Climate Fiction, Climate Theory: Decolonising Imaginations of Global Futures

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Abstract
The international politics of climate change invokes the imagination of various potential global futures, ranging from techno-optimist visions of ecological modernisation to apocalyptic nightmares of climate chaos. This article argues that most dominant framings of the future in climate policy imaginaries tend to be depoliticised and linear visions of universal, homogenous time, with little spatio-temporal or ecological plurality. This article aims to convince IR scholars of climate politics that Africanfuturist climate fiction novels can contribute to the decolonisation of climate politics through radically different socio-climatic imaginaries to those that dominate mainstream imaginations of climate futures. The Africanfuturist climate fiction novels of authors such as Nnedi Okorafor, Lauren Beukes and Doris Lessing imagine different spaces, temporalities, ecologies and politics. Reading them as climate theory, they offer the possibility of a more decolonised climate politics, in which issues of land and climate justice, loss and damage, extractive political economies and the racialised and gendered violence of capitalism are central.

Keywords
climate change, science fiction, postcolonial theory

Introduction
Climate change is altering how the future is imagined. This presents a dual challenge to the discipline of International Relations (IR), in which climate change remains a somewhat peripheral albeit growing concern, and explicit conceptual interrogations of
imagined futures are limited.

1 In this article I argue, first, that ‘future imaginaries’ are profoundly political and are central to the disciplinary concerns of IR. Second, that contemporary climate politics is restricted by relatively depoliticised and linear future imaginaries. Third, that climate fiction, and particularly Africanfuturist climate fiction, offers critical theorists important resources in challenging dominant, Eurocentric and restrictive ways of imagining the future. The implications of reading Africanfuturist climate fiction as climate theory include the possibility of a more decolonised climate politics, one that focuses on issues of land and climate justice, loss and damage, extractive political economies and the racialised and gendered violence of contemporary capitalism.

This article aims to convince IR scholars of climate politics that Africanfuturist climate fiction can contribute to the decolonisation of climate politics through radically different socio-climatic imaginaries to those that dominate mainstream imaginations of climate futures. In so doing it builds on and contributes to four bodies of IR scholarship: theorisations of temporality and future imaginaries of world politics; research on the cultural and discursive politics of climate change; the relationship between science fiction and international politics; and postcolonial theorising of past, present and future worlds. The article is structured according to these four main contributions.

First, renewed interest in the international politics of temporality, time and timing has drawn attention to how political interventions and worldviews construct different representations of past and future and the relationship between them, with very different implications for the possibilities of agency and political interventions in ‘the present’. As cultural theorist Kodwo Eshun puts it, power ‘functions through the envisioning, management, and delivery of reliable futures’.2 Global futures are produced, manipulated,
subverted and denied through forecasts, models, scenarios, pathways, financial mechanisms, security algorithms, films and novels, and ‘future visions have powerful consequences’. The questions of whose futures are envisioned and whose are excluded are inescapably political, and timing ‘always works for someone and some purpose’. As Granjou and Salazar point out, ‘too often, ideas about the meaning of “the future” and the possibilities for shaping the “not yet” are not globally shared’. Non-western temporalities, in particular, have ‘too often been pushed to the fringes’. In this article I contribute to IR debates on time, temporality and the future by showing how the concept of the ‘future imaginary’ is a key ‘temporal technology’ in international politics, as well by showing how Africanfuturist climate literature introduces more plural and radical temporalities.

Second, this article draws on and contributes to the extensive literature on the cultural political economy of climate change. In particular, this article explores how climate
futures are imagined, made governable and resisted, and explores ways of diversifying and pluralising dominant climate imaginaries. The principal contribution here is to show how dominant future climate imaginaries – as represented in scientific scenarios, policy visions and non-fiction media – are largely depoliticised and linear visions of universal, homogenous time, with little spatio-temporal or ecological plurality.

Third, this article draws on and contributes to research on the relationship between science fiction and international politics. The study of novels and cultural texts has become much more common in IR after the poststructuralist, postcolonial and feminist ‘turns’ of the 1990s. The study of science fiction in Politics and International Relations encompasses research that explores the circulation of popular culture in political processes like social movement activism and policy-making, audience reception of the political implications of popular culture texts, and more theoretical or interpretative accounts of what culture reveals about contemporary worldviews.

8. Laura Pereira et al., ‘Building Capacities for Transformative Change towards Sustainability: Imagination in Intergovernmental Science-Policy Scenario Processes’, Elementa: Science of the Anthropocene 7, no. 35 (2019): 1–19; Michele-Lee Moore and Manjana Milkoreit, ‘Imagination and Transformations to Sustainable and Just Futures’, Elementa: Science of the Anthropocene 8, no. 1 (2020): 1–17; Mitchell and Chaudhury, ‘Worldling’; Joost M. Vervoort, et al., ‘Scenarios and the Art of Worldmaking’, Futures 74 (2015): 63.

9. Jenny Edkins, ‘Novel Writing in International Relations: Openings for a Creative Practice’, Security Dialogue 44, no. 4 (2013): 281–97; Kyle Grayson, Matt Davies and Simon Philpott, ‘Pop Goes IR? Researching the Popular Culture – World Politics Continuum’, Politics 29, no. 3 (2009): 155–63; Carolina Moulin, ‘Narrative’, in Critical Imaginations in International Relations, eds. Aoileann Ní Murchú and Reiko Shindo (Abingdon: Routledge, 2016), 136–52; Patomäki, ‘On the Complexities of Time’; Michael J. Shapiro, The Time of the City: Politics, Philosophy and Genre (Abingdon: Routledge, 2010); Jutta Weldes, ‘Going Cultural: Star Trek, State Action, and Popular Culture’, Millennium: Journal of International Studies 28, no. 1 (1999): 117–34; Jutta Weldes, ‘Globalisation is Science Fiction’, Millennium: Journal of International Studies 30, no. 3 (2001): 647–67; Julia Welland, ‘Joy and War: Reading Pleasure in Wartime Experiences’, Review of International Studies 44, no. 3 (2018): 438–55.

10. Charli Carpenter, ‘Rethinking the Political/-Science-/Fiction Nexus: Global Policy Making and the Campaign to Stop Killer Robots’, Perspectives on Politics 14, no. 1 (2016): 53–69; Max Haiven and Alex Khasnabish, The Radical Imagination: Social Movement Research in the Age of Austerity (London: Zed Books, 2014); Walidah Imarisha and Adrienne Maree Brown, eds., Octavia’s Brood: Science Fiction Stories from Social Justice Movements
understood as discursive formations that put in motion a series of political claims about international relations, such as who can act in the international system, in what conditions and under what circumstances’. In this article I contribute to this literature by arguing that climate fiction novels can be read as a form of climate theory that uses techniques of estrangement and defamiliarisation in order not to communicate climate science more widely or introduce new technological ‘solutions’, but rather to strengthen the potential to see the world in radically different ways, from radically different perspectives.

Fourth, and finally, this article draws on and contributes to postcolonial theorising of past, present and future worlds. Decolonising imaginations of the future is a central task of radical politics, as defined by postcolonial theorists like Frantz Fanon, Aimé Césaire and Steve Biko. Imaginative ‘articulations of the African Anthropocene’ can play a central role in this task, particularly because they have been so marginalised in mainstream discussions about climate change and the Anthropocene. In this article, I explore how to read Africanfuturist novels by authors such as Nnedi Okorafor, Lauren Beukes, and Doris Lessing as articulations of critical climate theory, particularly focusing on how they challenge spatial, temporal, ecological and political assumptions about climate futures. These texts are read alongside the work of the political philosopher Achille Mbembe, who amplifies the voices that emerge from the novels to emphasise the centrality of the trauma of slavery, the plantation and colonialism in the production of contemporary climate change. For Mbembe, the ‘Becoming Black of the World’ describes how carboniferous capitalism, that was always predicated on slavery and alienation as forms of power and energy, is profoundly reshaping subjectivity in the global present. 

(Oakland: AK Press, 2015); Milkoreit, ‘The Promise of Climate Fiction’; Louiza Odysseos, ‘Stolen Life’s Poetic Revolt’, *Millennium: Journal of International Studies* 47, no. 3 (2019): 341–72; Patomäki, ‘On the Complexities of Time’.

11. Moulin, ‘Narrative’, 138.

12. See also Carl Death, ‘Africanfuturist Socio-Climatic Imaginaries and Nnedi Okorafor’s Wild Necropolitics’, *Antipode*, online first (2021), https://doi.org/10.1111/anti.12764

13. See also Achille Mbembe, *Necropolitics*, trans. Steven Corcoran (Durham: Duke University Press, 2019); Mitchell and Chaudhury, ‘Worlding’; Odysseos, ‘Stolen Life’s Poetic Revolt’; Meera Sabaratnam, ‘IR in Dialogue . . . but Can We Change the Subjects? A Typology of Decolonising Strategies for the Study of World Politics’, *Millennium: Journal of International Studies* 39, no. 3 (2011): 781–803; Kyle P. Whyte, ‘Indigenous Science (Fiction) for the Anthropocene: Ancestral Dystopias and Fantasies of Climate Change Crises’, *Environment and Planning E: Nature and Space* 1, no. 1–2 (2018): 224–42; Ytasha Womack, *Afrofuturism: The World of Black Sci-Fi and Fantasy Culture* (Chicago: Lawrence Hill Books, 2013).

14. Matthew Omelsky, “‘After the End Times’: Postcrisis African Science Fiction’, *The Cambridge Journal of Postcolonial Literary Inquiry* 1, no. 1 (2014): 49. See also Gergan et al., ‘Earth beyond Repair’; Haraway, *Staying with the Trouble*; Mitchell and Chaudhury, ‘Worlding’; Rothe, ‘Governing the End Times?’; Whyte, ‘Indigenous Science (Fiction)’; Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018).

15. Achille Mbembe, *Critique of Black Reason*, trans. Laurent Dubois (Durham: Duke University Press, 2017).
article I seek to demonstrate the potential of Africanfuturist climate fiction to strengthen and enrich postcolonial interpretations of global politics, leading to the possibility of a more decolonised climate politics, which puts questions of land and climate justice, loss and damage, extractive political economies and the racialised and gendered violence of contemporary capitalism at the centre of the narrative.

**Imagined Futures and Future Imaginaries**

Climate change conjures up any number of imagined futures. There is an immediate common-sense clarity to the term ‘imagined futures’: it surely refers to what we imagine the future to look like. It must be imagined, because by definition the future hasn’t happened yet and cannot be known or predicted with any confidence. However, the issue is somewhat more complex than this. There are plenty of things that cannot be seen or touched – and thus which must be imagined – that social scientists nevertheless agree are ‘real’. The state, national communities, culture, gender and race are all ‘imagined’ in the sense that they are mental constructs. Famously, for Benedict Anderson, nations are imagined political communities because although ‘the members of even the smallest nation will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion’. Furthermore, the question of ‘when is the future?’ is a deceptively difficult one. How long is ‘the present’? A second? A day? An election cycle? A historical epoch, like the ‘post-9/11’ era? A geological epoch, like the Anthropocene? Given this, a more precise understanding of ‘imagined futures’ is necessary to appreciate the centrality of future imaginaries as a key temporal technology in international politics.

The imagination is often defined in terms of an individual capacity to ‘generate ideas in the mind about things that cannot be perceived with the senses’. Crucially, just because something cannot be perceived with the senses does not mean it is not (potentially) real or significant. Imagination also draws on our perceptions of and embeddness in our physical and social environments. Imagination is not a quasi-mystical, vital spark; rather, like discourses and worldviews, ‘[i]magination is situated; our imaginary horizons are affected by the positioning of our gaze’. Whilst the term ‘imagination’ is often misleadingly used to imply individual mental inspiration, there is an important collective and social dimension to imagination. As Moore and Milkoreit insist, ‘your imagination is never simply your own’. For this reason many social scientists prefer to use the term ‘imaginaris’ to refer to socially shared and (to some degree) institutionally supported or

16. Barbara Adam and Chris Groves, *Future Matters: Action, Knowledge, Ethics* (Leiden: Brill, 2007); Urry, *What is the Future?*
17. Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 1991), 6.
18. Moore and Milkoreit, ‘Imagination and Transformations’, 2.
19. Marcel Stoetzler and Nira Yuval-Davis, ‘Standpoint Theory, Situated Knowledge and the Situated Imagination’, *Feminist Theory* 3, no. 3 (2002): 327.
20. Moore and Milkoreit, ‘Imagination and Transformations’, 3.
stabilised mental pictures. Imaginaries are how people ‘imagine’ their social surroundings, ‘carried in images, stories, and legends’; or the ‘interdependent cognitive and social processes that create representations of present and possible future states of the world’.

There has been a resurgence of the use of the term imaginary in social science and IR since the 2010s. Whereas for authors like Charles Taylor social imaginaries are a ‘common understanding that makes possible common practices and a widely shared sense of legitimacy’, shared amongst ‘society as a whole’, others have drawn attention to the interrelationships between multiple, often conflicting, social imaginaries within and across societies. This emphasis on the diversity and instability of relations between conflicting imaginaries encourages a recognition of the inherently radical capacity of the imagination: it is always possible to picture things otherwise and to envisage alternative social relations.

Climate change is a good example of an imaginary that has moved from being minor and marginal (in the late 20th century) to increasingly prominent in contemporary international politics. In this article I build upon Manjana Milkoreit’s definition of ‘socio-climatic imaginaries . . . as collectively held visions of the future, both desirable and undesirable, that are informed by [climate change] science and can support deliberation and decision-making in the present’.

This distinction between ‘the future’ and ‘the present’ also requires further unpacking. Importantly, the future means something more than ‘after now’ defined in chronological terms. The future is different to the present in qualitatively significant ways. As Heikki Patomäki explains, the ‘duration of the present depends on the event or context which is happening. While different presents interact, some of them may last only a few minutes,

21. Chiara Bottici and Benoît Challand, ‘Introduction’, in The Politics of Imagination, eds Chiara Bottici and Benoît Challand (Abingdon: Birkbeck Law Press, 2011), 1–15; Jasanoff and Kim, Dreamscapes of Modernity; Charles Taylor, ‘Modern Social Imaginaries’, Public Culture 14, no. 1 (2002): 91–124.
22. Taylor, ‘Modern Social Imaginaries’, 106.
23. Moore and Milkoreit, ‘Imagination and Transformations’, 12.
24. Suzi Adams, Jeremy Smith and Ingerid Straume, ‘Political Imaginaries in Question’, Critical Horizons 13, no. 1 (2012): 5–11; Haiven and Khasnabish, The Radical Imagination; Jasanoff and Kim, Dreamscapes of Modernity; Levy and Spicer, ‘Contested Imaginaries’; Luke, ‘The Climate Change Imaginary’; Milkoreit, ‘Imaginary Politics’; Mitchell and Chaudhury, ‘Worlding’; Paterson, ‘The Sociological Imagination’; Vervoort et al., ‘Scenarios and the Art of Worldmaking’.
25. Taylor, ‘Modern Social Imaginaries’, 106.
26. Jasanoff and Kim, Dreamscapes of Modernity.
27. Bottici and Challand, ‘Introduction’, 3; Haiven and Khasnabish, The Radical Imagination, 3–4; Imarisha and Brown, Octavia’s Brood; Amy Kind and Peter Kung, ‘Introduction: The Puzzle of Imaginative Use’, in Knowledge through Imagination, eds. Amy Kind and Peter Kung (Oxford: Oxford University Press, 2016), 1–38; Stoetzel and Yuval-Davis, ‘Standpoint Theory’.
28. Green and Hale, ‘Reversing the Marginalization’; Paterson, ‘The Sociological Imagination’.
29. Milkoreit, ‘Imaginary Politics’, 14.
30. Hutchings, Time and World Politics, 7; Lundborg, ‘Time’; Urry, What is the Future?
others up to millions of years’. Socio-climatic imaginaries are thus ideas about a set of future conditions (environmental, social, political, economic and/or technological) that are different to the present in significant ways. Moreover, political futures can be imagined as open or closed, empty or full, linear, cyclical or spiralling, progressive or regressive, utopian or dystopian, singular or plural, normal or exceptional, universal or hetero-temporal. The concern in this article, however, is not with ‘the future’ per se, but rather with present attempts to imagine the future, and to situate those imaginaries in more precise spatio-temporal contexts. Adam and Groves use the term ‘present futures’ to describe ‘futures that are imagined, planned, projected, and produced in and for the present’. Crucially, dominant forms of (present) future climate imaginaries are realised through what I term ‘temporal technologies’, in the sense of rhetorical or discursive statements that include a particular imagination of the future within a broader worldview. As the next section shows, dominant future imaginaries work through temporal technologies including scientific models, policy visions, and non-fictional media in journalism and documentaries. These have both influenced, and been influenced by, scientific, elite and popular forms of climate politics.

**Dominant Future Climate Imaginaries and their Temporal Technologies**

Climate change as a scientific, political and economic problem emerged in the 1980s as one fundamentally concerned with the future. The central claim of early climate change research was that if present rates of greenhouse gas build-up continued then future climates would be very different to the past. As such, images of the future abound in climate change discourse, ranging from apocalyptic visions of a ‘drowned earth’ and a vengeful nature, to more optimistic narratives of eco-modernisation and socio-technical transitions to a post-carbon economy. These future imaginaries work through powerful temporal technologies such as scientific models, policy visions, and non-fictional media in journalism and documentaries. This section briefly surveys the dominant future imaginaries of climate change, and their links to movements such as Fridays for the Future and Extinction Rebellion, before arguing that they share a tendency to imagine the future in depoliticised and linear visions of universal, homogenous time, with little spatio-temporal or ecological plurality.

31. Patomäki, ‘On the Complexities of Time’, 341.
32. Yusoff and Gabrys, ‘Climate Change and the Imagination’, 522.
33. Anderson, *Imagined Communities*, 22–7; Andrew R. Hom, ‘Silent Order: The Temporal Turn in Critical International Relations’, *Millennium: Journal of International Studies* 46, no. 3 (2018): 303–30; Hulme, ‘Cosmopolitan Climates’, 271; Hutchings, *Time and World Politics*; Shapiro, *The Time of the City*; Solomon, ‘Time and Subjectivity’; Whyte, ‘Indigenous Science (Fiction)’.
34. Adam and Groves, *Future Matters*, 28.
35. Hulme, ‘Cosmopolitan Climates’, 270; Pulver and VanDeveer, ‘“Thinking About Tomorrows”’.
36. Moore and Milkoreit, ‘Imagination and Transformations’; Yusoff and Gabrys, ‘Climate Change and the Imagination’, 517.
37. Haraway, *Staying with the Trouble*; Hom, ‘Timing is Everything’, 70; Jasanoff, ‘A New Climate for Society’; Yusoff and Gabrys, ‘Climate Change and the Imagination’, 522.
First, scientific models of climate-changed futures are a prominent temporal technology mobilised in climate science.\(^{38}\) Climate science has developed and refined a series of increasingly sophisticated models, from early ‘Energy Balance Models’ to ‘Global Climate Models’ (which model the physics of the climate), ‘Earth System Models’ (which add the carbon cycle or nitrogen cycle, etc), and ‘Integrated Assessment Models’ (which add in human factors such as population growth or economic activity). These models seek to extrapolate from past trends in the light of present conditions to predict future outcomes within a range of confidence (e.g. the likelihood of certain temperature rises by 2100). The Intergovernmental Panel on Climate Change (IPCC) has relied on these models to explore the consequences of a range of scenarios in which global emission pathways develop in different ways. A scenario is ‘a coherent, internally consistent, and plausible description of a possible future state of the world’.\(^{39}\) Climate scenarios include models of atmospheric and biophysical changes, as well as shared socioeconomic pathways (SSPs) to describe pathways of future societal development.\(^{40}\) The sheer complexity of interacting physical, ecological and social systems means that these models inevitably have to vastly simplify ‘real world’ processes in order to say anything meaningful about the future. Typical simplifications include assumptions about efficiency and cost-benefit analysis, and relatively homogenous and linear conceptions of time and space.\(^{41}\)

Second, politicians and policymakers frequently articulate political visions of future climates intended to either alarm, reassure, or inspire public audiences.\(^{42}\) Such visions are also very common in the corporate world, and indeed their origin as a specific type of temporal technology can be traced to the work of Herman Kahn at the RAND Corporation in the 1950s where ‘stories’ about the future were prepared for the US military.\(^{43}\) These temporal technologies often seek to reduce an open, unknowable and unpredictable future to a set of options that can be weighed and chosen, in much the same way as a rational consumer might choose a product. Accordingly, traders in stock-market futures, insurance, annuities, risk and resilience industries are all able to bank on these techniques of rendering the future calculable.\(^{44}\)
Contemporary climate governance brings together scientific scenarios with political visions. The 2015 Paris Agreement under the UN Framework Convention on Climate Change (UNFCCC) requires all countries to produce long-term low greenhouse gas emission development strategies, and the UN system has promoted a ‘Pathways 2050’ platform for assisting countries to develop ‘robust visions of the low-carbon futures’.45 As a result of the Paris Agreement, ‘mechanisms and processes by which to imagine and govern diverse climate futures are increasingly coming to the forefront of sustainability debates and practice’.46 The European Commission, for example, has published its vision of transition to ‘a modern, competitive, prosperous and climate neutral economy’ by 2050, referring to eight different scenarios each of which are ‘socially-fair’ and ‘cost-efficient’.47

Of course, political planning for the future is hardly new. However, the temporal technologies of scenarios, pathways, and visions have managed to avoid the negative connotations of older traditions of planning associated with command-and-control economies.48 This has been achieved through either explicitly pro-capitalist visions in which market mechanisms, individual freedoms and capital accumulation are central to the narrative storyline,49 or through attempts to present an ostensibly objective and neutral tool for future planning that avoids ‘politics’ and ideology.50 Thus, as Hulme and Dessai conclude, policy debates about the future tend to ‘revolve around technical details’ rather ‘different ways of seeing world futures’.51 This is echoed by Paterson, who concludes that, ‘[f]or the most part, the imaginations collapse into techno-economic scenarios, working out where the radical emissions reductions will come from, which technologies will enable the appropriate breakthroughs’.52

An important third temporal technology is the creation of socio-climatic imaginaries in non-fictional media such as journalism and documentaries. These media technologies seek to render scientific and political future imaginaries more accessible by using storytelling and narrative devices.53 In so doing of course they interact with and reshape scientific and politics imaginaries, to such a degree that they must be seen as important temporal technologies. For example, the speeches, Powerpoint slides and films of Al Gore, who won the Nobel Peace Prize in 2007 alongside the IPCC, have proved

45. Siddharth Pathak, ‘Why Develop 2050 Pathways?’ UNFCCC 2050 Pathways Platform, 8 July 2017, p. 3. Available at: https://www.2050pathways.org/resources/develop-2050-pathways/. Last accessed December 2, 2021.
46. Joost Vervoort and Aarti Gupta, ‘Anticipating Climate Futures in a 1.5°C Era: The Link between Foresight and Governance’, Current Opinion in Environmental Sustainability 31 (2018): 104. See also Paterson, ‘The Sociological Imagination’.
47. European Commission, ‘A Clean Planet for All: A European Strategic Long-term Vision for a Prosperous, Modern, Competitive and Climate Neutral Economy’, 28 November 2018, pp. 3–7. Available at: https://ec.europa.eu/clima/policies/strategies/2050_en. Last accessed December 3, 2021.
48. Urry, What is the Future? 15.
49. European Commission, ‘A Clean Planet for All’.
50. Pathak, ‘Why Develop 2050 Pathways?’.
51. Hulme and Dessai, ‘Negotiating Future Climates’, 67.
52. Paterson, ‘The Sociological Imagination’, 21.
53. Milkoreit, ‘The Promise of Climate Fiction’.
extraordinarily influential. Gore’s documentary film *An Inconvenient Truth* (2006) was a critical and commercial success, and mobilised an aesthetic of ‘a nearly sublime sense of terror’, justifying ‘a planetarian scale of response/rule/regulation, and an ethics of individual and collective action for “doing something” about “it”’. In addition to countless other prominent textual non-fiction climate imaginaries – by Naomi Klein, Arundhati Roy, Paul Kingsnorth, Rebecca Solnit, Greta Thunberg, Mark Lynas, Bill McKibben, Elizabeth Kolbert, James Hansen, David Wallace-Wells, Bjorn Lomborg and many others – there are now a wide range of climate change film documentaries, many of which tell quite familiar stories that ‘bear witness to a probable catastrophic future that has not yet taken place . . . In such films, we encounter what must never take place’. These documentary socio-climatic imaginaries often draw on scientific models and create space and demand for political visions offering alternative solutions to a future of climate chaos.

These temporal technologies have both influenced, and been influenced by, recent climate activist movements, such as Fridays for the Future and Extinction Rebellion. Indeed, social movements are themselves inherently concerned with altering the future through taking action in the present, and the trope of saving ‘future generations’ is particularly salient for environmental movements. At the Katowice Climate Summit in 2018 Greta Thunberg, for example, famously accused world leaders of ‘stealing the future’ of younger and future generations. Whilst, on the one hand, this shows how ‘the future’ can be politically contested and is an object of social mobilisation, on the other hand the ways that movements like Fridays for the Future and Extinction Rebellion tend to invoke the future are often quite narrow and limited. More generally, although the substance of the climate imaginaries surveyed above varies considerably – from ecological apocalypse to capitalist dystopia or techno-optimist utopia – these dominant socio-climatic imaginaries tend to be global, linear, and anthropocentric. These spatial, temporal and ecological features mean that much of the radical political potential of imagining alternative climate futures is ameliorated, producing universal, homogenous storylines in which politics becomes a ‘heroic project’ to intervene ‘just in time’ and seize the day. Both elite and activist imaginaries tend to rely on linear constructions of the future, in that the predominant framing is in terms of assessing the options available ‘now’ to alter the projected future of 2050 or 2100. This closes down a sense of heterotopic time, in which multiple timescales and trajectories exist simultaneously in a ‘mutual contamination of “nows”’. Elite imaginaries also tend to be global, or universal, in that

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54. Luke, ‘The Climate Change Imaginary’, 284–86.
55. Kaplan, *Climate Trauma*, 71.
56. Haiven and Khasnabish, *The Radical Imagination*.
57. John Sutter and Lawrence Davidson, ‘Teen tells Climate Negotiators they Aren’t Mature Enough’, CNN, 17 December 2018. Available at: https://edition.cnn.com/2018/12/16/world/greta-thunberg-cop24/index.html. Last accessed December 3, 2021.
58. Hutchings, *Time and World Politics*, 23; Rothe, ‘Governing the End Times?’
59. Hutchings, *Time and World Politics*, 166. See also Lundborg, ‘Time’; Miriam Pahl, ‘Time, Progress, and Multidirectionality in Nnedi Okorafor’s Who Fears Death’, *Research in African Literatures* 49, no. 3 (2018): 207–22; Patomäki, ‘On the Complexities of Time’.
there is little spatial unevenness or heterogeneity, and strong evocations of place and locality with different experiences of past, present and future climates are rare. They are also usually anthropocentric in their assumptions and ethics, from the Anthropocene framing which places an undifferentiated ‘mankind’ at the centre of explanations of climate change, to the ethics of decisions about future values in which non-human life is rendered in terms of ecosystem services and carrying capacity. Whilst social movements often inject more local imaginaries, or claim to speak for non-human victims of climate change, the most prominent and successful campaigns also have a tendency to invoke future imaginaries that are linear, universal, apolitical and anthropocentric.

The political consequences of these dominant climate imaginaries are reductive. The openness of ‘the political’ to radical undecidability and antagonism is closed down spatially, temporally and ecologically. Even political activism is often portrayed as pointless unless it is working in line with the ‘spirit of the times’ toward a ‘projected future’. The combination of a ‘one planet, one people’ framing with the presentation of a singular global future as inevitable – or the only sane alternative to apocalypse – means that politics is reduced to a question of tactics and techniques for reaching this imagined future in the most efficient manner.

This deadening of the imagination and evisceration of radical politics in dominant socio-climatic imaginaries has produced a number of academic critiques, especially in journals like *Futures* and in literature on critical political theory or socio-technical transitions. For Timothy Luke, ‘Climate change now appears to be a collectively acted, globally produced, and continuously staged new disaster movie without a single director, but with billions of producers following simple scripts’. As Sheila Jasanoff argues, dominant approaches have led to ‘an impersonal, apolitical, and universal imaginary of climate change, projected and endorsed by science’, at the expense of more ‘subjective, situated and normative imaginations’.

Given this, challenging the depoliticised, global, linear, and anthropocentric framing of dominant socio-climatic imaginaries is an important element of radical climate politics. There is a need to imagine more varied and situated climate futures, and this can be one of the functions of climate fiction when read as critical climate theory. In doing so it can advance and strengthen the work of critical theorists of climate change who have

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60. Adam and Groves, *Future Matters*; Haraway, *Staying with the Trouble*; Whyte, ‘Indigenous Science (Fiction)’; Yusoff, *A Billion Black Anthropocenes*.

61. Edkins, ‘Novel Writing’; Hutchings, *Time and World Politics*; Lundborg, ‘Time’; Mitchell and Chaudhury, ‘Worlding’.

62. For examples of writing on climate change which does this, see Beardsworth, ‘Climate Science’ and David Wallace-Wells, *The Uninhabitable Earth: A Story of the Future* (London: Allen Lane, 2019), 226.

63. Gergan et al., ‘Earth beyond Repair’.

64. For a range of examples, see Hulme, ‘Cosmopolitan Climates’; Paterson, ‘The Sociological Imagination’; Pereira et al., ‘Building Capacities’; Mitchell and Chaudhury, ‘Worlding’; Nikoleris et al., ‘Narrating Climate Futures’, 314; Rothe, ‘Governing the End Times?’; Yusoff, *A Billion Black Anthropocenes*.

65. Luke, ‘The Climate Change Imaginary’, 291.

66. Jasanoff, ‘A New Climate for Society’, 235.
explored how dualisms of modernity like nature/culture, present/future and global/local are beginning to fracture in the so-called age of the Anthropocene. The next section of this article sets out a theoretical approach to reading climate fiction as climate theory, before moving on to show how Africanfuturist climate fiction can challenge colonial, capitalist, patriarchal and anthropocentric climate futures.

**Science Fiction, Climate Change and Critical Theory**

If dominant climate futures are circumscribed as argued above, and there is a need to reinvigorate the imagination of more diverse and plural climate futures, then climate fiction is a good place to look. Novels are, quite obviously, works of the imagination, and they are often more subjective, situated, ambiguous in their meaning and interpretation and open-ended than non-fictional or ‘scientific’ texts. As such, there has been increasing interest in the role of climate fiction (or ‘cli-fi’) in responding to the challenge of climate change.

Some climate scientists and activists have hoped that art in general and fiction in particular will be able to communicate climate change as an issue to people in ways which resonate more deeply than scientific forecasts and scenarios, to ‘humanise’ the abstract science of climatology. As Trexler reflects, ‘there has been not a little desperation for art to bring home the risks of greenhouse gas emissions’. As such, novels that represent imagined climate futures can be understood as a particular type of temporal technology, analogous to scientific models, policy scenarios, or non-fictional documentaries, but with greater capacity for generating empathy, encouraging emotional responses, world-building and thought-experiments. A novel can also be understood as an element of a social imaginary (rather than just an individual’s imagination) in the sense that it is culturally shared and institutionally supported insofar as it has been published, commodified, distributed to bookshops (or online), read and commented on by readers, critics and academics. Novels also draw on and reflect wider social contexts, discourses, ideologies and imaginaries. As Meili Steele notes, literary texts can be studied both as contributions ‘to historically effective structures of the imaginary’ as well as interventions ‘through and against the languages of the social imaginary’. It is therefore plausible to read climate fiction as an attempt to theorise the world.

67. Haraway, *Staying with the Trouble*; Jasanoff, ‘A New Climate for Society’; Whyte, ‘Indigenous Science (Fiction)’; Yusoff and Gabrys, ‘Climate Change and the Imagination’.

68. Milkoreit, ‘The Promise of Climate Fiction’, 188; Shapiro, *The Time of the City*, 6; Trexler, *Anthropocene Fictions*, 29–30.

69. Milkoreit, ‘The Promise of Climate Fiction’, 172.

70. Trexler, *Anthropocene Fictions*, 75.

71. Nikoleris et al., ‘Narrating Climate Futures’, 309.

72. Trexler, *Anthropocene Fictions*, 118.

73. Meili Steele, ‘Literature as Public Reasoning in the Political Struggles over Imagination’, in *The Politics of Imagination*, eds Chiara Bottici and Benoît Challand (Abingdon: Birkbeck Law Press, 2011), 178.
Reading fiction as a form of theory is not new; there are whole disciplines and intellectual traditions devoted to doing so.\textsuperscript{74} Of course, it is important not to romanticise or valorise ‘the novel’ as somehow superior to, or more incisively critical, than other modes of representation. Novels can obscure certain things or reproduce conservative ideology and racist politics.\textsuperscript{75} Amitav Ghosh has provocatively suggested that, in the context of climate change, future generations will view the contemporary period as ‘The Great Derangement’, one ‘when most forms of art and literature were drawn into the modes of concealment that prevented people from recognising the realities of their plight’.\textsuperscript{76}

Science fiction in particular has been fruitfully studied for its potential to reinforce dominant social imaginaries as well as to imagine alternative worlds.\textsuperscript{77} In terms of the former, the conservative thrust of much pulp science fiction has been noted by many postcolonial scholars. For Jessica Langer, the ‘figure of the alien – extraterrestrial, technological, human-hybrid or otherwise – and the figure of the far-away planet ripe for the taking, are deep and abiding twin signifiers in science fiction, are perhaps even the central myths of the genre’, as well as being the central myths of the European colonial project.\textsuperscript{78} Jutta Weldes’ studies of \textit{Star Trek} (1999) and Isaac Asimov’s \textit{Foundation} series (2001) argued that discourses of US foreign policy and globalisation were reproduced through science fiction, and thus ‘that state policy has a pervasive cultural basis and . . . that state action is made commonsensical through popular culture’.\textsuperscript{79} Popular science fiction therefore constituted and legitimated ‘public images of international relations and foreign policy’.\textsuperscript{80}

In contrast, many critical theorists – particularly feminist scholars – have emphasised the potential of science fiction to imagine radical alternatives. This is somewhat counterintuitive, at least in the case of the popular science fiction adventure stories like \textit{Star Trek} and \textit{Foundation}. Here, machismo, technological fetishism and militarised frontier-mentalities fuse into a genre that ‘is particularly allergic to any undermining of overall masculinist assumptions’.\textsuperscript{81} Despite this, because of the particular capacity of novels to

\begin{itemize}
\item \textsuperscript{74} Some examples most influential for this article include Mark Dery, ‘Black to the Future: Interviews with Samuel R. Delany, Greg Tate, and Tricia Rose’, in \textit{Flame Wars: The Discourse of Cyberculture}, ed. Mark Dery (Durham: Duke University Press, 1994), 179–222; Carl Freedman, \textit{Critical Theory and Science Fiction} (Middleton: Wesleyan University Press, 2000); Frederic Jameson, \textit{Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions} (London: Verso, 2007); Madhu Krishnan, \textit{Contemporary African Literature in English: Global Locations, Postcolonial Identifications} (Basingstoke: Palgrave Macmillan, 2014).
\item Edkins, ‘Novel Writing’; Weldes, ‘Globalisation is Science Fiction’.
\item Ghosh, \textit{The Great Derangement}, 11.
\item Jessica Langer, \textit{Science Fiction and Postcolonialism} (New York: Palgrave Macmillan, 2011); Patricia Melzer, \textit{Alien Constructions: Science Fiction and Feminist Thought} (Austin: University of Texas Press, 2006); Eric Smith, \textit{Globalization, Utopia, and Postcolonial Science Fiction: New Maps of Hope} (New York: Palgrave Macmillan, 2012).
\item Langer, \textit{Science Fiction and Postcolonialism}, 3.
\item Weldes, ‘Going Cultural’, 119.
\item Ibid.
\item Freedman, \textit{Critical Theory and Science Fiction}, 130.
\end{itemize}
address the everyday, the experiential, and the private, speculative fiction has frequently had a privileged role in feminist theorising compared to abstract philosophising.  

Core science fictional tropes like aliens, cyborgs, and biotechnology populate new universes with ‘deviant bodies and subjectivities’ that can perform an estranging function for contemporary social orders. Techniques of estrangement and defamiliarisation – as deployed, for example, in the novels of Ursula Le Guin – can illuminate ways in which contemporary, patriarchal social orders, hitherto often taken for granted, suddenly seem primitive and restrictive. For Patricia Melzer, science fiction can provide a ‘blueprint’ for critical theorising, a way to ‘develop the terminology to describe our future’, such that ‘some science fiction texts not only incorporate feminist theory but actually produce it’.  

This critical function of science fiction is classically defined by authors like Darko Suvin, Frederic Jameson and Carl Freedman through the technique or attitude of ‘cognitive estrangement’. For Jameson, it is the ability of science fiction ‘to defamiliarise and restructure our experience of our own present’, and perceive the alienating effects of capitalism, that render it so useful for critical theorising. As Freedman explains it, ‘The science-fictional world is not only one different in time or place from our own, but one whose chief interest is precisely the difference that such difference makes’. Here, the future is not ‘a specific chronological register’, but is rather ‘a locus of radical alterity to the mundane status quo, which is thus estranged and historicised as the concrete past of potential future’.  

Climate fiction (‘cli-fi’) is an emerging sub-genre of science fiction, where there has been growing attention to the potential for fiction to play a critical role through techniques of estrangement and defamiliarisation. A ‘cli-fi’ canon has emerged – including, among others, Margaret Atwood’s MaddAddam trilogy, Paolo Bacigalupi’s The Windup Girl, Liz Jensen’s The Rapture, Barbara Kingsolver’s Flight Behavior, Saci Lloyd’s The Carbon Diaries 2017, Cormac McCarthy’s The Road, Ian McEwan’s Solar, and Kim Stanley Robinson’s various novels including the trilogy Science in the Capital and The Ministry for the Future – which has tended to dominate discussions, but the genre is growing rapidly. The small body of work on cli-fi within the discipline of Politics and IR has shown how climate fiction novels relate to scientific scenarios, and has made a
strong case for the power of climate fiction to diversify and pluralise perspectives on climate futures.\textsuperscript{91} For Milkoreit, ‘[t]he diverse storylines of climate fiction make it impossible to think about the future in the singular way’.\textsuperscript{92} Novels can – in a way that scientific models, policy scenarios or even non-fictional documentaries cannot – represent ‘human subjects who experience climate change and its political, cultural, social, and psychological implications capture the ambiguities, paradoxes, and uncertainties of human life’.\textsuperscript{93} Novels also work to engage us emotionally in the politics of climate futures, and can strengthen and reinforce the feminist insight that politics is always experienced emotionally and affectively.\textsuperscript{94} Reading the climate fiction canon – particularly authors such as Atwood, Bacigalupi, Jensen, Kingsolver and Lloyd – provides a much more affectively rich, often satirical, gendered and feminist-inflected account of climate futures than can be accessed by the often still explicitly or implicitly patriarchal and ‘serious’ future imaginaries of climate models, scenarios and journalism.

The estranging and defamiliarising power of speculative fiction has therefore been used in powerful ways to challenge the gendered registers of dominant climate imaginaries. However, as the cli-fi canon above suggests, the genre remains dominated by European and American perspectives and landscapes, often implicitly projecting a Western viewpoint as a global perspective.\textsuperscript{95} Whilst there are some examples of fiction which defamiliarise dominant temporal, ecological and political assumptions (notably, in the list above, Atwood and Bacigalupi), the dominant socio-climatic imaginaries of contemporary cli-fi remain rationalist, humanist, liberal, techno-scientific, usually white and often still male (exemplified, in the list above, by McCarthy, McEwan and Robinson). One interpretation of this is provided by Amitav Ghosh, who refers to it as ‘a failure of literary forms’, which is itself ‘an aspect of the broader imaginative and cultural failure that lies at the heart of the climate crisis’.\textsuperscript{96} For this reason, the final part of this article turns to Africanfuturist climate fiction and its potential to decolonise global futures by challenging dominant spatial, temporal, ecological and political assumptions.

**Africanfuturist Climate Futures**

African authors, settings and characters have been largely absent from most research (and popular discussion) about the rise of cli-fi.\textsuperscript{97} Where African settings are represented, they are often homogenised and unspecific, and function as a coded reference to how bad

\textsuperscript{91} Nikoleris et al., ‘Narrating Climate Futures’; Milkoreit, ‘Imaginary Politics’; Trexler, *Anthropocene Fictions*, 232; Yusoff and Gabrys, ‘Climate Change and the Imagination’, 520.

\textsuperscript{92} Milkoreit, ‘The Promise of Climate Fiction’, 179.

\textsuperscript{93} Nikoleris et al., ‘The “Anthropocene” in Popular Culture’, 80.

\textsuperscript{94} Edkins, ‘Novel Writing’; Haraway, *Staying with the Trouble*; Melzer, *Alien Constructions*; Welland, ‘Joy and War’.

\textsuperscript{95} Johns-Putra, ‘Climate Change in Literature’, 273; Nikoleris et al., ‘Narrating Climate Futures’, 310.

\textsuperscript{96} Ghosh, *The Great Derangement*, 8.

\textsuperscript{97} E.g. Johns-Putra, ‘Climate Change in Literature’; Streeby, *Imagining the Future of Climate Change*, 4–5; Trexler, *Anthropocene Fictions*, 124–5.
‘our’ (i.e. European and North American) future could be, in a gloomy reversal of more optimistic ‘First in Europe, then elsewhere’ discourses about progress and Enlightenment.\footnote{98} In this, Africa usually represents a forewarning of apocalypse. For example: one popular ‘future history’ casually observes that by the 22nd century the ‘human populations of Australia and Africa, of course, were wiped out’.\footnote{99}

Yet, as postcolonial theorists and literary scholars have been pointing out for some time, there are rich if often overlooked archives of African authors, settings and characters with different perspectives on climate politics and the Anthropocene.\footnote{100} African science fiction more generally is gradually increasing in visibility and critical attention, such that some refer to ‘a new wave of cultural output that signals the continent as a site from which to imagine the emergence of future worlds’.\footnote{101} One of the seminal influences on African science fiction is the artistic and philosophical movement known as Afrofuturism or Africanfuturism, which is centrally concerned with themes of history and the future, human and the nonhuman, science and technology, animism and ecology, justice and apocalypse.\footnote{102} For Achille Mbembe, ‘Afrofuturism is a literary, aesthetic, and cultural movement that emerged among the diaspora during the second half of the twentieth century. It combines science fiction, reflections on technology in its relations with black cultures, magic realism, and non-European cosmologies, with the aim of interrogating the past of so-called colored peoples and their condition in the present’.\footnote{103}

This article can only provide a few illustrative examples of how some Africanfuturist climate fiction can enrich and challenge dominant climate imaginaries, and further excavation of this potential is a task for future research. There is considerable diversity within this literature that cannot be adequately conveyed here, and even more so within the

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\footnote{98} Eshun, ‘Further Considerations on Afrofuturism’, 291–2; Krishnan, \textit{Contemporary African Literature in English}, 8–10.
\footnote{99} Oreskes and Conway, \textit{The Collapse of Western Civilisation}, 33. See the critique in Mitchell and Chaudhury, ‘Worlding’, 11–12.
\footnote{100} Joshua Yu Burnett, ‘The Great Change and the Great Book: Nnedi Okorafor’s Postcolonial, Post-Apocalyptic Africa and the Promise of Black Speculative Fiction’, \textit{Research in African Literatures}, 46, no. 4 (2015): 133–50; Eatough, ‘Planning the Future’; Mitchell and Chaudhury, ‘Worlding’; Omelsky, ‘“After the End Times”’; Sofia Samatar, ‘Toward a Planetary History of Afrofuturism’, \textit{Research in African Literatures} 48, no. 4 (2017): 175–91; Womack, \textit{Afrofuturism}.
\footnote{101} Esthie Hugo, ‘Looking Forward, Looking Back: Animating Magic, Modernity and the African City-future in Nnedi Okorafor’s \textit{Lagoon}’, \textit{Social Dynamics} 43, no. 1 (2017): 47. See also Mark Bould, ‘African Science Fiction 101’, \textit{SFRA Review} 311 (2015): 11–18.
\footnote{102} Nnedi Okorafor has coined the term ‘Africanfuturism’ in contrast to the more widely used Afrofuturism. She suggests that Africanfuturism is more directly rooted in African traditions rather than the Black Diaspora or the West. Nnedi Okorafor, ‘Africanfuturism Defined’, 19 October 2019, http://nnedi.blogspot.com/2019/10/afrofuturism-defined.html. Last accessed December 2, 2021. See discussions in Death, ‘Africanfuturist Socio-Climatic Imaginaries’; Eshun, ‘Further Considerations on Afrofuturism’; Mitchell and Chaudhury, ‘Worlding’, 13–14; Womack, \textit{Afrofuturism}.
\footnote{103} Mbembe, \textit{Necropolitics}, 163.
wider fields of African socio-climatic imaginaries and speculative fiction. The discussion below will show how Africanfuturist socio-climatic imaginaries – in the work of some prominent novelists including Nnedi Okorafor, Lauren Beukes, and Doris Lessing – challenge the spatiality, temporality, ecology and politics of more mainstream imaginaries. This challenge has, I argue, radical implications for contemporary climate politics.

**Different Spaces, Different Places**

First, centring African perspectives, settings and characters immediately poses a challenge to the assumption that white, European and North American perspectives can confidently narrate a global storyline. The relationship between Africa and the rest of the world is a central concern of Africanfuturist fiction, often producing more explicitly situated and place-based narratives than the global or ‘one planet’ tropes associated with dominant socio-climatic imaginaries. Not only do they provide a much richer and more diverse spatial landscape of future climates, but they also draw on African traditions of imagining and theorising ‘other spaces’. The prominence of magic, illusion, spirit-worlds and ‘juju’ – alongside imagined future technologies and more familiar ‘science fictional’ tropes – in African climate fiction facilitates the representation of parallel or spirit worlds, alternative realities and sacred spaces.

One of the best examples of this is how Nnedi Okorafor’s petro-fiction novel *Lagoon* (2014) represents Lagos as the scene of the intermingling of African animism, modern urban infrastructure, and alien visitation. The central plot concerns an alien-inspired transition into a post-oil economy, beginning on the waters and beaches of Lagos, but along the way readers meet a diverse range of entities including the ‘Bone Collector’, a spirit that haunts the modern Lagos–Benin Expressway, who is engaged and pacified by an alien visitor who literally sacrifices herself to the road. For Hugo, ‘By consciously integrating various components derived from a West African knowledge order into its framework, *Lagoon* makes a claim for futuristic visions that take as their foundation a series of counter-hegemonic virtues by continually subverting the oppositional logics that look to separate modernity from magic, and the human from the nonhuman’. Melody Jue explores the role of science in *Lagoon*, noting the importance of the scientific method and outlook for the central character, Adaora – a marine biologist – even as

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104. See Bould, ‘African Science Fiction 101’; Eatough, ‘Planning the Future’; Omelsky, ‘After the End Times’; Samatar, ‘Toward a Planetary History’; Womack, *Afrofuturism*.

105. Of these three, Okorafor and Beukes self-identify as part of the Afrofuturist/Africanfuturist movement. Lessing did not, to my knowledge, and is rarely associated with Afrofuturism by others. Yet the themes identified above are prominent in her novels discussed here. These three authors are the focus here because they are the most prominent and (in my view) interesting Africanfuturist novelists dealing with climate-related themes.

106. Mbembe, *Necropolitics*; Samatar, ‘Toward a Planetary History’.

107. Mbembe, *Necropolitics*; Okorafor, ‘Africanfuturism Defined’; Womack, *Afrofuturism*, 113.

108. Hugo, ‘Looking Forward, Looking Back’, 52–3.

109. Ibid, 55.
she tries to comprehend the radical Other-ness of the alien visitors and finds herself changing in inexplicable ways.110

The spatial complexity of many Africanfuturist imaginaries is ‘heterotopic’, in terms of the construction of constitutively ambiguous settings and contexts, somehow (or somewhere) outside normal or realistic conventions and genres.111 Okorafor’s stunning novel, Who Fears Death (2010 [2018]), is one of the most striking examples of heterotopic imaginaries in African climate fiction. This is an epic story about a journey of discovery set in a future Sudan, largely cut-off from a climate-changed world, where advanced technologies like water capture stations exist alongside ‘traditional’ North African village life. The novel embodies what Burnett calls Okorafor’s ‘trickster feminism’, and its portrayal of horrific genocidal violence leading to revolution and possible redemption offers utopian moments amidst a wider tale of suffering, cruelty and heroism.112 In Who Fears Death the central character Onyesonwu negotiates a range of heterotopic spaces, from the room where girls are ritually circumcised, to the magical otherworldly ‘wilderness’, to the desert sandstorm of the Red People.113

Another prominent African socio-climatic imaginary comes in Doris Lessing’s two epic stories Mara and Dann (1999) and The story of General Dann and Mara’s daughter, Griot and the Snow Dog (2006). Although the Nobel-laureate Lessing is rarely included in the Afrofuturist tradition, her work does tackle themes such as memory, race, the relationship between Africa and the world, and migration. The world of Mara and her brother Dann is a survivalist dystopia in which southern African drought and a new European ice age have trapped central and north African societies of the far future (Ifrik) into endemic war, migration, and nostalgia for the technological marvels of the distant past. Here, in contrast to Oreskes and Conway’s vision of the future, Africa is where life and civilisation have survived whilst European cities lie buried under ice.114 The mutability of life under new environmental conditions is a pervasive theme of Lessing’s work: ‘Everything changed: rivers moved, disappeared, ran again; trees died – the hills were full of dry forests – and insects, even scorpions, changed their natures’.115 These changes apply to the human characters and civilisations of Ifrik as well, and much of the compelling force of the Mara and Dann novels comes from the charting of the slow, profound character development of the eponymous heroes in parallel to the societies they move through, many of which struggle to adapt to the pace of environmental change. One of the themes of the book is the difficulty of thinking about time on such a scale, and the meaning of change, history, memory, past and future for continents and civilisations. As one character sadly observes, reflecting on the collapse of the great cities of ‘Yerrup’ under the

110. Melody Jue, ‘Intimate Objectivity: On Nnedi Okorafor’s Oceanic Afrofuturism’, Women’s Studies Quarterly 45, no. 1/2 (2017): 171–88.
111. Freedman, Critical Theory, 147; Jameson, Archaeologies of the Future, 144; Samatar, ‘Toward a Planetary History’.
112. Burnett, ‘The Great Change’, 138. See also Lisa Dowdall, ‘The Utopian Fantastic in Nnedi Okorafor’s Who Fears Death’, Paradoxa 25 (2013): 173–90.
113. Pahl, ‘Time, Progress, and Multidirectionality’, 209; Death, ‘Africanfuturist Socio-Climatic Imaginaries’.
114. Oreskes and Conway, The Collapse of Western Civilisation.
115. Doris Lessing, Mara and Dann: An adventure (London: Flamingo, 1999), 67.
advancing ice, ‘people always have a tendency to believe that what they have is going to continue for ever’.116 This simple reversal of the usual imagined relationship between continents, together with the more complex heterotopian spaces of Okorafor’s novels, shows how the homogenous globality of dominant socio-climatic imaginaries can be destabilised by Afrofuturist climate fiction. The implications of this for climate politics include a much more central place for questions about the relationship between specific places – the land – and communities and markets, questions of ownership, rights and responsibilities, and justice.

Different Times, Different Temporalities

Second, Afrofuturist climate fiction also challenges linear and homogenous accounts of time, introducing more diverse heterotemporalities.117 Here, the mixture of science fiction and fantasy genres in African climate fiction means that past, present and future can interact in unusual or unexpected ways.118 For example, in Okorafor’s Who Fears Death Onyesonwu’s rewriting of the Great Book creates a new present, a world remade in “a pocket in time, a slit in time and space”.119 The novel appears to advance a cyclical understanding of time, ending with a chapter entitled ‘Chapter 1 Rewritten’. But the book actually presents two parallel endings: ‘one that is foreshadowed throughout the novel, Onyesonwu being buried to the neck in sand and stoned to death, and one of utopian hope, escape, and living on’.120 These are not alternative endings between which the reader is invited to somehow choose (as is implicit in some climate policy scenarios), but rather these endings are parallel and indivisible.121 In many Africanfuturist novels the past hauntsthe present and yet is reshaped by impending futures: books of history and prophecy are stored in caves and are lost then found, and rewritten or destroyed, but they are rarely reliable authorities.122 As Miriam Pahl observes, in Who Fears Death, ‘The Great Book first exists as a digital audio file that is subsequently written down and ultimately rewritten in Nsibidi, an ancient Nigerian writing system’, thus complicating ‘an alleged technological evolution from orality via writing to digital means of storing information’.123

116. Ibid., 373.
117. Hom, ‘Silent Order’, 316; Hutchings, Time and World Politics; Pahl, ‘Time, Progress, and Multidirectionality’; Womack, Afrofuturism, 154.
118. Mary Bosede Aiyetoro and Elizabeth Olubukola Olaoye, ‘Afro–Science Fiction: A Study of Nnedi Okorafor’s What Sunny Saw in the Flames and Lagoon’, Pivot 5, no. 1 (2016): 226–46.
119. Nnedi Okorafor, Who Fears Death (London: Harper Collins, 2018), 378. See also Pahl, ‘Time, Progress, and Multidirectionality’, 218.
120. Julia Hoydis, ‘A Darker Shade of Justice: Violence, Liberation, and Afrofuturist Fantasy in Nnedi Okorafor’s Who Fears Death’, in Postcolonial Justice, eds. Anke Bartels et al. (Leiden: Brill, 2017), 180.
121. Dowdall, ‘The Utopian Fantastic’, 13–14.
122. Lessing, Mara and Dann; Doris Lessing, The Story of General Dann and Mara’s Daughter, Griot and the Snow Dog (London: Harper Perrenial, 2006); Okorafor, Who Fears Death, 329.
123. Pahl, ‘Time, Progress, and Multidirectionality’, 219.
The relationship between past, present and future is also a prominent theme in Lessing’s Mara and Dann novels. Both Lessing and Okorafor present an apparently simpler, more ‘traditional’ society and way of life, but interspersed with elements of advanced technologies. In Mara and Dann’s world we never really find out when the story is set; it could be 20,000 years after the ice came, or longer, but no one really knows. African societies are represented as better able to deal with climatic change: “Nothing stays the same’, said Felix. “Now it is a time of dryness. But the drought will end. And we will be prepared. All the history of Ifrik has been that – swings of climate’’. These words, however, are spoken by an unreliable, perhaps mad character, who hides away in a dilapidated museum fantasising about his return to power as head of a royal family. There is no rest or peace for any of the characters, who are driven to continually move onwards by their past. Traumas and madness stalk characters and threaten to overwhelm them or turn them against their closest friends and family, evoking the ‘trauma time’ explored by Jenny Edkins, ‘a time that does not run smoothly, and a time where there is no past, present and future, but only one time, the time of the now’. As such, the complex interweaving of futures, presents and pasts in Africanfuturist socio-climatic imaginaries provide a much more heterotemporal perspective than is usual within dominant climate imaginaries. This might mean closer critical interrogation of ‘pathways to 2050’ that tend to portray a singular present and linear routes to a collective universal future.

**Different Ecologies, Different Species**

Third, Africanfuturist climate fiction tends to explore posthuman ecological futures more explicitly and vividly than much of the mainstream cli-fi canon and dominant non-fiction imaginaries. Lauren Beukes’ novel *Zoo City* (2010) is an excellent example of how contemporary Africanfuturism contributes to telling ‘ongoing multispecies stories’. In Beukes’ novel, criminals in a near-future downtown Johannesburg are ‘Animalled’: attached with a real but intangible psychic link to animal familiars who accompany them on pain of mutual death. These are not only animals; ‘they are also mashavi – wandering spirits of the dead which attach to living humans’, meaning that ‘they stage the human as inextricable from this landscape, its past, its present, and its nonhuman others’. The landscape of the novel is inescapably shaped by industrial modernity: the opening sentence proclaims ‘Morning light the sulfur color of the mine dumps seeps across Johannesburg’s skyline and sears through my window’. Climate change lurks in the background, conveyed by the sense of oppressive heat and vegetative decay, as well as the suggestion that ‘global warming’ might be a cause of the changed relations between human and animals. For Suzanne Ericson, this allows the novel to suggest that

124. Lessing, *Mara and Dann*, 199.
125. Ibid, 374.
126. Edkins, ‘Novel Writing’, 286.
127. Haraway, *Staying with the Trouble*, 55.
128. Suzanne Ericson, ‘Thinking with Crocodiles, Thinking through Humans: Vulnerable, Entangled Selves in Lauren Beukes’s *Zoo City*’, *Scrutiny*, 23, no. 1 (2018): 30.
129. Lauren Beukes, *Zoo City* (New York: Mulholland Books, 2010), 3.
130. Ibid., 183.
‘acknowledging their shared vulnerability with nonhuman animals opens the way for humans to rethink themselves and their place in the world’.131

More-than-human ecologies are also a prominent theme of Okorafor’s *Lagoon*, which opens with a chapter written from the perspective of a swordfish and closes with a valediction from Udide Okwanka, a spider god from Igbo folklore, who is revealed to be the weaver-narrator of the entire novel. This decentring of human agency, or rather the pluralising of subjectivities and ecologies in climate-changed future worlds, lends new images, analogies and grammars to critical theorists seeking to understand non-human, posthuman or more-than-human futures.132 This is important in terms of how nonhumans might be included in collective processes of imagining socio-climatic futures, strengthening the case for rethinking forms of representation, participation and voice in climate governance. This is part of a broader decolonising project of offering ‘alternative accounts of subjecthood’ to those that dominate the imagined landscapes of international politics.133

**Different Politics**

Fourth and finally, taken together these alternative imaginings of space, time and ecology in Africanfuturist climate imaginaries lead to a much richer and more intense politics than is evident in most climate fiction and non-fictional imaginaries. The radical politics of much Africanfuturist climate fiction comes from an experience of past and present violence and injustice. The shared worldviews and ‘situated imaginations’ of Africanfuturism include the historical memory of slavery and colonialism, and the contemporary experience of the slow violence of climate change as well as racism, injustice and economic inequality.134 This gives African climate imaginaries ‘a profoundly different historical weight compared to most other postcrisis science fiction’.135 Moreover, there is a clear anger in many Africanfuturist novels directed towards those responsible for climate chaos. Even Lessing, whose place within the western literary canon is most secure, has a central character observe, on learning the history of the now dead civilisations of Yerrup, that ‘[t]hese were people who had no interest in the results of their actions. They killed the animals. They poisoned the fish in the sea. They cut down the forests, so that country after country, once forested, became desert or arid. They spoiled everything they touched. There was probably something wrong with their brains. There are many historians who believe that these ancients richly deserved the punishment of the ice’.136

131. Ericson, ‘Thinking with Crocodiles’, 23.
132. Chakrabarty, ‘Postcolonial Studies’; Ghosh, *The Great Derangement*; Céline Granjou and Juan Francisco Salazar, ‘Future’, *Environmental Humanities* 8, no. 2 (2016): 240–44; Cajetan Iheka, *Naturalizing Africa: Ecological Violence, Agency, and Postcolonial Resistance in African Literature* (Cambridge: Cambridge University Press, 2017); Haraway, *Staying with the Trouble*; Omelsky, ‘“After the End Times”’, 49; Yusoff, *A Billion Black Anthropocenes*.
133. Sabaratnam, ‘IR in Dialogue’, 785.
134. Stoetzler and Yuval-Davis, ‘Standpoint Theory’; see also Dery, ‘Black to the Future’; Eshun, ‘Further Considerations on Afrofuturism’.
135. Omelsky, ‘“After the End Times”’, 38.
136. Lessing, *Mara and Dann*, 381.
Okorafor’s novels are striking in terms of their anger and violence. *Lagoon* ends on a utopian vision of Lagos as the setting for a leap to a post-fossil fuel society; yet, as Charles O’Connell observes, ‘The novel is saturated with violence across multiple sociopolitical levels prior to the landing of the aliens’. This violence is not particularly ‘African’, it is the violence of global neoliberalism and patriarchy and heteronormativity and religious orthodoxy. The ability of the aliens to overcome this violence (crucially, through a form of transcendental revolution) and transform capitalist, postcolonial subjects, is what gives the novel it’s utopian – or critical dystopian – politics. To take another example, *Who Fears Death* is the story of rape and ethnic conflict, set in a world produced by American imperialism, capitalist exploitation, corporate greed and scientific hubris. *The Book of Phoenix* (2015) is the prequel to *Who Fears Death*, and tells a catastrophic tale of the descent of carboniferous capitalism into eugenics and social disintegration. In these stories ‘there is no reconciliation of differences and dialogue or forgiveness and violent retribution is a constant theme’. As Burnett concludes, for Okorafor, ‘Revolution, and not evolution, is called for, and it must be a truly profound and transformative one’. Her politics are not just those of ‘plurality and otherness’, but also ‘an ongoing material struggle against alienation and oppression wherever it arises’. Moreover, this demand for a violent revolution is not made on behalf of the forces of ‘good’ against ‘evil’, as would be typical in the genre of fantasy. Rather the politics of both *The Book of Phoenix* and *Who Fears Death* are complicated and convoluted, becoming ‘something that explores not only the oppressor’s evil acts, but also the ways in which the oppressed become complicit in their own subjugation even when they try to resist’. As Omelsky puts it, ‘Fanon’s call to arms saturates these postcrisis fictions’.

**Decolonising Climate Futures**

The implications of reading Africanfuturist climate fiction as climate theory are, I argue, that different spaces, temporalities, ecologies and politics should be part of collective processes of imagining socio-climatic futures. Calls for greater plurality and diversity in climate politics are not new, of course, although they remain important and necessary. But a decolonising agenda requires more than simple inclusion of previously marginalised people, places and perspectives. As Tuck and Yang famously argued, decolonisation is not a metaphor, and inclusion into the mainstream is often a technique of co-optation that can leave dominant power relations unchallenged.
Indeed, the contemporary Africanfuturist climate fiction surveyed here has implications for climate politics that go well beyond a greater plurality and diversity of voices and perspectives. As the intellectual and literary descendants of Fanon – and Aimé Césaire, Steve Biko, Ngugi wa Thiong’o, Ben Okri, and Octavia E. Butler – the decolonisation of the imagination these authors assert implies a direct challenge to dominant power relations. Future climate politics looks unrecognisably different when narrated by Okorafor, Beukes, or Lessing, compared to Robinson, Gore or Wallace-Wells. Centring African perspectives on place and land means taking seriously demands for land justice, redistribution of settler and colonial land, and attention to the injustices perpetuated under new regimes of ‘green grabbing’ in the Global South. Acknowledging African temporalities might mean putting negotiations over the loss and damage caused already by climate change at the heart of climate politics – admitting that ‘for a large share of humanity, the end of the world has already occurred’.147 As Okorafor shows so vividly in *Lagoon*, foregrounding more-than-human ecologies means challenging extractive political economies based around mining ‘natural resources’ like oil, gas, coal, precious metals, soil, and plant and animal life. Politically, I read the challenge of authors like Okorafor, Beukes and Lessing as a fictional amplification of what Achille Mbembe terms the ‘Becoming Black of the World’.148 By this, he means that ‘the systematic risks experienced specifically by Black slaves during early capitalism have now become the norm for, or at least the lot of, all of subaltern humanity’.149

This implies a very different account of the history and politics of climate change. In contrast to stories about ecological modernisation, emission trajectories, individual consumption, and renewable technologies, Africanfuturist climate fiction insists that the ‘founding trauma’ of slavery, the plantation and colonialism must be at the heart of the story of the production of contemporary climate change.150 Carboniferous capitalism was always predicated on slavery and alienation as a form of power and energy.151 The African experiences of slavery, the Middle Passage, and the colonisation of the African continent, that are so central to the alternatives pasts, presents and futures that Africanfuturist cli-fi represents, are now crucial histories for all societies everywhere. The Middle Passage – itself famously described as the original alien abduction – is for Mbembe the ‘incubator’ of modernity and the ‘transnationalisation of the Black condition’.152 As digital ontologies and shifting ecologies restructure human corporeality in ever more fundamental ways, humanity itself is acquiring the subjectivity ‘Black’, in the sense of being ‘hard to say which part pertained to the human and which to the animal, object, thing, or commodity’.153 Whilst the potentialities and possibilities of this are multiple, complex and unfolding, it does suggest, as Mitchell and Chaudhury signal, ‘the possible end of whiteness, as

147. Mbembe, *Necropolitics*, 29.
148. Mbembe, *Critique of Black Reason*.
149. Ibid., 4–6.
150. Samatar, ‘Toward a Planetary History of Afrofuturism’, 180. See also Whyte, ‘Indigenous Science (Fiction)’; Womack, *Afrofuturism*, 191; Yusoff, *A Billion Black Anthropocenes*.
151. Mbembe, *Critique of Black Reason*; Mbembe, *Necropolitics*.
152. Mbembe, *Critique of Black Reason*, 15. See also Dery, ‘Black to the Future’.
153. Mbembe, *Necropolitics*, 8.
a structure of domination’. In this regard, Africanfuturist cli-fi performs a quintessentially critical function of estrangement and defamiliarisation. By retelling stories of human pasts, presents and futures it is possible to make alternative spatialities, temporalities, ecologies, and radical politics more possible. These new stories are one necessary element of a more decolonised climate politics.

Conclusion

The sorts of climate futures that are imagined in the present have political consequences. They can inspire and dismay, opening possibilities for agency and activism or closing down certain political avenues. They structure how the reality of climate change is understood and experienced, and as such the impoverishment of dominant socio-climatic imaginaries in spatial, temporal, ecological and political terms is concerning. One of the tasks of critical theory is to reinvigorate imaginations of alternatives, to demonstrate that other worlds are possible. Climate fiction can play an important role in this regard, and this article has argued – alongside many feminist and postcolonial theorists of science fiction – that climate fiction can be read as a form of critical theory. Yet contemporary climate fiction also displays some of the same restrictiveness as dominant non-fiction climate imaginaries, particularly in terms of the dominance of European and American worldviews. By including Africanfuturist climate fiction more prominently within the emerging canon and drawing on its imaginative resources more prominently in critical climate theory, it is possible to strengthen, extend and diversify radical possibilities in contemporary international politics.

In so doing this article has sought to emphasise ‘new narratives and discursive strategies toward our climate futures’, and in particular ones which enable more situated imaginations of African experiences of global climate politics in the past, present and future. These future imaginaries, I argue, also have more potential to encompass ‘the shared futurities of nature-culture entanglements’. Attention to the political possibilities and imaginative horizons of speculative fiction is still underdeveloped in Politics and IR, but, much as Louiza Odysseos has shown for sermons, poems and other forms of fabulation and ‘world-making’ in Black thought and culture in the ‘wake’ of the Middle Passage, these artistic texts can be regarded as forms of ‘poetic revolt’, which can strengthen and extend the urgent task of providing ‘a critical meditation on futurity’. Indeed, such an attempt is a crucial element of ‘ongoing efforts to destabilise the modern-colonial episteme and is intimately connected with the possibility and imagination of radical social transformation, indeed, of the shape and time of futurity’. The implications of this poetic revolt include the possibility of a more decolonised climate politics, which focuses on issues of land and climate justice, loss and damage, extractive political economies and the gendered and racial violence of contemporary capitalism.

154. Mitchell and Chaudhury, ‘Worlding’, 13.
155. Debashish Munshi et al., ‘The Future is Ours to Seek: Changing the Inevitability of Climate Chaos to Prospects of Hope and Justice’, in Climate Futures: Re-imagining Global Climate Justice, eds. Kum-Kum Bhavnani et al. (London: Zed, 2019), 6.
156. Granjou and Salazar, ‘Future’, 241.
157. Odysseos, ‘Stolen Life’s Poetic Revolt’, 349.
158. Ibid., 347.
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