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Science Fiction and Climate Change: A Sociological Approach, by Andrew Milner and J. R. Burgmann, Liverpool, Liverpool University Press, 2020, ix + 231 pp., US $113.29, £85.00 (hardback), ISBN 978-0-8139-4583-5

Review by Jasmin Kirkbride

Science Fiction and Climate Change explores the climate crisis as a natural and a socio-cultural phenomenon, with Milner and Burgmann arguing that science fiction occupies a critical location within this nature/culture nexus.

Andrew Milner has published numerous books that have been translated into multiple languages, but Science Fiction and Climate Change specifically builds on his previous work Locating Science Fiction (2013). J. R. Burgmann‘s research focuses on the representation and communication of anthropogenic climate change in literature and other popular media, and in 2020, he was a finalist in the Everything Change Climate Fiction Prize. His forthcoming novel Children of Tomorrow was highly commended in the Victorian Premier's Literary Awards 2021, and his arts criticism has featured in various publications.

Milner and Burgmann form an unusual father–son collaborative team. They have written a series of journal articles on climate fiction or ‘cli-fi‘ (CF), science fiction (SF) and world systems theory and in 2018 Burgmann published an edited collection of Milner‘s essays. The co- authoring of Science Fiction and Climate Change marks the culmination of their collaboration so far.

Science Fiction and Climate Change was shortlisted for the British Science Fiction Association Best Non-Fiction Award 2020 and the Locus Science Fiction Foundation Non-Fiction Award 2021. Parts of the argument were also ‘rehearsed‘ in two journal articles (see bibliography). Its subject matter is CF but does not impose a prescriptively environmentalist aesthetic on the genre, which Milner and Burgmann argue is a sub-genre of science fiction. Instead, the book explains how a genre defined in relation to science finds itself obliged to produce fictional responses to problems thrown up by contemporary scientific research. Milner and Burgmann adopt a historically and geographically comparatist framework, analysing print and audio- visual texts drawn from an impressive range of contexts from within and, crucially, beyond the Anglophone sphere (29).

Chapter 1 acts as the book‘s introduction, easing the reader in the concept of climate change and its place in the literary sphere. It cites Amitav Ghosh to illustrate the divide between the traditional literary ‘mainstream‘ and genre fiction, and how this divide continues to affect CF, with the latter seldom visited in the critical canon. Climate Change and Science Fiction redresses this balance by exploring how SF has come to terms with climate change. Milner and Burgmann offer a comprehensive ‘pre-history‘ of CF, divided into sections exploring different kinds of climatic change and adding to the existing cannon. Thus, they offer new details and insights into the canon of environmental fiction, while they follow the generally accepted conclusion that fiction dealing with ‘anthropogenic climate change‘ in the sense of our current ecological crisis arose with Arthur Herzog‘s Heat and George Turner‘s The Sea and Summer.

A ‘theoretical interlude‘ follows in Chapter 2, though it remains accessible thanks to Milner and Burgmann‘s intellectual but straightforward style. Taking a deep dive into the meaning of genre and form, they conclude that climate fiction is a sub-genre of science fiction, an argument they have made in past papers and continue developing here (Milner and Burgmann, 2018). They turn from ecocriticism, ecomarxism and Haraway‘s ‘Chthulucene argument‘, instead drawing on Williams‘s cultural materialism, Bourdieu‘s sociology of culture and Moretti‘s interpretation of world systems theory, to build a ‘sociological‘ rather than ‘literary-critical‘ approach to CF.

Chapter 3 returns to Herzog and Turner as case studies through which to explore the 'World Literary System', these being novels that were written and published respectively in the US at the core' of the system and Australia at its 'periphery'. Developing their Chapter 2 exploration of Moretti's theory of 'distant reading', the authors investigate the historical and contemporary publication and translation trends of global SF languages, thereby positing a world literary system for SF. They then relate this system to CF, demonstrating how this SF geo-political literary economy parallels CF, and investigating how broader environmental politics cause disruptions to this pattern, using various further case studies from Kim Stanley Robinson to Margaret Atwood. They conclude that the major developments in CF tend to happen at the moments a 'periphery' country or language moves to the 'semi-periphery' of the world literary system, with some deviations from the SF norm.

Chapter 4 sets up a long discussion on dystopian CF, explaining the differences between 'classical' and 'critical' dystopia via Raffaella Baccolini and Tom Moylan: they are not simply 'anti-eutopias' but may contain 'social hope' (85–86). Using five of the six ideal-typical responses to climate change laid out in Chapter 2 – denial, mitigation, negative adaptation, positive adaptation and Gaia – Milner and Burgmann examine a series of classical CF dystopias, such as Liu Cixin's The Three Body Problem and Will Self's The Book of Dave, exploring their manifestations of hope beyond the text. Chapter 5 maintains the use of these five ideal-typical responses, while refocussing on Moylan's theories. Here, Milner and Burgmann analyse how, unlike their classical counterparts, critical CF dystopias – such as Ian McEwan's Solar and Ligny's AquaTM – include enclaves of eutopian community to create social hope within the text.

In Chapter 6, Milner and Burgmann visit the sixth ideal-typical response to climate change – fatalism – as it presents 'peculiar problems for the kinds of fiction intended as cautionary tales'. First, they explore fatalist classical dystopias (Maggie Gee's The Flood, Jeanette Winterson's The Stone Gods and Antti Tuomainen's Parantaja) demonstrating that the fundamental pessimism of these classical CF dystopias undermines their power as a warning as they fail to trigger the hope required for a cautionary tale to be effective. Second, they discuss fatalist critical dystopias (Emmi Itäranta's Memory of Water, Alexis Wright's The Swann Book and James Bradley's Clade) to demonstrate that in fatalist critical dystopias, where the eutopian enclave fails, the same pessimistic hopelessness can be detected. They close with a brief foray into CF time travel novels as forms of fatalistic dystopia, using case studies including Ben Elton's Time and Time Again. Though time travel overall is an improbable novum, they conclude, its tendency towards the inevitability of events leads it to a similar form of pessimism.

Moving away from dystopias, Chapter 7 examines 'base reality' texts (those that mimic our current reality) and eutopias – of which there are far fewer. Five of the six ideal-typical responses to climate change are chosen to form this chapter's methodological lens, this time excluding Gaia or 'deep ecology', which is hard to empirically identify in base realities and eutopias. Case study base reality texts include Barbara Kingsolver's Flight Behaviour and Umoya Lister's Planetquake, while 'mainly' critical eutopias return to Robinson and Atwood, among others.

This chapter ends with a summary of these explorations of CF narrative fictions, concluding that classical dystopias and genre fiction are neither less complex or less rhetorically effective than critical dystopias or literary fiction, respectively; there is an overall decline of mitigation and rise in negative adaptation as organising factors in CF; and there a greater number of dystopias and base reality texts than eutopias.

Briefly, Chapter 8 turns to CF in other media including non-novel print, music and audio-visual. This ambitious chapter nonetheless offers impressive overviews of these fields, ultimately concluding that the 'major effort to respond to the climate crisis' in fiction has indeed

been through novels, especially those dealing with mitigation and negative or positive adaptation (199).

From this sociological approach and by considering genre and literary works as equal instances of CF, Milner and Burgmann conclude that CF novels can be highly influential on activism. However, it remains difficult to declare a CF novel as influential on society‘s attitudes to climate change as, for instance, Nevil Shute's On the Beach was on nuclear proliferation. This absence is troubling: ‘collectively, we seem to be missing out on something‘ (192). Milner and Burgmann posit that this is because CF persistently makes ‘little effort‘ to represent ‘plausible mechanisms by which to effect the transition to a Green future‘ (194). Ultimately, however, there is a suggestion that this may not be the only task CF novels are set, for Milner and Burgmann close: ‘these fictions are warnings, rather predictions or prophecies, and warnings are there to be heeded and acted upon’ (194).

Science Fiction and Climate Change is a comprehensive examination of the current state of CF. It is pleasingly open to genre and form, and Milner and Burgmann‘s accessible style results in a book that is at once objective sociological-literary commentary and personal reflection on the practice of CF research.

References

Milner, A., and J. R. Burgmann. 2018. “A Short Pre-History of Climate Fiction.” Extrapolation 59 (1): 1–23. doi:10.3828/extr.2018.2.

Milner, A., and J. R. Burgmann. 2018b. “Climate Fiction: A World-Systems Approach.” Cultural Sociology 12 (1):22–36. doi:10.1177/1749975517725670.

Jasmin Kirkbride
University of East Anglia, Norwich, UK
j.kirkbride@uea.ac.uk | *jasmin.kirkbride@city.ac.uk*

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