Science Fiction and Climate Change: A Sociological Approach, edited by Andrew Milner and J.R. Burgmann

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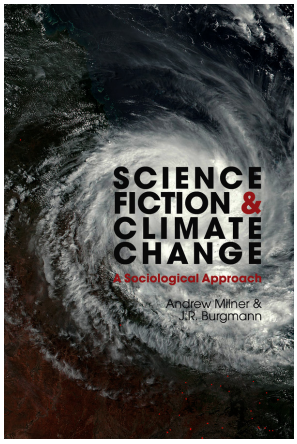

Andrew Milner and J.R. Burgmann's *Science Fiction and Climate Change: A Sociological Approach* adds some vitally needed critical rigor to the burgeoning subgenre of SF literature and media Daniel Bloom has labelled "cli-fi," that is, climate fiction. Some of the crucial distinctions the book contributes to scholarship include the distinction between theogenic (god-caused), geogenic (geology-caused), and anthropogenic (human-caused) climate fiction, the lattermost being only of recent vintage. Another useful categorization that Milner and Burgmann neatly add to the critical cli-fi conversation is the taxonomizing of works into ones that variously anticipate the fertile biosphere into the barren landscapes of a frozen world, a burning world, or a drowned world. Likewise, Burgmann and Milner divide their fourth and fifth chapters, on "classical" and "critical" dystopias (in Tom Moylan's influential terminology), into cogent analyses of specific climate-fiction novels as exponents of a spectrum of ideological positions: namely, denial, mitigation, negative adaption, positive adaptation, and Gaia. There are also separate chapters on base reality climate fiction, fatalism in dystopian climate fiction, and a chapter on climate fiction as conjured in popular sonic and visual media.

A signal contribution of this timely book is its inclusion of a well-researched and globally oriented (if still primarily Western and European in origin) archive of climate fiction to illustrate this essential schema. Hence denialist climate fiction, i.e. fiction that avows skepticism about climate science, is exemplified through Sven Böttcher *Prophezeiung* (2011) as much as Ian McEwan's *Solar* (2010). Mitigation climate fiction, or fiction that espouses techno-fixes and geo-engineering to address climate change, discusses Arthur Herzog's *Heat* (1977) as well as Dirk Fleck's *MAEVA!* (2011). Negative adaptation, that is, the minimizing of the deleterious consequences of climate change, is shown through Michel Houellebecq's *The Possibility of an Island* (2005) and Will Self's *The Book of Dave* (2006). Positive adaptation, fiction that exploits opportunities afforded by climate change, is explored through Bernard Besson's *Groenland* (2011) as much as Paolo Bacigalupi's *The Water Knife* (2015). Gaian climate fiction, i.e. fiction that depicts

the planet as operating according to a self-regulating balance, as theorized famously by James Lovelock, is typified via Jean-Marc Ligny's climate trilogy of *Exodes* (2012), *Semences* (2015), and *AquaTM* (2006) as much as Brian Aldiss's *Helliconia* trilogy (1982-1985). Burgmann and Milner discuss fatalistic cli-fi novels through the close reading of test cases of Antti Tuomainen's *Parantaja* (2010) as well as Jeanette Winterson's *The Stone Gods* (2007). In addition to a rich panoply of close readings of other miscellaneous climate fiction, this book also includes a long chapter that is labelled "Theoretical Interlude," and which seeks to classify climate fiction broadly, according to excurses on Raymond Williams's cultural materialism, Pierre Bourdieu's sociology of culture, and Franco Moretti's world-system theory.

There are three primary ways the theoretical interlude that underwrites the whole conceptual framework of this otherwise fascinatingly researched and critically valuable book are less than satisfying. Firstly, the blanket attacks on ecocriticism as damningly postmodern, ethereally post-structuralist, or covertly neoliberal seem rather skeletal and unconvincing, especially since the loose term "ecocriticism" has been so variably construed in literary scholarship over the last quarter of a century as to be rendered almost meaningless. The book could have benefited, for instance, from less tilting at these windmills and more direct and sustained engagement with the recent proliferation of literary criticism and ecocritical theory, loosely labelled, that does indeed engage with climate change as an environmental phenomenon, both in terms of science fiction and literary fiction and cultural politics more broadly.

For instance, Timothy Morton's theory of climate change as a baffling, contradictory "hyperobject," even if rejected as flawed theorizing, might have added some more supple dimensions to the perhaps overly uncomplicated ideal typologies discussed in this book. Indeed, the absence of any sustained discussions of ecocriticism at all seems like a glaring critical gap given that the proliferation of discussions of climate change have been a bone of contention of much literary, cultural, and philosophical scholarship on the so-called Anthropocene. Secondly, some of the specific readings of climate fiction seem tendentious on a more basic interpretative level: taxonomizing Michael Crichton's *State of Fear* (2004) as denialist is only fitting and well-marshalled; however, reading Cixin Liu's hard-SF *Remembrance of Earth's Past* (2008-2010) trilogy as "denialist" and symptomatic of a defunct communist Chinese ideological opposition to climate science jarringly stands out as an ungainly leap. Perhaps Cixin Liu in this trilogy does indeed cryptically and unreflectively endorse an anti-environmentalist message of hysterical crackdown, reinforcing a presumptive repression directed at radical deep ecology; however, not enough cogent evidence is provided to induce assent to this unconventional historicist reading of texts that never explicitly suggest this ideology, especially given that the passages in question found early in Cixin Liu's trilogy seem on a surface level to be a stirring elegy of ecological dissent and even subversion, especially given the draconian publishing context.

Lastly, and perhaps more substantively, the deeper theoretical assumption here is that literary fictional entertainment in general must conspicuously wear on its sleeves all its social and political positions, not to mention offer readers plausible predictions, explicit extrapolations, and realizable

speculations to be ranked as serious or legitimate in its addressing of climate issues. Likewise, the assumption that it is the reductively didactic agenda of a work of fictional entertainment to provide a plausible template of pragmatic solutions to climate change saddles on often subtle literary texts outrageous expectations of literal forthrightness that can never be adequately met by even the most socially progressive writer or politically activist of audiences. Hence the critiques of works like Kim Stanley Robinson's *Green Earth* (2015), *2312* (2012), *Aurora* (2015), or *New York 2140* (2017) as absurdly unrealistic, or "utopian in the pejorative sense of hopelessly impractical" (165), deliberately overlook more granular allegorical interpretations of the novels as germinating an inchoate utopian impulse or unfulfilled fictive yearning for ecological change manifested in the complex problematics of the fictional scenarios. Such utopian allegory does not need to be taken as straightforward mimetic blueprint or programmatic recipe for lasting revolution to function effectively as an aesthetically and conceptually satisfying experience of counterhegemonic dissent and speculative-fantastic resistance.

To be fair, and not to put too fine a point on this minor criticism, Milner and Burgmann do admit that this charge of "impracticality is a purely textual matter" (168), arguing that an otherwise sophisticated writer like Robinson, in these specifically discussed texts, as opposed to the more authentically turbulent changes depicted, for instance, in Margaret Atwood's eco-dystopian *Maddaddam* trilogy (2003-2013), simply fail at representing a genuinely green revolution coherently and compellingly in the delimited space of the novels themselves. This line of analysis may be lucid and reasonable from its own particular sociological premises and critical perspectives, not to mention subjective reading experiences, and certainly represents some important scholarly responses to these climate-change fictions. The provocative critique only lacks enough theoretical insight and precise textual evidence to be persuasive for the larger argument that Milner and Burgmann are making about the intractability of either the nebulously nihilistic sentiments or the inanely sanguine tendencies of climate fiction. Milner and Burgmann themselves devoutly desire the publication of a deeply pessimistic climate-fiction equivalent of what Nevil Shute's *On the Beach* (1957) was for anti-proliferation nuclear activists and that would have "practical effects on both elite leaderships and oppositional activists across the world" (191). Challenging the rote dismissal of uncritical dystopian fiction as unhelpful in galvanizing social movements, they earnestly conclude perhaps climate fiction will reach a critical mass of bleak and pessimistic representations of the ongoing climate apocalypse, and no singular landmark book is needed.

Milner and Burgmann therefore suggest that mitigation and adaptation novels, as much as Gaian, base-reality, or denialist climate fiction, are more or less uniformly prone to ingrained ideological blinkers in representing climate-change solutions, with Robinson's utopian blindness being repeatedly invoked as exemplary in its refusal to depict "the organized working class as a social force most likely to prevent anthropogenic global warming" (192). However, even the test case for such a large and unwieldy generalization (Robinson's own individual output is prolific) remains at best resistant to such sweeping interpretations, given the writer's consistently nuanced

depictions of splintering revolutionary factions of socialist-affiliated, labor-identified, and anti-capitalist organizations and the bewildering proliferation of micropolitical rivalries depicted in his densely ecopolitical novels. One idly wonders what Milner and Burgmann would make of Robinson's more recent *Ministry of the Future* (2020), for instance, which depicts a perhaps more working-class radical and sociologically messier green revolution in response to climate change than his also clearly socialist earlier books. Regardless, Milner and Burgmann's more evaluative, less taxonomizing views are not without their own merit or substance; Robinson's science fiction, and perhaps mitigation and geoengineering novels in general, do indeed rely on carefully curated techniques of extrapolation (and perhaps as well the corresponding acts of reifying "world-reduction," in Jameson's famous phrase), and his critical utopian impulses certainly lay themselves open to complaints from skeptical readers who challenge such science-based speculations as naive and overoptimistic. To counter such irrational exuberance, a clarion call of relentlessly dystopian climate fiction may indeed be called for as a political-cultural bulwark against the equally dystopian rising tide of the world's oceans.

Jerome Winter, PhD, is a full-time lecturer at the University of California, Riverside. His first book, *Science Fiction, New Space Opera, and Neoliberal Globalism*, was published by the University of Wales Press as part of their New Dimensions in Science Fiction series. His second book, *Citizen Science Fiction*, will be published in 2021. His scholarship has appeared in *The Oxford Handbook of Science Fiction*, *Extrapolation*, *Journal of Fantastic and the Arts*, the *Los Angeles Review of Books*, *Foundation*, *SFRA Review*, and *Science Fiction Studies*.