infamous Bhopal catastrophe. Taking Bhopal’s mournful ‘silver jubilee’ as a moment for insurgent reflection, and acknowledging that ‘writing about the Bhopal catastrophe, or any mass disaster, becomes violence when insensitive to the continuing suffering of affected peoples and sentient beings and entities in nature’ (at 23), Baxi lays bare the layered corporate and juridical failures/refusals to provide redress to the ‘Bhopal violated’ (at 24). The Bhopal catastrophe was, Baxi argues, not a single event. It was a series of interlinked catastrophes, key among which is the failure to deliver retributive justice to those violated by the corporate failures initiating the catastrophe. Central to Baxi’s argument is a sustained attack on the inadequacy of existing narrative strategies for understanding the Bhopal violation. Baxi confronts this ‘politics of naming’ (at 25) by calling for ‘practices of suffering thought’ through which to begin to delineate the ‘geographies of injustice’ marking the intense suffering (human, social and environmental) imposed by mass disasters such as Bhopal. For Baxi, the new social movement solidarities among the ‘Bhopal violated’ summons ‘a new jurisprudence of human solidarity in a runaway globalizing world’ (at 44)—and central to his account of environmental injustice is the failure to provide redress, a failure amounting to another layer of injustice.

Baxi’s passionate, critical contribution raises the important question of what happens when identifiable and demonstrable wrongs meet no corrective or retributive justice. While potent critiques of environmental injustices emerge from the testimonies

and experiences of the violated, there seems to be, in the final analysis, no guarantee that the legal-political machineries of the neoliberal state and/or the international order will respond with adequate attention and action—let alone redress—most particularly for those who most lack socio-economic power. The intimately related question of the distribution of socio-political power and influence is a central concern, therefore, in the search for environmental justice. What role is there for the insurgent political energies of the affected?

Part 5: Environmental Justice: Interrogating the Socio-Political

Julian Ageyman and Bob Evans, in “‘Just Sustainability: The emerging discourse of environmental justice in Britain?’ respond to environmental justice as just such an insurgent energy—as a ‘vocabulary for political opportunity, mobilization and action’ (at 156). The authors link this insurgent energy, moreover, with a second characteristic of environmental justice—as ‘a policy principle that no public action will disproportionately disadvantage any particular social group’ (ibid). Tracing the way in which the US environmental justice discourse and movement has captured an imaginative space in the United Kingdom (UK), Ageyman and Evans argue that ‘it is necessary to place the discourse of environmental justice firmly within the framework of sustainability’ (ibid). Locating the rise of environmental justice concerns in the UK within a time frame running from 1998-2003, Ageyman and Evans argue that ‘environmental justice is moving from the margins to the mainstream in British NGO and policy circles’ (at 159). The authors posit a ‘just sustainability’, found in the nexus between environmental justice and sustainability, by exploring the potential of the synergy between these two discourses. They conclude their analysis by arguing that

What is now needed is for governments at the local, regional, national and international levels to learn from . . . environmental justice and progressive, or ‘just sustainability’-based organizations and to seek to embed the central principles and practical approaches of ‘just sustainability’ into sustainable development policy. Whilst many, if not most, governments at all levels have adopted some kind of commitment to sustainable development, few, if any, recognize the importance of placing this within a context of social justice, equity and human rights. The need to ensure that public policy – environmental or otherwise – does not disproportionately disadvantage any particular social group, and affords opportunity for all, must be a precondition for the move toward just and sustainable societies.

Carmen Gonzalez, in ‘An Environmental Justice Critique of Comparative Advantage: Indigenous Peoples, Trade Policy and the Mexican Neoliberal Economic Reforms’ addresses some of the core sites of the oppressive structural tilt of the neoliberal global order, emphasising corporate dominance of the world trade system and its contribution to patterns of environmental injustice. Using the North American Free Trade Agreement (NAFTA) as her key example of structural injustice in the neoliberal order, Gonzalez analyses the neoliberal restructuring of the economy of Mexico, where NAFTA has ‘devastated rural livelihoods, increased unemployment, and accelerated migration to the United States’ (at 725). Gonzalez is highly critical of the fact that the impact of trade liberalisation on indigenous peoples is frequently overlooked, notwithstanding growing academic attention to the issue—an oversight all the more troubling because NAFTA provides a template for other trade agreements. Gonzalez examines the theoretical underpinnings of contemporary trade agreements from an environmental justice perspective through the lens of NAFTA’s affect on the Mexican agricultural sector, persuasively demonstrating the impact of neoliberal policies on the rural indigenous peoples of Mexico, who suffer a combination of environmental

degradation and socio-economic inequality. It is essential, Gonzalez argues, to ground trade policy in socio-economic and ecological realities, including the immense disparity between corporate power and the power of indigenous communities—communities fractured by agricultural crises manufactured in the Global South through structurally uneven trade regimes.

Donna Houston, in 'Crisis is Where We Live: Environmental Justice for the Anthropocene' locates environmental justice firmly against the urgent exigencies of the Anthropocene as a 'time of political and social reckoning... [in a] rapidly diminishing window of opportunity to prevent key ecological tipping points... [and which demands the imagination of] different relationships between geologic time, the cultural logics of capital and accumulation, and the ontological realities of our species-being' (at 440). Houston frames environmental justice as 'a diverse political project that is firmly embedded in the choices and consequences of the Anthropocene' (ibid). For Houston, the imaginative legacy of environmental justice has two aspects, which she explores. She explores environmental justice projects as community efforts to address environmental change and degradation, and explores the particular contribution of environmental justice in the Anthropocene as 'a project that materially and imaginatively situates environmental crisis in every day terms, as something that we live with and strive to transform' (ibid). Deploying DeSilvey's concept of 'anticipatory history', Houston presents an exploration of 'the movement between toxic legacies of environmental injustice, public and imaginative work, and the future prospects of inhabiting the world differently' (at 441). The Anthropocene, as Houston rightly suggests, requires 'collective actions that take uncertain futures seriously, not as an end point or some utopian ideal, but as a matter of every day life' (at 442). Through an exploration of post-Hurricane Katrina activisms and environmental justice movement engagements with the disposal of radioactive waste at the Yucca Mountain in Nevada, Houston points towards the kind of 'work-in-the-world' (at 448) and the development of the 'more-than-human' capacities required to address the challenges of the Anthropocene crisis.

Joan Martinez-Alier, Leah Temper, Daniela Del Bene and Arnim Scheidel, in 'Is there a global environmental justice movement?' address environmental distribution conflicts. They do so by using the Atlas of Environmental Justice (EJAtlas) as a source of data for 'an exercise towards statistical political ecology' (at 733). Embracing the idea of 'a politicized environmentalism cognizant of the dialectic between expanded capitalist accumulation at a global scale and environmental dispossession' (ibid), the authors use the EJAtlas data to trace out patterns of environmental injustice and the languages and praxis of resistance in the form of mobilisations for environmental justice. As the authors point out, EJAtlas provides an inventory of cases (1,600 as at October 2015 when the article was written), as well as a rich lexicography of environmental justice vocabularies. The authors demonstrate that there is a global environmental justice movement, and that it deploys rich and implicative discursive strategies, many of which are becoming common currency in the global struggle against patterns of environmental dispossession and oppression.

Thus far, in our readings, various patterns have emerged: predictable disparities, tilted orders of power, oppressive politics of meaning and naming, regulation as a mechanism of exclusion, and well-practiced distributions of risk and exposure. We have seen how vigorous and inventive environmental justice activisms are in response to these patterns, and how environmental activism and scholarship produces multiple strategies of resistance. These strategies involve naming injustice for what it is, tracing and exposing the familiar patterns of disparity, and seeking multiple ways to contest the regulatory distribution of toxic degradation. Themes of the human-and-more-than-human entanglements implicated in environmental injustice have also emerged more

than once in the readings thus far—as has the important need to embrace indeterminacy and ongoing struggle—the kind of open-ended ‘ongoingness’ required for ‘staying with the trouble’. Now we bring the theme of ways of looking at ‘who’s here’ and ‘who matters’ into fuller view as we explicitly consider ontological justice and the politics of meaning.

Part 6: Environmental Justice: Ontological Justice and the Politics of Meaning

We begin with the injustice of liberal spatial ontologies and its related politics of meaning. Anna Stanley, in ‘Just space or spatial justice? Difference, discourse and environmental justice’, welcomes attempts to broaden the definition of environmental justice, but cautions that distributive conceptions of environmental injustice too frequently deploy liberal spatial frameworks that install a particular and problematic politics of meaning. Stanley argues that a central problem with distributional conceptions of justice is the way in which their formulation ‘obscures and normalises existing structural inequalities’ (at 1000). Such

understandings of justice articulate and are articulated by an ontology of space in which space itself is figured as prior to distributive projects, and relationships between environment and marginalised communities are characterised as fixed spatial configurations and correlations (ibid).

Such depoliticised representations of space lend themselves all too well to the privilege of ‘a liberal master subject whose unmarked and invisible body navigates through the world with all privileges intact’ (ibid). In reality, ‘[d]ifference making takes place not only in space through the relational positioning of objects in space and in relation to already coded spaces, but draws on spatial tropes, categories, and imaginaries to construct and create difference’ (at 1004). Focusing on the discursive production of difference making ‘as the central analytic of oppression’—Stanley suggests—allows analytical exposure of the production and sustenance of injustices through the production of space and its representation. Distributional thinking, with its depoliticised presentation of space, in short, normalises ‘the systems, structures and logics through which some groups are oppressed, and others are privileged and derive benefit’ (at 1011). Discourse analysis lays this dynamic bare, exposing the ‘unjust spatial ontologies [that] continue to mark environmental justice scholarship’ (ibid).

Anna Tsing, in ‘Unruly Edges: Mushrooms as Companion Species’ takes readers more explicitly into the multi-species entanglements signaled by ontological politics at its most all-embracing—entanglements that demand new, critical conceptualisations of spatio-materiality. Tsing turns our attention to companions in world making: ‘You who search for a world of mutually-flourishing companions’, writes Tsing, ‘consider mushrooms’ (at 142). Tsing deploys Haraway’s notion of ‘companion species’ to follow fungi as active partners in unfolding new histories of the world. Tsing argues that the role of fungi ‘in ecosystem renewal makes it more than obvious that fungi are always companions to other species. Species interdependence is a well-known fact—except when it comes to humans. Human exceptionalism blinds us’ (at 144). In the place of the human constructed as an autonomous, active and controlling subject set against nature’s passive backdrop (the construct of the human used ‘to endorse the most autocratic and militaristic ideologies’ (ibid)), Tsing asks ‘what if we imagined a human nature that shifted historically together with varied webs of interspecies dependence?’ (ibid). Tsing shifts the focus for her readers—relocating agency by also emphasising the way in which humans were domesticated by cereal. Her analysis suggests the way in which standardisation, monocropping, plantations and gendered, raced divisions co-emerged in colonial and neocolonial dynamics. ‘Given the power and pervasiveness of this biosocial

plan', Tsing argues, 'it is amazing that a still-rich diversity of species and populations remains in existence on earth. But such richness can no longer be taken for granted' (at 151). While 'biological and social diversity huddle defensively in neglected margins' (ibid) of capitalist hegemony, fungi—resistive, subversive—offer 'something of the point of view from the disordered but productive edges—the seams of empire' (ibid). In this telling—we could add—fungi also trace patterns of environmental injustice and point the way to new forms of resistive ongoingness and diverse modes of flourishing.

David Schlosberg, in 'Theorising environmental justice: The expanding sphere of a discourse' opens out environmental justice with an argument that environment and nature generate the preconditions for social justice. Schlosberg explores how early work on environmental justice was boundary-transgressing—challenging what 'the environment' was understood to be; how it explored the construction of injustice beyond a framework of inequity; how it demonstrated the promise of pluralistic conceptions of social justice (at 37). More recent expansions of environmental justice, Schlosberg suggests, offer a 'horizontal and vertical expansion' (at 40) into a broader range of issues and arenas. Environmental justice has expanded to address climate change and questions of climate and food justice, the global nature of environmental injustices, and also to embrace the human relationship with the non-human world (at 38). Schlosberg identifies two key new challenges for environmental justice. The first is the impact of climate change. The second is the need for what he calls 'sustainable materialism' (at 45). These challenges point towards the importance of understanding that environment and nature create the conditions for social justice. Schlosberg notes that

[o]ne of the arguments *against* incorporating non-human nature into the environmental justice discourse is that this shift is not embodied in environmental movements for public discourse. But considerations of climate justice... and of sustainable materialist approaches to food and energy begin to address environmental conditions themselves as the basis for social justice... justice entails creating human practices and material flows that do not undermine environmental processes and systems (45-6) (emphasis added).

Concluding that the concept of environmental justice has expanded, pushing boundaries since its early emergence, and that environmental justice is particularly salient to the material relationships between injustice, vulnerability and the condition of the living world itself, Schlosberg's argument suggests that this expansion of focus, '[l]ike all iterations of environmental justice over the years, ... has much to offer communities—both human and non-human—as well as academics' (51).

Stacey Alaimo, in 'Climate Systems, Carbon-Heavy Masculinity, and Feminist Exposure', takes vulnerability and materiality into a more radical direction, close to the very heart of my concern for an ontological politics for the Anthropocene-Capitalocene. Alaimo positions a broadly feminist 'insurgent vulnerability' (which 'could also be called a politics of exposure') against 'the carbon-heavy masculinities of impenetrability and aggressive consumption and, in another domain [including climate science], the universalizing modes of detached, scientific vision' (at 94). She brings ontology firmly into centre frame when she positions the hegemonic masculinity of consumptive culture and climate science as commitments that deploy the ontology of 'scientific objectivity that divide subject from object, knower from known, and assume the view from "nowhere while claiming to be everywhere equally"' (at 98). The insurgent vulnerability that she sets in contrast to this faux neutrality is legible as a vibrant ontological politics that takes its life directly from the materialities of gendered vulnerability patterns. Yet, while this politics recognises the particular impact of climate change upon women, it is not a victimology—and does not assume a binary gender trope. Alaimo argues that 'a feminist response to global climate change must challenge not only the ostensibly

universal perspective of big science and the hegemonic masculinity of impenetrable, aggressive consumption but also the tendency to reinforce gendered polarities and heteronormativity’ (at 108). She seeks, therefore, ‘a politics of exposure that does not entrench gender polarities but instead endorses biodiversity, cultural diversity, and sexual diversity, and recognizes that we all inhabit trans-corporeal interchanges, processes, and flows’ (ibid). Alaimo’s proposal, I suggest, is deeply compatible with the kinds of ongoingness and onto-political justice-making that environmental justice is summoned to in the Anthropocene-Capitalocene. This is an ontological politics that *embraces*, to borrow Alaimo’s words, ‘a sense of exposure—the sort of vulnerability that refuses to disavow our immersion within the material world’ (at 102).

Our readings reach their conclusion then, with a group of contributions that, taken together, point unerringly to the ontological and political significance of the human-non-human entanglements intrinsic to planetary existence. It is notable that at least three of the contributions in this section of our collection attack, in various ways and without necessarily naming it as such, the reductionist ontology underlying the term ‘environment’. And all four contributions here, in their differing ways, imply the limitations of anthropocentrism and its assumed subject-object relations—including the problematic dominance of the traditional Eurocentric master subject traditionally privileged by politics, economics and law. Stanley, for example, directly attacks the spatial ontology of environmental justice scholarship that tends to fit ‘a liberal master subject whose unmarked and invisible body navigates through the world with all privileges intact’ (Stanley, 1000). Alaimo aims critique at the disembodied, panoptic ontology and epistemology that ‘divides subject from object, knower from known, and assumes the view from “nowhere while claiming to be everywhere equally”’ (98). Tsing, meanwhile, performs a stunning reversal of the agentic flow associated with these subject-object relations. She invites her readers to realise that far from being the inert field upon which the subject-at-the-centre enacts its will, the world (‘the environment’) is a lively entanglement in which humans have been domesticated by crops—as much as crops are ordered by humans. Tsing also points to the dense entanglements between the emergence of crop monoculture and oppressive colonising patterns intrinsic to international environmental injustices—and to the genesis of the Anthropocene-Capitalocene.

Expanding environmental justice scholarship and practice to embrace the more-than-human liveliness with which human injustices are inescapably entangled is now an urgent task. Schlosberg is surely right to resist those who object to the incorporation of non-human nature into environmental justice discourse. And it is clear from various of the contributions in this collection that critical themes concerning patterns of hierarchy, as well as patterns of emergent recognition of the agentic and ethical significance of the non-human, are already present—and unfolding—in the field. To adapt the language of Coole and Frost deployed earlier in this introduction, ‘foregrounding material factors and reconfiguring our very understanding of matter are prerequisites for any [meaningful conception of environmental justice] and its conditions in the 21st century’.⁶³ It time to be much more explicit about the depth, breadth and seriousness of what is at stake in patterns of ontological injustice—and to extend the insurgent fire of environmental justice activisms and scholarship (so richly displayed in this collection) explicitly into an overtly ontological politics.

⁶³ Above n 3.

‘Staying with the trouble’ is a challenge too important and complex for humans alone, and humans—in any case—are very far from being alone in ‘the trouble’.