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INTRODUCTION BY ISABEL GABEL, UNIVERSITY OF PENNSYLVANIA

Duncan Kelly's *Politics and the Anthropocene* is both an important work of intellectual history and a welcome provocation. Surveying the diverse and extensive literature on the Anthropocene as it intersects with traditions of political thought in the last fifty years, Kelly's hope is to "get some intellectual control" (5) over the current moment. The worry that animates him is thus not only ecological, though the threats of disasters and scarcity remain present, but also conceptual and political: Can representative democracy thrive, or even survive, in the time of the Anthropocene? Kelly certainly hopes so, and argues that in order to preserve democratic values it will be necessary to, as he puts it "Anthropocene" our politics. The first step in this process is to take account of the temporal challenges of the Anthropocene, in other words to configure deep time (planetary epochs), democratic time (the last three hundred years, in which representative democracies emerged), and accelerated time (the period since 1945, when the possibility planetary collapse first became visible) within the political language of representative democracy. As Kelly points out, the reactive and brief nature of election cycles seems ill-suited to address problems on the scale of climate change. And yet, he hopes that these limits can be overcome by the development of a new conceptual toolkit which would allow representative institutions to expand without sacrificing the climate to appease the consumer/electorate. In its assessment of the future of democracy, *Politics and the Anthropocene* is ultimately quite hopeful, pointing toward a possible future that is representative and open-ended, even in the shadow of ecological collapse.

If the conflict between consumption and survival poses a practical problem for representative democracies in the Anthropocene, for Kelly the greatest political risks come from the intellectual tendency to embrace fatalism. He argues that neither the pessimistic eschatology of so much ecopolitical thinking nor the blindly optimistic faith in science's power to stave off climate catastrophe give adequate political space in which to imagine the social and institutional changes required by the reality of the Anthropocene. Thus, as Kelly's lively account shows, it is the urgent task of historians to recapture the contingencies of politics, and in doing so to guard against these twin climate fatalisms. Democracy, after all, requires there to be choices.

Politics and the Anthropocene appears as a work of intellectual history in a moment when the humanities are more broadly attempting to reassess their relationship to the sciences. The Anthropocene concept has inspired the rapid growth of the field of environmental humanities, and the COVID-19 pandemic has only made more apparent how necessary the medical humanities remain. Kelly makes clear just how much intellectual history can bring to these interdisciplinary conversations, and indeed how necessary this field is if we want to understand the relationships between concrete struggles and the conceptual spaces in which these struggles take on meaning as part of a global process. Thus the fault Kelly finds with technocratic solutionism is not simply that it forecloses politics as such, but that it fails to account for our "shifting predicaments" (113). Above all Kelly urges us to see the deeply historical nature of our own political imaginaries, and thus of the terrain on which the Anthropocene must be faced. As the four responses below attest, the political imaginary of the Anthropocene is far from a settled question.

Invested as it is in the history of liberal political thought, Kelly's book nevertheless seems to draw its boundaries rather narrowly. As Lida Maxwell points out in her response, Kelly's argument appears to be aimed entirely at existing liberal institutions, which he hopes will rise to meet the challenges of the Anthropocene. What Kelly offers as a kind of pragmatism, Maxwell sees as an instance of just the kind fatalism Kelly is otherwise so keen to avoid. Liberalism is both the starting point and the horizon of Kelly's political thought. Beyond simply pointing to his lack of sustained engagement with either the Left or current anti-colonial political theory, Maxwell challenges Kelly's assertion that his choice of intellectual scope is in fact "realist." As she points out, it has been Left political movements, which often stylize themselves in direct opposition to the liberal tradition Kelly writes about, that have done the most to respond to climate change on the ground. In her characterization of Kelly's project as one of re-entrenchment, as an attempt to reinscribe the liberal tradition into a present to which it is inadequate, Maxwell calls on us think beyond the past and present of (apparent) liberal hegemony, and toward the future currently being imagined and built by those on the Left.

In a similar vein, Thea Riofrancos finds the book's lack of interest in Left political thought to be a troubling omission. In addition to pointing out ways in which Kelly could have enriched his own account of the Anthropocene, for example,

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through widening his discussion of temporality to include theories of modernity and/or development, Riofrancos presses Kelly especially hard on the issue of democracy. She sees a tension between Kelly's broad exploration of the history of political thought and the solutions he proposes, which she sees as "technocratic and incremental." More troubling, she wonders how committed to democracy Kelly's thesis really is, given that the book repeats the narrative in which convincing voters to support climate mitigation is the primary obstacle to substantially reducing carbon emissions. Riofrancos wonders if this does not imply that, in fact, the lack of action on climate change is the product of "too much democracy." She points out that industry lobbying has been shown to be a far greater obstacle to policy changes. The idea that meaningful action would require major sacrifices on the part of most people is also misleading, she argues, since such a tiny fraction of people are responsible for such a huge percentage of global emissions. Riofrancos concludes rather hopefully, offering that the Green New Deal presents possibilities for imagining an end to racial capitalism and a less unequal, more abundant world for all.

Though he remains hopeful that formal democracies might survive, Fredrik Albritton Jonsson is far less optimistic about the future politics of the Anthropocene. Jonsson's assessment is that the time for political choices about how to reduce emissions is rapidly fading away, and that the only way for any political theory to remain relevant is if we simultaneously dramatically reduce consumption and enact massive mitigation efforts, including geoengineering. Such efforts leave little time for social justice or international consensus, which history teaches us are slow or even "indefinite" tasks. The immediate project, he argues, is to build technological capacity for mitigation while cultivating the "moral imagination" required to build a livable world in the future. But meanwhile, as the situation worsens, he warns, both our political and technological options will become ever more constrained. Jonsson thus argues that though he shares Kelly's basic hope for representative democracy's survival, the problem "begins and ends with carbon." Though it will be important to get citizenry on board with mitigation efforts, it is ultimately upon the success (or failure) of these efforts that the possibility of any future politics rests.

Turning our attention to the history of the Anthropocene as a concept that was always both scientific and political, Etienne Benson pushes back against Kelly's premise that politics should (or even can) be "Anthropocened." Benson offers a window into the history of the Anthropocene, revealing how the concept emerged in the context of the International Geophysical-Biophysical Programme. Benson makes the crucial point that we should understand the Anthropocene not as a scientific concept that became politicized after the fact, but as an idea that emerged out of a political (and disciplinary) context with explicit political aims. Most troubling, Benson shows us, the idea was always linked to a vision of technocratic global governance whose aim was the preservation of economic growth through environmental management. If, as Benson convincingly argues, the Anthropocene came about in order to make a threatened planet safe for neoliberalism, what is the value of this concept for those who want to envision politics beyond both liberalism and capitalism? Provocatively, Benson suggests that we might want to ditch the concept altogether. Perhaps the conceptual problems we face when thinking through the politics of the Anthropocene are not an opportunity to push forward our political theory but a "malignant" feature of a concept that continually edges us ever-further from genuine democracy. Though Benson may be right to warn us, this forum nevertheless attests to both the intellectual and political value of continually reassessing politics and the Anthropocene.

Participants:

Duncan Kelly is Professor of Political Thought and Intellectual History at the University of Cambridge, and a Fellow of Jesus College, Cambridge. He is the author of *The State of the Political – Conceptions of Politics and the State in the Thought of Max Weber, Carl Schmitt, and Franz Neumann* (Oxford, 2003); *The Propriety of Liberty: Persons, Passions, and Judgment in Modern Political Theory* (Princeton, 2010); *Politics and the Anthropocene* (Polity, 2019). He is a co-editor of *Modern Intellectual History*, and is currently finishing a book on the intellectual history of the First World War.

Isabel Gabel is a Postdoctoral Fellow in the Perelman School of Medicine and a Visiting Scholar in the Department of History at the University of Pennsylvania. Her work has appeared in *History of the Human Sciences* and *Revue d'histoire des sciences*, and she is currently completing a book about biology and theories of history in twentieth-century France.

Etienne Benson is associate professor in the Department of History and Sociology of Science at the University of Pennsylvania. He is the author of *Wired Wilderness: Technologies of Tracking and the Making of Modern Wildlife* (Johns Hopkins University Press, 2010) and *Surroundings: A History of Environments and Environmentalisms* (University of Chicago Press, 2020).

Fredrik Albritton Jonsson is Associate Professor of British history, Conceptual and Historical Studies of Science at the University of Chicago and co-editor of *The Journal of Modern History*. His current research includes an intellectual and political history of the British fossil fuel economy from 1760-1914.

Lida Maxwell is Associate Professor of Political Science and Women's, Gender, and Sexuality Studies at Boston University. She is the author of *Insurgent Truth: Chelsea Manning and the Politics of Outsider Truth-Telling* (Oxford University Press, 2019) and the co-author of *The Right to Have Rights* (Verso, 2018). She is writing a book on the politics of love and climate change.

Thea Riofrancos is an assistant professor of political science at Providence College, an Andrew Carnegie Fellow (2020-2022), and a Radcliffe Institute Fellow (2020-2021). Her research focuses on resource extraction, renewable energy, climate change, green technology, social movements, and the left in Latin America. These themes are explored in her book, *Resource Radicals: From Petro-Nationalism to Post-Extractivism in Ecuador* (Duke University Press, 2020), her co-authored book, *A Planet to Win: Why We Need a Green New Deal* (Verso Books, 2019), and academic articles in *World Politics*, *Perspectives on Politics*, and *Cultural Studies*. Her writing has appeared in *The New York Times*, *The Guardian*, *Boston Review*, *The Baffler*, *n+1*, *Dissent*, *Jacobin*, among others.

REVIEW BY ETIENNE BENSON, UNIVERSITY OF PENNSYLVANIA

Duncan Kelly poses an important question in *Politics and the Anthropocene*. The question is how representative politics can and should be “Anthropocened,” (2) as he puts it, and more specifically, how the inhuman geological and climatic timescales of the Age of Humanity — at once too long and too fast — can be reconciled with the shorter and more familiar timescales of modern democratic politics. This is a question that Dipesh Chakrabarty, Bruno Latour, William Connolly, and various environmental political theorists have also been worrying in recent years, from various perspectives and with varied conclusions.¹ Kelly’s answer, as I read it, is that historical scholarship and historical consciousness can, among other things, help us avoid succumbing to “the easy pessimism that politics cannot go beyond the conventional nostrums of national political-economic management in a world controlled by high finance capital” (121). Instead of this easy pessimism he offers a difficult optimism based on the hope that new options may be opened up through critical historical reflection.

That seems like a wise and realistic form of optimism, though as optimisms go, perhaps not the most inspiring one. That is not Kelly’s fault; calls for critical reflection rarely are, however right and necessary they may be. But one can still try to make such an optimism as concrete as possible, and here I think there is more work to be done. Reviving neglected traditions of political-economic thought and recognizing that we face a “shifting predicament” (113) rather than a problem in need of solution, as Kelly advocates, seem necessary but insufficient to help us imagine a future that is anything other than catastrophic (or even to imagine what our politics should look like in catastrophic times). Nor is it quite clear to me what he believes would be the best alternative to the unholy and unstable alliance of high finance and national interest that seems to reign at the moment. Perhaps making a compelling argument for critical historical reflection on our political concepts and categories is enough, or in any case as much as one can reasonably expect. But I think one can be excused for wanting, if not a full-fledged plan to save the planet, at least some more specific examples of how and where such reflection can concretely help.

As a historian of science rather than a political historian or political scientist, I will leave to others the task of assessing in further detail and with more rigor what Kelly’s account contributes to the history of political thought. Instead I want to call attention to another question that *Politics and the Anthropocene* touches on glancingly at several moments but which in my view would reward more sustained attention — namely, the question of what forms of politics and political thought gave rise to the concept of the Anthropocene itself, and what residues, legacies, or constraints its scientific-political trajectory through history have produced. To answer that question, we certainly need histories of forms of political thought that address or anticipate issues raised by the Anthropocene, such as those Kelly offers in his perspicuous chapters on temporality, inequality, limits, debt, population, and value. But we also need short-term and *longue-durée* histories of the specific institutions, practices, and concepts that led to the introduction of the Anthropocene concept two decades ago and that have helped it spread and evolve ever since.

Fortunately, a growing number of historians of science and STS scholars have sought over the past decade or so to understand the antecedents and contexts, both scientific and political, of the Anthropocene concept and the sciences it depends on.² In what follows, I draw on their work to sketch a history of the science connected to the Anthropocene

¹ Dipesh Chakrabarty, “Climate and Capital: On Conjoined Histories,” *Critical Inquiry* 41:1 (2014): 1-23; Bruno Latour, *Facing Gaia: Eight lectures on the new climatic regime* (Cambridge: Polity, 2017); William E. Connolly, *Facing the Planetary: Entangled Humanism and the Politics of Swarming* (Durham: Duke University Press, 2017); Manuel Arias-Maldonado and Zev Trachtenberg, eds., *Rethinking the Environment for the Anthropocene: Political Theory and Socionatural Relations in the New Geological Epoch* (New York: Routledge, 2019).

² See, for example, Paul N. Edwards, *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming* (Cambridge: MIT Press, 2010); Joshua P. Howe, *Behind the Curve: Science and the Politics of Global Warming* (Seattle: University of Washington Press, 2014); Perrin Selcer, *The Postwar Origins of the Global Environment: How the United Nations Built Spaceship Earth* (New York: Columbia University Press, 2018); Paul Warde, Libby Robin, and Sverker Sörlin, *The Environment: A History of the Idea*

concept that focuses particularly on relationships between the growth of the earth and environmental sciences and the development of modern nation-states. I then return to Kelly's contribution, asking what a history of the Anthropocene through the lens of the history of science might tell us about his account of the past and his proposed way forward.

To start off, it is worth noting that the Anthropocene concept was developed in the context of the International Geophysical-Biophysical Programme (IGBP), a multidisciplinary scientific initiative that was launched in 1987, just as concern about climate change was breaking into public consciousness. While climate change was an important subject for the IGBP, it was not its sole or even primary focus. Rather, the IGBP sought to put into practice a new scientific vision of the "Earth system" as an interconnected whole. As Sébastien Dutreuil has argued, "Earth system science" (ESS) as advocated by the IGBP can be seen as an attempt to render James Lovelock's Gaia hypothesis acceptable to the broader scientific community by translating its grandiose claims and simplistic models into testable subproblems for well-defined disciplines.³ The IGBP also served other aims. Against the looming hegemony of climate science and of institutions such as the Intergovernmental Panel on Climate Change in understanding global change, it advocated for the ongoing relevance of a range of other branches of the earth and environmental sciences, including ecology, soil science, marine biology, geology, hydrology, geomorphology, and planetary science.

It was in the context of this international scientific initiative, which sought to integrate climate science into a more holistic and multidisciplinary Earth system science, that the atmospheric chemist Paul Crutzen and freshwater biologist Eugene Stoermer introduced the concept of the Anthropocene in a short essay in the IGBP's *Global Change Newsletter* in 2000.⁴ A high-visibility restatement of the thesis by Crutzen in the prestigious journal *Nature* in 2002 and the adoption of the Anthropocene as the framing concept for the IGBP's state-of-the-field report on *Global Change and the Earth System* in 2004 helped launch the concept into wide circulation over the following years.⁵ The widespread interest in this highly speculative concept almost certainly arose as a result of the institutional and personal legitimacy lent to it respectively by the IGBP and by Crutzen, a Nobel Prize winning scientist who had helped raise the alarm about the ozone hole. Between 2004 and 2010, even though its value remained far from settled among geologists, the Anthropocene concept was rapidly adopted and vigorously debated by environmental activists and humanities scholars. Since 2010, it has become, if not quite a household word, at least something that one may include in book titles and discuss in specialized literature in confidence that most readers will understand it.

Given the Anthropocene concept's wide circulation and multifarious manifestations, it might be tempting to regard its origins as of little more than historical interest. After all, words are what one makes of them, and many people have made many things out of the Anthropocene over the past two decades. I would submit, however, that the Anthropocene concept's political implications cannot be understood or evaluated without situating the concept in relation to the ideas, techniques, and infrastructures of the IGBP and Earth system science, which although quite far from conventional representative politics, were nonetheless deeply political. As the historians of science mentioned above have quite

(Baltimore: Johns Hopkins University Press, 2018); Deborah R. Coen, *Climate in Motion: Science, Empire, and the Problem of Scale* (Chicago: University of Chicago Press, 2018); Lydia Barnett, *After the Flood: Religion and the Origins of Environmental Thought* (Baltimore: Johns Hopkins University Press, 2019); Matthias Heymann and Amy Dahan Dalmedico, "Epistemology and Politics in Earth System Modeling: Historical Perspectives," *Journal of Advances in Modeling Earth Systems* 11:5 (2019): 1139-1152.

³ Sébastien Dutreuil, "Gaïa: hypothèse, programme de recherche pour le système terre, ou philosophie de la nature?" (Ph.D. Dissertation, Paris 1, 2016). See also Chunglin Kwa, "Local Ecologies and Global Science: Discourses and Strategies of the International Geosphere-Biosphere Programme," *Social Studies of Science* 35:6 (2005): 923-950.

⁴ Paul J. Crutzen and Eugene F. Stoermer, "The 'Anthropocene,'" *Global Change Newsletter* 41 (2000): 17-18.

⁵ Crutzen, "Geology of Mankind," *Nature* 415:6867 (2002), 23; Will Steffen et al., *Global Change and the Earth System: A Planet under Pressure* (New York: Springer, 2004).

convincingly argued, the history of the science of the Anthropocene cannot be told simply as a story of the scientific origins of a concept that was rapidly disseminated and *then* politicized. Rather, it has to be seen as the story of the emergence of a concept that was simultaneously a claim about the changed state of the world and a claim about collective action and collective values in that new world — that is, a story about a concept that was both scientific and political from the very start. Seeing the concept in this way, I would argue, casts a new and different light on some of the core themes of Kelly's book and particularly on the call to "Anthropocene" politics.

What, then, does the historical scholarship tell us about the politics of the science of the Anthropocene concept? As I read it, it suggests that there are two important timescales through which we ought to view the Anthropocene's emergence from the matrix of the IGBP and Earth system science around 2000. The first, more proximal timescale is the late Cold War/early post-Cold War moment, roughly speaking from the mid-1980s to the late 1990s, in which the IGBP as an institution for international scientific collaboration was developed. What these histories show is that the IGBP's object of study, the Earth system, became imaginable and knowable on the basis of an infrastructure and an institutional form that, though it owed much to early Cold War national security concerns, had been transformed since the 1970s by the push for neoliberal globalization. Global transportation based on cheap energy, the free flow of goods and ideas across international borders, the search for universal standards of governance compatible with capitalist development, the reliance on technical experts to identify productivity bottlenecks and quantify risks, the interest in systems (free-market economies, information societies, a planetary Gaia) that developed automatically and progressively once the proper ground rules had been established — all of these political-economic ideas and techno-social conditions both made the IGBP possible and shaped its imaginations of the Earth system and the Anthropocene. They help explain, *inter alia*, why Crutzen's vision of the Anthropocene was always linked to his vocal advocacy for the technocratic governance of geoengineering and why the "planetary boundaries" literature often seems more concerned with preserving the conditions for economic development than it does with preserving the conditions for democracy or justice.⁶ In both cases, the Anthropocene concept is used to challenge the idea that that growth can proceed without accounting for the Earth's finite resources, but the idea that unlimited economic growth can continue in some form of properly "Anthropocened" neoliberal capitalism remains untouched.

If from one perspective the Anthropocene concept is a creature of its late-twentieth-century/early-twenty-first-century moment, however, from another perspective that moment seems like only the latest episode in a series of attempts to grapple with human responsibility for and influence over the future of the Earth that stretch back over several centuries. As Christophe Bonneuil and Jean-Baptiste Fressoz have argued, serious discussions of anthropogenic planetary catastrophe are hardly unique to the past few decades, nor are schemes for improving the Earth according to human design only to be found among the recent advocates of the "good Anthropocene."⁷ On the contrary, the antecedents of today's Anthropocene discourse can be found as early as the late eighteenth century, if not earlier. As Kelly rightly points out, the historical moment of the late eighteenth century corresponds not only with Crutzen and Stoermer's proposed starting-point for the Anthropocene era but also with the emergence of representative democratic politics in France and the United States. It is worth noting, however, that a turn to democracy is not the only way to characterize that period. In the French context that most concerns Bonneuil and Fressoz, for example, "democracy" or "representative politics" are certainly not what stands out in the development of French politics from the 1790s onwards, and a case could be made that they are not the best way to

⁶ The starting point for this literature is Johan Rockström, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, III, Eric Lambin, Timothy M. Lenton, Marten Scheffer, Carl Folke, Hans Joachim Schellnhuber, Björn Nykvist, Cynthia A. De Wit, Terry Hughes, Sander van der Leeuw, Henning Rodhe, Sveker Sörlin, Peter K. Snyder, Robert Costanza, Uno Svedin, Malin Falkenmark, Louise Karlberg, Robert W. Corell, Victoria J. Fabry, James Hansen, Brian Walker, Diana Liverman, Katherine Richardson, Paul Crutzen, and Jonathan Foley, "Planetary Boundaries: Exploring the Safe Operating Space for Humanity," *Ecology and Society* 14:2 (2009), 32, <http://www.ecologyandsociety.org/vol14/iss2/art32/>.

⁷ Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us*, trans. David Fernbach (London: Verso, 2017); Clive Hamilton, "The Theodicy of the 'Good Anthropocene,'" *Environmental Humanities* 7:1 (2016): 233–238. See also Coen, *Climate in Motion*; Barnett, *After the Flood*.

describe developments in the United States at that time either. Rather, France under Napoléon Bonaparte and after was the site of a rationalizing and centralizing government that sought to render the nation-state's territory and population both manageable and productive under the guidance of experts. It was arguably this effort to rationally maximize national productivity, more than any turn to democracy or representative politics, that gave rise to those scientific specializations that we now consider to be branches of the "environmental sciences," and which, expanded to the global scale but still linked to the interests of nation-states, serve as the foundation of our knowledge of the Anthropocene.

Since the late eighteenth century, in short, the various scientific disciplines that have revealed the extent to which humanity is as capable of fundamentally and permanently transforming the Earth have had an intimate relationship with the growth of nation-states characterized by the ambition and, increasingly, the actual capacity to scientifically manage their own resources and populations. From the beginning, these sciences have been mobilized to think about anthropogenic catastrophe on planetary scales that exceed the nation, but always in view of the interests of modern territorial nation-states and their relationships with each other. To do so, they have mobilized experts whose interests and skills have, with only occasional exceptions, been those best tailored to serve the needs of the state.⁸ Rather than seeing the Anthropocene concept that has been developed over the past two decades as a revolutionary break, therefore, we might want to see it as a distinctive episode in this longer history. Recognizing that these two origin stories for the Anthropocene concept, each with its own proper timescale, are not contradictory helps us break the minor scholarly logjam over whether the concept is really new and groundbreaking or whether it has roots that go back centuries or longer.⁹ Both are quite obviously true, as long as one recognizes that the specific formulation of the Anthropocene as introduced by Crutzen and Stoermer in 2000 and developed in the years since has distinctive features tied to its specific political and scientific contexts that make it a real novelty (if not quite a revolution) within a centuries-long tradition of thinking about the governance of human impacts on the global-scale environment in relation to modern nation-states.¹⁰

Beyond the question of continuity and rupture, these histories can also help us think about Kelly's question about what an "Anthropocened" representative politics ought to look like and what it can learn from various traditions of political thought, including some traditions that are now neglected or forgotten. In particular, recognizing the entanglement of the sciences of the Earth with the aims of modern states challenges what I read as one of the foundational premises of *Politics and the Anthropocene*: the very idea that representative politics can and should be "Anthropocened." Arguably, once we recognize that the Anthropocene is one of many attempts over the past two or three centuries to understand the Earth in such a way that it appears manageable by territorial nation-states acting either alone or in combination, and that the Anthropocene concept's specific place within that tradition has to do with the political economy of a late-twentieth/early-twentieth-century neoliberal world order that placed certain quite hefty material and imaginative constraints on collective action, then the hope of using the history of political thought to reimagine representative politics in and for the Anthropocene starts to appear somewhat chimerical. The concept may simply owe too much to its past to be available for such a purpose.

None of this is meant to say that the kind of critical reflection that Kelly advocates and quite effectively models is not worth doing. On the contrary, I think such reflection needs to be taken even further, to query even more fundamentally our basic assumptions about politics and the Anthropocene. For instance, we might want to ponder whether there is any place at all

⁸ See Chandra Mukerji, *A Fragile Power: Scientists and the State* (Princeton: Princeton University Press, 1989); Sverker Sörlin, "Reconfiguring Environmental Expertise," *Environmental Science & Policy* 28 (2013): 14-24.

⁹ See, for example, Clive Hamilton and Jacques Grinevald, "Was the Anthropocene Anticipated?" *Anthropocene Review* 2:1 (2015): 59-72.

¹⁰ On the concept of the global-scale environment, see Selcer, *Postwar Origins of the Global Environment*; John R. McNeill, "The Environment, Environmentalism, and International Society in the Long 1970s," in Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent, eds., *The Shock of the Global: The 1970s in Perspective* (Cambridge: Harvard University Press, 2011).

for “democratic time” and representative politics in a thoroughly Anthropocened politics — if, as I have suggested, the Anthropocene as a concept emerged from an attempt to make the global-scale environment manageable by modern states (where “modern” can be defined as either post-eighteenth century or post-1970s). We might want to consider whether the difficulty of reconciling “democratic time” with “deep time” and “accelerated time” is a (malignant) feature of the Anthropocene concept, not a bug, and certainly not a political-philosophical challenge that can be overcome through further scholarship, however erudite. The Anthropocene, from this perspective, would not be a way of describing the state of the world that challenges us to rethink our politics, but instead an already-political concept with some thoroughly antidemocratic features. We might also want to look harder at other knowledge traditions beyond the environmental sciences, both Western and non-Western, that have been challengers to rather than servants of state power, and that might provide firmer epistemic foundations for a genuinely democratic politics. In short, reflecting on the recent and distant histories of the Anthropocene concept might make us a bit less interested in how to “Anthropocene” politics, as Kelly invites us to do, and a bit more interested in how to save politics from the Anthropocene.

 REVIEW BY FREDRIK ALBRITTON JONSSON, THE UNIVERSITY OF CHICAGO

In his important new book, Duncan Kelly sets out to defend a space for politics in the Anthropocene. He cautions against seeing our situation in terms of technical problems that can be solved through administrative fiat. Rather, we are dealing with “shifting predicaments” that must be interpreted and debated through “shared cultural and political imaginaries, whose limits are contingent, not universal” (5). We have to thread the needle of ordinary politics into a multi-scalar fabric of “deep time, democratic time and accelerated time” (18). Kelly urges us to turn to the historical record in thinking through these challenges. Many of the political and economic questions we confront in the Anthropocene – concerns with inequality, growth, population, debt, and values – have rich histories. Of special interest to Kelly are the “political and economic ideas, problems and projects, begun and considered in the 1960s and 1970s” (113). By excavating concepts from the near past, we can expand and enrich our understanding of political possibility in the present and future.¹¹

While I am sympathetic to Kelly’s approach and have followed a parallel course in my own research – I want to take a somewhat different route in confronting the problem of Anthropocene politics.¹² My alternative framework tempers our sense of political possibility in recognition of the environmental and technological conditions in which the Anthropocene is likely to unfold. Every theory of politics in the Anthropocene has to take into account the probability that accelerating climate change will constrain our course of action as the situation worsens. The emissions scenarios of the Intergovernmental Panel on Climate Change (IPCC) predict the physical consequences of particular policies of energy use.¹³ To take the most notorious example, business as usual in carbon emissions is expected to lead to a *mean* warming around 4 degrees Celsius by century’s end. In such a world, unprecedented heat waves will ravage much of the planet, causing crop failures, sea level rise, forest fires, and biodiversity loss. Another approach to environmental risk, the so-called Planetary Boundaries model, presents quantitative thresholds for sustainable development in nine interrelated dimensions of the earth system. Business as usual threatens the “safe operating space” provided by a “Holocene-like state.” Politics must prioritize energy transition and other kinds of sustainability that keep the functioning of the economy within its proper boundaries.¹⁴

The environmental effects of accelerating climate change are likely to be dramatic, but will they necessarily undermine representative politics and strengthen authoritarian tendencies? It is tempting to assume that environmental deterioration ineluctably shrinks the space for public debate and informed consent. Yet it is also conceivable that worsening material conditions will galvanize democratic movements of new kinds. Pessimists and optimists alike do well to consider the difficulties of forecasting political futures in the face of historical contingencies of many kinds: ideological change, warfare, terrorism, technological revolutions, financial crises, and pandemics. In narrowly political terms, the track record of particular regimes will surely matter, such that the failure of one party or system might clear the way for political movement in a new direction. Contingencies seem sure to multiply in a heavily fragmented political landscape. Even if climate change fosters convergence towards a few hegemonic powers, the question remains how stable such regimes will prove when tested by crises of increasing severity.

¹¹ In stratigraphic terms, the political thought of the 1960s and 1970s emerged at the *beginning* of the geological Anthropocene.

¹² Fredrik Albritton Jonsson, “The Origins of Cornucopianism: A Preliminary Genealogy,” *Critical Historical Studies* 1:1 (Spring 2014); Vicky Albritton and Jonsson, *Green Victorians: The Simple Life in John Ruskin’s Lake District* (Chicago: University of Chicago Press, 2016).

¹³ https://www.ipcc.ch/site/assets/uploads/2018/03/emissions_scenarios-1.pdf

¹⁴ Will Steffen. et al., “Planetary Boundaries: Guiding Human Development on a Changing Planet,” *Science* 347:6223 (13 February 2015), 736.

Joel Wainright and Geoff Mann argue that climate deterioration will provoke a struggle between planetary and anti-planetary sovereigns of different ideological hues.¹⁵ On the side of planetary sovereignty, they place the Maoist security state and the neoliberal international order. They also posit two competing forces of resistance – a reactionary Behemoth and the radically democratic Climate X. As a theoretical conceit, their model has value in clarifying the stakes of the ideological contest by positing four “ideal types.” But it is unclear why and how one power would prevail over the others (short of a devastating war that might well destroy the human species). Far more likely is a scenario of competing hegemonies along with radical options at the political and geographic margins.

Environmental constraints to political action can also be understood through the schema of diverging calendars suggested by Dipesh Chakrabarty. Historical experience tells us that the prospect of achieving social justice and international unity will be difficult and slow work: “The calendar for attaining distributive justice... is... indefinite and open.”¹⁶ In contrast, the calendar for mitigation is pressing and short. The threat of greenhouse gas emissions requires quick action. It follows that mitigation is so urgent that we ought to prioritize it ahead of other goals, no matter how worthy and compelling those other concerns might be. If we do not, we could well end up shrinking the sphere of action through which other kinds of social change might one day happen. Put starkly, the dilemma resolves into the following question: how do we secure a climatological space in which to pursue a more just world?

The problem of the emission calendar is fundamentally a political question of infrastructural transformation. Mitigation involves replacing fossil fuel technology with alternative energy sources. We need to shut down coal-fired plants and rethink our transportation system while decarbonizing the construction industry, heavy manufacturing, and agriculture. To transform the grid and other support systems over the long term requires concerted political will and innovative social thinking. But so far such determination and far-sightedness have been conspicuously lacking.

Because mitigation takes time and is costly and we are already behind the calendar, it seems increasingly likely that we will need to resort to a different kind of infrastructural project. Geoengineering suggests a technological remedy that would buy time for future mitigation and carbon sequestration. Aerosols injected into the stratosphere could block some portion of incoming sunlight to help cool the planet. Many worry that the cure might be worse than the disease in this case. “Solar radiation therapy” carries a very serious risk of unintended consequences. And even if it were to prove successful, it might tempt users to maintain the fossil fuel economy without lowering emissions. Aerosol injection could worsen the probability of catastrophic warming since any sudden pause in implementation would bring back warming quickly. Geoengineering might well bolster the power of authoritarian and militaristic forces in international politics.

Yet even here, it is possible to imagine alternative political paths. In an interesting recent book, Holly Jean Buck attempts to envision how the system of geoengineering might be deployed to bolster democratic and anti-imperial politics.¹⁷ Crucially, she insists that solar radiation therapy must be incorporated in a broader social and technological sequence that involves mitigation, carbon removal, and ecological repair. Such a project of climate restoration in turn has to be anchored in democratic consent. Technological efforts must go hand in hand with an educational campaign to bolster new capacities of technical understanding and moral imagination in citizens.

In the argument I have sketched, there is ample space for the kind of multi-scalar politics of inequality, growth, population, debt, and values that Kelly outlines in his book. But I also add a few caveats. Any adequate understanding of the conditions of politics in the Anthropocene begins and ends with carbon. Political possibility will expand or contract according to the

¹⁵ Joel Wainright and Geoff Mann, *Climate Leviathan* (New York: Verso, 2018).

¹⁶ Dipesh Chakrabarty, *The Human Condition in the Anthropocene: The Tanner Lectures in Human Values* (New Haven: Yale University Press, 2015), 173.

¹⁷ Holly Jean Buck, *After Geoengineering: Climate Tragedy, Repair, and Restoration* (New York: Verso, 2019).

trajectory of emissions and feedback processes in the earth system. Political action centers on infrastructural choices about the carbon cycle: mitigation, adaptation, removal, or inaction. In the final instance, the fate of representative politics in the Anthropocene will be measured by the ways in which these complex environmental and technological options can be made intelligible to the public and subject to informed consent.

REVIEW BY LIDA MAXWELL, BOSTON UNIVERSITY

In *Politics and the Anthropocene*, Duncan Kelly asks how the idea of the “Anthropocene” has transformed, and should transform, our understanding of democratic politics in a time of climate change. Kelly is not primarily concerned – as someone like Timothy Mitchell is, for example, in *Carbon Democracy*¹⁸ – with the actual conditions of climate change and how the human extraction and use of fossil fuels has been implicated in the formation of modern mass democracy (although these facts do make an appearance in the book). Rather, Kelly is interested in how the Anthropocene – as a conceptual frame – calls us to rethink, but not abandon, core liberal democratic concepts. Kelly seeks to engage in this task of rethinking our categories for understanding democratic politics through what he calls “a more radically ‘Anthropocened’ sense of politics” (2). This is an important task, as our ability to *act* politically to respond to climate change is surely connected to our ability to *think* a democratic politics that can respond to climate change.

Kelly’s primary interest in the book is rethinking how we understand democratic temporality. The Anthropocene, in Kelly’s account, reveals the impoverishment of our conceptual vocabulary about political time. While modern representative politics has been governed by a slow and dynamic temporality, climate change “looks like one of those ‘wicked problems’ or ‘hyperobjects’ that are too big for politics to ‘solve’” in this temporal register (15). Within this ordinary temporal horizon, democracy thus appears to be unable to address climate change, and it begins to seem as though “we need a mix of authoritarian and technocratic rule to basically solve problems that we, collectively, are unable to agree upon a course of action about” (16). The problem Kelly identifies here is important: namely, that it can be tempting to think that democracy’s slow temporality leaves it unable to address climate change, and that any meaningful response to climate change appears dependent on turning away in some sense from democracy.

Kelly works to respond to this important problem by beginning to “rewrite” the “terminology” of modern politics (2) in ways that offer us a more complex account of democratic political temporality, wherein climate change appears as something open to being addressed through democratic politics. Kelly argues in particular for conceptualizing connections between different forms of temporality: namely, between democratic time, what he calls “deep time” (the ancient processes of climatic change that have happened over long eras that escape human understanding), and “accelerated time” (the way that these changes have accelerated in unprecedented way in modern capitalism and industrialization). Kelly aims to unpack these connections by showing how accelerated time, for example, is connected with democratic time via steam and coal power, and recently, oil power (23). Similarly, Kelly argues that linking deep time with democratic time reveals the “enormity of the implications of a transformation of natural or geological time within the artificial timescapes of modern politics” (27). Through connecting these temporalities, Kelly argues that we are in a better position to adopt a more “prudential” course of action: namely, “to adopt an historically minded approach to the problem of the Anthropocene as a sort of imaginative work in progress” (28). Kelly carries this approach through the rest of the book, in thinking through ecological inequality (what others might call “environmental injustice”), economic growth, debt, population, and value. Throughout these chapters, Kelly’s governing argument is for avoiding optimistic and pessimistic fatalism in favor of a more complex, prudential course via existing liberal institutions. For example, in thinking about ecological inequalities, Kelly writes: “somewhere between the catastrophism behind the idea of a world with less or more mitigated inequality at different points in time, and the variously optimistic or pessimistic forms of fatalism of those who say there is a cornucopia of natural resources or an inevitable solution to be found through markets and technology, lies the potential for political change through the institutional sites we already possess” – even if this space is “always constrained” (42).

For Kelly, then, the challenge of addressing climate change appears not primarily (or at least *initially*) as one of building political power and radically transforming political and state institutions, but instead as a problem of ideas, of offering a conceptual vocabulary that allows political actors and policy-makers to cognize or understand the problem of climate change in ways that allow them to see that prudential action is possible via existing liberal institutions. This is why, for Kelly, “the

¹⁸ Timothy Mitchell. *Carbon Democracy: Political Power in the Age of Oil* (New York: Verso, 2013).

challenge posed by the Anthropocene for modern politics is as much a radically humanistic one...as it is a scientific or geological one” (2-3). And this challenge reveals the importance, in particular, of historians of political thought, who can put the ideas invoked by politicians and others “into their own original context,” so that they can be “rendered sensible in their own terms” (6).

Kelly is certainly right that climate change is a problem that challenges, and calls us to rethink, our existing conceptual vocabulary. And he is also right that this is an important task for political theorists to take up. We need the tools of literary, historical, and theoretical analysis to help us make sense of climate change, and the kind of politics that might help us meaningfully address it. As Kelly puts it, here, the work of historians of political thought pivots into a project of “worldmaking,” or ways of framing problems and issues in each generation” and “historians of political thought also become contemporary political theorists, transitioning between their concern with a sense of the past understood one way in its own terms, to offer a distancing perspective on how those pasts might become framework for understanding the present” (6).

Yet if Kelly’s book aims to articulate a more complex democratic temporality that helps us avoid fatalistic extremes of optimism and pessimism, and to engage in this important project of “worldmaking,” his book performs its own kind of fatalism that limits the scope of that worldmaking; namely, the fatalistic assumption that a *liberal* democratic order is the best we can hope for, and that our task is to accommodate ourselves to its inevitability, or to be faced with authoritarian or technocratic alternatives. As he puts it toward the end of the book, “[w]hat we seem to require is a view of civil politics as both representative and artificial but simultaneously natural and Anthropocened, and this must mean being open to complexity, uncertainty and doubt, while avoiding the pathologies of fatalism...[S]o far only representative ‘democratic’ forms of politics look like they have the potential to be able to do this, at least in principle” (102). Thus, while Kelly calls us to challenge, in an ongoing way, “the established narratives of a liberal world order,” he still argues that this liberal order “remains the most realistic future for representative political thinking to pursue into the new times of the Anthropocene” (122).

In a time when Left socialist movements are stronger than they have been in generations, challenging the neoliberal status quo, and calling for socialist responses to climate change, one wonders why Kelly does not challenge this fatalistic presumption that liberalism is the most “realistic” option available to us, alongside the other forms of fatalism he critiques? One answer is that Kelly’s argument is constrained by the liberal political tradition to which he looks to offer a more complex understanding of democratic temporality. Kelly’s companions in thinking in the book tend to be other western historians of political thought, or western economic or scientific thinkers. They are mostly (although not all) liberal, mostly (although not all) men, and mostly (although not all) white. For example, Kelly discusses the role of colonialism in the formation of modern capitalism and representative politics in the book, especially via a short detour into the work of Dipesh Chakrabarty. Yet his discussion of political possibility remains firmly anchored in the liberal tradition. This liberal horizon comes clearly into focus when, toward the end of the book, he argues: “If the Anthropocene challenges us to see the connections between capitalism, colonialism and economic value, on the one hand, and the alternative possibilities to them, on the other, we could surely do worse than work to recover the still-often occluded histories of anti-colonial political thought into the wider mainstream of public discussion” (120). Especially in a moment when a growing group of political theorists are doing precisely this work (e.g. Adom Getachew, Neil Roberts, Jane Gordon, Jeanne Morefield, David Temin, among others¹⁹), how should we understand Kelly’s invocation of the “we” in this statement? Kelly’s “we” here seems to be less an existing group of people, and more an interpolation of us into a particular positionality, along with him – a positionality where we are all molded by the liberal tradition, where its lodestars are ours, and where any political traditions or exemplars outside of that tradition appear as helpful supplements, rather than actual alternatives, to that tradition.

¹⁹ For example, see Adom Getachew’s *Worldmaking After Empire* (Chicago: University of Chicago Press, 2019); Neil Roberts’ and Jane Gordon’s edited volume, *Creolizing Rousseau* (Lanham: Rowman & Littlefield, 2014); Jeanne Morefield’s *Empires Without Imperialism* (New York: Oxford University Press, 2014); and David Temin’s “Custer’s Sins: Vine Deloria Jr. and the Politics of Inclusion,” *Political Theory* 46:3 (2018): 357-379.

This assumption of liberal hegemony (and the idea that there is no alternative to it, and the modern capitalist extractive order it presupposes) on which Kelly's book is based has come firmly under pressure from diverse, international Left socialist movements, protests, and intellectuals. These Left movements have done the most to make climate change a central political issue in an Anglophone context and elsewhere, but Kelly's book tends to portray them as marginal. Here, Kelly's book at times underscores the liberal devaluation of the radical democratic politics and social movements that have been and will be most important in forcing action on climate change. In this political context, *Politics and the Anthropocene* mobilizes the tools of political theory to domesticate (and portray as "utopic") the most potent, mobilized, and "realistic" response to climate change on the ground: Left political movements.

Rather than re-entrenching political theory in the liberal tradition, one could instead use the tools of political theory to pursue the project of what Hannah Arendt called "understanding."²⁰ Understanding is the work of trying to understand our present moment "without banisters," that is, without relying on concepts from the western tradition that lead us to misdescribe our current reality, which is firmly broken from the past. It is attractive to turn to those concepts, because they are comfortable and help us think that our world can somehow go back to "normal" or be understood in "normal" terms. Yet sometimes leaving a set of concepts firmly behind, and examining the actual politics of our contemporary moment (the Sunrise movement, Instacart workers striking, Standing Rock, the Black Lives Matter movement, and scholarly work informed by these movements,²¹ among others), will help us better understand our present. We certainly cannot stop thinking about the liberal tradition; it has formed and continues to form our world. But we can stop, and many thinkers have stopped, treating that tradition as the only possible horizon of a democratic future. Indeed, as Kate Aronoff, Alyssa Battistoni, Daniel Aldana Cohen, and Thea Riofrancos argue in *A Planet to Win*,²² there are other democracies possible; they are happening right now in social movements, protests, and organizing, and they promise a much more equitable, free, and democratic future. We political theorists had better pay attention to them.

²⁰ Hannah Arendt. "Understanding and Politics," in *Essays in Understanding*. (New York: Knopf, 2011).

²¹ For example, see Nick Estes' *Our History is the Future: Standing Rock Versus the Dakota Access Pipeline, and the Long Tradition of Indigenous Resistance* (New York: Verso, 2019); and Keeanga Yahmatta Taylor's *From #BlackLivesMatter to Black Liberation* (Chicago: Haymarket Books, 2016).

²² Kate Aronoff, Alyssa Battistoni, Daniel Aldana Cohen, & Thea Riofrancos. *A Planet to Win: Why We Need a Green New Deal*. New York: Verso, 2019.

REVIEW BY THEA RIOFRANCOS, PROVIDENCE COLLEGE

Although the concept of the Anthropocene emerged within “fields of geological, atmospheric, and planetary science,” it is necessarily a *political* concept precisely because it locates “human agency” as the source of transformations in the natural environment (1-2). And since political concepts are “always subject to deep disagreement,” the heated debates over how to periodize the Anthropocene—which are necessarily debates over which ‘human agencies’ were culpable and what is to be done—should come as no surprise.

Rather than taking a firm position in these myriad disputes over periodization, causality, and culpability, in *Politics and the Anthropocene* Duncan Kelly identifies six different points of analytic entry, each of which has the virtue of linking the titular concept to a wide range of pre-existing matters of concern in the history of modern political thought. This analytic move both enlivens those matters and injects them with the urgency of the climate crisis, and as a result reveals the Anthropocene to be a concept of multifaceted political implications, resonances, and genealogies. More directly, Kelly invites readers to explore what it means for our politics to be *Anthropocened*, to be attuned to the transgressions across the porous binaries of modern political thought (nature/culture, natural/artificial, human/nonhuman), and to be aware of the multiple temporalities that collide together in the climate crisis. This latter point is especially helpful in redirecting the periodizing impulse away from specifying precisely when the unfolding climate crisis was first set into motion and towards seeing our pasts, presents, and futures as the overdetermined product of multiple historical trajectories.

Kelly fruitfully identifies three such timescales, though the approach suggests that these are not the only three which are possible. *Deep* time is the plane of the geological and the planetary, the slow-moving processes that are hard to grasp by human consciousness but that are cumulatively shaped by (and shape) human actions. *Democratic* time refers to the arc that began with the interconnected processes of the establishment of representative democracy and the coal-powered industrial revolution, when both the clamor for popular sovereignty and an enormous accumulation of carbon and were unleashed across the Atlantic. Lastly, layered atop and cutting across both of these, *accelerated* time commenced in 1945, with the post-war, oil-fueled economic boom that sent emissions, along with a host of other indicators of environmental devastation, skyrocketing.²³ Kelly’s contribution is worth underscoring. There is no single “origin” of the climate crisis. The planetary emergency is simultaneously gradual and episodic, evincing both continuity and rupture. Rising seas, extreme weather, intensifying drought, and species extinction unfold in the here-and-now, but are patterned by the achievements and the limitations of over two centuries of experiments in representative democracy, and over five centuries of global capitalism’s massive productive capacities and brutal colonial violence. “History is what hurts,” wrote Frederic Jameson—and it is also what is in the air all around us.²⁴

Kelly might have further highlighted the contribution of this analysis by observing that the multiplex temporality of Anthropocened politics goes against the grain of our conventional modernity. As Benedict Anderson, Walter Benjamin, and Charles Taylor have all argued, a core feature of the experience of modernity is “homogenous” time (as opposed to pre-modern worldviews that counterposed the earthly plane of temporal existence to divine, biblical time).²⁵ How does living through a climate crisis upend the temporal structure of modern subjectivity?

²³ See “Welcome to the Anthropocene,” accessed March 26, 2021, <http://www.anthropocene.info/great-acceleration.php>.

²⁴ Frederic Jameson, *The Political Unconscious: Narrative as a Socially Symbolic Act* (Ithaca: Cornell University Press, 1981), 102.

²⁵ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (New York: Verso Books, 2006); Walter Benjamin, “Theses on the Philosophy of History,” in *Illuminations* (New York: Schocken Books, 1968); Charles Taylor, *Modern Social Imaginaries* (Durham: Duke University Press, 2004).

As Kelly notes, not only are the “timings” of the Anthropocene multiple, but its spatial logic is one of, riffing on a core Marxian concept, “combined and uneven development” (26, 31), wherein the global distribution of vulnerability takes the shape of the long-standing inequalities between core and periphery. These “ecological inequalities” are the theme of Chapter 2, although the passages that follow focus less on inequality per se and more on the intersections of ecology and economics, taking us through inter-war debates over economic planning, 1950s-era developments in national statistics, the emergence of ecological economics (which Kelly traces to the 1960s), 1970s energy crisis (a period that is explored more in depth in the next chapter, “Limiting Growth”), and finally traveling back in time to Max Weber’s writings on energy and politics, and W.S. Jevons’ famous discussion of coal and resource use (34-35).²⁶

There is a tension in this chapter and those that follow between attempts at maximal coverage (within the Western canon at least) and depth of inquiry; many of Kelly’s points would benefit from more elaboration. For example, Kelly notes somewhat in passing that Malthusian pessimism and techno-optimism, two seemingly opposed perspectives on modernity, in fact mutually reproduce one another: retrospectively, it can appear that technological innovations arrive “in the nick of time” to save us from the direst predictions (36-37). While Kelly suggests that both fatalisms (41-42) fundamentally miss the *politics* of both immiseration and innovation, he could say much more about these two familiar poles, which have reappeared in force in the climate change debate. In so doing, he might also have drawn on thinkers associated with the Enlightenment²⁷, the Frankfurt School²⁸, Afro-futurism²⁹, and Cyborg feminism³⁰ to interrogate the themes of technology, progress, and rationality in the context of our increasingly crisis-prone planet. Such an engagement would expand the temporal and geographic parameters of the book, which primarily focus on European and Anglo-American thought from the 1960s and 1970s, although Kelly does at times engage with more contemporary thinkers (e.g., with Jason Moore and Raj Patel, 69-70; Bruno Latour, 105-106; Donna Haraway, 107), and theorists from the Global South (for example, the reference to Joan Martínez-Alier, 34).³¹

As mentioned, Chapter 3 focuses on limits to growth, providing a useful overview of the 1970s as a key inflection point for the exhaustion of the post-war economic boom, the attendant reorientation of the global economy under the banner of what we call neoliberalism, and the emergence of the modern environmental movement. Kelly compellingly captures the shift from an exuberant belief in endless growth to a pessimism about planetary limits, a shift that rippled across disciplines from economics to political philosophy and invoked concepts from “steady states” to “ecosophy” (52). He traces the transformation in Western thought through a genealogy linking, among others, John Rawls, Kenneth Boulding, Herman

²⁶ Max Weber, “‘Energetical’ Theories of Culture’ [1909], in Hans Henrik Bruun, Sam Whimster, eds., *Collected Methodological Writings*, trans. Hans Henrik Bruun (London: Routledge, 2013), 252–268; William Stanley Jevons, *The Coal Question; An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal Mines* (London: Macmillan and Co., 1865).

²⁷ Jean-Jacques Rousseau, *Discourse on the Origin of Inequality* (New York: Dover Publications, 2004).

²⁸ Max Horkheimer and Theodor W. Adorno. *Dialectic of Enlightenment* (New York: Continuum, 1982)

²⁹ Mark Dery, “Black to the Future: Interviews with Samuel R. Delany, Greg Tate, and Tricia Rose” *Flame Wars: The Discourse of Cyberculture*. (Durham: Duke University Press, 1994); Alondra Nelson, [“Introduction.”](#) *Social Text* 20: 2 (2002): 1–15.

³⁰ Donna J. Haraway, “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century,” in *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), 149-181

³¹ Jason Moore and Raj Patel, *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet* (Oakland: University of California Press, 2017); Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime* (Medford: Polity Press, 2017); Latour, *Down to Earth: Politics in the New Climatic Regime* (Medford: Polity Press, 2018); Hali Healy, Joan Martínez-Alier, Leah Temper, Mariana Walter, Julien- François Gerber, *Ecological Economics from the Ground Up* (Abingdon: Routledge, 2013).

Daly, and Rachel Carson.³² A submerged theme of this chapter on the limits to growth, and one particular relevant to the book's aims, are the limits to *politics*. Kelly suggests that in our contemporary moment, as compared with the 1970s, is one of constrained political horizons: anything that's not "quantitative easing...filtered through networks of powerful gatekeepers...is derided as rampant utopianism and a threat to stability" (49). Yet while Kelly shows interest in more visionary alternatives, the ones he points to, from degrowth to ecosocialism, are given constrained space and truncated range. Their broader political resonance, and the ways they bring key concerns of political theory to the fore of debate, is perhaps underappreciated.

The limits of the book's own political imagination reemerge in Kelly's reflection on possible policy responses to the climate crisis, which in turn produce a tension between the book's abiding attention to the intersecting themes of debt, injustice, and equity, on the one hand, and the rather technocratic and incremental reforms considered, on the other. Kelly implies the necessity for an austere, belt-tightening response to the crisis, but that this is made difficult by politicians' reluctance to be "[honest] about the pain to follow," where pain seems to refer to "dramatic changes in consumption levels" (64). Likewise, in the closing pages of a wide-ranging chapter on the theme of "Ecological Debts"—which weaves together the work of environmental historian and geographer Jason Moore, scholar, filmmaker, and food justice activist Raj Patel, and geographers and political economists Geoff Mann and Joel Wainwright with key moments in the history of decolonization such as the articulation of a "New International Economic Order" and the "Debt Treaty" penned at the 1992 Rio Summit (68-70, 72-73, 77)—he draws on economist Dieter Helm's proposals for "radically increased" consumption taxes as a way to pay for climate policies as well as shift consumer behavior to less carbon-intensive goods (80-81).³³ Kelly suggests that a "bottom-up" approach such as carbon import duties might nudge firms, and ultimately consumers, toward lower carbon alternatives, while avoiding the political challenges of "top-down" international agreements (80-81). But Kelly returns, here, to the political challenge hinted at in the prior chapter: "democratic politicians have to be elected by consumers" and "consumers are the people who will have to pay, monetarily as well as metaphorically, for their choices." Vote-seeking politicians find themselves in the bind of inflicting pain on their constituents.

This assumes, of course, that "democracy"—or more provocatively, too much democracy—is the main culprit for the dangerous lack of action on climate change. This is a common enough narrative in the media and scholarship, though in recent years both academic research³⁴ and reporting³⁵ have revealed the fossil fuel industry and their political lobbying to be the primary obstacle to both enforceable emissions targets and public investment in renewable energy in the United States. Seen from this angle, it may be the *lack* of democracy, or at least its distortion, that is to blame—rather than the excess of popular sovereignty.³⁶ In the conclusion to Chapter 5, Kelly concurs with the need for "political representatives and corporate agents," rather than individuals acting on their own, to take responsibility for the climate crisis (97-98). But he

³² Kenneth Boulding, "The Shadow of the Stationary State," *Daedalus* 102:4 (1973); Rachel Carson, *Silent Spring* (New York: Houghton Mifflin Books, 1962); Herman Daly, "Ecologies of Scale," interview with Benjamin Kunkel, *New Left Review* 109 (2018): 88; John A. Rawls, *A Theory of Justice* (Cambridge: Harvard University Press, 1971).

³³ Dieter Helm, *The Carbon Crunch* (New Haven: Yale University Press, 2012); Geoff Mann and Joel Wainwright, *Climate Leviathan: A Political Theory of Our Planetary Future* (New York: Verso Books, 2018); Jason Moore and Raj Patel, *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet* (Oakland: University of California Press, 2017),

³⁴ Robert J. Brulle, "The Climate Lobby: A Sectoral analysis of Lobbying Spending on Climate Change in the USA, 2000 to 2016," *Climatic Change* 149 (2018): 289–303.

³⁵ Laville, Sandra "Top Oil Firms Spending Millions Lobbying to Block Climate Change Policies, Says Report," *The Guardian*, March 21, 2019, accessed March 25, 2021, <https://www.theguardian.com/business/2019/mar/22/top-oil-firms-spending-millions-lobbying-to-block-climate-change-policies-says-report>.

³⁶ Battistoni, Alyssa, and Jedediah Britton-Purdy. "After Carbon Democracy," *Dissent* 67:1 (2020): 51-60.

doesn't offer a theory of where the pressure on states and firms would emanate from. Nor does he consider that *collective* actions from below might be the source of not only political leverage to force the hands of powerful elites, but also of innovative ideas of how to tackle climate change in a manner that improves ordinary people's lives rather than subjecting them to yet another dispensation of crushing austerity justified by discourses of personal responsibility.

Of course, this isn't to deny that changes to patterns of consumption are urgently necessary, and that those affected by such changes may well bristle at them and punish the politicians who implement them. The global middle class will need to eat less red meat, transition from individual automobility to mass transit, live in more energy efficient and lower-carbon dwellings, and consume less plastic junk and fast fashion. And these incontrovertible facts do force us to confront the ways in which Anthropocened politics are structured—whether constrained or, more hopefully, enabled—by democratic politics, as Kelly discusses at length in Chapter 1. But, as many other passages in the book make clear, neither responsibility for nor vulnerability to the climate crisis are universal³⁷: the reckless lifestyles of world's top decile are by orders of magnitude more carbon-intensive than those of the bottom 50% of the globe³⁸, and this international inequality reverberates intra-nationally within the Global North, with those the most exposed to capitalism's toxic waste the least culpable for environmental devastation.

In the final pages of the Epilogue, Kelly addresses a key paradigm that aims to integrate such social justice concerns into climate policy: the Green New Deal, a framework with genealogical roots in the Anglo-American world but that resonates with a much broader set of demands articulated by the global climate justice movement and that has recently come to political prominence in the United States via the advocacy of Congresswoman Alexandria Ocasio-Cortez, Senator Bernie Sanders, and of course the Sunrise Movement, among other progressive political figures and social movements. Kelly doesn't explore the Green New Deal in depth (and, somewhat confusingly, suggests that the paradigm might assume a fallacious "climactic determinism," 121). But it would seem a perfect candidate to address the political and ethical dilemmas that Kelly's book has drawn nuanced attention to, as well as integrate the policy goals of both mitigation and adaption in ways that are consonant with overcoming the global system of racial capitalism, a theme Kelly returns to throughout the text. And most importantly, from the vantage point of *Politics and the Anthropocene*, the Green New Deal avoids the "easy pessimism" that pervades discourse around climate change, instead "imagining new futures" and posing a challenge to the "liberal world order" and thus constituting a socially just climate realism for the politics of the Anthropocene (121-122).

³⁷ Ajay Singh Chaudhary, "We're Not in This Together," *The Baffler* 51 (April 2020).

³⁸ See "CO2 and Greenhouse Gas Emissions," *Our World in Data*, accessed March 26, 2021, <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions#cumulative-co2-emissions>.

 RESPONSE BY DUNCAN KELLY, UNIVERSITY OF CAMBRIDGE

One of the few unvarnished pleasures of intellectual work can be found on those rare occasions when a critical community of people emerges who are interested enough to take sustained time and care over the ideas you have worked with in the production of a book or another piece of writing, and to engage with you directly, frankly, but collegially. It is a real delight to thank all those involved in this roundtable. To Isabel Gabel for editing and curating (and for her near limitless patience in the wake of numerous COVID-related and other disruptions and delays), to Etienne Benson, Fredrik Albritton Jonsson, Lida Maxwell, and Thea Riofrancos, for their thinking and their provocation, and to those involved in H-Diplo more broadly for agreeing to the roundtable in the first place. I am deeply grateful, particularly for being reminded once again that in the face of a climate emergency and the various challenges posed by the Anthropocene for modern politics, the power of ideas and the power of words really does matter. For even if there is no agreement on strategies and tactics, being shown the implications of some of those ways of thinking and writing you had taken for granted somehow, is a rare thing. And it goes all the way back to where you start from.

In my little book (it is at least important for me to remember that getting everything into a very tightly constrained word limit was quite a challenge) the first point I felt I had to make was that the Anthropocene can be seen both as a problem of politics, as well as a problem for politics. In my initial accounting, this helped to set up its principal challenge as one of temporality, and this led me to propose a series of putative genealogies of the Anthropocene that overlapped with some possible genealogies of modern political theory. The first, a conception of democratic time, considered the potentially co-constitutive way in which the industrial revolution and the rise of the so-called ‘age of revolutions’ that inaugurated Eur-American models of modern representative government dovetailed. A second temporal perspective, what I called accelerated time, brought ideas of the Anthropocene into the perspective of the Great Acceleration, and a world in which nuclear politics and the threat of environmental fallout run alongside economic growth and the rise of the modern welfare state in similar geographic spaces, and whose tensions played out over two generations in concerns with population, value, and historical indebtedness grounded in imperial histories. A final perspective considered the idea of deep, geological time, and wondered whether the real challenge of the Anthropocene confronting politics in the present and into the future is how to make sense of the impacts and environmental tipping points brought about through geological and climatological events from a very distant past. That the Anthropocene has forced its way into climate politics in just this way is obvious; whether politics, at least as currently practiced in most parts of the world, can engage with these vast temporal perspectives, however, remains a drastic and pressing question. I had thought here that the idea of the Anthropocene as something akin to what François Hartog provocatively termed a ‘regime of historicity’ might help to get this across.³⁹

When writing the book, I thought about the move outlined in recent work by Paul Warde and others too, about the emergence of thinking about *the* environment as a singular, systemic, and causally operative category, in the middle of the twentieth century.⁴⁰ I decided to trace out with reference to historical work on political and economic thought, the sort of conceptual architecture they relate to in that book, as constitutive of such environment thinking. That is, a trust in numbers, a focus on questions of scale, and the politics of expertise and expert judgment. Yet as Etienne Benson suggests, this perhaps should have signalled the need for an altogether clearer-eyed appreciation on my part, that the very emergence of *the* Anthropocene itself was a politicized, expert-driven project with its own political presumptions baked into it from the outset. This is a powerful point, one to which my own criss-crossing genealogies failed properly to do justice. It should have been apparent, had I properly doubled down on the lessons of thinking about a transition from thinking about the environment to thinking about the Anthropocene.

³⁹ François Hartog, *Regimes of Historicity*, trans. S. Brown (New York: Columbia University Press, 2016).

⁴⁰ Paul Warde, Sverker Sörlin, and Libby Warde, *The Environment: A History of the Idea* (Baltimore: Johns Hopkins University Press, 2018); cf. Etienne Benson, *Surroundings: A History of Environments and Environmentalisms* (Chicago: University of Chicago Press, 2019).

When Paul Crutzen and Eugene Stoermer began to coin the term, not only were they offering a claim about the inseparability of anthropogenic climate change and an altered geological and planetary epoch, they did so with their own sense of what that implied for a worldly politics.⁴¹ Had I discussed this, I might have been able to take the measure of Benson's critique, namely that the scientific politics involved in the construction of Crutzen and Stoermer's Anthropocene narrative is in fact complicit with conventional arguments about economic growth, one in which the resources of planet earth are still considered usable and renewable into a potentially limitless future, thanks to the possibilities of geoengineering in particular. After all, as Benson notes, the Anthropocene emerged out of earth system science networks, which were keen to translate the powerful but problematic relational unity presumed by the Gaia hypothesis, into discrete and distinctively testable problems for scientific researchers in well-established disciplines and sub-disciplines. Seen in part as an attempt to retain control and relevance for a wide variety of climatologically-driven spheres of research, at a time when anthropogenic climate change had moved more towards the forefront of public consciousness, the politics of scientific knowledge once again pivoted around a problematic division between society and nature.⁴²

To that extent, Benson is of course right that it might in fact be the case that rather than saving politics from the Anthropocene, it is the Anthropocene that needs to be saved from politics, at least as currently practiced. It need not be that way, of course. Others have suggested that the short-history of scientific decision-making about the terminology of the Anthropocene, signals not only the public acknowledgement (amplified in these pandemic times) of scientific disagreement as political all the way down, but that as well as creating uncertainties about process, it can open up possibilities for creative new analyses. In this way, it is not unlike most other concepts denoting periodisation in the humanities (Renaissance, Reformation, Early-Modern, and so on and so forth).

This might develop into both a Nietzschean thought about the historicity of all political and social concepts, one that is open to reconstruction and re-description, as the politics of the present shifts into different sorts of focus. But it also helps explain the often-easy Eurocentrism of conceptual periodisation in the first place, so much so that Kathryn Yusoff's pursuit of either *A Billion Black Anthropocenes or None*, makes a ready kind of sense.⁴³ In this manner, one reading of the historical emergence of the Anthropocene leads to the conclusion that critique and reconstruction drawn from the history of political and economic ideas might be more than just insufficient, but positively limiting, to thinking about political ideas and practice going forward. Another suggests that politics and history are always in flux, that conceptual argument is a form of 'war' by other means, one that is never fully settled, and which makes reconstruction and critique into not merely propaedeutic, but the basic bread and butter of political ideas themselves.

Nevertheless, perhaps the most difficult thing to imagine changing is the form of politics currently bestriding the world, whose obvious illegitimacy across so many axes is masked by the lustrous spell cast by its central term, democracy. It is a sort of mirror image to the *bon mot* associated with the thought that it seems easier to imagine the end of the world than it does to conceive of the end of capitalism. Indeed, this thought leads neatly into what follows in the forum – a series of interconnecting reflections on the utility of thinking politically about modern forms of representative democratic politics. As Fredrik Albritton Jonsson suggests, if carbon reduction is the basic foundation of any and all planetary future that can sustain human life as we know it, then there exist some pretty serious constraints upon the possible forms of politics going forward. COVID-19 has signalled what some of this might look like in terms of effects, but it has not, obviously, been the result of positive political cum ideological choice to demobilize workforces and massively reduce emissions from air travel

⁴¹ Cf. Paul Crutzen, 'Geology of mankind,' *Nature*, 415/6867 (2002), 23; Will Steffen, Grinevald, J., Crutzen, P., & McNeill, J. 'The Anthropocene-conceptual and historical perspectives,' *Philosophical Transactions of the Royal Society A- Mathematical, Physical and Engineering Sciences*, 369/1938 (2011): 842–867.

⁴² Precisely the sort of point that has long been made by figures like Bruno Latour, *We Have Never Been Modern*, trans. C. Porter (Harlow: Harvester Wheatsheaf, 1993).

⁴³ Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018).

and oil extraction. History might be an unreliable guide to any of the innovation that will necessarily have to follow from any form of politics to purposefully acknowledge the brute facts of these climatic limits. Whether this takes the form of a more gradualist style of ecomodernism, more environmentally friendly forms of rewilding, species protection, and tree-planting (such as the 'Great Green Wall' in the Sahel), or conscious attempts to creatively engage with forms of geo-engineering, before techno-utopianism becomes the only possible and last resort, remains to be seen.

In fact, a pressing theme that connects a worry underlying my own book to the critical engagement with it by colleagues here, is that historically mined assessments of politics might be both the best way that fallible human beings have of gaining any kind of epistemic understanding of the dense iniquities undergirding an ecologically shared planetary future, and simultaneously that our histories of thinking about modern politics already might be radically insufficient for guiding our action into the present. That is a worry for political theory in general, not just forms of liberal political thinking. Yet it remains the case that thinking historically about politics and economics in the shadow of the Anthropocene pushes us to think about the value of concepts and categories across time and space in ways that come with their own locked-in path-dependencies nonetheless, liberal, or otherwise. When set in the shadow of the Anthropocene, experimental, radical, and often local forms of politics that are constructed in response to the drastic demands of climate change in the here and now seem to offer important challenges to the nostrums of both authoritarian and nominally democratic forms of politics. As Jedediah S. Purdy has recently reiterated in his book *This Land is our Land*, the traces of past political conflicts and judgments leave their marks upon both landscape and built environment, compelling us to think about the necessarily local and contextual forms of response that are available to us through primarily national sites of political power, precisely as we try to engage politically with the uneven effects of climate change across global dimensions.⁴⁴ Here, of course, it is not only liberalism which cannot avoid the historicity of its political contours in thinking of future political possibilities, but all forms of political theory that seek to understand and interpret our world as it actually is, and how it has come to be. That was the space I had hoped to open up, if only haltingly, for scholars to think politically about the topic.

In some ways, this sort of problem space also seems to lie behind several of the criticisms that follow in the forum, particularly those by Thea Riofrancos and Lida Maxwell. Nevertheless, I admit to being brought up short with the thought that what *Politics and the Anthropocene* offers is a rehearsing of possible responses to the challenges of the Anthropocene from within the terrain of liberalism alone. I intended to ask what sorts of possibilities were to be found in overlapping histories of modern thinking about politics and economics, through different conceptual questions (to do with growth, population, value, and so forth) in order to show the rather crucial limitations of contemporary (and predominantly liberal) ways of seeing and conceptualising politics and the Anthropocene. To that extent, I was nevertheless also looking to suggest possible futures drawn from the past terrain of democratic and accelerated time primarily. Here, my thinking was governed rather less by the distinctive contours of contemporary radical democratic and socialist responses to climate change on the ground.

I attempted instead to curate an alternative conspectus of the sort of political trajectories that might be both possible and necessary as we move forward from the primacy (in practice, less so in terms of its normative desirability) of the nation-state, as well as an attempt to calibrate how the Anthropocene changes the conceptual and historical terrain upon which contemporary political calculations could and should be interpreted. I see now, though, that without spelling out in more detail the weaknesses of the nation-state model itself for thinking about political possibility in the age of the Anthropocene, how my own thinking might be seen as working within the terrain of liberalism. I was not seeking somehow to re-describe or domesticate radicalism into utopianism, and to validate some sort of modern liberalism as the best kind of *bien-pensant* political theory of the sage and realistic. Quite the opposite. I wanted to show exactly how difficult the task of political and conceptual reconstruction is in the face of the established narratives about value, growth, population, and time, and that the resources of anti-colonial and anti-statist political theory, that for too long have been overshadowed in the Eur-American

⁴⁴ Jedediah Purdy, *This Land is our Land* (Princeton: Princeton University Press, 2020).

worlds of political theory and practice, might show the way towards alternative futures by transforming the histories of political and economic ideas that mainstream political theory operates with.

Given the realities of the climate emergency, these distinctions might seem rather *too* academic. But a central point often made by scholars of the subject bears repeating here, that while anthropogenic climate change might be incorporated within the architecture of the Anthropocene, the Anthropocene is not at all the same as climate change. They operate across different temporalities – Julia Nordblad’s newly published analysis of these divergences, in *Critical Inquiry*, is extremely helpful here.⁴⁵ They also operate across different scales, as both environmental historians and scholars of planetary futures (and pasts) have suggested.⁴⁶ So, while of course it is true that many different possibilities for thinking about alternative forms of politics exist, both historically and presently, in contrast to Eur-American liberalism, I don’t really see how the book itself can be linked with the sort of panjandrums of liberalism that are implied in some of the criticism of my inattention to radical politics concerned with climate change in the present. Rather, my suggestion was merely that representative and institutionalised complexity within modern democratic nation states seems the most likely space through which modern politics will confront the climate emergency in the age of the Anthropocene in the broadest possible sense.

At the same time, as writers like John Dunn have long signalled, such a model casts a spell which retains the aura, but denuded of all practical power, of democracy understood as the popular sovereignty of everyday citizens.⁴⁷ As well as breaking the spell of this kind of democracy in favour of alternative models of democratic politics through alternative histories as well as contemporary practices, such as those canvassed in Maxwell’s essay, what the Anthropocene might actually point towards again is the need to break the spell of the nation-state as the best (or only) possible shell for democratic politics in the first place. Or at least, the nation-state as currently configured with reference to conventional modes or models of sovereignty. The Leninist implication here is not forced, because it was precisely the end point of my book to suggest that the early twentieth century politics and history of anti-colonialism and anti-imperialism offers many such arguments about precisely the need to reject the nation-state model with its exclusionary political and economic solidarities, in favour of alternative federal and regional structures, different normative value-claims, and new commitments to forms of internationalism grounded in something approaching a diasporic commonwealth tradition. What Riofrancos then re-describes as the “multiplex temporality of Anthropocened politics” does indeed cut against the spatial logic of political responses that remain wedded to old-world nation-state models and the lineaments of their democracy, and that more and better (if shorn of its corporate cheerleaders and lobbyists) democracy might be what is required to think through solidaristic climate politics in the age of the Anthropocene. But then this is also to end up with a mixture of anti-imperial political thought with a sort of experimental local political practices that could provide the resources for thinking about what Purdy calls a ‘new commonwealth,’ and which he, alongside Alyssa Battistoni in the essay that Riofrancos cites, pictures as the pursuit of a world after carbon democracy.

It is true that I did not really engage with where the pressure against entrenched political and corporate power might come from, or that it might be political action on the part of those who are routinely excluded, marginalized, or simply willing to mobilize and act, who can and do pressurise these elites and who will aim to hold them more accountable. But this is another version of the claim that the solution to the problems of democracy (as configured in my book) is for more democracy. I could again plead reasons of space (a 50,000-word limit is not very forgiving when one is asked to include more detail on all the aspects the work tried to cover), but I can now see the intervention as a sort of ground-clearing, configured

⁴⁵ Julia Nordblad, “On the Difference between Anthropocene and Climate Change Temporalities,” *Critical Inquiry* 47 (2021): 328-348.

⁴⁶ See, for example, William Cronon, *Nature’s Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1992); Dipesh Chakrabarty, *The Climate of History in a Planetary Age* (Chicago: Chicago University Press, 2021); Jedediah Purdy, *After Nature: A Politics for the Anthropocene* (Cambridge: Harvard University Press, 2018).

⁴⁷ See most recently, John Dunn, *Breaking Democracy’s Spell* (New Haven: Yale University Press, 2014).

by my own capabilities and limitations of course, about what the Anthropocene suggests to historically minded political theorists who want to think about the challenges posed to mainstream positions in the field by the Anthropocene. As Riofrancos notes, asking what it might mean for politics to be Anthropocened is to be “attuned to the transgressions in the porous binaries of modern political thought,” and to pay attention to the multiple and overlapping temporalities that “collide in the climate crisis” and the Anthropocene. In this, I hoped that rather than being complicit, intentionally or otherwise, with the idea that the only route through political theory in the Anthropocene was a rather muted and constrained liberalism that presents itself as solidly (stolidly, even) realistic and pragmatic, my project was to show that Anthropocening politics suggests just how improbable it will be for liberal political theory, as conventionally constituted, to properly take the measure of the challenge in the first place.

Fully answering the criticisms offered by the discussants here would necessitate at least two other books of similar length to this one, if not longer, because one is directly historical, and one would be strategic. The former might take things back to the global cataclysm of the First World War, seeking out the roots of a thorough critique of racial capitalism and imperialism in a combined and unevenly configured global network of trade and power, showing the imbrications of extraction, exclusion, and ecological devastation that led to the victory, following two centuries of near permanent crisis, of the modern model of the democratic nation state as the most powerful site of politics in the twentieth century. This outwardly democratic or self-consciously democratizing state-form is precisely what made possible the Great Acceleration, scarring the global landscape both literally and memorially, in ways that remain profoundly consequential. And of course, the language of a ‘war’ for the planet, particularly in this time of a ‘war’ against the coronavirus pandemic, pushes us to think across these timelines quite explicitly. New research has begun to connect environmental histories of the First World War and their background, with some reference to the complex scalar politics of the Anthropocene.⁴⁸ The latter, more strategic and tactical evaluation, however, would have to focus on the resonance of current debates about a Green New Deal, constellations of utopianism, and the multiple sites of resistance and politics already being practised and experiments in the world today in the long struggle for environmental justice, across different sorts of locations and scales.

Maxwell is right to say that I see all this unfolding as a battle of ideas first, about political terminologies, and therefore about political understanding. To that extent, this exchange has been singularly clarifying for me, in getting straight about where my own thinking still seems to be too much stuck within certain intellectual horizons. But I wrote the book in the hope that the ‘we’ involved in this conversation is the ‘we’ of political theorists, intellectual historians, and anyone else really who is open to thinking creatively about the challenges of the Anthropocene for politics and economics. I think I can see now more obviously where future work on my part could be done, and I am very grateful for that.

⁴⁸ For example, Richard P. Tucker, Tait Keller, J. R. McNeill and Martin Schmid, eds., *Environmental Histories of the First World War* (New York: Cambridge University Press, 2018); and Deborah R. Coen, *Climate in Motion* (Chicago: University of Chicago Press, 2019).