

The Anthropocene Unconscious Climate Anxiety in Suburban Science Fiction

Tuluk translated, using ... the word *arsussuq*, “Those who live in abundance.”
It was the same word, incidentally, by which they meant the Dead.
(Valtat 2010, 299)

Throughout modern history, since the European “discovery” of the Americas and the birth of capitalism, the parts per million of atmospheric CO₂, N₂O and CH₄ have risen as a consequence of human activity, primarily in the global north. They continue to rise at an accelerating rate, with escalating consequences that threaten humans and other species with extinction. But Amitav Ghosh, looking back from an imagined future in which sea level rises have made the major deltas and coastal cities uninhabitable, finds its inhabitants scouring “the art and literature of our time . . . for traces and portents” of the upheavals that made their ‘substantially altered’ world (2016, 11). They fail in their quest because “ours was a time when most forms of art and literature were drawn into the modes of concealment that prevented people from recognizing the realities of their plight” (2016, 11).

While Ghosh’s conceit seems nonsensical to anyone remotely familiar with sf or with those varieties of climate fiction that insist they are not sf, it is merely intended to reduce the potential scope of his study. Ironically, though, in focusing on ‘serious literary fiction’ and the culture and institutions that perpetuate it, he replicates the bias of which he accuses them. Defining “serious literary fiction” as the sort of thing featured in the pages of the *London Review of Books* or *New York Review of Books*, he notes that “fiction that deals with climate change is almost by definition not of the kind that is taken seriously by serious literary journals,” which instinctively “relegate” it to “the genre of science fiction ... as though ... climate change were somehow akin to extraterrestrials or interplanetary travel” (2016, 7). An award-winning sf author himself, Ghosh displays familiarity with the more respectably middlebrow portion of the genre, but he too banishes sf from “the mansion in which serious fiction has long been in residence” and locates it, along with fantasy, horror, the Gothic, the romance and the melodrama, in the “generic outhouses” (2016, 24). However ironically he intends this phrasing, he nonetheless comes across like the fourth Duke of Devonshire, who in the eighteenth century demolished Endsor village, where estate workers and others lived, and relocated them out of sight so as to give himself – and visitors approaching the reoriented Chatsworth House from the west – a grand, sweeping, and uncluttered “natural” prospect (designed by Capability Brown).

Ghosh’s country house imagery is drawn, of course, from the very tradition of fiction he finds incapable of addressing climate change. He argues that as the novel developed from the eighteenth century onwards, it did so by distinguishing itself from earlier and rival narrative forms (the epic, the romance) that embraced vast temporal and physical scales and “turn[ed] upon marvellous and uncommon incidents” (Scott 1834, 147). The “serious literary novel” instead set out to be “deliberately prosaic” (Ghosh 2016, 26). With its roots in Daniel Defoe’s reportage and Samuel Richardson’s guides to epistolary comportment, the literary novel’s subject became the fantasy of regular bourgeois life, which it equated with plausibility. It rejected the extraordinary in favor of what it considered rational, orderly and normative. And while any novel must contain “moments and scenes that are in some way distinctive or different” (2016, 17), it would also deploy a vast apparatus of non-narrative quotidian detail so as to regulate such particularities into a smooth flow of unexceptionality. Consequently, the novel banished from its prospect those “forces of unthinkable magnitude that create unbearably intimate connections over vast gaps in time and space” (2016, 63) and

other traces of nonhuman agency. At the same time, it turned inwards to focus on finite and distinctive social and physical milieus, while attenuating “connections to the world beyond,” such as “the imperial networks that make possible the worlds portrayed by Jane Austen and Charlotte Bronte” (2016, 59). And on into the twentieth century, the novel became increasingly centripetal, devoted to the particular, to the psychologized individual, and thus “blind to potentially life-changing threats” (2016, 8).¹

However, Ghosh does his imaginary future humans a huge injustice. Readers are more nuanced than he seems to think, less literal-minded, more than capable of penetrating those “modes of concealment,” not all of which are conscious (and none of them entirely so). Pierre Macherey argues that since authoring a text involves processes of selection – *this* particular word or image or sound – it also involves processes of repression – not *that* word or image or sound. Consequently, any text is surrounded by and filled with the unspoken, even as it “is *compelled* to say” all manner of things “in order to say what it *wants* to say” (2006, 94). This unconscious babble can be rendered into coherent speech by reframing the “text in terms of a particular master code” (Jameson 1989, 10) – that is, in its simplest sense, adopting a specific perspective that alienates the text from how it wants to be read. And if, as I contend, the Anthropocene *is* the unconscious of “the art and literature of our time,” then rather than giving up on a cultural text – be it serious, literary or otherwise – we might instead approach it afresh by not assuming it is not about the anthropogenic biosphere crises engulfing us.²

Prose sf has a remarkable record of treating climate change seriously since at least the late 1980s, depicting and thinking through it processes and consequences, both literally and figuratively.³ But sf cinema’s treatment of the subject, which also dates back to the 1980s, has been rather less exemplary. It has tended to be opportunistic and dispersed into the background as a more-or-less throwaway detail in often far from coherent worldbuilding.⁴ For example, *A.I. – Artificial Intelligence* (Spielberg 2001) was one of the first major Hollywood blockbusters to announce climate change as a key factor in its imagined future. Its opening credits play to the slowly rising sound of waves crashing, and the first shot is of turbulent seas, over which a warmly intoned narration sets the scene:

Those were the years after the ice caps had melted because of the greenhouse gases. And the oceans had risen to drown to many cities along the shorelines of the world. Amsterdam, Venice, New York, forever lost. Millions of people were displaced, climate became chaotic. Hundreds of millions of people starved in poorer countries. Elsewhere, a high degree of prosperity survived when most governments in the developed world introduced legal sanctions to strictly license pregnancies. Which was why robots, who are never hungry and who did not consume resources beyond those

¹ Ghosh urges such fiction to revolutionize itself. It must stop repressing climate change and thus take seriously its long-standing realist claim to represent the world as it is, and/or it must turn to the subjunctive mode that allows it to imagine other ways of organizing and being in the world. That is, although he does not say so, it must become more like sf, a genre that primarily operates in the subjunctive mode (see Delany 1977).

² For a more developed version of this argument, see Bould 2021a. The ‘Anthropocene unconscious’ can perhaps best be understood as an articulation of Jameson’s ‘political unconscious’ within a field construed by environmental criticism’s claim that ‘environmentality [is] a property of any text ... all human artifacts bear such traces, and at several stages: in the composition, the embodiment, and the reception’ (Buell 2005, 25). It also draws inspiration from, and overlaps with, the ‘postcolonial unconscious’, the ‘energy unconscious’, the ‘infrastructural unconscious’, and ‘scale framing’ (see respectively Lazarus 2011, Yaeger 2011, Wark 2015, and Clark 2015).

³ For a comprehensive, if rather literal-minded, mapping, see Milner and Burgmann 2020.

⁴ On the wide range of sf films engaging with climate change in various ways, see Bould 2023.

of their first manufacture, were so essential an economic link in the chainmail of society.⁵

In the third act of the film, when the robot-boy David (Haley Joel Osment), his robot-Teddy (voiced by Jack Angel) and the sex-robot Gigolo Joe (Jude Law) make their way to Manhattan, we are treated to impressive CGI vistas of a flooded and abandoned New York. Only the upper levels of its tallest buildings remain above sea level, and shots of the Statue of Liberty and the Chrysler Building suggest it has risen by 100 meters.

But apart from that – and, arguably, a fleeting reference to the scarcity of Chanel, apparently the only commodity to suffer supply chain disruption – the film contains not a single trace of the 4°C+ increase in global temperatures associated with such a sea-level rise, or any other aspect of climate change.⁶ The first act is set in and around a wealthy vanilla suburb of Madison, New Jersey, home to David’s “parents,” Monica (Frances O’Connor) and Henry Swinton (Sam Robards); the second act is spent with David, Teddy and Joe on the run along the Delaware River and in Philadelphia, which is reworked as the futuristic sex-tourism destination Rouge City. That is, the film takes place almost entirely at elevations below the new sea-level: Madison would at best be ocean-front property, but Rouge City would be under 80 meters of water. However, the only substantial changes in this world are advanced androids, sleek electric cars and the American middle-class home’s embrace of some kind of BoConcept minimalism. Capitalism and patriarchy continue untroubled. Husbands commute to the office; wives stay home to keep house and, if they are licensed to do so, raise children. The weather is always nice, bathing the Swinton home and its environs in the kind of luminous glow with which cinematographer Janusz Kamiński habitually drenches the screen. Monica’s morning coffee ritual suggests a global south still dominated by export-driven cash-crop agriculture. And the natural world is unchanged; in fact, if the old-growth forest in which Monica abandons David is anything to go by, it is thriving. It is as if the seas rose to drown New York but decided not to venture beyond the five boroughs, and then a new climatological equilibrium, just as favorable to human life, kicked in.⁷ Spielberg’s persistent unthinking reversion to generic landscapes – the upper-middle-class suburban home, the terrifying libidinal downtown after dark, the fairy tale

⁵ There is a lot to say about this narration. Its rather passive voice sidesteps any sense of culpability for this catastrophe, even though it describes the survival of the prosperous lifestyle most directly responsible for those greenhouse gas emissions (and of course population control is assumed to be the solution, precisely because redistributing resources away from the most culpable fraction of the global population or demanding of them a more modest lifestyle is, regardless of necessity, somehow unimaginable). The “voice of God” narration also defaults to the Euro/American-centricity of the filmmakers, as the only coastal cities that sufficiently matter to it to be named are European and American, rather than those in the much more densely populated river deltas elsewhere in the world, such as Kolkota and Bangkok. Those displaced millions and starved-to-death hundreds of millions seem like massive underestimates given the scale of sea-level rise subsequently shown in the film, as does the assumption that it is only in the poorer parts of the world that hunger and starvation would be common. There is no evidence of climate chaos in the rest of the film, just some beneficent new, but seemingly unchanged, equilibrium. It is difficult to imagine how robots could be produced that require no energy sources or replacement parts after their initial construction (although it is already a common greenwashing practice to not include the carbon footprint of production and distribution processes in claiming lifetime net-zero status for new buildings and other commodities). And it is just as hard to imagine that robot children the film then goes on to propose (as consoling surrogates for humans not permitted to reproduce) would not become drivers of consumption and thus of resource depletion. At least the bizarre chainmail image with which the voice-over ends fits quite well with the film’s privileging of life in a suburban enclave.

⁶ Lynas calculates a 65-metre rise in sea-level rise in a four degree C hotter world (2007, 170).

⁷ Or as if at some point in the script’s nearly 30-year-long development, the filmmakers lumbered themselves with an hilariously over-elaborate rationale for the creation of android children that they then did not think through. (Spielberg has sole screenplay credit but it was also worked on at various stages by Brian Aldiss, Bob Shaw, Arthur C. Clarke, Ian Watson and Sara Maitland.)

forests of European folklore and fairy tale – is a mechanism of textual repression. It reins in the film’s occasionally Anthropocenic sensibility and, through blithe (re)assurance that even in the face of global catastrophe nothing has to change, crams this knowledge down into the unconscious.

While the prioritization of striking images – such as the Statue of Liberty’s torch held aloft above the breaking waves – over coherent world-building is typical of contemporary blockbuster aesthetics and so should perhaps not be taken too literally as an indicator of the imagined future, it nonetheless points to a failure of imagination –or, rather, a refusal of imagination. Spielberg typically depicts suburbia and the nuclear family as an embattled white enclave outside of the city and/or history,⁸ and/or as embodying a maturity from which his man-child protagonists must flee and/or mature into,⁹ but regardless of its specific treatment in each film, it remains an ineluctable nexus that must be preserved at all costs. Even in *A.I.*’s fourth act, set two thousand years in the future after humanity has died out and a new ice age has engulfed the Earth, the fantasy of white flight and bourgeois exceptionalism is perpetuated. Highly advanced robots that more than slightly resemble *Close Encounters*’ aliens revive David and, at his request, produce a simulacral Monica.¹⁰ In a creepily Oedipal finale, “mother” and “son” are reunited for a single day in a perfect replica of their home, minus such rivals for her attention and affection as her husband and their real son, Martin (Jake Thomas). It is “the happiest day of [David’s] life,” a retreat from catastrophe and mortality into the blissful (and willful) obliviousness facilitated by the maternal dyad and the bubble of suburban privilege, each a figure of the other. Everything has changed, and yet nothing has.

Since the Great Acceleration – when the transformation of wartime production into the manufacture of mass commodities inaugurated a new phase of consumer capital, massively expanding and intensifying the use of fossil fuels as an energy source and in the form of plastics¹¹ – the suburb has been a key locale for American sf.¹² Offering a haven from racialized others in *Revenge of the Creature* (Arnold 1955), *The Creature Walks Among Us* (Sherwood 1956) and *Invasion of the Saucer Men* (Cahn 1957), the suburbs recur throughout the 1950s as a precarious destination for white flight, albeit troubled by commodities and other dehumanizing alien forms, as well as by Oedipal tensions, in *Invaders from Mars* (Menzies 1953), *Forbidden Planet* (Wilcox 1956) and *Invasion of the Body Snatchers* (Siegel 1956). Judith Merrill’s *Shadow on the Hearth* (1950) and Pat Frank’s *Alas, Babylon* (1959) refract nuclear war through tales of suburban life,¹³ and suburban priorities are satirized and critiqued by Kurt Vonnegut Jr.’s *Player Piano* (1952), Frederik Pohl and Cyril M. Kornbluth’s *Gladiator-At-Law* (1955) and numerous sf magazine short stories by women writers, such as Merrill, Doris Pitkin Buck, Mildred Clingerman, Garen Drussaï, Carol Emshwiller, Ann Warren Griffith, Alice Eleanor Jones, Katherine MacLean and Kit Reed.¹⁴ Ray Bradbury’s *Fahrenheit 451* (1953) concatenates the anxieties of this era, and oil is

⁸ For example, *E.T. – The Extra-terrestrial* (1982), *Hook* (1991), *The Lost World*, *Jurassic Park* (1997), *Minority Report* (2002) and Tobe Hooper’s Spielberg-produced *Poltergeist* (1982).

⁹ For example, *Jaws* (1975), *Close Encounters of the Third Kind* (1977), *Jurassic Park* (1993), *War of the Worlds* (2005) and *Indiana Jones and the Kingdom of the Crystal Skull* (2008).

¹⁰ She is cloned from the DNA in a lock of her hair preserved by Teddy, and her personality is constructed from David’s memory of her. And as with *Close Encounters*’ Ronnie Neary (Teri Garr), she is a confused mixture of the maternal and the sexual.

¹¹ See Stefen et al. 2004, and McNeill and Engelke 2014.

¹² Jackson (1985) and Fishman (1987) are classic accounts of the history of the suburb.

¹³ The Anthropocene is also sometimes dated from the 16 July 1945 Trinity nuclear test, with its global spread of human-produced radioactive isotopes.

¹⁴ See Yaszek 2008.

central: his firemen use kerosene to burn the books they find hidden in plastic-coated houses; Montag's flight from the city is almost terminated by teenage joyriders speeding at 130mph down a wide city street; and the novel ends with a nuclear strike destroying the city. Philip K. Dick's novels found their mature form with *Time Out of Joint* (1959), which combined elements of the kind of pulp sf he wrote for Ace books and the absurdity-tinged naturalist novels of lower middle-class suburban aspiration and disenchantment for which he could not find a publisher; both elements remained key to his fiction in subsequent decades.

In the reactionary era of Reagan, the suburb became a site both for nostalgia, in Spielberg's own sf movies and those in a broadly Spielbergian mode, such as *Explorers* (Dante 1984) and *Back to the Future* (Zemeckis 1985), and for satire, as in *Gremlins* (Dante 1984), produced by Spielberg, and *Society* (Yuzna 1989). However, at the same time, after a decade or more of underfunding and demonization, derelict downtowns began to become a prime target for neoliberal redevelopment, selectively reversing white flight while displacing poor populations of color, as seen in films such as *RoboCop* (Verhoeven 1987) and *Darkman* (Raimi 1990).

The remainder of this article will consider three suburban sf films of more recent vintage whose treatment of climate is at least partly unconscious or made more complex by the interplay of conscious and unconscious elements, *Marjorie Prime* (Almeryda 2017), *The Tomorrow War* (McKay 2021) and *The Purge* (DeMonaco 2013).

Marjorie Prime is probably as close to Ghosh's model of serious literary fiction as it is possible for an sf film to get. It never mentions climate change and, apart from one peculiar feature of the conclusion, there is nothing to suggest it is even remotely on the film's mind. Based on Jordan Harrison's play of the same name, first produced in 2014, it consists of three acts separated by significant passages of time and a coda. Marjorie (Lois Smith, recreating her stage role) is 85 years old, unsteady on her feet and losing her memory. When she was younger, she was a concert violinist, but when she married Walter (Jon Hamm) – a financial adviser for the very wealthy, who is some years older than her – she gave up her career to, it is implied, raise a family. Walter died fifteen years before the film opens, and for the last five years, Marjorie has shared their ocean-front Long Island home with her daughter and son-in-law, Tess (Geena Davis) and John (Tim Robbins). Her relationship with Tess is strained, but over the years she has come to appreciate the solicitous John. Tess is estranged from Rainer, her 23-year-old daughter who has blue hair and plays in a band, and whose therapist has advised her not to talk to her mother; every so often, Rainer calls John, who sees himself as a conduit, a calm facilitator. John drinks too much and often seems detached, but his suppressed anger is never directed at his family.

In the opening scene, Marjorie chats with a man who suddenly appears on her sofa. He is Walter Prime, a holographic projection of Walter – at about the age he was when they married – linked to an AI, which is programmed to process data and interactions so that over time it will (purportedly) become a closer and closer simulacrum of the real Walter. This developing relationship is the core of the first and longest act, and it is mirrored in a minor key by the similar but much less pronounced friendship between Marjorie and her new live-in carer, Julie (Stephanie Andujar). The second act, set after Marjorie's death, features Tess talking to Marjorie Prime. In the third act, after Tess's death, John talks to Tess Prime, and Rainer's adopted daughter, Marjorie (Hanna Colley), finally gets to meet the Marjorie Prime version of her grandmother; when Marjorie is older (played by Azumi Tsutsui), she cares for the aged John.

Each Prime is the product of the source person's public record and loved ones' reminiscences about him or her – some derived from interviews explicitly intended to garner such information, some from hints picked up in more casual conversation. For example, when

Marjorie asks for a story, Walter Prime recounts the day she and Walter got engaged. He begins by outlining the plot of *My Best Friend's Wedding* (Hogan 1997), which they watched in the cinema before he proposed. He recalls her saying that she, like Julianne (Julia Roberts) in the film, wanted a “gay best friend.” Marjorie is surprised by this recollection since, as she points out, she already had two. Walter Prime notes that he did not know this and amends his memory accordingly. But Marjorie is dissatisfied, the memory is not romantic enough for her. She is very aware of her declining mental faculties, and if she reaches the point when she can no longer actually remember the proposal and must rely on a machine to tell her about, why could they not have been watching *Casablanca* (Curtiz 1942) instead? And not in a multiplex but in an old theatre with red velvet seats? Later, Marjorie will have a flashback that reveals the proposal actually came as she and Walter lounged post-coitally in a hotel room, with *My Best Friend's Wedding* playing on TV in the background.

The reliability of memory is also called into question by stories that muddle up two pet dogs, a black French poodle called Toni, which Walter and Marjorie picked out at the pound soon after their marriage, and a later black French poodle called Toni 2, which Marjorie insists Tess picked out without knowing about Toni. But it slowly becomes clear that Toni 2 was actually selected by her brother, Damian, about whom the family never really talk, since in his teens he killed Toni 2 and then committed suicide alongside her.

Marjorie also recalls sitting in Central Park and watching an array of saffron flags billowing in the winter cold. However, a flashback shows her and Walter sitting on a sofa, saddened by, presumably, the original Toni's death; on the TV is footage of Christo and Jeanne-Claude's *The Gates* installation.¹⁵

As all this suggests, despite the technological innovation at its core, *Marjorie Prime* is the utterly conventional stuff of the bourgeois novel: difficult family relationships; conflict between generations; shared histories that are, if not completely repressed, then rarely spoken aloud; major and minor deceptions; accumulated petty conflicts; familiarity breeding varieties of contempt; memories of past choices and regrets about what could have been; resignation to the consequences of the choices that were actually made; rich white people banging on about their personal shit while living cossetted lives, complete with working class servants of color.¹⁶ As if to emphasize this, the film barely opens up the play to the world beyond what was portrayed on stage, with four brief exceptions (a New York hotel room, glimpses of Central Park, a walk on the beach, the nearby country club's bar), it is set almost entirely inside the house or in its grounds, which are surrounded by walls beyond which, just out of focus and hidden by trees, can occasionally be glimpsed similarly enclosed houses. The film's energy is entirely centripetal, there is no escape from the gravitational pull of these insular people looking inward into their memories.

This is emphasized in the coda. It begins with a shot of the sea and the sky, with light playing off the waves, which fades to a shot of waves breaking, which in turn fades to a shot of a dog running on the beach. The film then cuts to a shot from inside the house, looking out across the patio, lightly blanketed in snow, toward the sandy beach and beyond it the sea. Walter Prime is telling the story of how Walter proposed to Tess, taking one knee on a wet New York pavement after watching *Casablanca* together in an old movie theatre. Walter Prime and Marjorie Prime – although, because we are not given any clues as to when this scene takes place, it initially looks like it could be a flashback to a time before Marjorie's death – elaborate upon the anecdote with dialogue borrowed from Rick (Humphrey Bogart) and Ilsa (Ingrid Bergman). It transpires they are recounting this memory that we know to be false, although they do not, to Tess Prime (although again, it is not immediately if this a

¹⁵ The footage is actually from Albert Mayles's HBO documentary *The Gates* (2007).

¹⁶ Marjorie's carer, Julie, and, effectively, John's adoptive granddaughter, Marjorie.

flashback to when Tess was alive). “I wore her down, basically,” Walter Prime explains, “and the rest is history,” as if obeying the injunction at the end of *The Man Who Shot Liberty Valance* (Ford 1962), “when the legend becomes fact, print the legend.”

Behind Walter Prime, flakes of the snow on the patio swirl up into the air in the breeze, and then fresh snow begins to fall. The three Primes talk about John, wishing he would stop by, about fearing or embracing the future, and – as Mozart’s Violin Concerto in D Major starts to play – about Toni and Toni 2, with Walter Prime correcting Marjorie Prime and filling a gap in Tess Prime’s memory. Outside, the snow continues to fall from a sunny sky. The film cuts to a brief succession of images – the painting in the gallery where John proposed to Tess, Cameron Diaz in *My Best Friend’s Wedding*, footage of *The Gates* – and then ends with the sound of the sea.

This concluding scene recalls nothing so much as Ray Bradbury’s “There Will Come Soft Rains” (1950), a vignette about a fully-automated, wealthy suburban home that, long after the atom bombs have fallen, killing everyone, continues to run through its daily schedule: making announcements and issuing reminders; cooking meals and clearing up after them; cleaning itself and tending the garden. It is “the one house left standing” in “a city of rubble and ashes” that “at night” gives “off a radioactive glow which could be seen for miles” (2010, 236). The only trace of the McClellan family who once lived there are their silhouettes – father mowing the lawn, mother picking flowers, son and daughter playing catch – white against the fire-blackened wall they momentarily, before being vaporized, shaded from the light of the nuclear blast. And yet still the house runs on, even reading Mrs McClellan’s favorite poem aloud for her, Sara Teasdale’s “There Will Come Soft Rains” (1918). Printed in full in Bradbury’s story, it was written in the final year of World War One as the H1N1 influenza A virus swept the globe. It too imagines a future without humans, with a rebounding natural world indifferent to our extinction, whether from war or disease. Bradbury’s story ends with a small-scale replay of disaster, an accidental fire burns the house down, destroying all but one wall, on which a talking clock announces the dawn of the next day.

While Bradbury presents a winding-down of our final traces, and Teasdale imagines an afterwards in which we as a species are no more, *Marjorie Prime* extends capitalist realism’s refusal of any alternative into the future,¹⁷ making it just a copy of the present, endlessly reiterated and utterly uninterested in human (or biospheric) well-being. And yet just outside that Long Island bubble of middle-class privilege, and of serious literary fiction’s limited purview, a momentary parapraxis occurs: the weather has gone a little crazy – it is snowing on a sunny day – and the tide is rising. This meteorologically uncanny backdrop to the film’s final, centripetal scene of artificial copies of human characters trapped by the event-horizon of their mundane self-obsessions, lends the film a final haunting note, as those repressed “forces of unthinkable magnitude” and nonhuman agencies (Ghosh 2016, 63) sneak up from the film’s textual unconscious and creep into view before the end-credits can roll. Whatever the intended point of the film might be, it is clearly not this. But once in a while even the Matrix glitches.

The distinction between the conscious and unconscious of a text is not clear cut, and it shifts according to the viewer’s perspective. *The Tomorrow War* is instructive here.¹⁸ A big, loud, sentimental action movie, complete with extended combat sequences, extensive CGI effects, family melodrama and twists so obvious they do not deserve the name, it shamelessly borrows and amps up elements of *Them!* (1954), *The Thing* (1982), *Jurassic Park* (1992),

¹⁷ On capitalist realism, see Fisher 2009.

¹⁸ An earlier version of this discussion of *The Tomorrow War* appeared in Bould 2021b.

Independence Day (1996), *Starship Troopers* (1997) and the *Alien* (1979–) and *Predator* (1987–) franchises. Screenwriter Zach Dean and director Chris McKay are also clearly, on some level, conscious of sf’s metaphoric capacities. While there is little in *Godzilla* (2014) to explicitly indicate that director Gareth Edwards’ *kaiju* represents, as he repeatedly stated in interview, climate change (rather than the atomic bomb), *The Tomorrow War* hinges on a series of parallels between the alien invasion and global warming.

In December 2022, in the closing minutes of the World Cup final, soldiers emerge from 30 years in the future. In 2048, ferocious aliens – White Spikes – appeared in northern Russia and began killing and eating humans: “They had no use for prisoners, government, technology, money, nothing. We are food. And they are hungry.” By 2051, fewer than half a million people remain alive, and it is feared they will not survive another year. The “last hope” of the future humans facing the “existential threat” of “an extinction-level event” is to recruit their “mothers, fathers, grandparents” into the war; that is, to act now in order to save the future. As the Secretary of Defense puts, it is “a cry for help across time, the voice of your children” and “the sacrifice you make now is for them.”

Beyond these parallels, climate change also plays an explicit role in the story. Dan Forester (Chris Pratt), an Iraq war special ops veteran turned public high school Biology teacher, is drafted. A standard seven-day tour of duty in the future has a 70% mortality rate, but he survives to bring back a toxin that can kill the White Spikes and works out that the aliens must have landed earlier than 2048. Traces of volcanic ash beneath a talon ripped from a White Spike corpse date from the Millennium or Tianchi eruption of Peaktu mountain, circa 946AD (one of the largest eruptions in the last 5000 years, its climatological effects reached far beyond Manchuria). Therefore, since the aliens first appeared in northern Russia, their spaceship must be buried 400 meters under the Academy of Sciences Glacier on Komsomolets Island in the Severnaya Zemlya archipelago, which global-warming projections predict will have melted by 2048 (thus defrosting the White Spikes). Unable to persuade the Secretary of Defense to launch a mission to the alien crash site, Dan recruits his estranged father, James (J.K. Simmons), and a handful of veterans returned from the future war to locate and destroy the frozen spaceship.

Climate change is also inscribed in the *mise en scène*. Dan’s classroom has an electronic display about habitat destruction and species die-off. On his young daughter Muri’s (Ryan Kiera Armstrong) bedroom wall is a massive picture of a butterfly, that emblem of non-linear determinism familiar from both time-travel stories and the complex, tipping-point causation of climate change. And the center of future human military operations – and the site of their last stand against the White Spikes – is Deepswell-9, a fortified oil rig in the Caribbean, 25 miles east of Port Nelson, Bahamas.

All of this might be thought of as the film’s Anthropocene consciousness. It is all more or less deliberate, but *The Tomorrow War* also possesses an Anthropocene unconscious. This is perhaps most evident in elements of the *mise en scène* that – despite obviously involving selection, design and dressing – are presented unthinkingly, as some kind of unquestioned norm. After a teaser showing glimpses of James’s catastrophic time-jump into an alien-infested future Miami Beach, the film proper opens with a vision of suburbia, nestled among trees on a gently sloping hill. A wide street curves up and around this shallow rise, and Dan drives his shiny black SUV between pristine detached houses, all with two-car garages and some with a car in the driveway. Christmas lights outline the buildings, drape over manicured bushes and trees. Illuminated inflatable decorations cluster in immaculate front yards. Kids cycle past, and couples walk by on broad pavements. Garbage bins are neatly arrayed in the gutter (although no one sorts or recycles their waste). Dan is in mid-phone call, chasing a scientific job in the private sector, but he still manages to carry beer and other party supplies into the improbably large house he shares with his wife, Emmy (Betty

Gilpin), and Muri. There are dozens of guests, children and adults, but it never seems crowded. Food and drink are in lavish supply. A massive TV screen dominates the wall above the fireplace. Fairy lights tastefully abound and, for some reason, the Christmas tree revolves.

All of which is unremarkable, until you stop to remark upon it.

The Tomorrow War does hint at the weirdness of such suburban plenitude. Twice in the opening sequence discordant elements disrupt this apparent normalcy: a lawn Santa rotates to reveal scary Krampus lurking beneath the red hood; Emmy proudly displays a tuna Santa that is frankly grotesque. (Later, despite maintaining Hollywood's slavish valorization of the US military, the film does also show glimpses of veterans with shattered minds and bodies.) Such queasy images betray a quickly suppressed uneasiness with the way things are. They are harbingers of the things that cannot be said.

Such as the fact that the peculiar nature of American suburbs was largely determined by the automotive and fossil fuel industries. That along with real estate developers, they successfully argued that public transport infrastructure – streetcar and rail lines – was a matter of private investment, but the roads from which they benefitted were a public good and should be paid for through general taxation. That SUVs were the second largest contributor to increased global CO₂ emissions in the 2010s. That defense spending – another massive transfer of public money to private profit – likewise drove Sunbelt suburban developments around aerospace and other military industries. That the Pentagon is the world's largest consumer of fossil fuels. That, as Amitav Ghosh explains, a “non-nuclear aircraft carrier consumes 5,621 gallons of fuel per hour ... as much fuel in one day as a small midwestern town might use in a year,” with “a single F-16 consum[ing] a third as much fuel in one hour of ordinary operations – around 1,700 gallons” and if its “afterburners are engaged ... two and a half times as much fuel per hour as an aircraft carrier – 14,400 gallons” (2021, 122). And so on.

If we reimagine *The Tomorrow War* in terms of this different master code, every house, every lawn, every light and plastic ornament Dan drives past, and the car in which he drives past them – each of these unconscious things that the film, in Macherey's words, “is *compelled* to say in order to say what it *wants* to say” (2006, 106) – is revealed as yet another node in the petrocultural web scorching the Earth.

Dan does not get the private sector job. In the future, Colonel Muri Forester (Yvonne Starhovski) – his daughter, now grown up, with a PhD from MIT in biotechnology, genomics and immunology, and the founder and leader of R Force, the wing of the military dedicated to developing a weapon with which to eradicate the White Spikes – tells him that in her timeline, he grew increasingly dissatisfied with his life: when she was twelve, he and Emmy separated; when she was fourteen, they divorced; and on her sixteenth birthday, she sat with him in the ICU as he died from injuries sustained in a car crash. And so, at the end of the movie, after he has been forced to leave grown-up Muri behind in the future to die in the final White Spike assault on Deepswell-9, and after he has eradicated the aliens decades before they would otherwise defrost, Dan returns home in his father's sleek old slab of Detroit muscle car. In this suburban bubble, the only trace of the rioting that swept the world are garbage bins lying on their side (on the sidewalk, with nothing spilling onto lawns or across the verge into the road). Having already saved the world, he rights his family's upturned bin and wheels it up the driveway. Emmy and young Muri emerge to embrace him, and then as James hugs the granddaughter he is meeting for the first time, Dan says in voice-over, “I never told her about our seven days together nor how, in a future that now will never happen, she changed me. Forever. I'm never going to leave her. I'll never leave this family. Because my best future it turns out was always right in front of me.”

It is the moment when the metaphor of alien-invasion-as-climate-change (and vice versa) is irreversibly severed. In the world of the film, global warming is only a threat because it unleashes the White Spikes; once they are killed, there is no reason to do anything about climate change. And whatever positive work the film might consciously have set out to do is undone by the triumph of its unthinking.

If *Marjorie Prime* tries to suppress any thought of climate change but cannot avoid an uncanny parapraxis in its closing moments, and *The Tomorrow War* deliberately evokes climate change but lets slip rather more than it intends, discerning the Anthropocene unconscious of *The Purge* presents more of a challenge.

After an economic collapse in 2014, a political party called the New Founding Fathers of America (NFFA) came to power, and four years later introduced a temporal state of exception, between 7 p.m. on 21 March 2018 and 7 a.m. the following morning, all criminal acts are decriminalized¹⁹ so that Americans can purge themselves of their anger, frustration and rage.²⁰ Now it is 2022, and Purge Night is an annual event. James (Ethan Hawke) and Mary Sandin (Lena Heady) are a wealthy bourgeois couple whose wealthy bourgeois lifestyle cannot disguise the extent of their family's dysfunctionality. Their son, Charlie (Max Burkholder), monitors and keeps a hand-written record of his stress levels; he spends a lot of time hiding out in a secret place in the wall space behind his bedroom closet; he remote-control prowls the house with a car adorned with a damaged doll, spying through its camera eyes. His teenage sister, Zoe (Adelaide Kane), is disenchanted with family rituals and sulkily, gleefully rude to her parents; she is also, against their wishes, secretly still dating an older boy, Henry (Tony Oller). A decade earlier, James and Mary were struggling to make the rent, but now he heads what has just become the most successful sales division of a domestic security system company. They have recently added a massive new wing to their house in a gated community and are thinking of buying a boat. James insists that heading the league table is a "team-win," but no one else seems to be collecting a bonus.

The Sandins do not participate in the Purge. Instead, they lock down the house for the night, protected by one of the systems James sells. It is not enough. Henry, who has been hiding in the house, is intent on killing James so he can continue dating Zoe without paternal interference. But just as he chooses to strike, Charley opens the security shutters to let in Bloody Stranger (Edwin Hodge), an injured, homeless Black man who calls for help from the street. He has escaped from a group of Purgers who consider his life to have no value other than as a target of their lethal violence, a sacrifice for their Purge. As Henry opens fire on James, and James shoots back in his general direction (unintentionally killing him), the Bloody Stranger escapes into the depths of a house so big that its internal geography is impossible for the viewer to map. Soon after, the angry Purgers arrive and demand the Sandins return their victim to them – otherwise they will break in and kill everyone.

Riffing against the typical home-invasion narrative, these Purgers are rich and white. Their Polite Leader (Rhys Wakefield) – who would not be out of place showing off his business card to Patrick Bateman – identifies the Sandins as "good folks like us, one of the haves," adding "we do not want to kill our own." James insists that the only course of action

¹⁹ Apart from those committed against senior government officials or making use of certain weapons.

²⁰ The franchise stresses violent crime, particularly torture and murder, and since emergency services are also suspended during the purge, even those who do not wish to participate are forced by the violence of others to violently stand their ground. This has been a feature, not a bug, from the outset. In *The First Purge* (McMurray 2018), set in 2018, the NFFA manipulate their initial experiment in the war of all against all. They restricted the first Purge Night to Staten Island, and paid residents who chose to stay a \$5000 fee. But when the residents preferred to save the money and stay home for the night – or blow it on street parties – the NFFA sent in masked mercenaries to unleash carnage, giving residents little choice but to fight back. But even if they had not, the televised slaughter by fake residents would still have made the Purge look successful.

is to find Bloody Stranger and hand him over to the Purgers, even though it will mean his death: “why should we die? It’s him or us?” His family demur, prompting James to admit that their security system is far from impregnable; it is “not made for the worst-case scenario.” In fact, it is largely cosmetic, a visual deterrent incapable of keeping out anyone really determined to get in, with its vaunted 99% success rate coming down to duped Purgers looking for easier pickings.

The Purgers break in, a bloodbath ensues and James is killed, but the rest of the Sandins are rescued by their neighbors. However, Grace (Arija Bareiki) explains, it is because “You’re ours, not theirs.” James sold security systems to nearly everyone in the neighborhood, and as far as they are concerned they paid for the new wing on the Sandin house – and “not everyone had the year you had ... you made so much money off us then shoved it right in our faces.” Hence, they have come to purge their anger with their neighbors on their neighbors. But the Bloody Stranger intervenes to save Mary, Zoe and Charlie. Mary refuses revenge or murder, and makes the neighbors sit down around the dining room table – at gunpoint – and wait until 7am before kicking them out. The American myth of redemption through violence, so central to the Western as well as the home-invasion movie, is sort of overturned as redemption through non-violence comes after violence, with a little bit of non-lethal violence and the threat of further violence...

It is difficult not to read *The Purge* as a figuration of the subprime mortgages that triggered the global financial collapse. The home invaders – Purgers and neighbors – are not racialized Others, but people just like the occupants, their financial exposure hidden by the suburban façade, tranced together like subprimes in an indistinguishable but toxic bundle. It is easy to identify James with one of the mortgage salesmen who, knowing they would almost certainly result in defaults, nonetheless sold garbage mortgages (because the fees for selling them were higher and the risk was packaged away where it could not harm the salesman). If the Polite Leader physically resembles the image of Wall Street bankers and traders found in films such as *American Psycho* (Harron 2000), James embodies the cynical reason of those who knowingly bundled decent mortgages together with garbage subprimes (if he does not do it, someone else will, so he might as well) – and, like them, he makes a living out of misery and death. The film ends with a news reports that the “market’s up this morning, after gun and home security companies release their quarterly reports.” And if it’s good for the markets...

The Purge franchise – there have been four sequels (2014, 2016, 2018, 2021), with a fifth in pre-production limbo, and a two-season TV series (2018–19) – repeatedly reworks, often in combination, two narrative forms derived from colonial fiction: the home invasion narrative, derived from stories in which settler colonists are threatened by the racialized others they have dispossessed; and the perilous journey, derived from stories of settler colonists traveling through hostile territory from which they intend to dispossess the inhabitants.²¹ In this, they resemble the contemporary zombie movie,²² and in doing so also recollect American history, that “still older story of real estate plunder, genocide, land expropriation, and other forms of violent primitive accumulation” (McLanahan 2016, 179).

And it from this larger view – the history of colonialism and capitalism, the inextricably interrelated drivers of climate change – that the Anthropocene unconscious of *The Purge* comes into view. The armored suburban home is a microcosm of the gated

²¹ John Carpenter’s reworking of *Rio Bravo* (Hawks 1959) as *Assault on Precinct 13* (1976) is probably, along with *Night of the Living Dead* (Romero 1968), *The Last House on the Left* (Craven 1972) and *Dawn of the Dead* (Romero 1978), the key text in translating these Western narratives into contemporary and city settings.

²² Any text that dehumanizes a massively mobile and “unwanted” population cannot not be in some way about climate refugees, of which it is commonly estimated there will be 200-250 million by 2050 (see Bould 2021a, 29).

community, and both are microcosms of the nation state; just as all three scales are profoundly intertwined, the concepts of country and nation are “deeply indebted to origins, family, tradition, home” and “nation-states are configurations of origins as exclusionary power structures which have legitimacy based solely on conquest and acquisition” (Brand 2001, 64). As the Sandins lock down for the night, James explains to Charlie that bad things will happen but we can afford protection,” and later he insists that “things like this don’t happen in our neighborhood.” This logic underpins many of the responses to accelerating climate chaos. For example, Australia, Canada, France, Germany, Japan, the UK and the US, the seven wealthy nations “responsible for 48% of the world’s historic greenhouse gas ... emissions,” between 2013 and 2018 “collectively spent at least twice as much on border and immigration enforcement (more than \$33.1 billion) as on climate finance (\$14.4 billion),” Canada spent 15 times more, Australia 13 and the US 11, and in dollar terms the US spent seven times as much as Australia and thirteen times as much as Canada (Miller et al. 2021, 1). That is, rather than adequately addressing a problem we are largely responsible for creating, the wealthiest nation’s priority is to distribute the consequences in such a way that they fall most heavily on those least culpable.²³

The Purge hothouses the ideological fantasies of racial capitalism. It speaks – not always clearly or without contradiction – of the violence inherent in the current system maldistributing finite resources, and of the profligacy with which it burns through them, producing if not its own gravediggers then certainly our mass grave. But the film also gestures towards a solution, moving beyond fear and towards hospitality.

However, hospitality is not enough. As Jacques Derrida argues, by extending hospitality to another, one insinuates that “one is at home here” and “appropriates for oneself a place” (1999, 15). At the same time and in the same act, one claims ownership, belonging and possession while denying them to the guest one is welcoming. In a similar vein, Michael Serres notes that in Latin, “to have” and “to inhabit” have the same root, “From the mists of time, our languages echo the profound relation between nest and appropriation, between the living space and possession: I inhabit, therefore I have” (2011, 8).

The Purge emphasizes the exercise of power and hierarchy inherent in being (however reluctantly) hospitable. Charlie raises the security shutters because none of the neighbors respond to Bloody Stranger’s cries for help. While James seems to feel some genuine remorse over killing the wealthy white teen who attacked him, he immediately categorizes the homeless Black man as a threat to be expelled. Indeed, it is not until after James has shot, tied up and tortured the Bloody Stranger that he decides not to throw him out into the street. This change of heart, however, has rather less to do with hospitality (he leaves the stranger tied to a chair) than with winning back the respect of his family, not so much by doing the right thing as by deciding to take up arms to violently defend his home from the Purgers.

Later, in a parody of good neighborliness, Mary holds the couples who came to kill her family at gunpoint around the dining table. When the all-clear sounds, she tells them to get the hell out of her house. Moments later, Bloody Stranger also departs. Despite everything that has happened he – like Ethan Edwards (John Wayne) at the end of *The Searchers* (Ford 1956), Ray Ferrier (Tom Cruise) at the end of *War of the Worlds* (Spielberg 2005) or, more troublingly, Ben (Duane Jones) at the end of *Night of the Living Dead* (Romero 1968) – knows he does not belong, that he has no place there. He assures Mary he will be fine but the flatness of his response and the affectless way she accepts it highlight that

²³ Ironically, the most recent entry in the franchise, *The Forever Purge* (Gout 2021), concerns a group of Americans trying to flee south into Mexico, through all those defences intended to keep Latin American climate refugees and others out.

however genuine her query after his future well-being might have been, they are both capable of falling back into the proprieties of property, however deadly they might prove.

Hospitality, even when it is not this reluctant, has its limits: as Serres writes, “without place, no living being can live. Taking it away from someone means killing him” (2011, 76). The suburban home – in its real-world ravaging appetite for resources, and in its metaphoric capacity to represent first-world lifestyles, the monadic subject and the nation state – is literally and figuratively a machine for killing with. The greenhouse gases it spews, the borders it arranges, the ownership upon which it insists, create and distribute disaster. But it is not impregnable. It is not built for worst-case scenarios. And no matter how much protection can be bought, bad things will happen there.

As this article hopefully demonstrates, anxieties about climate change – conscious, unconscious, and/or complicatedly intertwined – can be discerned throughout contemporary culture. While only a tiny proportion of films and novels take on the task of imagining adaptations and/or solutions to this Anthropogenic crisis,²⁴ the desire for a better world can also be traced in the Anthropocene unconscious of other texts. The four films discussed in detail above are united by the utopian specters that haunt them, captured by two chiasmically-entwined yearnings best described by Mark Fisher. On the one hand is Red Plenty or real wealth, “the capacity to produce, care and enjoy”:

it is not that we are anti-capitalist, it is that capitalism, with all its visored cops, its teargas, all the theological niceties of its economics, is set up to block Red Plenty. The attack on capital has to be fundamentally based on the simple insight that, far from being about “wealth creation,” capital necessarily and always blocks our access to this common wealth. Everything for everyone. All of us first. (2018, 577)

And on the other is Red Belonging,

As opposed to the essentially spatial imaginary of Blue [that is capitalist, racist, nationalist, suburban] belonging – which posits a bounded area, with those inside hostile and suspicious towards those who are excluded – Red belonging is temporal and dynamic. It is about belonging to a movement ... that abolishes the present state of things [and] offers unconditional care without community (it doesn't matter where you come from or who you are, we will care for you anyway). (2018, 578)

There can be no better principles to shape our way through this unfolding Anthropogenic crisis, or on which to build a future.

References

- Almeryda, Michael (2017), *Marjorie Prime*, USA, Passage Pictures/141 Entertainment/BB Film Productions.
- Bould, Mark (2021a), *The Anthropocene Unconscious, Climate Catastrophe Culture*, London, Verso.

²⁴ Kim Stanley Robinson's *Pacific Edge* (1990), *Science in the Capital* trilogy (2004–7), *New York 2140* (2017), *The Ministry for the Future* (2020) and, at a metaphorical remove, *Icehenge* (1984), the *Mars* trilogy (1992–96) and *Aurora* (2015), provide the most sustained example of such efforts.

- Bould, Mark (2021a), "The Anthropocene Unconscious of Some Alien Invasions," *The Verso Blog* (1 November) < <https://www.versobooks.com/en-gb/blogs/news/5186-the-anthropocene-unconscious-of-some-alien-invasions>>
- Bould, Mark (2023), "Cli-fi Cinema," in J.P. Telotte (ed.), *The Oxford Handbook of New Science Fiction Cinemas*, Oxford, Oxford University Press, pp. 52–70.
- Brand, Dione (2001), *A Map to the Door of No Return, Notes to Belonging*, New York, Random House.
- Bradbury, Ray (2010), "There Will Come Soft Rains" in Evans, Arthur B., Csicsery-Ronay Jr, Istvan, Gordon, Joan, Hollinger, Veronica, Latham, Rob and McGuirk, Carol (eds), *The Wesleyan Anthology of Science Fiction*, Middletown, Wesleyan University Press, pp. 234–240.
-
- Buell, Lawrence (2005), *The Future of Environmental Criticism: Environmental Crisis and Literary Imagination*, Oxford, Blackwell.
- Clark, Timothy (2015), *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept*, London, Bloomsbury.
- Delany, Samuel R (1977), "About 5,750 Words," in *The Jewel-Hinged Jaw, Notes on the Language of Science Fiction*, Elizabethtown, Dragon Press, pp. 33–49.
- DeMonaco, James (2013), *The Purge*, USA/France, Universal Pictures/Platinum Dunes/Blumhouse/Why Not.
- Derrida, Jacques (1999), *Adieu to Emmanuel Levinas* (trans. P.-A. Brault and M. Naas), Stanford, Stanford University Press.
- Fisher, Mark (2009), *Capitalist Realism, Is There No Alternative?*, Winchester, Zero Books.
- Fisher, Mark (2018), "Abandon Hope (Summer Is Coming)," in Ambrose, Darren (ed.), *k-punk, The Collected and Unpublished Writings of Mark Fisher (2004–2016)*, London, Repeater, pp. 573–584.
- Fishman, Robert (1987), *Bourgeois Utopias, The Rise and Fall of Suburbia*, New York, Basic Books.
- Ghosh, Amitav (2016), *The Great Derangement, Climate Change and the Unthinkable*, Chicago, The University of Chicago Press.
- Ghosh, Amitav (2021), *The Nutmeg's Curse, Parables for a Planet in Crisis*, London, John Murray.
- Jackson, Kenneth T. (1985), *Crabgrass Frontier, The Suburbanization of the United States*, New York, Oxford University Press.
- Jameson, Fredric (1989), *The Political Unconscious, Narrative as a Socially Symbolic Act*, London, Routledge.
-
- Lazarus, Neil (2011), *The Postcolonial Unconscious*, Cambridge, Cambridge University Press.
- Lynas, Mark (2007), *Six Degrees, Our Future on a Hotter Planet*, London, Fourth Estate.
- McClanahan, Annie (2016), *Dead Pledges, Debt, Crisis, and Twenty-First Century Culture*, Stanford, Stanford University Press.
- McKay, Chris (2021) *The Tomorrow War*, USA, Skydance Media/Paramount Pictures/New Republic Pictures/Amazon Studios/Lit Entertainment Group/Phantom Four Films.
- McNeill, J.R. and Engelke, Peter (2014), *The Great Acceleration, An Environmental History of the Anthropocene since 1945*, Cambridge, The Belknap Press.
- Macherey, Pierre (2006), *A Theory of Literary Production* (trans. G. Wall), London, Verso.
- Miller, Todd, Buxton, Nick Buxton and Akkerman, Mark. *Global Climate Wall, How the World's Wealthiest Nations Prioritise Borders Over Climate Action*. Amsterdam, Transnational Institute, 2021. <<https://www.tni.org/files/publication-downloads/global-climate-wall-report-tni-web-resolution.pdf>> Accessed 25 April 2022.

- Milner, Andrew and Burgmann, J.R. (2020), *Science Fiction and Climate Change, A Sociological Approach*, Liverpool, Liverpool University Press.
- Scott, Sir Walter (1834), "Essay on Romance," in *The Miscellaneous Prose Works of Sir Walter Scott, Bart., volume VI, Chivalry, Romance, The Drama*. Edinburgh, Robert Cadell, pp. 147–216.
- Serres, Michel (2011), *Malfeasance, Appropriation through Pollution* (trans. A.-M. Feenberg-Dibon), Stanford, Stanford University Press.
- Spielberg, Steven (2001), *A.I. – Artificial Intelligence*, USA/UK, Warner Bros./Dreamworks Pictures/Amblin Entertainment/Stanley Kubrik Productions.
- Steffen, Will, Sanderson, Angelina, Tyson, Peter, Jäger, Jill, Matson, Pamela, Moore III, Berrian, Oldfield, Frank, Richardson, Katherine, Schellnhuber, H. John, Turner II, B.L. and Wasson, Robert J. (2004), *Global Change and the Earth System, A Planet under Pressure*, London, Springer.
- Valtat, Jean-Christophe (2010), *Aurorarama*. Brooklyn, Melville House.
-
- Wark, McKenzie (2015), *Molecular Red: Theory for the Anthropocene*, London, Verso.
- Yaeger, Patricia. (2011), 'Editor's Column: Literature in the Ages of Wood, Tallow, Coal, Whale-Oil, Gasoline, Atomic Power and Other Energy Sources'. *PMLA* 126.2, pp. 305–10.
- Yaszek, Lisa (2008), *Galactic Suburbia, Recovering Women's Science Fiction*, Columbus, Ohio State University Press.
-