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VECTOR EDITORS
Jo Lindsay Walton
Polina Levontin
vector.editors@gmail.com

THE BSFA REVIEW EDITOR
Susan Oke
smayoke@gmail.com

FOCUS EDITOR
Dev Agarwal
devhotmail@yahoo.co.uk

BSFA CHAIR
Allen Stroud
chair@bsfa.co.uk

TREASURER
Farah Mendlesohn
treasurer@bsfa.co.uk

MEMBERSHIP
Luke Nicklin
membership@bsfa.co.uk

BSFA AWARDS ADMINISTRATOR
Clare Boothby
awards@bsfa.co.uk

BSFA INTERNATIONAL OFFICER
Dave Lally

BSFA EVENTS OFFICER
Susan Gray

BSFA WRITING GROUPS CO-ORDINATOR
Terry Jackman
terry01925@gmail.com

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VECTOR
291

Torque Control
Editorial 2

The Dystopian Narrative: an Analysis of Texts that Portray Nightmarish Futures
Giovanna Chinellato 6

The Needle and the Wedge: Digital Games as a Medium for Science Fiction
Monica Evans 15

This Is How You Produce The Time War: Powder Scofield interviews Amal El-Mohtar and Max Gladstone 24

Another Kind of Party: *Vector* interviews Catherynne M. Valente 34

The Science and the Politics: *Vector* interviews Nancy Kress 37

Vector Recommends
Andy Sawyer on Amal El-Mohtar and Max Gladstone
Maureen Kincaid Speller on Melissa Edmondson (ed.)
Kate Onyett on Tyler Hayes 40

Kincaid in Short
Paul Kincaid 44

***Us*: A film about 'Them'?**
Dev Agarwal 47

Productive Futures: The Political Economy of Science Fiction
Jasmine Sharma 52

Amazofuturism and Indigenous Futurism in Brazilian Science Fiction
Gama and Garcia 55

"Actions and Reactions and Ripple Effects": Liz Lutgendorff interviews Valerie Valdes 66

Living among the Leviathans: Robert S. Malan interviews Stewart Hotston 70

More Politics, More Magic, and More Queer: Alison Baker interviews Juliet Kemp 74

***Sideways in Time: Critical Essays on Alternate History Fiction* edited by Glyn Morgan and C. Palmer-Patel**
Reviewed by Nick Hubble 77

Torque Control

Editorial by Polina Levontin
with contributions by Michelle Louise Clarke and Jo Lindsay Walton

'We are now living in a science-fiction novel that we are all writing together. The present feels dangerous and volatile, and which future will actually happen is radically uncertain.'
Kim Stanley Robinson (December 2017)

'... it took a plague to make some of the people realize that things could change.'
Octavia Butler, *Parable of the Sower*

Even before the pandemic hit, it felt like we were accelerating towards a future whose risk landscape loomed from afar due to its many dangerous peaks. Climate change, wildlife extinction, economic instability, war and terrorism, shiny new tech with unpredictable implications. We were living in a world that could collapse at any of its hidden tipping points. We were moving fast, conscious that we would only know where we were after a delay: those tipping points, could we have passed them already? Now, a new level of acceleration seems possible. Most agree that the crisis will lead to quicker transformations than were deemed possible only a few months ago. Society is about to change. The question is: how do we ensure that it will change in the right ways?

We have never before seen so much attention being paid to speculations and uncertainty about the future. Tools that experts use, such as epidemiological modelling, are suddenly front page news. Statistical intricacies, such as the details of collecting, processing, analysing and communicating data, have become of interest to a much wider audience. The relationship between policy and scientific advice is taking centre stage. Scientists and experts of all kinds are in demand, and the ways they imagine our paths into the future now carry more weight than ever.

The voices of experts are not only revealing a wide range of possible policy approaches, but also a wide array of possible futures in both the medium and the long term (see e.g. BBC, *Fallout*). Some experts imagine a range of utopian outcomes: more investment in global health, greater attention to air quality and animal rights, faster transition to a green economy, expansion of the welfare systems and protection against unemployment, and recognition of key workers and revaluing the labour of cleaners and carers. With some people furloughed or finding themselves more in control of their working conditions, and with a drop in many types of consumption, lockdowns around the world may prefigure a less consumerist, less work-obsessed future. Could this be the moment where we start to rebuild society around what really matters? Other experts warn of the exact opposite. The debts incurred will endanger the transition to a green economy, starve welfare systems and weaken compliance with regulations protecting human, animal or environmental rights. Unemployment will erode workers' rights and labour organisation, and exploitation will worsen. Gains towards gender equality will be erased and systemic racism will make not just the pandemic but its long-term consequences more devastating for people of colour. The rich and privileged will busy themselves building lifeboats for themselves (see Dipesh Chakrabarty's 'The Climate of History'). The balance between public health safety and privacy from surveillance is similarly depicted as a great seesaw, with the ability of governments, law and new technologies to safeguard that balance very much in question.

With so many different possibilities being mapped out, with the conviction spreading like wildfire that we can't go back to normal, but must instead #BuildBackBetter and #BuildBackBetterForAll, and with diverse ideas about what 'better' actually means, where on Earth does science fiction fit in? Since Covid-19 emerged, the demand for science and for science fiction have increased in tandem. Some of us have even described 2020, half-jokingly, as the year of the apocalypse. Pandemic films such as Steven Soderbergh's *Contagion* have been trending on Amazon Prime. Literary depictions, from Connie Willis's *The Doomsday Book*, to Stephen King's *The Stand*, Ling Ma's *Severance*, or Emily St. John Mandel's *Station Eleven,* have sprung vividly to mind as we've wrestled with the unprecedented. As many of us have migrated our work and play to Zoom or Jitsi, E.M. Forster's 'The Machine Stops,' with its society of physically isolated chatterboxes, has felt more prescient than ever. Sometimes, of course, we feel a little it let down by our SFF. Should SFF have warned us about the supply chains? To be fair, it probably did: works like Tim Maughan's *Infinite Detail* describe the fragility of our neoliberal systems of production, distribution and finance. We certainly got the heads up on the infodemic (see the still from *Contagion* above).

Nevertheless, for many of us, the 'apocalypse' is not quite what we imagined. As Laurie Penny writes, "I was expecting *Half-Life*. I was expecting *World War Z*. I've been dressing like I'm in *The Matrix* since 2003. I was not expecting to be facing this sort of thing in snuggly socks and a dressing gown, thousands of miles from home, trying not to panic and craving a proper cup of tea. This apocalypse is less Danny Boyle and more Douglas Adams" (*Wired*). As Penny also points out, 2020 was never going to be the year of the lone macho survivalist, wandering the wastelands wielding his swords of scavenged scrap-metal. After all, "when social structures crack and shatter, what happens isn't an instant reversion to muscular state-of-nature. What happens is that women and carers of all genders quietly exhaust themselves filling in the gaps, trying to save as many people as possible from physical and mental collapse. The people on the front line are not fighters. They are healers and carers" (*Wired*).

***Contagion* (2011)**

If Covid-19 has created new communities, it has also exposed and exacerbated existing inequalities. Indeed, the trouble with talk of 'apocalypse' — or 'dystopia' or 'end times' — is that it can emphasise a certain kind of privilege. It can imply that everything was just fine till yesterday, the day of the unimaginable rupture. But the truth is, we are living in the aftermaths of countless apocalypses. As Grace Dillon puts it: "the Native Apocalypse, if contemplated seriously, has already taken place" (*Walking in the Clouds*, 8). Of course Dillon is talking about colonialism, not only past acts of genocide and conquest, but also ongoing repercussions, built into the foundations of our world system. Some kinds of violence happen at a moment you can pinpoint in time and space. But there are other kinds — structural violence, systemic violence, slow violence — whose operations require more effort to see, though their effects are no less devastating. We are witnessing an intensification of such violence right now in the UK, where a vastly disproportionate number of BAME people have died of Covid-19 (see Office for National Statistics). Insofar as this virus is an apocalypse, it is integrated with the apocalypses that have already been unfolding for centuries.

Although SFF feels more relevant than ever, in a pragmatic sense, it is probably not in SFF where we find the most accurate predictions of the current crisis, but in so-called 'grey literature.' Reports by various government agencies, focused on future risk and using foresight methodologies, have warned of the very specific challenges that we are now experiencing and proposed measures that would have saved lives and eased suffering. In which case what can SFF offer, apart from the usual escapism, for times such as ours?

First of all, there is plenty of SFF which rejects simplistic notions of 'Before' and 'After,' and recognises that apocalypse can have a complex and uneven nature. Stories such as Karen Lord's *The Best of All Possible Worlds*, Namwali Serpell's *The Old Drift*, Nnedi Okorafor's *The Book of Phoenix,* Buchi Emecheta's *The Rape of Shavi*, Dilman Dila's "Leafy Man," or the Indigenous SF Gama and Garcia visit later in this issue, explore colonial and postcolonial histories, Indigenous experiences, what it means to be denied futurity, and what it takes to get the future back. Such stories may help us to understand our current crisis not as an immediate rupture of the present, but as something continuous with the experience of millions of people over many generations.

Then of course there are the implausible scenarios, the 'tail risks' that don't have significant amounts of research devoted to them in the grey literature. And,

whether or not SFF manages to enlarge the imagination of the grey literature, it might at least help us to create snappier, more elegant, more intuitive ways of talking about potential scenarios. Aside from suggesting or preparing the ground in the popular imagination for possible technological, social or economic responses to the pandemic, SFF could perhaps also help us emotionally or psychologically. Hope and comfort are practical forces. Through its dual emphasis on the strange and new, and on lived experience — on what things actually *feel* like — SFF could conceivably help society to become more resilient, more adaptive.

Then again, might SFF nudge us towards a riskier future? SFF may guide our thoughts and feelings through difficult times, yet as *Vector* editors have argued previously, we must not dismiss the possibility that speculative narratives can also pose risks, particularly in the contexts of pandemics (see 'Lone Wolf Bioterrorists and the Trajectory of Apocalyptic Narratives'). Compliance with social distancing measures or vaccination programs both correlate positively with trust in scientists and governance. This is the kind of trust SFF is always liable to undermine for the sake of a good story. Furthermore, prefiguring bioterrorism in fiction might inspire preemptive but dangerous military research, if not actual bioterrorism itself. The pace of invention seems to be speeding up, and advancing technology amplifies the power of every individual in our complex world, for good and ill. It's possible now for a single person to bring the world to its knees with a well-designed bit of computer code. Soon, someone might do the same with a bioweapon.

The world has grown only more complex and unpredictable. Against this background, there's the question of what the general public expects from science. At the time of writing, the UK has been among the worst-hit countries, out of all those where robust comparative data exists (*Financial Times*, May 28: 'UK suffers second-highest death rate from coronavirus'). For what it's worth, the UK is also on track for one of the biggest economic slumps (OECD *Economic Outlook June*). The government has been keen to emphasise the science-driven nature of the pandemic response, which is of course commendable. However, official statements have also sometimes implied that scientific expertise can be accessed as a set of simple, unambiguous recommendations. As most *Vector* readers are probably aware, scientific expertise seldom works like that. For a problem as complex as the Covid-19 pandemic, we can expect scientific consensus in some areas, disagreement in others, and a rapidly evolving knowledge base. We can expect scientific advice filled with uncertainties, including some uncertainties which can be quantified and built into decision-making, and others which resist quantification. We can expect many gaps that must be filled by political and ethical judgment calls. The pandemic has made it clear that 'following the science' is not straightforward, as demonstrated by the divergence between UK policy and World Health Organisation recommendations; divergence in policy across devolved parliaments in the UK; controversies around the government's interpretation of its own guidelines; and the decision of leading experts to establish an Independent SAGE (Scientific Advisory Group for Emergencies) to scrutinise the government's decision-making. In practice, science and politics are not easily separable. Kim Stanley Robinson's Science in the Capital trilogy might be one example of SFF that captures such nuance, but how many SFF books, films, shows, and games can really say the same?

Like scientists and policymakers, writers often disagree. Ken Liu downplays science fiction as a tool for imagining or catalysing the future, but suggests it is undervalued as a resource for withstanding changes with dignity and humanity. Aliette de Bodard thinks that science fiction has an activist role in shaping the future: "Today, science is pervasive, from new vaccines against papillomavirus to omnipresent smartphones serving as personal assistants and payment terminals. And science fiction, now as in the past, constitutes the stories of science. Stories, in turn, shape the rules of reality: they are our baseline for making sense of the world, and making it change. So at a time of great challenges, they give us strategies for meeting them" (*Nature*, 20 December 2017).

This is not a pandemic special of *Vector*. But these questions inevitably resonate throughout the many varied topics explored in these pages: nightmarish dystopias, the hopeful visions of Amazofuturism, time travel and the internet, synthetic biology, fridges and doppelgangers, science fictionality of computer games, and more. Whatever one believes about the efficacy of SFF, we all share Aliette de Bodard's hope that "the future, shaped from the stories of today, will bring better things."

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VECTOR WOULD LIKE TO EXPRESS OUR SOLIDARITY WITH THE PROTESTS AGAINST RACISM AND POLICE BRUTALITY CURRENTLY OCCURRING IN THE USA, UK, AND AROUND THE WORLD.

AT THE NEXT AGM (JULY 2020) THE BSFA WILL BE DECIDING ON A SET OF ACTIONS AND POLICIES TO BE PUT IN PLACE SO THAT WE CAN DO BETTER IN SUPPORTING THE STRUGGLE AGAINST RACISM

For those of us in the UK who would like to learn more and find ways of offering practical support, but aren't sure where to start, a few useful resources relating to antiracism, decoloniality, policing, courts, prisons, etc. include:

www.blacklivesmatter.com
www.inquest.org.uk
racialjusticenetwork.co.uk
www.stephenlawrence.org.uk
londonagainstpoliceviolence.wordpress.com
y-stop.org
www.stop-watch.org
weareadvocate.org.uk
uffcampaign.org
www.rota.org.uk
www.prisonabolition.org
cape-campaign.org
m4bl.org
criticalresistance.org
www.alternativestopolicing.com
www.opendemocracy.net
rmfoxford.wordpress.com
www.globaljustice.org.uk

See also the London Science Fiction Research Community's list of resources at www.lsfrc.co.uk/beyond-borders/anti-racism-statement-resources/

The Dystopian Narrative: an analysis of texts that portray nightmarish futures

Giovanna Chinellato

Something has gone wrong. Somewhere along the road, humanity made a huge mistake. A war, an environmental crisis, a totalitarian government, an economic system out-of-control, a dehumanizing technology, extreme violence, disease and hunger. The result is an anti-utopian society, a dystopia, a bad future. Sometime what has gone wrong was a misguided attempt to create utopia:

> if a utopia is an imaginary ideal society that dreams of a world in which the social, political, and economic problems of the real present have been solved, then a dystopia is an imagined world in which the dream has become a nightmare. (Herman et al. 2010, 127)

And if the dream is about hope, the nightmare is about fear. A dystopia usually portrays a society that has taken some current trend to the extreme (Prucher 2007, 39). In this way, dystopian fiction serves us with warnings, with a "what if" and "if this goes on" flavor (Gunn 2005, 8). Some dystopian fiction portrays revolution and transformation. But many dystopias are presented as permanent and invincible: the only hope is to prevent humanity from getting there in the first place.

Herman et al. (127) consider Yevgeny Zamyatin's *We* (1924), Aldous Huxley's *Brave New World* (1932) and George Orwell's *Nineteen Eighty-Four* (1949) to be the three most important dystopias of the 20th century. In the 21st, many dystopian works found their way into Young Adult shelves, and subsequently into cinemas: examples include Suzanne Collins' *The Hunger Games* trilogy (2008-2010), Lois Lowry's *The Giver* quartet (1993-2012), James Dashner *The Maze Runner* series (2009-2016), and Veronica Roth's *Divergent* trilogy (2011-2013).

But no matter the century or intended audience, dystopias tend to share some similarities. This article will take a wide view of the subgenre, mapping a few features that crop up again and again, and considering their collective significance. Dystopia can be seen as a subgenre of science fiction, and science fiction, as James E. Gunn points out, is a literature of discontinuity, that extrapolates from everyday experience based on *change*. Unlike fantasy, Gunn goes on, science fiction often portrays a speculative version of our world, with believable elements and a realistic frame, largely obeying the laws of nature (Gunn 2005, 9-11). Science fiction makes the reader compare the fictional society with our own, asking questions such as "how did we get there from here?" (ibid. 9). A perfect set-up, in other words, for a cautionary tale.

And it is this warning element — this 'world gone wrong' that invites speculation on all the ways our *own* world could become a nightmare, or (for some) already is a nightmare — that best defines dystopia. On analyzing several dystopian narratives, it is possible to recognize recurring character roles, plot elements, narrative techniques, viewpoints, and patterns that give these worlds their "wrong" and "bad" feeling, prompting most readers to feel lucky that they aren't living there. At least, not yet.

Character roles

When portraying a different society, and especially a dystopian one, it is wise, though not an absolute rule, to have an ordinary 'relatable' character. This character functions as a bridge between the reader and all that novelty in the story. As C.S. Lewis puts it, "to tell how odd things struck odd people is to have oddity too much: he who is to see strange sights must not himself be strange" (2002 [1966], 60).

It is important to observe that this ordinary character is ordinary *for the reader*, which usually means that they are *not* ordinary in their society. Historically, dystopian fiction grew out of utopian fiction. So this type of character resembles characters like William Guest in William Morris's utopian novel *News from Nowhere* (1890). But whereas utopian fiction frequently features travellers to faraway lands, marvelling at unfamiliar conventions, this is not the case with dystopian fiction. Instead, dystopian fiction frequently includes a non-conformist character.

Although the non-conformist knows how their society expects them to behave, they cannot easily accept it. Often they cling onto values or ideas that are commonplace in our time, but have been all but crushed in the dystopia. Asking the reader to relate to such a character serves a secondary purpose. If dystopia is supposed to warn the reader about trends in their own time, it is important that they are encouraged to challenge orthodoxy. There are two main types of non-conformist roles to be considered: the rebel and the misfit.

THE REBEL. The rebel is someone who questions the dystopian society, who sees its "wrongs" and opposes them. Even though the rebel is not necessarily the main character in the story, they are often the one the reader cheers for, given that the reader tends to identify better with one opposing the nightmare and trying to change it. This is a crucial role in a dystopia. A rebel often has the chance to directly express what is wrong with the dystopia. If the reader didn't have the rebel's example, they might fall for the propaganda of characters who defend the dystopia.

For example in Huxley's *Brave New World*, the rebel is John, the "savage": the outsider who cannot accept the "civilized" society he is brought into. In Orwell's *Nineteen Eighty-Four*, the rebel is Winston Smith, the man who despises Big Brother, and desires to question things and break the rules. In Ray Bradbury's *Fahrenheit 451* (1953), the rebel is Guy Montag, who challenges the ban on books. Another example worth mentioning is Harlan Ellison's '"Repent Harlequin", said the Ticktockman' (1965) in which, along with the protagonist Harlequin, the narrator is a rebel — in a world ruled by a time master, the narrator, in a clear act of defiance, does not tell the story in chronological order.

The rebel is often the closest to a hero a dystopian work may get. Joseph Campbell's influential *The Hero with a Thousand Faces* (1949) suggested that all heroic narratives regardless of culture, follow a similar template. Campbell's 'monomyth' begins with the hero receiving a call to adventure, followed by the acceptance of the call, receiving aid from a mentor figure who grants an object or advice to help in the quest, crossing a first threshold of self-annihilation, getting swallowing by the unknown, being reborn, overcoming a road of trials, and finally returning to a transformed world. Campbell's approach is characteristic of the structuralist philosophy popular at the time, and in the years that followed, poststructuralist philosophers uncovered many problems with such an approach. The truth is, once you become convinced that some deep underlying structure exists, it is easy to imagine it wherever you look. But when you look more closely, the structure tends to crumble. Besides, focusing on what makes stories similar risks leaving out what makes each story special and unique.

Even so, Campbell's monomyth remains influential as a way of thinking about myth, plot, and heroism. Classic dystopian narratives, such as Orwell's, often create an expectation that the narrative is going to follow the hero's journey, later denied with the hero's fall. The rebel loses, getting converted to conformism and/or killed. Such endings are distressing and alarming. They highlight the despair and lack of hope for the portrayed society. They lend power to the warning message, stating as plainly as possible: "Let's not go there, there will be no heroes, no turning back."

Exceptions of course exist, especially in more recent Young Adult dystopias. Here the rebel may complete a kind of hero's journey, and succeed in changing their nightmarish society. Could it be that authors/publishers/readers don't want to leave the younger generation of readers without hope or a feeling of agency?

THE MISFIT. The misfit is an 'outsider within,' who sees the dystopia as a dystopia, but does not engage in actual opposition. Sometimes misfit status is associated with youth (someone who has not yet accepted the society they live in) or with age (someone who remembers the way it used to be). Sometimes the misfit is someone who suffers in a particularly harsh or unusual way from the dystopian order. The misfit is often a passive character, resigned, but who serves the function of supporting the rebel, aiding with information or advice – the closest to Campbell's protective mentor that a dystopian hero may get.

Occasionally, the misfit begins as a silent and passive non-conformist, but eventually decides to take action, becoming a rebel. This is the case of the Harlequin in Harlan Ellison's '"Repent, Harlequin!", said the Ticktockman', Katniss Everdeen in Suzanne Collins' *The Hunger Games* trilogy (2008-2010), and Mark in Kate Wilhelm's *Where Late the Sweet Birds Sang* (1976).

THE RESISTANCE. The resistance is a group of non-conformists that sees the dystopia for what it is and either seek to overthrow it (a group of rebels) or abandon the society, living in its fringe or in isolation (a group of misfits). Sometimes, the rebel drives the resistance, as in *The Hunger Games*; sometimes they join an existing group, as in *Fahrenheit 451*; and sometimes they make no contact with it whatsoever, as in *Feed*. Its main function is to be an element of hope in the narrative, leading the rebel and the reader to believe in the possibility of change.

Often, in dystopias, this proves a false hope: the resistance is crushed. In *Nineteen Eighty-Four,* the hope is shattered when Winston finds out the Brotherhood not only has no chance of winning, but might not even be real. In *Brave New World,* John's attempted rebellion is so fruitless it doesn't even allow for hope, and his doom is so horrific because he is denied a chance to live in exile with the misfits. At the end of *Fahrenheit 451*, the only hope left is that the resistance is going to outlive the nightmarish society, not overthrow it. Again, Young Adult dystopias are on the whole less pessimistic.

Rebels and misfits are characters the reader usually can relate to, maybe even cheer for. Interestingly enough, these are not necessarily the main characters in dystopias. Sometimes, as in M.T. Anderson's *Feed* (2002), the main character is a conformist, someone to be unsettled by, who simply accepts the society as it is. When the dystopian narrative is told from the point of view of a non-conformist, it is likely to be a tragedy; when it is told from the conformist point of view, it may veer towards a comedy. And there are also two common types of conformists: the uncritical conformist and the knowing conformist.

THE UNCRITICAL CONFORMIST. This character has been successfully manipulated by their society and is oblivious to its 'wrongs', failing to see the dystopia as a dystopia. The function of such characters is to depict the mind of the average inhabitant of the portrayed society, showing us the extent of the power and influence of those in control. It is this character's inability to perceive the manipulation that alarms and disturbs the rebel and the reader alike. Without an uncritical conformist, the society would not be believable since no concrete example of how its people think would be given. After all, without understanding the minds of the conformists, the reader may question the plausibility of dystopia.

Thus, the uncritical conformist need not be relatable, but must be understandable, with a convincing personality revealed through recurring interaction with rebels or misfits, such as family members or neighbors. In *Brave New World,* for instance, Linda is extremely vivid: the reader can understand her feelings and, most importantly, *feel sorry* for her. The Parsons, Winston Smith's neighbors in *Nineteen Eighty-Four,* are so believable because we all know a family like that, and while we believe in them, we are frightened by and pity their obliviousness.

THE KNOWING CONFORMIST. The knowing conformist is an insider who sees the big picture and often realizes the dystopian nature of the society, but has decided to accept it. In some cases the knowing conformist may once have been a misfit or a rebel. The knowing conformist is often, though not always, part of the ruling apparatus of the dystopia: a censor, an enforcer, a high official. Some are truly committed to the values of the dystopian society. Others are just cynically resigned to its inevitability.

This character functions as the antagonist to the rebel's logic, and it is when these two meet that the dystopia's main ideas become exposed through their arguments. It is through John's dialogue with Mostapha Mond that we are given a clear picture of that 'brave new world' and what is so wrong with it. It is when O'Brien talks openly with Winston Smith that we realize the true "boot stamping on a human face forever" of Big Brother's society (Orwell 2013 [1949], loc. 4117). And it is Beatty who lectures Guy on the danger of books, giving us the big picture on the ban and making the dystopia so shockingly … dystopian.

THE NEW GOD. As Campbell and Moyers argue in *The Power of Myth* (1988), in order to have a different world, there must be different myths and beliefs. Thus, in many dystopian worlds we find a new sacred figure. This figure usually either personifies the controlling body or is created by it. There are occasional exceptions in which this embodiment of a new myth is associated with the resistance.

When part of the ruling order, like Ford in *Brave New World* or Big Brother in *Nineteen Eighty-Four*, this figure serves to maintain the status quo, reinforcing the dystopian society's rules and values and eradicating or suppressing all other beliefs. When they work for the rebellion, as the mockingjay in *The Hunger Games* and Change/Earthseed in Octavia Butler's *The Parable of the Sower* (1993), they are a symbol of hope, containing ideas that are opposed to the status quo, and perhaps capable of disrupting it.

One interesting example is the mythology in Mordecai Roshwald's *Level 7* (2004). In an underground bunker that is supposed to protect its inhabitants for half a millenium in the aftermath of a nuclear war, there are those who occupy themselves in creating new mythology to spiritually sustain the confined generations (Level 7). In these liturgies, Level 7 is a paradise and the surface of Earth is hell, where live the evil antagonists Gamma, Alpha, Little Ch-777, and "him whose name must not be mentioned," Strontium 90, a radioactive element (Roshwald 2004, 72). This mythology is clearly portrayed by Roshwald as a method to keep future generations under control and satisfied, even 'happy,' with the dystopian society.

Worldbuilding

Other important ingredients of dystopian fiction are how the world as a whole is presented (including how hope is created and often destroyed again), and more specifically how its forms of control are presented (including their influence on society and culture).

PRESENTING THE WORLD. Since the dystopia is set in a new society, with different rules and functioning, this world must be presented to the reader. There may be many little details which gradually accumulate and paint a picture as the story progresses. Sometimes there are 'info-dumps,' which explain the nature of the world via dialogue, narrative exposition, quotations from imaginary textbooks or historical documents, etc. In Huxley's *Brave New World*, the world is first presented through a children's instructive tour at the breeding center. In Sheri Tepper's *The Gate to Woman's Country* (1988), the world is also presented through the eyes of a child, young Stavia. This mechanism works so well because the child, just like the reader, has recently arrived in this world and must have it explained. Sometimes just a single image or sentence can say a lot about the new society in a short space.

Often there is a dual presentation: a first moment presents the world as it is portrayed by the controlling body and seen by its average citizen; then in a later moment of revelation, the society's inner functioning is presented, its real secret mechanisms are exposed. The later presentation, the revelation, often takes place during a conversation with an enlightened character – a misfit, a rebel or the knowing conformist. In *Brave New World,* the revelation lies in Mostapha Mond's dialogue; in *Nineteen Eighty-Four,* in Goldstein's book and then in the conversation with O'Brien; in *Fahrenheit 451,* both in the conversation with Faber and again later when Guy meets the human library of wandering intellectuals.

This revelation moment can give hope of change or shatter any hope that still remained. *Brave New World* is an example of the second. In *Nineteen Eighty-Four,* the first revelation gives hope, only to be later destroyed by the conversation with O'Brien at the Ministry of Love. Actually, as Rooney notes, this movement of giving and then destroying hope is recurrent in *Nineteen*

Eighty-Four (Rooney 2008, 77). This can produce an effect of deep despair, if the reader comes to distrust hope itself.

CONTROLLING MECHANISMS. Creating a dystopian society is kind of an easy task compared to the real challenge of maintaining it, for in order to do so, people must be controlled. Thus, in dystopian societies there are usually various controlling mechanisms. Citizens are made too afraid to try to change things (e.g. fear of violence, imprisonment, torture, execution) and/or too alienated to try to change things (e.g. because of drugs, propaganda, censorship, consumerism). These two basic frameworks are exemplified by *Nineteen Eighty-Four* and *Brave New World*, respectively. As Postman puts it:

> Orwell warns that we will be overcome by an externally imposed oppression. But in Huxley's vision, no Big Brother is required to deprive people of their autonomy, maturity and history. As he saw it, people will come to love their oppression, to adore the technologies that undo their capacities to think. What Orwell feared were those who would ban books. What Huxley feared was that there would be no reason to ban a book, for there would be no one who wanted to read one. [...] Orwell feared that the truth would be concealed from us. Huxley feared the truth would be drowned in a sea of irrelevance. [...] In short, Orwell feared that what we hate will ruin us. Huxley feared that what we love will ruin us. (Postman 2006, xix)

Postman mentions a key element for both fear and alienation-controlled dystopian societies: the lack of books/arts and history/information. In a dystopia, books and arts in general are either forgotten or forbidden, and history is either erased or manipulated. In the few dystopias in which there is some memory of the past, it is usually a nostalgic image of a time to which it is impossible to return, as in post-apocalyptic stories.

Literature, whether oral or written, like other forms of art, is an instrument of vision and reflection. To stymie rebellion, dystopias suppress critical and creative thought as precursors to change. As James Baldwin said: "Not everything that is faced can be changed, but nothing can be changed until it is faced" (Baldwin, 1962).

Critical dystopias

What makes a dystopia dystopian? As already suggested, dystopian fiction usually wants to warn us about something. A dystopian story uses a nightmarish future to inspire fear, yet also presupposes at least some hope, that it is still possible to reverse dangerous trends and avert this future. This means that, strangely enough, utopian and dystopian fiction can have a lot in common. Both utopian and dystopian fiction try to warn us that all is not well in the world today, and that things may well get worse. Both try to offer clues about how to build a better tomorrow.

However, dystopian fiction can also be more conservative. Sometimes the message of dystopian fiction is that we shouldn't be too ambitious or hopeful about improving society, since (so it claims) these attempts will always go wrong and make things worse. Gregory Claeys describes this theory as follows: "the desire to create a much improved society in which human behaviour was dramatically superior to the norm implies an intrinsic drift towards punitive methods of controlling behaviour which inexorably results in some form of police state" (Claeys 2010, 108). Dystopian fiction which holds to this theory may be considered truly anti-utopian. The anti-utopia, as Peter Fitting characterises it, is fiction that is "explicitly or implicitly a defence of the status quo" (Fitting 2010, 141).

Often, of course, a dystopian story is not just one or the other, but both: it supports the status quo in some ways, but opposes it in other ways. Furthermore, the nightmarish quality of a dystopia is not always simple and straightforward. For the rebel and the misfit, dystopia is nightmarish. But for the knowing conformist (and even for some uncritical conformists) dystopia may not always be so bad. Furthermore, even though dystopia is associated with being the 'ultimate' bad society, actually, some dystopias are arguably worse than others. So just like utopias, dystopias are ambiguous things, open to interpretation and legitimate disagreement.

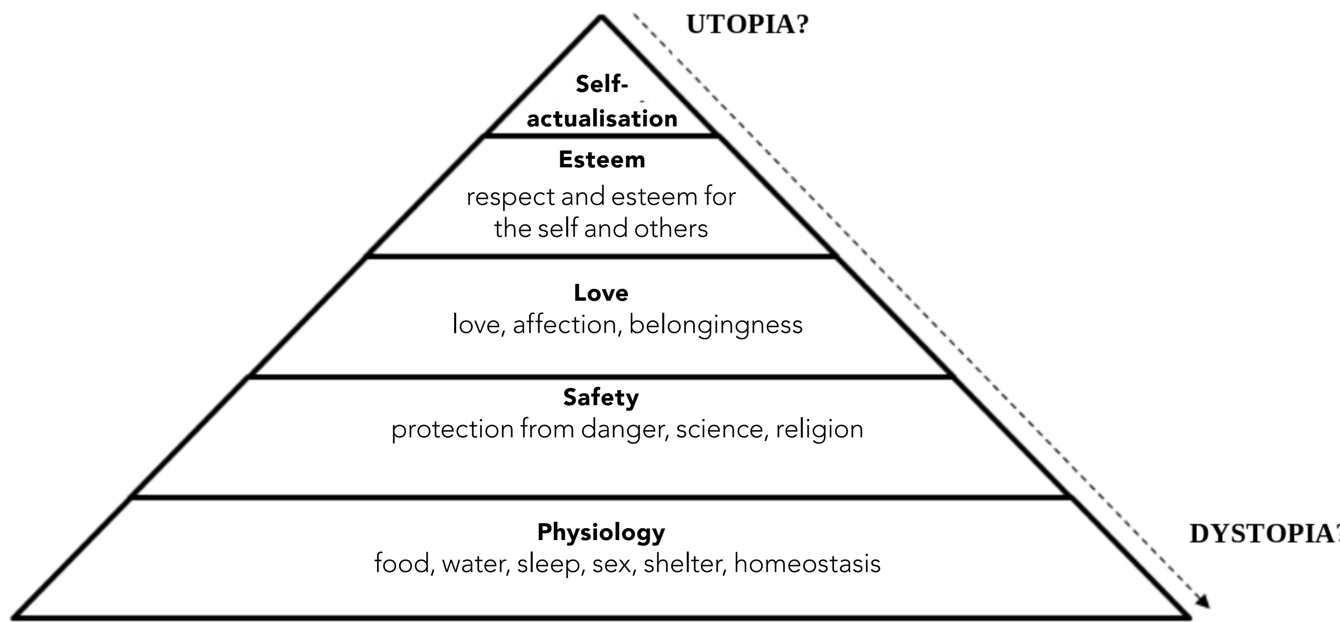


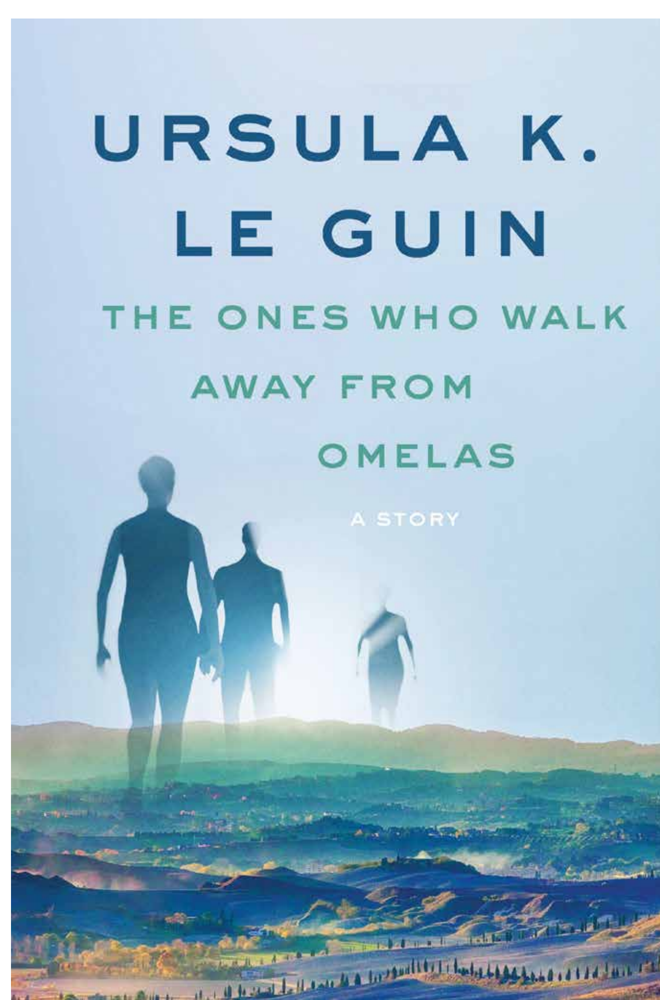
Figure 1. Maslow's theory of needs represented in a pyramid. In a true utopia, all needs are well satisfied. On the other hand, the more a society fails to properly fill basic needs, the more dystopian it seems. Note: Maslow also identifies certain "preconditions" for basic needs satisfaction, to do with your freedoms, your sense of self, and your sense of the world around you. Furthermore, in his later work, Maslow suggested "self-actualization" was a little too individualistic, and suggested incorporating altruism, spirituality, and self-transcendence.

How should we compare and evaluate dystopias? In "A Theory of Human Motivation" (1943), Abraham Maslow suggested that there are five levels of human needs: physiological, safety, love, esteem and self-actualization (see figure 1). For Maslow, these basic needs are hierarchical, meaning that an extremely hungry person's behavior will be totally driven by food until this basic need is satisfied: "all other needs may become simply non-existent or be pushed into the background" (n.p.). Maslow's theory was influential although not generally accepted. Critics point out that it downplayed great variation across different individuals and different cultures. However, the theory does give us one interesting framework for thinking about dystopian societies systematically.

Maslow suggested that, "For our chronically and extremely hungry man, Utopia can be defined very simply as a place where there is plenty of food." (Maslow 1943, n.p.). But when each level of needs is largely fulfilled, then the next level of 'higher' needs will emerge. In this way, a person "may even forget that once, when he was hungry, he sneered at love" (ibid.). In many dystopias, of course, there is clear longing on all five levels, even if the authorities convince the conformists otherwise. But what about Huxley's *Brave New World*? It may seem closer to utopia than dystopia, if we agree that at least the first three levels of the pyramid are generally satisfied.

One especially disturbing aspect of *Brave New World* is the body and mind conditioning of individuals, which makes them believe their needs are fulfilled — even self-actualization, when actually there is no opening to even perceive what that would be. For example, Maslow identifies that when there is an unmet longing for love, children and friends, it can manifest as "hunger ... for a place in his group" (n.p.). This excessive collectivism is precisely the form of love that dominates in *Brave New World*. Likewise, other needs in Huxley's dystopia are not truly fulfilled, but rather cloaked, for example by the banalization of sex (physiology), desensitization towards death (safety), and lively but shallow social and romantic relationships (love/esteem). As John says: "But I don't want comfort. I want God, I want poetry, I want real danger, I want freedom, I want goodness. I want sin" (Huxley 2008 [1932], 267).

So how can we tell when needs are truly fulfilled, and when they are merely cloaked, channelled, redirected, or suppressed? This is one of dystopian fiction's biggest questions. There is no



simple answer to it. Maslow does offer an interesting perspective. As well as naming the basic needs, he identified certain "preconditions" for satisfying any of these needs: "freedom to speak, freedom to do what one wishes so long as no harm is done to others, freedom to express one's self, freedom to investigate and seek for information, freedom to defend one's self, justice, fairness, honesty, orderliness in the group" (n.p.). These freedoms are seldom met in dystopian fiction, even if the basic needs (apparently) are met. As John also says: "Well, I'd rather be unhappy than have the sort of false, lying happiness you were having here" (Huxley 2008 [1932], 196).

Orwell's *Nineteen Eighty-Four* provides another example of how, in the absence of freedom and justice, people can be manipulated through the fulfilment, frustration, and/or transformation of their basic needs. For example, Newspeak limits what people can say, think, imagine, and desire. The physiological need of sex is redirected by the two minutes of hate, as Winston himself finds out, and the needs for shelter, security, family, individuality are all shattered by the constant surveillance. The most damaged level of needs in Orwell's dystopia is probably that of safety, with the ongoing threat of war, abduction and vaporization by the Ministry of Love. And, as Maslow put it, "safety needs often find specific expression in a search for a protector, or a stronger person on whom he may depend, or perhaps, a Fuehrer": a Big Brother. *Nineteen Eighty-Four* also famously explores what happens when "freedom to investigate and seek for information" is denied. As Maslow also pointed out, "[c]uriosity, exploration, desire for the facts, desire to know [...] often are pursued even at great cost to the individual's safety" (n.p.).

The nightmarish quality of a dystopia may also come from considerations of justice and equality. A work such as Ursula K. Le Guin's "The Ones Who Walk Away From Omelas" (1973) makes an interesting final example. Should Omelas be classed as a dystopia? If so, almost everyone in this dystopia is a knowing conformist, who enjoys great prosperity and happiness. But there is one primary misfit, a child chosen apparently at random, who is locked away in solitude and suffering. All of this child's basic needs and freedoms are denied. The child also functions as a kind of new god. The Omelasians believe that this child's suffering is what makes their ideal society possible. But there are some who regard this as unacceptable. These misfits, who cannot bring themselves either to oppose such a society nor to live in it, are "the ones who walk away from Omelas."

Although this article has focused on totalitarian dystopian fiction, the term "dystopian" is also sometimes applied to post-apocalyptic fiction, where governments have often vanished, or to cyberpunk stories, where megacorporations have often started acting like oppressive regimes. Despite the diversity of dystopias, and the many ways for the world to go wrong, dystopian fiction tends to unsettle us in similar ways. Dystopian fiction is preoccupied with dehumanization, the extermination of human desires and capabilities, as embodied by the hopelessness and despair of its fallen heroes. At the same time, dystopian fiction is ultimately a celebration of humanity, and a matter of belief in humanity: for there is no better way to give a warning than to tell a story, and to hope that humanity will get the message.

Table 1. Recurring character roles in dystopian literature.

	The Rebel	The Misfit	The Knowing Conformist	The Uncritical Conformist	The Resistance	The New God
The Machine Stops	Kuno	Kuno	N/A	Vashit	The homeless	The Machine
Brave New World	John, the Savage	Bernard Marx	Mostapha Mond	Linda; Lenina	Savages; The exiles	Ford
Nineteen Eighty-Four	Winston Smith	The old man at the pub	O'Brien	Tom Parsons	The Brotherhood	Big Brother
The Space Merchants	Kathy	O'Shea	Mitch Courtenay	Fowler Schocken	The Consies	Consumerism
Fahrenheit 451	Guy Montag	Faber; Clarice	Beatty	Mildred Montag (Guy's Wife)	The wandering intellectuals	The Firemen
Level 7	X-117	X-127	X-107	P	The Doves	Level 7 (vs St 90)
"Repent, Harlequin", said the Ticktockman	Everett C. Marm (Harlequin); Narrator	Everett C. Marm (Harlequin)	Ticktockman	Pretty Alice	Harlequin	Time
Where Late the Sweet Birds Sang	Molly; Mark	David; Molly; Mark	Older clones	Younger clones	Mark's farm	Cloning
Do Androids Dream of Electric Sheep?	The Andys	John Isidore; Iran (Rick's Wife)	Rick Deckard	Bill Barbour (Rick's Neighbor)	The Android Rebellion	Wilbur Mercer
The Gate to Women's Country	Stevia (at first)	Septimus Bird; Kostia, Tonia	Morgot; Stavia (later); Women's Country Council	Benida; Myra	Marthatown garrison	The Lady
The Parable of the Sower	Lauren Olamina	Feelers with hyperempathy	Reverend Olamina	Keith Olamina; The Garfields	Earthseed	Change
Feed	The Hacker	Violet Durn	Violet's father	Titus	The Coalition of Pity	The Feed
The Hunger Games	Katniss Everdeen	Katniss; Haymitch	Haymitch (at first)	Effie Trinket	District 13	Capitol
The Ones Who Walk Away from Omelas	N/A	The child; the ones who walk away	Everybody else (eventually)	Everybody else (at first)	The ones who walk away	The child

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GIOVANNA CHINELLATO IS A PHD CANDIDATE IN FOREIGN LETTERS AND TRANSLATION AT THE UNIVERSITY OF SÃO PAULO (USP), BRAZIL, AND AN IMAGINATIVE LITERATURE STUDENT AT SIGNUM UNIVERSITY, US. SHE HAS A MASTER'S DEGREE IN LANGUAGES, MEDIA AND ARTS AND A SPECIALIZATION IN TRANSLATION – ENGLISH. HER RESEARCH FOCUSES ON ECOCRITICISM, TRANSLATION, CHILDREN'S LITERATURE, FANTASY AND SCIENCE FICTION.

The Needle and the Wedge: Digital Games as a Medium for Science Fiction

Monica Evans

In 1962, four computer science students at MIT, looking for something interesting to display on their new PDP-1 minicomputer, turned to science fiction. According to Steve Russell, the group's core programmer, they started with "a two-dimensional maneuvering sort of thing, and decided that naturally the obvious thing to do was spaceships" (Brand 1972). Before long, two ships — one long and thin, the other a squat triangle — could engage in an interactive, physics-based dogfight, and *Spacewar!*, the world's first digital game, was born.

Spacewar! may have been the first, but it was hardly the last. A staggering number of successful, influential, and critically-acclaimed games can be categorized as science fiction (Krzywinksa and MacCallum-Stewart 2009), from classic arcade games like *Asteroids* and *Space Invaders* to major franchises like *Metroid*, *Halo*, *StarCraft*, and *Mass Effect*; critical trailblazers like *Portal*, *Half-Life*, and *Bioshock;* indie darlings like *Thomas Was Alone*, *Soma*, and *FTL*; and recent critical and commercial favorites like *Horizon Zero Dawn*, *Nier: Automata*, and even *The Legend of Zelda: Breath of the Wild*. In the absence of science fiction, an equally staggering number of games can be classified as fantasy, horror, or broadly speculative — to the point that it's uncommon, if not rare, for a digital game to be set in a non-speculative, mundane world.

Yet despite the vast quantity of science fiction games, there is little critical academic discussion as to why this might be the case. Writing on digital science fiction, Pawel Frelik notes that "most, if not all, video games are, in some way, science-fiction games," and that "science-fictional regimes of thinking are absolutely central to the entire medium" (Frelik 2016). Likewise, Cameron Kunzelman writes that digital games are speculative because of their interactive qualities, suggesting that games "encourage speculation in the player through their specific modes of interaction," and that a game's mechanics, such as a point-and-click system, "can function as an act of speculation which moves beyond the traditional literary or cinematic modes of speculation" (Kunzelman 2018). He also notes that *Spacewar!*'s designers, and those that followed, were influenced by literary science fiction, and that "[science fiction] concepts and content have been at the core of video games and game culture since" (2018). It's clear that game developers have a strong affinity for science fiction, and that this affinity has had an influence on the development of the medium at every stage. But science fiction fans exist among creators of other media, from novelists and playwrights to film directors and television producers. To explain the depth of influence science fiction has had on digital games, other factors must be at play.

In the last decade, the democratization of game development has, if anything, increased the breadth and diversity of speculative games. As game development tools and publishing opportunities have expanded, and as a wider, more diverse array of people have had fewer barriers to creating and releasing their own games (Shaw 2017), digital games have broadened in content. Modern games are tackling mature and sensitive themes in non-speculative worlds, such as Richard Hofmeier's award-winning *Cart Life*, a simulation of the crushing mundanity of working as a street vendor; Anna Anthropy's *Dys4ia*, an interactive essay about her experience with hormone replace-

ment therapy; and *That Dragon Cancer*, a digital autobiography and memorial from the parents of Joel Green, who was diagnosed with terminal cancer at the age of twelve months. Nevertheless, there are still massive numbers of science fiction games, many as mature, sensitive, and culturally relevant as their non-speculative counterparts. Developers are telling science fiction stories that are best told, or perhaps only told, through the medium of games, from the instant classic of *Portal* to recent critical darlings like *Disco Elysium* and *The Outer Wilds*, and even ambitious critical failures like *No Man's Sky*.

As the medium has matured and expanded, developers are still turning, more often than not, to science fiction, implying a strong, fundamental tie between the two. I argue that digital games are predisposed to science fiction content for two reasons: game developers, at every historical point, have been science fiction fans, and therefore tended to make games with science fiction content; and digital games' dependence on rapidly-changing technology makes them a natural fit for science fiction content and themes. These two points together — historical influence and technological structure — mean that games are literally a product of science fiction, and are therefore uniquely positioned to explore science fiction concepts and themes. And as digital games create engaging, emotional experiences for players in ways no other medium can, examining their deep link with science fiction helps us understand how games create narrative experiences as a whole, as well as how science fiction themes can be expressed in an interactive medium.

Defining the Digital Science Fiction Game

While the vast majority of digital games include some speculative elements, most if not all games present the player with an interactive fantasy in a broader sense. Designer Marc LeBlanc, in defining a taxonomy of aesthetics for digital games, lists "fantasy," or "game as make-believe," as a type of fun common to a wide variety of games (Hunicke, LeBlanc, and Zubek 2004). These fantasies are often speculative, as in games where the player saves the princess, the world, or the galaxy; but many are non-speculative, such as the fantasy of being a rock star presented by the *Rock Band* and *Guitar Hero* series of games, or the fantasy of running a successful American football team as in the *Madden NFL* series. That said, the technological structure of games means that the "fantasy" or "make-believe" elements of science fiction games can be approached more directly. To further examine the link between digital games and science fiction, working definitions of both are needed.

Defining science fiction to everyone's satisfaction is a challenge, as exemplified by two infamous non-definitions: Damon Knight's "science fiction is what we point to when we say it" (1967) and Norman Spinrad's "science fiction is anything published as science fiction" (1974). Gary K. Wolfe's *Critical Terms for Science Fiction and Fantasy* lists definitions from over thirty authors and critics, as well as multiple definitions for "sci-fi," "SF" (as distinct from "science fiction"), "scientifiction," "science fantasy," and "speculative fiction" (Wolfe 1986). Writing in the *Science Fiction Encyclopedia*, John Clute and Peter Nicholls have noted as recently as 2020 that "there is really no good reason to expect that a workable definition of sf will ever be established" (Clute, Nicholls, and Stableford 2020). That said, they acknowledge that "the fights are at the fringes" and there is relative consensus at the center: that works of science fiction are intended either "to comment on our own world through the use of metaphor and extrapolation, or to create genuine imaginative alternatives to our own world," and that many works do both at once (Clute, Nicholls, and Stableford 2020).

Defining the digital game is, if anything, more contentious. Historically, game scholars have disagreed on most terminology in the field, including but not limited to game, play, experience, engagement, mechanic, and interaction (Salen and Zimmerman 2003; Juul 2005; Schell 2008; Sicart 2008). Terms like immersion and simulation have specific, very different definitions in related fields; while others, such as artificial intelligence and virtual reality, are muddied by their prevalence in popular culture or science fiction itself. Additionally, there is a significant lack of homogeneity among games and game genres. Apart from their medium, there is little similarity between a real-time strategy game like *StarCraft*, an action-platformer like *Metroid Prime*, and a classic arcade game like *Defender*. The issue is thorny enough

Disco Elysium

that some game designers consider it solely an academic problem, arguing that definitions are less important than clear communication between developers (Schell 2008). As with science fiction, the most common definition seems to echo Damon Knight's: "game designers follow their gut instincts … they know it when they see it" (Schell 2008). Also like science fiction, the fights tend to be at the fringes, in that there may be debates over whether a visual novel like *Doki Doki Literature Club* or an interactive essay like *Dys4ia* counts as a digital game, but there are no questions about *Grand Theft Auto* or *Half-Life 2*.

It's important to note that digital games are fundamentally interactive, in that interactivity is the defining quality of the medium, but that they can and often do present narrative experiences in a nuanced, engaging way. Science fiction, on the other hand, is a primarily narrative genre, and so we need to briefly examine how digital games present narrative experiences to the player. The relationship between storytelling and game design has been heavily documented and discussed (Aarseth 1997; Juul 2005; Ryan 2006; Isbister 2016), but two aspects are relevant here. First, many scholars argue that digital games are a procedural medium, in that a game's meaning is embedded in how players understand and experience its rules, and that games "can convey complex messages precisely because of their procedural nature" (Sicart 2011). Second, the primary function of a piece of fiction, in any medium, is to convey an emotional experience to its audience (Stein 1995). While early games were focused on two emotions, fear and adrenaline, modern games are adept at presenting a range of emotional states (Chen 2013). Likewise, early science fiction games were often limited to surface-level representations of spaceships and aliens, but modern games can grapple with complex science fictional themes, filtered through the unique affordances of an interactive medium. Digital science fiction games are both products of technology and about technology, meaning that they are primed to tell emotionally engaging science fiction stories that are best told, or perhaps only told, through the medium of games.

There is, of course, an opportunity to further define the "true" science fiction game by differentiating games with deep, nuanced themes from those with surface-level content — i.e., games that only qualify as science fiction because aliens, spaceships, or plasma guns are present, or in which, with trivial development effort, "the trappings of the fantastic could simply be exchanged for something more immediately familiar to planet Earth" (McKeown 2016). For the purposes of this article, I have chosen not to distinguish between the two as of yet, and am examining digital games with science fiction content as a whole. Additionally, this article is generally concerned with games and science fiction in the Western, mostly British and North American, tradition. For example, while numerous games from Japanese and Chinese development studios include science fiction content, and acknowledging that cross-pollination between development studios is common — especially when localizing globally-popular Japanese games for Western audiences, such as the *Legend of Zelda* and *Final Fantasy* series — Asian game development is heavily influenced by anime and manga traditions, in addition to Western science fiction, which is beyond the scope of this article.

The Influence of Science Fiction on Game History

The small team of computer science students behind *Spacewar!* may have thought spaceships were the obvious choice, but in hindsight it wasn't obvious at all. Russell's "two-dimensional maneuvering sort of thing" could have been contextualized as any number of real world objects or vehicles — such as the US military's Redstone Rocket, which in fact influenced the design of one of the two ships (Donovan 2010). But *Spacewar!* was science fiction at its core because all four of its developers were avowed fans of E.E. Smith's *Lensman* series of space opera novels. One of them, J. Martin Graetz, writes that "without the Gray Lensman and the *Skylark of Space* there would be nothing to write about. So most of the blame falls on E. E. Smith … If Doc Smith had been content designing doughnuts … the world might yet be free of *Spacewar!"* (Graetz 1981). The first arcade games of the early seventies, *Computer Space* and *Galaxy Game*, were unabashed copies of *Spacewar!*, and their influence is clear on their successors, more mechanically complex games that kept their content tightly focused on spaceships and aliens, among them *Space Invaders*, *Asteroids*, *Galaga*, and *Defender* (Donovan 2010).

This pattern repeats throughout the history of games: an early, groundbreaking title is directly inspired by science fiction, often because of the deep fandom of its developers, and the games that follow are influenced both by the science fiction content of that game and by the speculative tastes of later developers. Dani Bunten Berry's cooperative space pioneering game *M.U.L.E.* was directly inspired by Heinlein's *Time Enough for Love* and *The Moon is a Harsh Mistress*, and had a profound influence on multiplayer game development as a whole (Bunten Berry 1984). The first true real-time strategy game came about because a group of developers had the license to Frank Herbert's *Dune*, as their publisher "liked it, with no idea how to turn it into a game." Their producer, who had both read the book and played Sid Meier's *Civilization*, realized that "the real stress was the battle to control the spice, and that a resource-strategy game would be good" (Clarke-Willson 1998), resulting in *Dune II: The Building of a Dynasty*, itself a direct influence on both *StarCraft* and *Command & Conquer*. The developers of *Halo*, an inarguably influential series, published a list of their influences in 2006 as the "Bungie Guide to SciFi," including Iain M. Banks' *Culture* series as well as *Ringworld, Dune, Rendezvous with Rama, Starship Troopers, Aliens, Blade Runner,* and *Snow Crash* (Bungie 2006). Banks' influence is especially clear, both in small details like the starship names *Pillar of Autumn* and *In Amber Clad* and in the series' larger themes about human-machine relationships, cybernetic enhancements, and the possibilities of large-scale artificial worlds.

The influence of science fiction is pervasive in digital games, such that most genres have at least one defining game or series that can easily be categorized as science fiction. For platformers, we turn to *Metroid;* for first person shooters, *Halo, Half-Life*, *Portal*, and *DOOM;* for computer role-playing games, *Mass Effect* and *Fallout;* for console role-playing games, *Final Fantasy* and *Chronotrigger;* for survival-horror games, *System Shock*, *Bioshock*, and *Dead Space*; for real-time strategy games, *StarCraft*; for squad-based strategy games, *X-COM*; for massively multiplayer online games, *EVE Online;* for simulation games, *Spore*. The 4X subgenre of strategy games — standing for "explore, expand, exploit, exterminate" — is dominated by science fiction titles, from *Galactic Civilizations* and *Sword of the Stars* to *Sins of a Solar Empire*. Additionally, games that seem to lack science fiction elements on the surface often develop or reveal them during the course of the game. The zombies of *The Last of Us* are overtly science fictional in nature, resulting from a mutated strain of the Cordyceps fungus. The *Uncharted* series, an explicit homage to the Indiana Jones film series, hangs on science fictional MacGuffins, from a mutagenic virus to hallucinogenic plants. Even *The Legend of Zelda: Breath of the Wild*, the most recent entry in one of gaming's most traditionally high fantasy series, takes place in a world threatened by ancient autonomous machines, and in which Link's magical abilities are accessed through a technological device called a Sheikah Slate.

One can argue that many games, including many of those listed above, include science fiction elements at the surface level only, and that a majority of big-budget commercial games prioritize action and spectacle over nuance and ambiguity (Krzywinksa and MacCallum-Stewart 2009). Whether this argument has merit, indie games, far broader and more difficult to categorize, are tackling some of science fiction's deepest and most complex themes, including the awakening artificial intelligences in *Soma* and *Thomas Was Alone*, the shifting identities of linked clones in *The Swapper*, body horror and control in *INSIDE*, and the nature of narrative and time in *The Stanley Parable*. Equally complex themes have appeared in recent blockbuster games, such as humanity's second wave coming to terms with the extinction-by-technology of the first in *Horizon Zero Dawn*; the dehumanizing post-apocalypse of *Death Stranding*, in which premature babies in artificial wombs are used to detect other-dimensional events; or the android societies struggling in the absence of their human creators in *Nier: Automata*.

***Spacewar!* on a PDP-1**

It's also worth noting that many game writers and scenario designers are also science fiction authors, and vice versa. Historically, the first commercial wargaming system, "Little Wars," was designed and released by H.G. Wells in 1913 (Peterson 2012). *Dungeons & Dragons*, arguably the most influential roleplaying game in existence, has obvious roots in Tolkien's Middle Earth, but takes equally heavy inspiration from *Tales of the Dying Earth*, Jack Vance's seminal science fantasy saga (Ewalt 2013). Science fiction authors have written for games since at least the early eighties, including Douglas Adams, Clive Barker, Orson Scott Card, and more recent writers like Ted Kosmatka, E. Lily Yu, and Naomi Novik, some of whom started as game writers and now move fluidly between traditional short fiction or novels and interactive fiction for digital games.

Why game developers have such an affinity for science fiction over other narrative genres remains an open question, and requires an in-depth look at why people in general are attracted to the genre. Nevertheless, evidence of that affinity abounds, and has shaped the development of digital games at every historical point. But digital games are also a fundamentally technological medium, an examination of which further explains the link between games and science fiction.

The Influence of Science Fiction on Game Technology

In 1997, when *Myst* and *DOOM* were on every personal computer and *Tomb Raider* ruled the game consoles, Janet Murray wrote that digital games were like incunabula: books printed in the first fifty years after the invention of the printing press, before that particular technology had worked out its kinks. "The garish videogames … of the current digital environment," she writes, "are part of a similar period of technical evolution, part of a similar struggle for the conventions of coherent communication" (Murray 1997). Over twenty years later, in the wake of VR headsets, motion tracking peripherals, and procedurally generated game worlds, it's clear that games, in fact, are incunabular by nature: products of a pervasive, rapidly-changing technological landscape that shows no signs of stabilizing. Among its many definitions, science fiction has also been called the literature of change, specifically literature that "deals with human responses to changes in the level of science and technology" (Wolfe 1986) — making for a powerful link with digital games as a scientific, technological, and constantly changing medium.

These constant changes to gaming technology make the medium challenging to keep up with, but don't render it incomprehensible. Science fiction scholar Patricia Warrick, in her study of cybernetic fiction from 1930 to 1977 — here meaning fiction primarily concerned with computers and robots — notes with disappointment that those stories were overwhelmingly pessimistic, focusing less on the transcendent possibilities of artificial intelligence and more on "destructive metaphors of machines overwhelming and dehumanizing man"

(Warrick 1980). She ascribes this failure of literary imagination to the simple fact that writers can't keep up with the science: "With too few exceptions, the fiction gives no evidence that it is aware of information theory or computer technology [or] cybernetic automata … The resultant fiction is depressing, reactionary, even ridiculous to those whose knowledge of the computer is not totally naïve" (Warrick 1980). While her assessment would likely change for writers after 1980, especially those writing in the cyberpunk subgenre, it is certainly not true that science fiction game developers lack expertise in computer technology. Programmers, digital artists, and level designers are knee-deep in technical software on a daily basis; and while development team structures and positions vary widely between studios, there are few if any game development positions that do not require knowledge of computer structure and code. For all the challenges of developing science fiction games, failing to understand digital technology is not one of them.

It's one thing to say that games are fundamentally technological, but something else entirely to specify what that means. First, as noted earlier, games are good at presenting complex content because they are procedural: that is, they are dependent on strictly defined sets of rules. Those rules are dependent on, and therefore inextricably tied to, the technology itself, here the systems and mechanics laid out in each game's codebase, as well as the computer technology by which the player experiences the game. As described by the authors of MDA – the "mechanics-dynamics-aesthetics" framework for games research – game design and authorship are linked in that "seemingly inconsequential decisions about data, representation, algorithms, tools, vocabulary and methodology will trickle upward, shaping the final gameplay … As games continue to generate increasingly complex agent, object and system behavior, AI and game design merge" (Hunicke, LeBlanc, and Zubek 2004). Taken one step further, one can argue that the narrative or emotional experience provided by a digital game is dependent on the technology underlying the game's creation, meaning that the experience of playing a game is fundamentally science fictional in nature.

Second, many of the tropes of science fiction appear in the technological structure of games, which allows game designers to explore those tropes in ways unique to the medium. Science fiction content in games is often narrative, aesthetic, or environmental in ways that involve little-to-no significant interaction from the player. The core icons of science fiction, such as the alien, the spaceship, the wasteland, the monster, and the city (Wolfe 1979), commonly appear in any number of science fiction games as environments to explore, enemies to overcome, or both, as in the passively deadly atmosphere of *Metroid Prime 2: Echoes*. When those icons or tropes are instead included in a game's core mechanics or systems, powerful speculative experiences can be created. Time travel stories, for example, are particularly effective when time can be manipulated directly by the player, as in *Prince of Persia: The Sands of Time* and *Braid*, in which the player can rewind time to undo errors or pursue different game choices; or *The Gardens Between* and *The Legend of Zelda: Ocarina of Time*, in which choosing how and when to move between time periods serves as a core game mechanic. Even more effective are games that present interactive science fiction content in ways that encourage the player to reflect on complex themes, such as the cloning and body swapping mechanics at the core of *The Swapper,* which puts the player in an emotionally challenging, morally ambiguous situation about identity, theft, and control (Evans 2017).

Of course, time travel and body swapping aren't currently possible; and while cloning is, Dolly the Sheep and identical twins are less narratively dramatic than cloned dinosaurs or instant doppelgangers, which remain solidly in the realm of fiction. Some of science fiction's most popular tropes, on the other hand, are not only real but common in game development, such as virtual reality and artificial intelligence. While game AI doesn't begin to approach the sentient, self-replicating, or all-powerful machine intelligences common to science fiction, developers are very good at faking it. Players of *Alien: Isolation* are stalked through the game world by a tactically-minded AI predator, one intelligent enough to consider some game areas more "interesting" to search than others. Clive Gratton, the game's technical director, explains that their goal was "not to cheat … If you can hear the Alien in the vents close to you then there's more chance that it can hear you and will come down. It is actually traversing through the vent network" (Lane 2017).

When games include fictional AI in their narrative and real AI in their systems, the two will naturally intersect. *Horizon Zero Dawn* takes place in a world populated by cybernetic dinosaurs, simply called "machines," as part of a narrative in which Earth has been terraformed and repopulated after an extinction event caused by self-replicating, biomass-consuming robots. Players spend a great deal of game time hunting or otherwise interacting with various machine species, including relatively peaceful herding machines like Grazers and Broadheads, crab-like transport robots like Shell-Walkers, and giant, aggressive predators like the Thunderjaw, essentially a weaponized T-Rex. To create what feels like a living machine ecology, the game's programmers needed machines to "behave differently depending on what the player does … We looked at the lore, together with the narrative writer and the writing team, and asked, what can we do?" (Francis 2018). The narrative requirements of the machines' fictional AI are bolstered, if not directly replicated, by the game characters' actual AI, allowing for an immersive science fictional experience that feels real in the moment of play.

Despite these examples, it's important to note that a game's mechanics and systems and its narrative content don't automatically touch. Often, this is by design: respawn systems, for example, are near-ubiquitous in digital games, but only a few, such as *Destroy All Humans* and *Bioshock*, use those systems to say anything of substance about immortality or cloning. Nevertheless, the technologies on which games are fundamentally dependent are in a constant state of rapid, developmental change, which creates opportunities for meaningful intersections between real and fictional technologies. In other words, the digital game is a medium in constant technological flux, which makes it an ideal space for exploring science fiction content and themes.

Digital Games as Science Fictional Medium

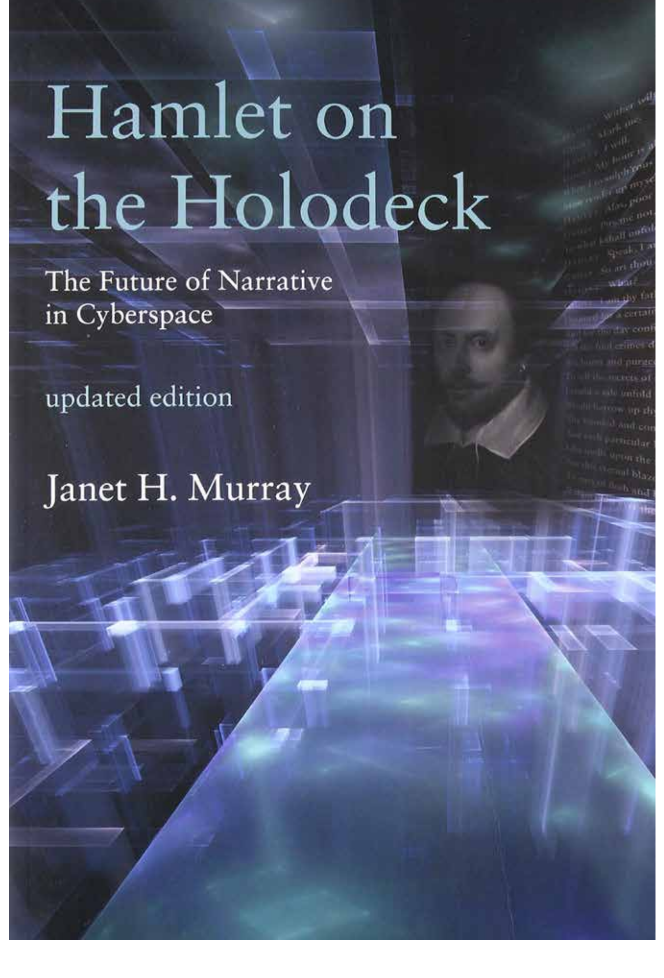
In 2009, Tanya Krzywinksa and Esther MacCallum-Stewart argued that digital games, despite their potential for science fiction storytelling, had yet to achieve that goal, noting the "simultaneous and contradictory claims that the new frontier of digital gaming has brought a new dimension to [science fiction] and that videogames less 'boldly go' than 'broadly follow'"(Krzywinksa and MacCallum-Stewart 2009). Modern games, they explained, emphasized science fiction that favored "spectacle and action over contemplation, and in which speculation, clearly integral to the act of playing games, is not as radically realized as is possible" (2009). Whether one agrees with their assessment or not, a significant number of radically realized science fiction games have been produced in the last decade, and the arguments against digital games as a medium for substantial science fiction are falling by the wayside.

First, digital games, like all creative endeavors, fall under Sturgeon's Law, the author's response to constant criticisms of science fiction using the worst examples of the field: "Ninety percent of science fiction is crud. But then ninety percent of everything is crud, and it's the ten percent that isn't crud that is important. And the ten percent of science fiction that isn't crud is as good as or better than anything being written anywhere" (Langford 2012). It's difficult to determine which digital games qualify for Sturgeon's ten percent, as games within the same subgenre can vary wildly in their mechanics, content, and player experience; and games have achieved objective critical or commercial success for a strikingly wide range of reasons. That said, there are still numerous examples of games across genres pushing the speculative potential of digital systems and environments, proving that games are a worthwhile, even ideal, medium for science fiction.

Second, one can look to Janet Murray's 1997 description of digital games as incunabular: the products of a technology in transition. Over two decades later, I argue that games are in fact inherently incunabular: products not of one technology but of a pervasive, rapidly changing technological landscape that will likely never be finished, stabilized, or come to a point where all the kinks have been worked out. This process of continual

technological evolution makes games inherently science fictional, and therefore a natural space in which speculative fiction can be expressed, explored, and experimented with.

Lastly, few arguments about the worth of digital games have withstood the test of time. There is no longer a debate about whether games are an art form: they are, as evidenced by the MoMA adding fourteen digital games to their collection in 2012 (Antonelli 2012). There is no longer a debate about whether games are a medium for legitimate science fiction, as the Nebula Awards, arguably the most prestigious award in science fiction, added a category for Game Writing in 2018. Game historian Tristan Donovan writes that "far from settling into some kind of creative maturity, the video game remains an art form that still feels as if it has barely got started" (Donovan 2010). Digital games have come a long way from *Spacewar!*'s simple needle and wedge, half a century ago. Now game developers, science fiction authors, and the increasing number of creators who are both at once, have a great deal of territory to explore, to continue discovering how best to use this naturally science fictional medium to express what it means to be technological, computational, and human.



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MONICA EVANS IS AN ASSOCIATE PROFESSOR IN THE SCHOOL OF ARTS, TECHNOLOGY, AND EMERGING COMMUNICATION AT THE UNIVERSITY OF TEXAS AT DALLAS. DR. EVANS HAS DEVELOPED DIGITAL GAMES FOR CHILDREN'S HOSPITALS, SCIENCE MUSEUMS, ARTS ORGANIZATIONS, AND THE UNITED STATES GOVERNMENT, AND CURRENTLY DIRECTS THE NARRATIVE SYSTEMS RESEARCH LAB AT UT DALLAS.

This Is How You Produce The Time War: Powder Scofield interviews Amal El-Mohtar and Max Gladstone

Amal El-Mohtar and Max Gladstone's *This Is How You Lose The Time War* has just won the BSFA Award for Shorter Fiction. Late in 2019, Powder Scofield joined Amal and Max to chat about it.

Powder: You've said one of the foundational premises of your friendship was writing physical letters to one another, and obviously that shows up in *This Is How You Lose The Time War*. Are there other bits of real life embedded in *Time War*? When you're working on a project, how much are you intentionally processing past experience?

Max: Some of it's intentional, but in my experience, intention is like a raft that's on an ocean that's in the middle of a storm. You're aware of what you can see, but you're not in control of it as much as you think you are. There's a little rudder, and you can maybe try to paddle. But if a wave is driving you east, you're going east. So I think when we sat down to write, we both knew that we were drawing on our experience of writing letters to each other, and of correspondence more generally, and the particular strange kind of time travel that you do when you're writing a letter, especially a physical letter. But at the same time, there's the raft, there's the ocean, and there's the storm.

Powder: There's a line in the book, like, "There's a kind of time travel in letters." I can see that. The time it takes to write a letter, the time it takes to get there. The way letters can sometimes cross each other in transit.

Max: Exactly. You're imagining who the other person is that will be receiving this, you're imagining where you'll be when they're receiving the letter in a week or two. You're wondering sometimes about the many forces that could stand between you dropping the small and very fragile piece of paper into a confusing and vast and twisty basically state system with the hope and trust that the $1.35 stamp will see it across the international border to someone else's actual house just because you happen to put some words on it. So all of these steps create many different versions of yourself and of the recipient and of your respective spaces. I think that was the intent with *Time War*. But there are other things that I think were beneath and driving that intent.

Amal: And to answer really literally, when we were writing the book, we were also in a gazebo with no internet. So we were sitting across from each other and we only had recourse to our own bodies of knowledge. The book is built primarily out of no research, but instead what we both brought to the literal table between us in a literal gazebo as we wrote things! There's so much in there built out of, for one thing, the surroundings. It was a gorgeous late June, early July in the Midwest. There were trees and birds and plants and things that were finding their ways into the things we were writing, for sure …

Max: Except that I don't know plants and animals as well as you do. For me: it was green … green was nice …

Amal: But this was actually part of the experience, right? I did know the names for a lot of those things. But I didn't know a ton of math whereas you did know a lot of that. I also know very, very little about China and its history, and you know a ton about that!

Max: Whereas you also know a lot about British literature …

Amal: … and extremely niche Canadian bands of the 90s, so those also made their way into it. I recently came across somebody who was like, 'I couldn't get into this book, because as if people who were superspies would reference songs from the 90s.' And I was like, 'Dude, why wouldn't they?' Why should our bodies of knowledge accumulated over the span of 35ish years on this Earth not resonate on some level with people who have all of time and space at their disposal?

Max: Right. Also, I don't want to assume, but my bet is that this person wasn't bothered by the superspies from the year six billion knowing 'Ozymandias' …

Amal: I think that may actually have been part of it. I think ultimately this person's complaint was that they were paradoxically not sufficiently immersed because the book was insufficiently alienating. So, 'These people who are supposed to be super alien are making familiar references and that has thrown me out of the book!' And like, whatevs, dude. I actually try to curate my online life in such a way that I can't encounter negative reviews of the book. But somehow, through the vagaries of Twitter, suddenly somebody is talking about how much they disliked it, and it's like, 'Oh God, oh no, the thing is happening where I'm reading because I saw it because it happened, oh no, aaaaah…'

Max: You can't unread the thing!

Amal: I can't unread the thing!

Powder: I've been thinking of Brian Atebury's *Parabolas of Science Fiction*, where he talks about SFF as a genre which is really a conversation between creators and fans. That's obviously something we're seeing a lot of now, with social media creating these spaces of connection, and also blurring who is a creator and who is a fan. But at the same time, it's been partly that way since at least the pulps era: not only did fans sometimes evolve into authors, fans were also collaborators in the megatext of SF through the letter pages of the pulps. So I was thinking about how SFF can be braided together into different lines of inquiry — different timelines of inquiry, maybe — or sort of like rosary beads of iterative thought. And it's interesting to think how a collaborative work like *This Is How You Lose The Time War* might harbour a kind of shared experience, maybe one that gets its nature from moving back and forth between the private and the public, and maybe one that's greater than the sum of its parts.

Amal: Sure. And obviously any book is going to be built out of our experiences on some level. But the composition of this book specifically required that. We isolated ourselves from the rest of the writing retreat that we were at. When you're writing someone a letter by hand, you're also not usually looking stuff up on the internet. You're usually quite immersed in the letterspace landscape, falling into your own profound thoughts about your experiences, your perspectives, your sense of the world and your desire to share that. And that desire to share comes from private, quiet, innermost self thing, not a 'citation-needed, fact-referenced' thing.

Powder: Definitely. Although at the same time, this is a very contemporary epistolary novel — and maybe it's not so much about the internet where you look stuff up, but I do think there is some kind of internet experience in there?

Max: I'm thinking especially about online roleplaying, and especially that moment in the late 90s / early 00s internet — which is the internet I think all three of us knew growing up, and kind of expected to continue being the internet, even though that internet is largely dead now — where you'd be deeply involved in a storytelling project or even in a relationship with somebody else, you'd be sharing something exciting and intimate with someone who you might never see, making friends who might be on the other side of the world, and having deep opinions about this person's literary style or the kinds of anime they liked or their taste in metaphor, and yet not know if they had a brother or a sister or how old they might be or who they might vote for, any of that sort of stuff. And you engaged in this powerful sort of imaginative exercise, creating the person based on their representation of themselves. And some of those people I've gone on to meet later and some of them I remain in exclusively online contact with. So maybe that's part of it.

Amal: Around the time I started roleplaying, the internet was a strange otherworld where you never saw other people's faces. There wasn't enough bandwidth for other people's faces, right? You knew people by the song lyrics they used as tags on AOL IM or ICQ.

Max: Usernames were so important.

Amal: Usernames were *so* important. And I had several. Usernames were these miniature flowerings of identity, and character names were a part of that too. You'd play different characters in different roleplaying set-ups. And that was most of my experience of the internet. So I remember how illicit it felt to give a phone number or an address so you could talk to someone on a medium that wasn't the internet.

Max: Also that feeling of building relationships through absence, and building lives through moments of intense connection, that then have to be sustained over great distance … I think that was life for both of us. You make your college friends, and then you have to go to the other side of the planet from them. We'd both spent substantial amounts of time in long-distance relationships when we were starting to work on *Time War*, and that's also very alive in there too. So there are deep roots that were closely tied into the experience of letter-writing. Does that strike a chord for you?

Amal: Absolutely. When I think about the friendships I had on the small, quiet internet of the 90s that felt like a magical otherworld, there was a lot of trying to find people with whom I had anything in common. Because I had an unhappy high school experience. I was an outsider on a lot of different levels. I was in a Francophone high school, I was going to high school in French, and everyone's cultural references, like the music everyone listened to, all of those things were very not ones that I was participating in. The things that I loved that I was interested in were often built out of books that I was reading in English or TV shows or cartoons I was watching in English, and very few and far between were there people in my immediate environment that I could communicate with about any of those things, or who wouldn't disdain them on some level. So the internet, this otherworld where I was only communicating to people through text, was the space where I could find those people.

And in *Time War*, there is a lot built out of the fact that Red and Blue have more in common with each other than the places that created them, the places where they come from. I feel like that experience was very much in the marrow of it. The bad experience of being alienated from your surroundings to a sufficient degree that you have to look thousands of miles away for someone who is going to have a similar passion about myth and fantasy.

Max: There's now the kind of nerd explosion on the internet, where you suddenly see people who went to high school with you who never would've admitted to liking *Star Wars* ever in their fucking lives are now like, '*Star Wars* is the best!' And on the one hand, I'm like, 'Welcome, great, thank you so much. It would've been great if we all could've just dropped the fronting for those four years and admitted that we all kind of liked rewatching *Star Wars* on the weekend. Like, that would've been fun?' But there's some aspect of high school that didn't let you do that.

Amal: It's amazing to me that I was actually introduced to the work of Charles de Lint, an author who literally was local to me but I didn't know, by Jess, who lived in California. Someone in California introduced me to the work of someone in Ottawa! And that is weird! And wonderful. There's so much of this book that comes out of confronting loneliness, of recognising the things you have done to make yourself exceptional and superlative have also made you very alone, and trying to find a community with someone who's in a similar place, even if that place is also kind of across enemy lines.

Powder: So it's interesting that there are these two sorts of separate worlds, online and offline, that you wouldn't think would meet up but they do sometimes meet up and in these strange and eerily compelling ways. *Time War* is sort of like a microcosm of that.

Max: *Time War* definitely has this interest in privacy. In some ways, maybe it is about that earlier vision of the internet where you could wander into an almost random forum and end up having a deep strong conversation with someone whom you'd never recognise if you met them on the street. You'd maybe only learn some salient details about their life — like, I don't know, whether they lived in the Western Hemisphere — after months of talking. Maybe this is because I'm inherently an incurious person or something? (*Laughter*). But I'd have these pretty deep conversations without knowing a lot of what we'd think of as the salient facts about that person.

And you could become close in this very specific sort of way, while at the same time feeling very alienated from the people right next to you. So it feels like that earlier phase of online discourse was filled with little sanctuaries that supported those relationships. Whereas modern online discourse feels like being part of this big conversation that just happens to take place in a huge dystopian ad-serving stadium, where people are waiting around to knife each other. There's a kind of universal mutual surveillance that's going on in addition to the actual corporatised government military surveillance, and the advertising surveillance. You suddenly feel everyone's eyes on you again. It starts to feel that you can only have one identity, and that starts to feel very much like the part of high school that I remember going on the internet to escape.

Amal: To avoid. Yeah.

Max: You all of a sudden need to have an identity in this way, be a particular sort of person. You start having those conversations that you used to have to have on the internet, in person. There's a kind of secret agentness to that!

Amal: It's so true! Both Red and Blue are from places that assume a total omniscience of your actions basically. To keep their correspondence private, they both kind of have recourse to the very physical nature of their bodies. Both their bodies are sufficiently separate spaces from either the Cloud or Garden. There's a scene where Blue is thinking about where she literally keeps Red's letters and it's sort of … subcutaneously.

Powder: The letters in *Time War* manifest in all kinds of weird and wonderful ways. A jar labelled 'BOIL TO READ.' Rings in a tree.

Amal: Yes. Blue's not actually hiding actual physical letters because they're both destroying those as they go along, but the memory of the letter is something that they have to keep hidden from the people who can literally read their minds. But, yeah, I'd never consciously connected that with how privacy and surveillance have changed over the past couple decades. The connection is definitely there.

Powder: Can we talk a bit about craft? Has the experience of collaboration changed how you think about craft? Are there forms of writerly craft that are specific to collaborative writing?

Amal: So the thing about craft that I always really enjoy talking about is just the literal fact of how we wrote it. So we were in this gazebo, and we had a sense of the overarching plot and shape of the story. But when it actually came to writing it, one of us would write the letter and one of us would write the scene in which the letter was received. Which meant that we were writing those parts at the same time. We would discuss the situation that the letter would be received but we wouldn't discuss the letter, so the letter was always a surprise to both the person writing it and the person reading it. The tricky part was that, because we were writing these at the same time, we quickly learned that Max writes exactly four times as fast as I do. And in this gazebo, there was a very time-travelly old-timey keyboard that made a wonderful clackety-clackety sound that told me just how much faster than me Max was writing …

Max would write and finish and then have to wait for me to finish my section so that we could then swap, read what we'd done, then swap back and continue. But the beautiful thing that started happening was Max started slowing down and I started speeding up so that we were finishing at exactly the same time. And it became this beautiful kind of choreography of finishing, swapping laptops, reading, going 'Oh my God, this is amazing!' and then swapping them back and continuing. It became this excellent feedback loop

of literal feedback. We were giving each other feedback that was nourishing and supportive and buoying because we were clearly so excited about this thing that we were doing. So that helped bypass a lot of the kind of inherent doubts and loneliness and anxiety you get when you're writing something by yourself where you're like 'Hmm … is this any good actually?' Or that two-day delay of, 'The stuff I wrote, I was excited about but … ehhh.' It was delightful and so energising to me. Especially when I was feeling uncertain about whether I was using math language or science language correctly or effectively. There was also this kind of confirmation from you I could get immediately, which was wonderful.

Max: It also did something to protect the purity of the storytelling experience? When you're involved in publishing, there's this weird mental jump that can happen where, all of a sudden, it's not longer just you and the audience in the room, or the person you're telling the story to. Suddenly it's you, the person you're telling the story to, maybe your editor or sales team wanders in, drinks some coffee, wanders out, the people who didn't like your last two books come in and they're sort of camping and snarking. And you don't actually need to write for hardly any of those people. Rock bottom, the story is going to be effective if it's well-told to particular humans. Because those humans are out there and if you can find them, they will love the story. And if the story is presented in a way that encourages them to find it, they're going to find it and then love it.

It's hard to get back there when there is some sort of sense of public expectation. But knowing that you're writing it for one person first — that you're writing it for this friend of yours who's reading it and going to be excited about it — it sort of gives you a pure angle of intent. It gets rid of the doubts about posterity, or how it might fit into your larger body of work, or whether this enough x or too much y. You're not just shouting into a void. That other person is going to be there for you and come back at you with all of that. So it also gets away from the commercial aspect of the experience. When we tell stories, who is listening? We don't tell stories to sales figures. One person exists, and that person is listening.

Powder: We've been talking about your novella *This Is How You Lose The Time War*, which is an epistolary exploration of time and causality and privacy and intimacy and emotion and all of these things. And we've been talking a bit about the internet, and how the changing structures of the internet have maybe revealed different possibilities for solitude and togetherness.

For me, reading *Time War* also had this extra dimension of excitement because I was like, 'Amal wrote that! Max wrote that!' The three of us have odd, unexpected, and serendipitous connections. Max, I met you at university, we've known each other for — God! — over eighteen years now. And Amal, I met you online the first time I was living in the UK …

Amal: That was around 2007, through a game of *Changeling: The Dreaming*.

Powder: But when did you two first meet?

Amal: ReaderCon in 2014. I was vaguely aware of Max, because I had an ARC of *Two Serpents Rise*, but I hadn't read it yet. I was on the programming committee, so I was responsible for taking ideas that people sent in and making panel items out of them. One panel was about magic and technology, and I was curious how that would go. So I went to the panel and I was like, 'Oh, yeah, this is the guy whose book I have on my shelf.' I sat down and I lasted about ten minutes of taking notes before I actually started vibrating with frustration that I wasn't just having this conversation with him away from the rest of the panel. He was saying every single thing that I wanted someone to say about the stuff on this panel that I had put together, and it was irritating that I wasn't on the panel too. So I actually at some point just got up and left! That's how I actually met Steph first, because I think I ran into her in the hallway as I was leaving, and I was like, 'Yeah, your husband's really smart.'

Max: How did you know that she was my wife? Had you seen us together?

Amal: No, someone introduced us. Actually, I think she might have even said, 'Hi, I'm Max Gladstone's wife,' and I was like, 'WHAT…'

Max: Excellent!

Amal: So later that night we're both at a party. I was reviewing books for NPR at the time, and there are rules at NPR about reviewing books by friends. My NPR editor was literally in the room. So I walked up to Max, and I think what I said was, 'Hello! I think if the two of us sat down together for a while we could maybe solve the world's problems, but I can't be friends with you because I want to review your books so … yeah.'

Max: Which, as an initial approach line, leaves you without a lot of obvious responses, I will say.

Powder: Do you remember your response?

Max: No. Probably some deadpan and then a joke?

Amal: My memory is of you looking startled and a little apprehensive. It was tremendously obnoxious of me! Then we met again that year at LonCon, and that was when we got to have proper conversations and hang out.

Max: We had a few conversations at ReaderCon, to my memory? I remember being very impressed by you and had a great time chatting, and I definitely picked up *Travel Light* afterwards.

Amal: OK, but we had two ReaderCons. There was that ReaderCon and the next ReaderCon. So I did actually get to review your books up until *Full Fathom Five*. But by the time of the next ReaderCon, Max and Steph had been invited to my wedding, and Max and I had already started to write each other letters by hand. So I literally had to go back to my editor and say, 'Sorry, I don't think I can review his book. We became friends because, well, I invited him to my wedding —'

Max: And we came!

Amal: You did!

Max: We did. We had a great time.

Amal: I first knew I could trust you as a human being when I was reading *Three Parts Dead*, which was so cathartic. Spoilers for anyone who hasn't read it, but it ends with Tara beheading the corpse of her shitty doctoral supervisor. He's not even doctoral, but I made him doctoral in my head. Also a 'Kiss With Teeth,' which is a contemporary domestic story with a vampire acting as a father and husband and stuff. And in that story, it looks like — sorry, spoilers again —

Max: I feel like the concept of the spoiler makes a certain sort of actual discussion of literature really difficult? It's easy to end up in a place where you're not talking about twists or not actually talking about the things that happen in the text in order to preserve somebody's putative fresh reading. My experience of literature is, with very few exceptions, not predicated on that sort of fresh reading.

Amal: Well, there's a part where the main character starts stalking a young woman. It looks like the story is going to be, 'Oh, yes, this vampire is going to give into his urges and is going to kill this young woman in a way that probably won't be sexualised but kind of actually is.' And I was just going, 'No! I don't want this to happen!' This doesn't hold up to logical scrutiny, and I don't think it's fair to expect this of creators. But I remember feeling, 'Max wouldn't do this to me! This is not a thing that Max would write! I don't know Max, but I have read this other book of his and I just don't feel like the person who wrote that book would do this to me!' And then … he didn't! And the story goes a totally different way and it's wonderful and perfect, and I cried. So that's when I knew Max wasn't an asshole.

Max: There's so much risk in forming new friendships, I feel. You're kind of letting someone into your own story and letting somebody into your community of friends, the people you want to protect, that you really go to bat for. I'm not sure what I could point to in our relationship that got us across that boundary. And I often have trouble bringing new people across that boundary perfectly. I don't know if it's being afraid, or what that is …

Amal: That's why all of your friends are fantastic!

Powder: It's so interesting how encounters with written texts are embedded in these networks of friendships, and embedded within all these risks as well. And vice-versa, as Amal just suggested — how friendships can be embedded in encounters with texts. I felt like, reading *Time War*, I know you both well enough that I could pretty much tell who was writing which part. So I could see some of the individual threads within the braids and think, 'I know where that leads.'

Max: That's great. And pretty rare among people who read the book. Even folks who I think of as having very discerning critical palates come away saying they couldn't tell who wrote what, because the voices are so unified. But people who we know personally pretty well, have generally been able to pick out who's representing which character, what concepts are coming from whom.

Amal: Yeah, that delights me. I'm really happy you were able to pick it out. Because I've been surprised by some people who didn't guess correctly. I mean, on one level, if you know how we wrote it, you have a 50/50 chance! But not everyone necessarily knew that we were each writing a character. Some people thought that we were both writing everything …

Max: Or that one of us was writing the letters, and the other was writing the interstitial sections …

Amal: Yeah, yeah. I think my dad actually thought I was writing Red.

Max: Oh excellent! I find that very flattering.

Amal: I also do, actually! So, yeah, it's wonderful to me when people try to pick that out. Because I think also people who know us are more likely, Powder being an exception in this case, to match us to their ideas of us in the book than they are necessarily to our respective writings. If they have more acquaintance with us as people than they do with our writing, for instance. But yeah…

Max: Which character each of us is most like maybe?

Amal: Yeah, exactly.

Powder: So we've talked a bit about how the book exists between the two of you, and how that connection is situated within all these wider interpersonal connections. What about the wider set of connections within the genre? Are there extant works that you feel or could argue that *Time War* is in conversation with? Obviously, the title has strong resonances with *Doctor Who* …

Amal: I love *Doctor Who*, and we were very aware that having 'time war' in the title was going to queue up associations. Even to the point where on Amazon, apparently, *Time War* is classed in *Doctor Who* Fiction. And to my delight but also sheepishness, it was like #1 in *Doctor Who* Fiction on Amazon —

Max: That made me so happy!

Amal: That made me really happy, but I was also like, 'Oh God! Aaah! People are gonna be so mad!' But maybe it'll be the F/F war fic of their dreams that they've always wanted to see in *Doctor Who*!

Max: As a *Doctor Who* fan as a child, I would've just sat there and been like, 'Oh, this is interesting. I'm not sure how this fits into the existing continuity … but this makes total sense!' Whenever we got a sense of *Doctor Who*'s Time War, I always wanted it to look more like what we do in *Time War*. I wanted more weirdness. Some of the things that Davies sort of hints at so brilliantly with regard to how fucked-up a post-human history-spanning omnicidal conflict would be. *The Nightmare Child*, *Medusa Cascade*, and all that stuff. But whenever we saw those elements on television, it was necessarily limited by what the BBC felt would be accessible, or would fit into their £200,000 special-effects budget. So it was always a letdown compared to the poetic suggestion of what might have been there.

Amal: Exactly! And that was also a big decision, that we wanted the *Time War* to be basically unknowable. Every time in *Doctor Who*, which I deeply love, I never wanted to see the people who originated the Shadow Proclamation. Like, that sounds awesome. The Shadow Proclamation. Come on! I didn't want to see a fucking council!

Max: I can 100% guarantee to you that almost every human's imagination of what the Shadow Proclamation might be was cooler than anything that anyone could put on screen. Even if you took *Fellowship of the Ring* era Peter Jackson, or someone else who's really good at portraying unportrayable stuff —

Amal: Exactly.

Max: If you just give humans a suggestive image and let them run with the implications, then the imagination creates these enormous palaces that raw observation can only collapse.

Powder: What other connections do you feel *Time War* has? Amal, you've edited and written so much genre poetry, and that's a really strong thread throughout. Is there specific poetry that *Time War* is in dialogue with? Max, I know you have a deep love of *Journey into the West* and various bits of Chinese literature. You've also written interactive fiction, and the idea of a choose-your-own-adventure might suggest a braid, the pattern of forking and folding, but also forming a linear line. So what works do you feel *Time War* might be in conversation with? What are those connections?

Amal: One big decision that we had to make at the outset was what kind of time travel we wanted. There are these long lineages of different modalities of time travel. You should read *Exhalation* by Ted Chiang, which goes through a number of different kinds of time travel: from time travel that exists in a predetermined universe where the future has always already happened and there is no changing it, to time travel in a multiverse where every decision you make actually branches off a different reality. Taking those two points as defining a vague spectrum along which you can have different sorts of time travel, we had to think about things like, 'Are we going to have grandfather paradoxes? How are we dealing with paradox in general here?' We had to think about that specifically because actually we didn't want to talk about it in the book. We didn't want to make the book be about that stuff. We had to just kind of figure out where we were coming from, in order to staunchly ignore it and focus on these two characters. So in that sense …

Max: Not necessarily ignore it completely, but we definitely wanted to preserve that character focus.

Amal: I keep using this metaphor: we wanted the Time War itself to just be snatches of scenery that you glimpse from a train window as you're going past it very quickly.

Max: Rian Johnson's movie *Looper* is really great in a lot of ways. The central conceit is that you have criminals who kill people who are sent back in time from a future gang war. For your final job, you're sent your future self, along with your severance payment. You kill your future self and then you have a nice retirement, until the day you meet again. Now, in this movie, the time travel is really the grounds for an interesting character-driven thriller. It's interested in causes and effects, but it's more concerned with how people grow up and change, and how small changes in a child or young man's life can lead to very different outcomes later on. That's what it's invested in, not so much the tangly bit.

There's a scene where Joseph Gordon-Levitt is going to kill Future Joseph Gordon-Levitt, who is Bruce Willis, and they're sitting by themselves at a diner, and Bruce Willis is trying to explain to Past Bruce Willis, who is Joseph Gordon-Levitt, the context of the story. So Joseph Gordon-Levitt is asking all of the questions that the audience may be asking, especially a SF-cognisant audience-member who has the index of time travel they're going through. And Bruce Willis' character, who is ultimately a mob hitman and always has been, is sitting there saying, 'Look, if I try to explain time travel to you, we'll be sitting around all day fucking around with bendy straws.'

Then he goes over the salient facts of time travel, and the rest of the movie goes along on that basis. So that's what we were trying to accomplish, I think. We wanted to have the story and characters in the foreground. We needed to know the answers to these questions so that we wouldn't confuse ourselves or the reader too much but knowing those answers we could then one-side a little bit.

Amal: Yeah, we decided that we wanted a time war and a time travel that also reflected the kind of multifariousness of history. That fact that we're

always discovering new things about history and recovering and recuperating suppressed and marginalised voices of history in a way that changes the past. We're constantly doing that. And the thing is every time we do this, we have to do it again, over and over. A lot of the time, it's about recognising that the past could look a lot more like the present than we assume it did, because of various hegemonic forces making it look a lot whiter and straighter than it was.

Max: The lens is warped and the lens is sort of colour-graded. I remember seeing pictures supposed to depict St Augustine. It may have been me being rather slow, but it didn't occur to me till after college that a North African Roman in the first or second centuries is not necessarily going to look like Derek Jacobi.

Amal: Right! That's so true! Certainly for me, not having made a study of classical antiquity particularly, the thing that dominates my imaginary — this is actually a good metaphor for it — about Roman history is white statues. White marble statues. Which, as it turns out, were very brightly painted and colourful at the time that they were made, but the processes of history has washed those colours away, have bleached them, have variously stripped the statues of them, so what we're left with is this idea of, to borrow the words of Isabella Valancy Crawford', 'like purest marble, gleaming whitely'. That's we're left with. And we kind of have to recover the traces of pigment and intention and culture and stuff from all around that. As long as we're studying history, on some level we're discovering our failure to preserve history or our failure to carry history forward. And there is something in that that is very in the nature of an edit war, to borrow a phrase from Annalee Newitz's *Future of Another Timeline*.

So this is the idea that there really is a time war happening, but it's always happening in the present over our past and our future. We wanted to have a time war that recognised that. That recognised that everyone is always making small changes and everyone is always affecting historical outcomes. But in *Time War*, we have sufficient technology and immortality at our disposal that we can zoom out from those changes and actually manipulate and apprehend them in a more macro way, hence two alternate futures that have cannibalised everything.

Max: You see this in academia too. The notion that you have competing futures, competing visions that are attempting to shore up their own legitimacy. Not alien from the experience of working in academia! But also of course those ends can be politically motivated. For example, I have a friend who's a classicist and she talks a lot about how classics get appropriated and misused by fascist and other far-right movements to claim that Rome was a particular sort of thing, to make particular claims about purity, and all these gross narratives. The challenge in academia in classics is always to make sure you can't be appropriated in that way. So you have communities that try to assemble narratives to support their own existence and others communities trying to pull the narrative in another direction. We are jumping back and forward throughout time, finding junction points, details that weren't previously brought to light but turn out to be essential. Archeological evidence, physical evidence. It's a sort of time war. You're sort of telling these stories and writing these stories and rewriting your sense of what history is.

Powder: We should wind up soon, but as we're talking about the vast sweep of history, can I throw in one on the fly? You can invite any one person, let's say real or fictional, and you can bring them to you for a dinner party for an extended conversation. But the two of you have to agree on who the person is. Who would that person be? What springs to mind?

Max: I would be really interested in what Alexander Hamilton would think of the musical *Hamilton*.

Amal screams.

Max: Sort of go to the show, then have dinner afterwards.

Amal: That is fair!

Max: I'm going to put that out as an opening bid.

Amal: See, I'd be more interested in what Angelia Schuyler has to say about the musical.

Max: That would also be great!

Amal: The first thing that springs to mind is: we need a methodology for this! It's partly difficult because of the breadth, getting to choose across all fictional and non-fictional people. On some level, everything we know about individuals from history has the sort of cadence of fiction in some ways. That's why taking Hamilton to *Hamilton* is such an interesting opening bid. You're kind of zooming in on that thing, on the fact that there is a quite fictionalised representation of a biography which has its own critiques within historian communities. But then part of me just wants to answer that I would love to just have dinner with someone who is outside the historical record. Somebody totally unknown from a period of history you want to learn about. Maybe that's too nerdy on some level …

Max: Who do you think would be a good dinner conversationalist? Like, say you invite Napoleon and he turns out to be a really shitty guy to have dinner with. On the one hand, you get to say oh great, I had dinner with Napoleon, on the other hand, 'Oh fuck, thank god that guy's gone!' So who'd be good to chat? Ben Franklin might be good to chat. Everything I know about Ben Franklin suggests that he'd be down for some wandering around the future, being chill …

Amal: That's true. He would be down for some of that, that's true. But I think about the fact that Samuel Taylor Coleridge had a contemporary reputation as a fantastic conversationalist. There's this wonderful, wonderful letter that Keats writes about a walk that he went on with Coleridge that wasn't even very long. It was like a couple of miles, I think. And he makes this itemised list of all the things they talked about. It's so beautiful, and that makes me want to hear him at dinner. But here's the other facet to this question: there are people who have died very recently who I never got a chance to meet. I would love to have a conversation with Ursula Le Guin or Diana Wynne Jones.

Powder: Let's leave it open. And let's call it there. Thanks so much, both of you.

John Keats, from a letter to George and Georgina Keats, 15 April, 1819.

[…] Last Sunday I took a Walk towards Highgate and in the lane that winds by the side of Lord Mansfield's park I met Mr. Green our Demonstrator at Guy's in conversation with Coleridge — I joined them, after enquiring by a look whether it would be agreeable — I walked with him at his alderman-after-dinner pace for near two miles I suppose. In those two Miles he broached a thousand things — let me see if I can give you a list — Nightingales — Poetry — on Poetical Sensation — Metaphysics — Different genera and species of Dreams — Nightmare — a dream accompanied by a sense of touch — single and double touch — a dream related— First and second consciousness — the difference explained between will and Volition — so say metaphysicians from a want of smoking the second consciousness — Monsters — the Kraken — Mermaids — Southey believes in them — Southey's belief too much diluted — a Ghost story — Good morning — I heard his voice as he came towards me — I heard it as he moved away — I had heard it all the interval — if it may be called so. He was civil enough to ask me to call on him at Highgate. Good-night! […]

AMAL EL MOHTAR IS AN AWARD-WINNING AUTHOR, POET, AND CRITIC. HER WORK CAN BE FOUND IN PLACES SUCH AS STRANGE HORIZONS, CLARKESWORLD, TOR.COM, FIRESIDE FICTION, LIGHTSPEED, UNCANNY, APEX, AND STONE TELLING, AND THE COLLECTION THE HONEY MONTH (2010). HER CRITICAL WRITING APPEARS IN THE NEW YORK TIMES, NPR BOOKS AND TOR.COM.

MAX GLADSTONE IS THE AUTHOR OF NUMEROUS WORKS INCLUDING THE CRAFT SERIES OF NOVELS AND INTERACTIVE FICTION, EPISODES OF SERIAL FICTION IN THE BOOKBURNERS AND WITCH WHO CAME IN FROM THE COLD SERIES, AND THE SPACE OPERA EMPRESS OF FOREVER (2019).

POWDER SCOFIELD IS AN AUTHOR, CRITIC, EDITOR, AND ASSOCIATE LECTURER AT ANGLIA RUSKIN UNIVERSITY, WHERE HE IS ALSO WRITING A PHD ABOUT FAIRIES AND FOLKLORE. HE'S RECENTLY ALSO STARTED HOSTING THE QUEER AS SFF READING GROUP.

JOHN KEATS IS A ROMANTIC POET.

Another Kind of Party:

Vector interviews Catherynne M. Valente

What a delight and honour. So here we are at Worldcon in Dublin. Any highlights of the con so far?

Well, my reading was lovely. I've only had a reading and a signing so far. So just being able to see some of my fans and some of them have said really lovely things.

I was in your reading, it was fantastic. You read from Space Opera. *There seemed to be a lot of agreement from the audience regarding seagulls.*

That did get a big laugh! But I mean, have you ever met a seagull? They're vicious creatures. They're beautiful, but vicious.

Do you believe seagulls can one day be redeemed?

Perhaps. If, you know, they work hard and study their narrative arc a little more carefully.

In a moment I want to ask you about fairies, who are also sometimes beautiful and vicious. But first, please tell us about "Eurovision, in spaaaace! ... goes to Hollywood!"

Yes, very exciting! So the *Space Opera* movie is moving forward. There's a whole team of producers and songwriters and now a screenwriter. It's moved faster than any option I've ever heard of, kind of dizzying in a way. I just got a wonderful email from the screenwriter telling me how much they loved the book. So that's always a really good thing to hear, that they've read it, you know? But I don't have much information about it yet.

Are you starting to imagine it? You're so often such a visual writer ...

Oh my God, of course I have. I don't, you know, think about as I fall asleep every night. But of course I've started to imagine it! How are they going to do the aliens? Who are they going to get to play all these characters? There's not actually that many humans, so it'll be interesting to see if they do MoCap or what.

And what it will sound like, of course!

The press releases have always kind of skirted whether or not it's fully a musical. So far it's a music themed science fiction movie, but we'll see how much music that means. A lot of the people involved have been involved with Broadway musicals and things like that. I'll be really interested to see what they do with it.

I cannot wait. OK, next question. If stories were fairies, what fairy gifts would your stories offer?

Well, one gift my story managed to offer is . . . my child. So I wrote *Palimpsest* and it was nominated for the Hugo Award in 2010. And the Hugos were held in Worldcon in Melbourne, Australia. And because I went to Melbourne, Australia, I met a boy who was sitting in the front row of my reading. And now we are married and have a child. And so if I had not written that book, I would not have my little fairy child that I have.

That's incredible.

So he's quite literally a fairy that sprang from my story.

The best dating app.

It is certainly a high-level spell, as far as going to a convention and managing to snag one of the Hugo nominees. He's very socially capable.

If fairies had their own fairies, what would they be like?

Well, fairies are sort of amoral, so I would think that they might find morality terrifying. Someone with a strict code of ethics would be as alien to them as someone without any is to us. Is that ...

I can kind of see their point.

Yeah, no, absolutely. They're 100% right on that.

So we've done stories as fairies. How about stories as ghosts? Can you tell us about a piece of writing of your own that was lost, abandoned, stuck, or fragmented? Some thing that didn't see the light of day?

Yes, I have a completed novel on my hard drive that has never been published, called *The Alchemy of Winter*. When did I write that? I guess I wrote it between *Palimpsest* and *Deathless*. It's a YA novel, and I didn't know very much about writing YA. And we couldn't sell it. Actually, it's probably not because of any quality on its part, but because the economy had just crashed and we couldn't sell anything. So because *Fairyland* happened right after that, it just has gathered dust on my hard drive.

What's it about?

Lake Erie freezes over in the winter, and it's about a sort of a kingdom of animals that comes to life and is only there in the winter on frozen Lake Erie.

"Stories as divinities." If your novel Radiance were an avatar of a god, what kind of god would it be?

Something to do with seeing. You know, like Odin has his one eye, like the camera has its one eye. *Radiance* is all about seeing and being seen.

And things that are not seen.

And things that are not seen. So it would have to be a god of sight I think.

Can you talk a bit more about that novel? Maybe about that theme of the frontier?

So I grew up on the west coast of America, which is a place that still is very conscious of itself as the last frontier of its own country. And it's very much a part of how people see themselves, it's part of this sort of mythos of that part of the country. And I do think I very much internalized that, even though there's of course terrible toxicity in that discourse, with Manifest Destiny and everything. So *Radiance* is partly reflecting on that.

And when I wrote the novel, one of the things I also really wanted to do was to create a solar system that was full of those old pulp science fiction planets. You know, where Venus is a water world, and there are cowboys on Mars. That sort of lived-in solar system was something I loved reading about as a child. So when you put those two things together, you end up with the solar system that is sort of partially settled and partially not. And that's a very terrifying, awful, but exciting time in history.

OK, there's a lot more we could talk about there. But I also wanted to ask a little more about style and voice. Writing manuals are full of advice like, "Write plainly, get rid of your darling. Don't use too many adjectives. Don't use too many adverbs."

Laughter.

So your writing obviously wonderfully, um …

Gives the middle finger to all that?

Yes! It shows up how ridiculous it actually is, right? For some writers, anyway. So I guess I'd love to hear about that kind of rich, maximalist thing that you do so well sometimes.

I mean, I think that all writing rules are there in part to be ignored, if you want to ignore them. They're there to give you something to ignore. Quality pays for all. If you can do something that touches someone, they're not gonna mind your adjectives. Integration.

Do you think that you are following rules and laws of your own?

100%. And they are weird and arbitrary but so important to me, but not at all important to anyone else. And you'd never guessed them from reading my books.

Can you articulate?

So all names have to mean something. No one has a name that's just arbitrary.

Right.

They reference something or they're resonant in some other way. I can't deal with just naming someone John or Anna. I can't do it!

Or Fred or Sally. Sorry, Freds and Sallies!

No, no, it just doesn't work like that for me! And I'm like, when I retell a fairytale, my rule for myself, not for anybody else, is that the events of the fairytale have to unfold as they did in the original. The way

that I open things up is within the tale, not with the conclusion of the tale. But these are just my own rules.

Right.

There's this sort of element of a magic spell to some of them. Some of them just so fundamentally don't matter. Yet it mattered so much to me when I was writing. And I think that all writers are like that, I think that we're all a very superstitious bunch. The way that we manage to write a novel one time, we cling to the next time.

But it's at that edge, that threshold, where the superstition also has efficacy. It's like witchcraft.

Yeah, I think so.

Penultimate question. How do you write a good party?

You know, it's funny, the last several of my books have had party scenes. I was like, "Maybe I'm a little lonely! Maybe my social life could use some work!"

So is that the secret? Like, subject yourself to a party fast, and then … ?

Maybe! Just surround yourself with characters who feel like your friends. Both *Radiance* and *Space Opera* have a huge party scene. And for different reasons, they are both some of my favorite things that I've written. *Space Opera*'s party will make you laugh and *Radiance*'s party will make you cry. So genuinely, behave as though you're a quiet introvert at that party and just listen to everybody. Both parties take place kind of late in the book. So you can take all these people you've already been spending time with and then just throw them all in a room.

The other thing is — again, just myself and the things I like to do — I really like to design cocktails for those parties. And to me that kind of opens up the nature of the party. Because if you're serving shit vodka and Coke in the solo cup, that's one kind of party. If you've got some kind of beautiful creation then it's obviously another.

Vodka and Marmite is another kind of party. Cocktails can contain the seeds of the whole party.

For me, absolutely.

Okay, final question, which is really more of a feat. So I just asked Yoon Ha Lee to improvise a sentence of a story we're going to feed to this neural network. Could you add another sentence or two? And then we'll let the neural network finish it off? So …

Oh God, I'm so bad at this. *[Catherynne proceeds to be good at it. See the* Vector *website for the result].* Okay. Stick that in your neural network and smoke it.

Catherynne, thank you so much!

CATHERYNNE M. VALENTE (@CATVALENTE) IS AUTHOR OF OVER TWO DOZEN WORKS OF FICTION AND POETRY, INCLUDING SPACE OPERA, RADIANCE, DEATHLESS, PALIMPSEST, THE ORPHAN'S TALES SERIES, AND THE GIRL WHO CIRCUMNAVIGATED FAIRYLAND IN A SHIP OF OWN MAKING AND THE REST OF THE FAIRYLAND SERIES. HER MOST RECENT WORKS INCLUDE MASS EFFECT AND MINECRAFT TIE-INS, AND SPACE ODDITY, THE SEQUEL TO SPACE OPERA, IS SHIMMERING ON THE HORIZON. CATHERYNNE'S AWARDS INCLUDE THE ANDRE NORTON, TIPTREE, STURGEON, PRIX IMAGINALES, EUGIE FOSTER MEMORIAL, MYTHOPOEIC, RHYSLING, LAMBDA, LOCUS, ROMANTIC TIMES' CRITICS CHOICE AND HUGO.

JO LINDSAY WALTON IS AN EDITOR OF VECTOR.

The Science and the Politics:

Vector interviews Nancy Kress

I am extremely excited to be here with none other than Nancy Kress. Nancy, how has your Worldcon been so far?

It's been really good. I had never been to Ireland before, and everyone has been extremely friendly. I very much enjoyed all of the interactions with people I don't usually get to see. We did some touristy things before the con began too.

That's good. Any highlights?

The Kilmainham Gaol was one. I don't know as much Irish history as I should. We took the tour, and I was very moved by the fourteen rebels that were shot there. Particularly Joseph Plunkett marrying Grace Griffins just before they took him out to shoot him. They played 'Grace,' the song which was written about it and covered by Rod Stewart. And I was very moved. But I want to now read more about the history of Ireland.

Can I ask you about current and upcoming writing projects?

I have a novella coming out from Tachyon soon and another novella in Asimov's next year. And those things had been pretty much consuming me. And I'm starting a new novel now, but I don't talk about work in progress.

Oh, okay! Tell us about the novellas.

The one for Tachyon is called *Sea Change* and it's about genetically engineered crops, which I know in Europe is a flashpoint topic. I'm very much in favor of them. But I think the new novella does a balanced job of pointing out both the risks and the benefits. And I also like my characters a whole lot, so if people are going to buy something of mine, I hope it's that one.

What is your sense of how genetic modification and synthetic biology has changed over the past few decades? Or how has your understanding of that science changed?

There needs to be a greater understanding of the difference between the science and the politics of genetic engineering. There have been a lot of abuses of genetic engineering, such as Monsanto suing farmers when GM seeds blow onto their fields. That's a political aspect of it. There are problems with patents, and that's part of the politics.

But the science itself is right now conferring immense benefits in the third world, and may confer even more as climate change advances. As the climate changes, places that are growing crops right now may not be able to sustain them in the future. Rising seas means more soil is going to become more saline. More places are going to be affected with drought. Other places that right now are relatively dry are going to be affected with rain.

I guess it's important to grow crops that are appropriate to the land, and to recognise that the land will be changing.

And crops change very, very slowly. Unless we change them, we're not going to be able to feed the growing population of the world. Developed countries have the luxury of saying, "Well, I don't want GMO here," but much of the developing world has not. And as the climate changes, the developed world won't have that luxury either. We need to be prepared for this and we need to go forward with this, and not to have the kind of scare tactics that are out there now about genetically modified food. Nobody, not one documented person, has ever been ill from a genetically modified crop. So we need to distinguish the science and the politics.

On the one hand, technology often leads to unexpected consequences, especially when there are ecosystems involved, or multiple complex interacting systems involved. On the other hand, the effects of a new technology must to some extent be in-built, otherwise everything would just be completely unpredictable. So I guess

my question is: how do you as a science fiction writer go about thinking through the potential consequences of science and technology?

Well, the same way that a science fiction writer tries to think about anything. You think about what can go wrong, what can go right, and you try to think of it as a risk-benefit. "Who's going to need this, how badly are they going to need this? Who's going to benefit from this? Who's going to lose from this?" And you try to think about it not only in a local sense, but in a large sense, in a global sense.

All technology, as you just said, carries risk. But if we didn't move forward, we wouldn't even have discovered fire. The day that fire was discovered, the crime of arson became a possibility. That is true of every other bit of technology. We got coal for warmth and power. It also has caused global heating, tremendous pollution and lung diseases. That is true for everything, and you can't stop the genie. The genie is out of the bottle. You can't put it back in.

Unless we have some sort of … genie capture technology?!

Not going to happen! Not with genetic engineering. Genetic engineering is not building the atomic bomb. You don't need plutonium. You don't need huge, enormous, very visible plants. You can do it in your basement. All you need is the talent and some basic tools and equipment and starters. And what is there is there and it's going to be there. We have to decide how we're going to use it, not try to suppress its use.

Let me dot around a bit. I wanted to ask you about — and I'm sorry, I'm sure you get asked a lot about this one! — your 1993 novel Beggars in Spain. *How do you see that book now looking back at it?*

I didn't do a lot of scientific research for that book. Each of my books going on has added more authentic scientific detail. There I was merely interested in the concept of not having to sleep.

And the economics of that.

And I wrote that one out of jealousy! Jealousy because I'm a long sleeper.

Right!

I need much more sleep. And yes, I was considering the economics of it. What do the 'haves' owe the 'have-nots,' and how do you reconcile that? And so those were the two strands, the scientific genetic engineering and the economic question. And they come together in various ways throughout the narrative.

And I know you've framed it as, in some respects, a response to Ayn Rand and that kind of libertarianism.

It was a response on one end to Ayn Rand, who believes the haves owe nothing to the have-nots. And on the other end of the spectrum, it was a response to Ursula Le Guin's *The Dispossessed*, where everything is shared and no one owns any property, which means there really are no haves and have-nots. Everybody owns everything. I really had trouble with both of those. The Ayn Rand is cold and selfish. The Le Guin has more faith in human nature than I do. So I was looking for something in-between that would answer that question in a way I considered humane and yet realistic.

Finally, I wanted to ask a little about characters and how you approach characterization. A painting is a representation of something, a mathematical model is also representation of something. A character is a representation of a person. But what kind of representation is it?

Those are two questions really. How do I approach characterization, and what kind of representation is a character. As I'm interpreting that: how much do I bend character in order to fit the plot, and how much is it something in itself?

Yes, sure.

I tend to think of the character first. Have you ever done any theatre?

Little bit.

All right, you know the Stanislavski method of acting where you become the character from the inside out. When I'm writing, I'm not me. I tried to make myself go away and I become the point of view character and I feel my way. If I were this person, this is what I would do, this is what I would think, this is what I would say, this is what I would feel.

And I will do that in turn for each of the major characters as I'm writing scenes from their point of view, which is easier if it's a one point of view of work, obviously, and I become that person. Henry James says that character is plot, because what kind of person you are determines how you react to the obstacles in your way. So in a way, to me to separate them is almost meaningless. Character and plot are the same thing.

When you're writing, and you're immersed in a character's viewpoint, do you ever sort of gesture or speak out loud or . . . how deeply do you become them?

No, not out loud, but when I'm done writing I have sometimes fallen in love with some of my characters.

Oh!

I don't just mean I like them. I was in love with my FBI agent, Robert Cavanaugh for about six months.

Oh my gosh. And was it reciprocated?

Since I got to be Robert Cavanaugh as well? Yes. But let's not get too deeply into this. It's just deeply weird if you go too far.

We're here in Dublin, and Flann O'Brien — who's an Irish writer of a kind of speculative fiction — his characters very much come to life in his novels, so perhaps he could have a love affair with one of his characters? Although thinking about it, they don't get on that well. Nancy, it was wonderful to chat with you, thank you so much!

Well, thank you.

NANCY KRESS IS THE AUTHOR OF OVER THIRTY BOOKS, INCLUDING NOVELS, SHORT STORY COLLECTIONS, AND BOOKS ON WRITING. HER WORK HAS WON NUMEROUS AWARDS INCLUDING NEBULA AND HUGO AWARDS, AND HAS BEEN TRANSLATED INTO TWO DOZEN LANGUAGES, INCLUDING KLINGON.

JO LINDSAY WALTON IS AN EDITOR OF VECTOR.

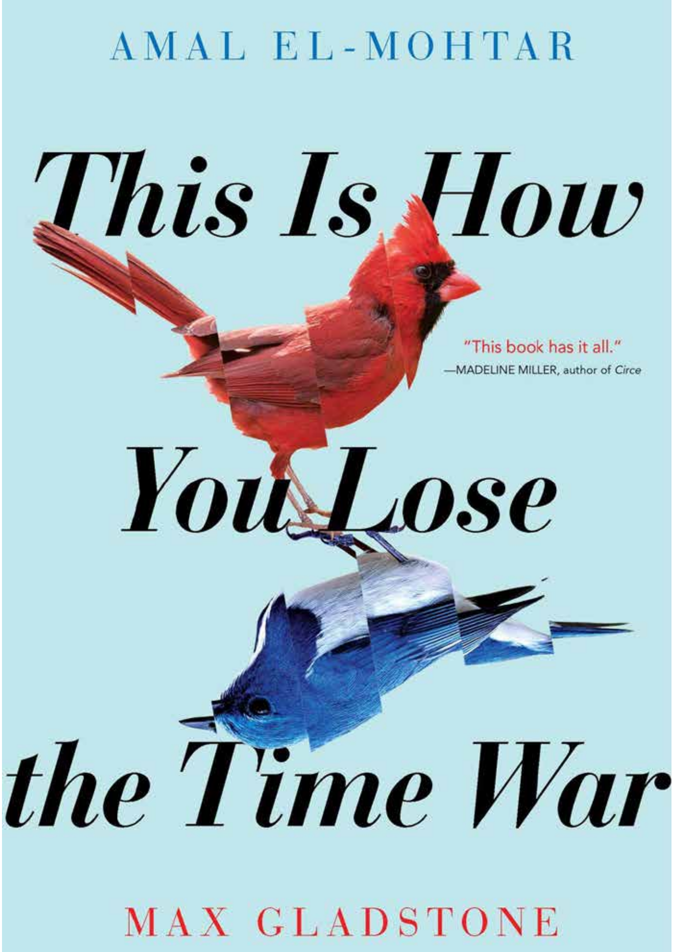
Vector Recommends

Andy Sawyer on Amal El-Mohtar and Max Gladstone
Maureen Kincaid Speller on Melissa Edmondson (ed.)
Kate Onyett on Tyler Hayes

These reviews originally appeared in the BSFA Review edited by Susan Oke

This is How You Lose the Time War

by Amal El-Mohtar and Max Gladstone
(Jo Fletcher Books, 2019)
Reviewed by Andy Sawyer



There's something fascinating about the "Time War" scenario which we find in, for instance, Fritz Leiber's *The Big Time* and the stories from the 50s and 60s published as *The Change War*, or Poul Anderson's *Guardians of Time*. In El-Mohtar and Gladstone's short but emotionally-packed novel we get something similar to Leiber, in which the Change War is fought by two forces, the "Spiders" and the "Snakes" who never quite reach the dynamic of "good guys" versus "bad guys." Here, we have two agents in a battle fought throughout tangled braids of human alternate-history/parallel-worlds between the Agency and the Garden: whose characteristics—material, technological, militaristic versus organic, insidious, ruthless—become part of the conflict. Following a cataclysmic battle, the Agency operative, Red, savours her victory, and finds ambiguity in it. She picks up a letter from her Garden adversary Blue; a mocking taunt to an opponent, to which, in a sense that this is a tournament and a tease, she replies in the same vein.

And thus begins another always-fascinating scenario, the battle between two opponents in a war who come to find a kindred-spirit in the enemy: the secret-agents who find in the to-and-fro of the "game" a personal satisfaction more attractive than ideological commitment. Already there is much to like in the novel, and as Red and Blue exchange ever more ingenious letters and self-revelations after each of their confrontations, this becomes a love story playfully referencing Ghengis Khan, Atlantis, *Romeo and Juliet*, the poet Thomas Chatterton, Wordsworth's "Marvellous Boy," and the Russian Front during World War Two (or at least, versions of all these, and more). From mocking adversaries, Red and Blue become passionate if distanced lovers. At one point, Red writes "I veer rhapsodic: my prose purples," and there are certainly times when playfulness hovers over whimsey without (for this reader at least), ever tipping in the wrong direction. There are enough asides, mini-digressions (Naomi Mitchison's novel *Travel Light* at one point becomes part of the conversation) and sharply-if-briefly imagined alternative "strands" to make up a dozen novels in the Leiber/Anderson tradition, but the focus is upon the tension and teasing which never stops until it becomes clear that their superiors suspect that something is going on between their top agents, and something drastic is going to have to happen.

We know from our extra-generic reading that secret agents groom and attempt to "turn" each other. This is a novel of traps and tangles, duels and seduction, as if a writer of eighteenth-century epistolary romances had suddenly discovered Golden Age science fiction, though it is considerably sharper and more snapshot than the one and much, much more lyrical than the other. The methods with which the "letters" are written and exchanged are themselves beautifully and baroquely imagined, and worth the price of admission. But as we progress towards the inevitable denouement, there are scenes and evocations that are the distinct opposite from the cuteness and sentimentality that a brief summary of the plot might suggest. You suddenly find yourself seeing "Red" and "Blue" as characters rather than symbols in a highly literary confection, and actively *want* to see how this will work out. At this point, the authors deliver, and we find that we have been reading not a series of highly-wrought vignettes, but a carefully plotted novel. I would not be surprised to see it among the competitors for at least one major award; nor would I be particularly surprised to see it waved aside as "too clever for its own good." So I shall come down with an opinion: this is almost certainly the best book I have read this year and one that I intend to re-read for the third time. Behind the playfulness, there's a dark humour, an aspiration for passion, and, yes, a science-fictional inventiveness that comes along too rarely.

Women's Weird: Strange Stories by Women, 1890-1940

edited by Melissa Edmondson
(Handheld Press, 2019)
Reviewed by Maureen Kincaid Speller

Winter is a time for ghost stories, Christmas in particular. M.R. James, the doyen of the English ghost story, traditionally read a new story by candlelight to friends who eagerly gathered in his study on Christmas Eve. But James wasn't the only one writing ghost stories. During the period covered by this book, there were many women publishing ghost stories that equalled if not surpassed those of James and his male contemporaries. As long as publishers have been producing anthologies of ghost stories, women writers have featured in them: during the 1980s, Virago produced several excellent anthologies of ghost stories by women writers. This latest collection, edited by Melissa Edmundson, is a welcome addition to the shelf.

I'm sidestepping the 'Women's Weird' of the title for now, for reasons I'll come back to later in this review. Instead, I turn to the first story, Louisa Baldwin's 'The Weird of the Walfords.' It is a conventional example of period ghost story writing — the narrator believes that his family is blighted by a curse attached to an ancestral family bed and destroys it despite being warned not to. It gives away nothing to say that the curse will strike again. What is notable, however, is that the story is narrated by the Squire himself. And this is not the only story with a first-person male narrator: of the thirteen stories, only two first-person narrators are identifiably female, while most of the third-person narratives also use a male viewpoint figure.

There are many reasons why women might write from a male viewpoint, but it is not difficult to imagine that in some cases it reflects the fact that men often had greater access to the world and its contents, whereas women could follow only in the imagination. In Baldwin's case, I wonder too if she has not used it as a sly way to comment on how men infantilise women: the narrator refers more than once to his 'little wife,' as well as blaming her for the death of their son because he acquiesced to her request to turn the room that once held the cursed bed into a nursery.

There are stories here of a woman whose freedom is circumscribed by her husband's jealousy (Edith Wharton's 'Kerfol'), a woman who is drawn into an inexplicable haunting while loyally taking care of a friend's daughter (E. Nesbit's 'The Shadow'), and a more traditional story of a wrong righted when a lost child's body is finally discovered ('The Giant Wistaria' by Charlotte Perkins Gilman). Other stories are more formally experimental, such as May Sinclair's 'Where Their Fire is Not Quenched,' where the haunting persists beyond the mortal plane.

There is no denying this is a strong collection of ghost stories written by women, mostly reflecting on the hopes and fears of women. I'd recommend it as a collection without hesitation. I am, though, uneasy about the framing of this anthology as an expression of women's weird writing, insofar as I'm not entirely clear about the distinction Edmondson is seeking to make between weird stories and what I'm going to refer to as 'the English ghost story tradition' (embodied by the work of people like M.R. James, though it is by no means an exclusively English phenomenon). I think my difficulty lies in Edmondson's observation that these stories 'also explore more universal imaginings of fear, unease and dread' (viii), suggesting that writers have left behind them 'primarily domestic concerns.' Again, I'm not clear where these 'domestic concerns' might have vanished to, given that so many of these stories focus on issues and events that are firmly tied to the 'real' world of the household, family relationships, children's welfare, things traditionally seen as the female purview. There is nothing more domestic than a literally haunted saucepan, after all.

It doesn't help either that Edmondson bases her theorising on H.P. Lovecraft's attempt to describe the Weird tale. Lovecraft would not be my preferred starting point for formulating a female-oriented view of weird fiction, and it's clear from the quotations taken from writing by Mary Butts and Eleanor Scott, two writers of extremely effective ghost stories, and a better starting point for this discussion, that their philosophy is somewhat at variance with his, though more strongly aligned with the type of fiction I think we're probably talking about here. According to Butts, in an essay entitled 'Ghosties and Ghoulies: Uses of the Supernatural in English Fiction' such stories must evoke 'a stirring, a touching of nerves not usually sensitive, an awakening to more than fear – but to something like awareness and conviction or even memory' (qtd x), and that feels right to me. Because I cannot get past the fact that to me, that the stories here (with the exception, I think, of Francis Stevens' 'Unseen — Unfeared', which might be seen as 'weird') are unequivocally examples of the English, or Victorian, ghost story tradition.

I don't have the space here to go into this discussion further, much as I might like to, but the proliferation of terms — strange, weird, supernatural, ghost — is indicative that we are in danger of becoming lost in a forest of immense taxonomic complexity in which we risk losing sight of the actual stories themselves. Interesting and intriguing as the philosophical discussion might be (and I'm personally always up for that sort of conversation), I choose at this point to celebrate this anthology, and its thirteen stories, a number of which were entirely new to me. There isn't a single weak story here. They're often provocative, always entertaining, and they leave the reader in a thoughtful frame of mind.

The Imaginary Corpse

by Tyler Hayes
(Angry Robot, 2019)
Reviewed by Kate Onyett

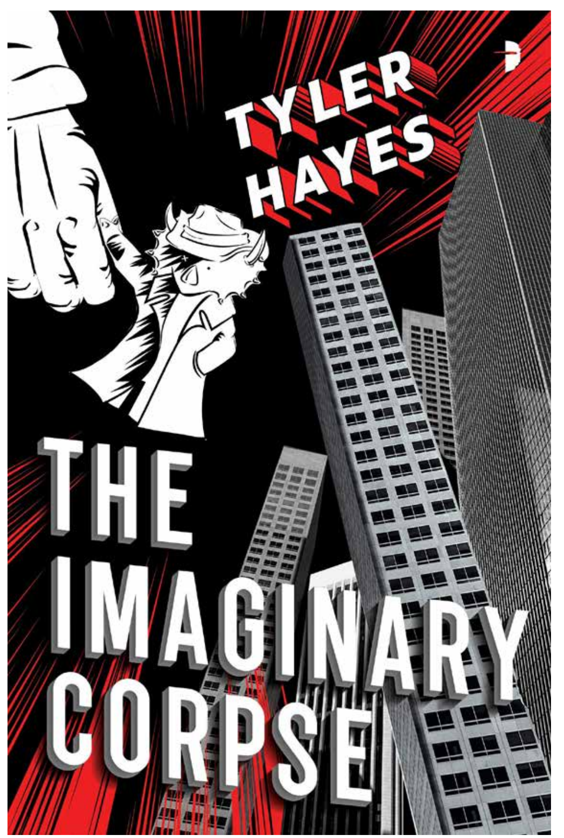
How to sum up a book that poured in like a wave and went out like all the best 'happy endings' of stories of youth? There are heroes, there are villains, and nothing is simple black and white. It hangs on that moment when you first realised, in a dark, fearful place, that there were shades of complexity among the grey.

Tippy is our narrator: a three-foot-tall, bright yellow, triceratops PI, in the Stillreal where imaginary friends, who call each other Friend, abide. This is no fairy-tale land, this is a place where imaginary friends, and loved creations of mind and heart go when they have been 'from their creator's minds untimely ripped' (to paraphrase Shakespeare). As Tippy tells us, all the humans from which he and the other Friends have come had suffered some great emotional trauma or collapse, negating the need for imaginary friends, as they simply did not explain the new, more painful world now opened up to their originators. Each and every Friend nurtures abandonment and loss.

Yet from all this, they have made a supportive and wholesome community, balancing the needs of children's imaginary friends and foes, adult imaginings of superheroes and villains, and even an embodiment of capitalistic greed itself. A new arrival triggers a series of murderous events that it is down to Tippy to solve. For what is happening in the human world is starting to have violent and deadly repercussions in the world of Stillreal; and the Friends existence, fragile as it is, is very much at stake.

Tippy's case is a fantastic adventure-murder mystery featuring a large cast of colourful characters, with nods to the standard PI tropes. But it is an adventure, too; becoming a desperate quest by a band of brave heroes into the landscape of a disturbed and broken person, and the demons they have lurking there, to do battle with them and make the world safe again. It is an adult parable; a metaphor for growing up; really maturing by successfully negotiating fear and anger with forgiveness.

PTSD is front and centre throughout. Ideas that come to a natural end can fade comfortably away, but for Friends burned into the Stillreal by human pain, they are forced to live on, and one has to ask; is this heaven or hell? Tippy tells us that all Friends are in the Stillreal because the passion with which their humans thought of them and believed in them made them Real — truly Real. Which means they have to keep on going, despite the grief, paying a sort of penance for their very existence.



Each Friend is a case of coping mechanisms and trauma management. By the process of solving the case, finding the baddest of bad guys, and seeing him locked away, Tippy undergoes a journey into his own past, and by dint of being patient and kind, he is a therapeutic force for healing among those around him.

The power of concern, of helping, of caring for others and seeing them become stronger and happier, is a convincing one; stronger than falling before fear. By the end, I felt an odd relief of my own; Hayes packs more into one highly enjoyable novel than a lot of self-help books have to say.

The novel is open in treatment of gender. Tippy addresses every Friend neutrally until they have stated what their preferred pronouns are. In a world peopled with strange and wonderful creatures, monsters and random collections of shapes and colour, it makes sense not to make assumptions. And the acceptance of how a person sees themselves is as simple and clear as the acceptance of children with each other.

This comforting, hope-inducing story is therapy in a novel form. It feels very much a tribute to the strength of the human capacity to learn and grow, and how we cannot give up on ourselves or on others.

Kincaid in Short

Paul Kincaid

The Girl and the Robot with Flowers

This story, under the title "Girl and Robot with Flowers", was first published in *New Worlds* 154, in September 1965, a special Brian Aldiss issue of the magazine. It was included in Aldiss's collection *The Saliva Tree and Other Strange Growths* under its more familiar title, "The Girl and the Robot with Flowers," and has also been included in at least two different iterations of *Best Science Fiction Stories of Brian W. Aldiss*. Despite that pedigree, it is not a science fiction story, though it is a story about science fiction.

That is not the only deceptive thing about the story. The title deceives. It might, more accurately, be called "The Girl and 'The Robot with Flowers,'" though even that is not quite right. After all, the "Girl" in question is actually the author's wife, so "Woman" might be the better word.

As for the robot, he is, of course, fictional. Doubly so, since he belongs in a story within this story. Or perhaps it is just a fridge. The flowers, however, are undoubtedly fictional, and dead.

Let me explain: the narrator of the story is a science fiction writer living in Oxford. The writer is unnamed, but during the course of the story he mentions, familiarly, Jim Ballard, Poul Anderson, Fred Pohl, Mike Moorcock, and the author of a book called *War With the Robots*, which was a Harry Harrison collection. This is the circle within which Oxford resident Brian Aldiss was moving at the time, so it probably does no harm to think of the narrator as "Brian."

In the very first paragraph, Brian announces to his wife, Marion: "I've started another story." (75) At the time, Aldiss was unmarried. He had been separated from his first wife, Olive, for some years, and the divorce that finally came through in 1965 would allow him to marry his second wife, Margaret, in December of that year. Marion is a politely fictionalised version of Margaret. Marion does not particularly care for science fiction, but "she is full of love, and it may lend her enough empathy to make her feel as sincerely delighted as I do when another story is on the way" (75). That comment could have been lifted wholesale from any of the innumerable descriptions of Margaret that appear in his 1998 autobiography, *The Twinkling of an Eye*, so I don't think that the identification of Marion with Margaret is any sort of a stretch. Marion is, of course, the Girl.

Brian has no sooner announced that his new story is about robots, but he doesn't want to say any more, when the fridge starts to rumble, a noise that clearly annoys him. He complains: "'It just sits there gobbling electricity like a – ' 'A robot?' Marion suggested" (75).

The celebratory mood in which the story opens, the sense of joy at the start of a new piece of fiction, barely lasts a page. We turn the page and abruptly Brian's mood has changed to one of discontent, doubt, uncertainty. He now wants to talk over his story, which is clearly not his usual practice. "Don't your robots surprise you?" Marion asks, to which Brian replies: "Maybe Jim Ballard's right and they are old hat, worked to death" (76). Brian's discontent is not with his writing, his abilities are never questioned here, but with his subject matter, with the character of science fiction. In *The Twinkling of an Eye*, Aldiss reports that when he and Ballard and Moorcock got together in the early-1960s, "Much as we argued, we had a basic point of agreement: we thought most of British SF boring, and determined to change it" (*Twinkling*, 257). "The Girl and the Robot with Flowers" is a dramatization of precisely that critique of contemporary science fiction. When Brian says later, "I felt only contempt for my robot story, and would do so however skilfully I wrote it" (79), he is giving expression to the contempt that would drive the triumvirate of Aldiss, Ballard and Moorcock that was, at precisely the time this story was being written, launching the radical rethink of science fiction that was the British New Wave. The somewhat allegorical character of the story is highlighted by the speed with which Brian's response to his own story darkens: on page 75 the mood is celebratory, by page 76 he feels discontent, on page 78 he can't bring himself to finish it, and by page 79 he feels only contempt. The over-familiar science fiction cliché can spoil one's mood remarkably quickly.

The story within a story that Brian now outlines, and to which he has given the title "Robot with Flowers" is, in truth, not too dissimilar from some of the hackneyed work that Aldiss was still turning out in the early-60s. Works like the short novel, *Equator* (1958), or the short story "The Impossible Smile" (1965), works which often appeared under pseudonyms like C.C. Shackleton or Jael Cracken, were exactly the sort of thing that Aldiss was, at the same time, railing against. "Robot with Flowers" tells of a war between Earth and an alien world so distant that it takes eighty years to travel between them. An alien battle fleet reaches the Solar System and unleashes a weapon that kills around 70% of humanity, but not before Earth has dispatched a robot fleet of its own. This robot fleet carries a weapon so devastating that every alien is killed. When the survivors on Earth learn of this, they send a reconnaissance vessel to learn what their warlike robots are up to now. When this ship returns, it brings alarming pictures of "enormous robot cities, and tremendous technological activity," but there's also a picture of "a heavily armed robot, twelve feet high, with its arms laden with flowers" (77). The weaponised robots have apparently taken to peaceful pursuits. But this is a misinterpretation: "The robots *have* to destroy all flowers, because flowers exhale oxygen, and oxygen is liable to give the robots rust troubles" (77).

Marion damns the story with faint praise: "a decent run-of-the-mill story. Not quite *you*, perhaps" (78). Though in many of the details it is exactly like an Aldiss story: the inevitable war, the size of the robot which by extension belittles humanity, the ironic twist, are all recurrent features in Aldiss's work both before and after this story. But the problem is that it resembles other science fiction stories also. It is, for instance, "a bit like that Poul Anderson robot story you admired – 'Epilogue', wasn't it?" (78) And it also resembles a Harry Harrison story from *War With the Robots*. Harrison is a friend, Anderson is admired, but that doesn't excuse the similarity. By extension, Aldiss is saying, the repetition that is so common in science fiction is a fatal flaw, even if what is being echoed is in itself good work. Even if an editor such as Pohl or Moorcock might like the story enough to publish it, Brian would still be disappointed by it, though "not just because it's a crib." And a crib, a rip-off as we might now say, could always be spotted because "it lacked emotional tone" (78). A copy, we are being told, is evidently inferior because the author is not emotionally invested in its creation.

This is a psychological hinge point, for now Brian turns to examining his own emotional investment, both in this story and more generally in science fiction: "There was no war in my heart; how could I begin to believe in an interplanetary war with all its imponderables and impossibilities?" (79) Brian recognises that his own science fiction to this point had emerged from his personal unhappiness before the arrival of Marion, and therefore had dealt with dark things: "All fiction was a … rationalisation of internal battles" but maybe it was time "to reach out beyond my fortifications and show [my readers] for once a future it might be worth living in" (79).

This feels like a conclusion, a statement of intent for the future, but of course it isn't. The typical ironic twist demands that the story take one more turn, to consider the distinction between fiction, dark or light, optimistic or pessimistic,

and reality. Brian and Marion are preparing to go out for a day for a picnic with local friends, and as Brian gets some beer from the fridge it starts to chug again. "Under ten years old, but you couldn't expect a machine to last for ever. Only in fiction. You could send an animated machine out on a paper spaceship voyage over paper light years and it would never let you down" (79-80). In the end, he recognises that what is most disappointing about the story is that it "seemed so far divorced from real life" (80).

Marion, who of course does not particularly care for science fiction, challenges this: "We may not have robots yet, but we have a fridge with a mind of its own" (80). Aldiss lets this go unquestioned (it's from Marion, and Marion, like Margaret in *The Twinkling of an Eye*, can do no wrong) but the difference between robots in space and a fridge on its last legs is the critical difference between science fiction and reality. The story ends with Brian setting himself a challenge: "why can't I get the fridge into an sf story, and this wonderful sunlight, and you, instead of just a bunch of artless robots?" (80) And that, of course, is the story we have just been reading. But can we take Brian's word for it that it is "an sf story"? After all, isn't it just the artless robots that make this even tangentially science fiction? And they don't belong in the story, but rather are a creature of the story within the story. Other than that, what is remotely science-fictional about an author discussing his latest work with his wife, about a couple preparing to set out on a picnic on a beautiful summer day in contemporary Oxford while a cat hunts fish in a pond and a failing fridge chunters away in the background?

Brian Aldiss was a naturally gifted storyteller from a very young age, but as a writer he was often as interested in technical literary experimentation. As is the way with experiments, some of these succeeded (*Report on Probability A*, 1968), while others did not (*The Eighty-Minute Hour*, 1974). But I find it interesting how rarely people recognise that "The Girl and the Robot with Flowers" was both his most successful and his most daring literary experiment. This is mostly, I suspect, because the charm and the approachability of the story disguises the fact that it is an experiment at all. But what Aldiss does in this story is present the idea and the character of science fiction as a topic of debate within what is otherwise a contemporary realist story. That the central character in the story writes science fiction and talks about science fiction adds nothing fantastical or unreal to what we are reading. Yet at the same time we emerge from the story with a clear understanding of the critical thinking that lay behind the birth of the British New Wave. Science fiction we see as repetitive, cannibalising itself, and the question that underlies the story is whether it is possible to write science fiction that isn't an echo of the familiar. The answer stated by Brian within the story is that it is possible, that the fridge and the sunlight we have encountered lie within an sf story. The answer of the story itself, however, the story of the fridge and the sunlight that we have actually read, is not so clear cut. It is, perhaps, not possible to avoid science fiction eating itself.

The presentation of this unresolved dilemma within this story is all the evidence we need about what made Brian Aldiss one of the most significant writers of the New Wave.

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PAUL KINCAID IS A WIDELY PUBLISHED CRITIC, AUTHOR, AND EDITOR. HIS LATEST BOOKS ARE IAIN M. BANKS (UNIVERSITY OF ILLINOIS PRESS, 2017), AND A COLLECTION OF ESSAYS AND REVIEWS, CALL AND RESPONSE (BEACON, 2014).

Us: A film about 'Them'?

Dev Agarwal

Currently, the horror renaissance sweeps through mainstream cinema and television at a pace that's hard to keep up with. Horror narratives have always been out there, lurking in popular culture, but until recently they felt like a niche interest, ghettoised with fantasy monsters played by actors in thick make-up and rubber suits, tucked alongside the bug-eyed aliens of science fiction.

However, like science fiction, by the mid-2010s, horror is *everywhere*, reaching huge cinema audiences and, through Netflix and terrestrial television, coming right into our homes. The horror genre, appropriately enough, has now infected a wider host body, and it is mutating, challenging viewer expectations as to what horror is and what it is capable of. I would suggest that horror as a genre has always carried the power to challenge our thinking, to make us consider what defines a monster, and to pull back the veneer of everyday life to expose what's going on underneath. However, you once had to be a horror aficionado to appreciate that the genre was more than just jump scares and screams. What's new is that, by busting out of its culturally marginal position, horror is now expanding its narrative, satirical, and critical powers *in front* of the very mainstream society that it challenges.

A recent spate of films exemplify horror's breadth and its depth. The mirror that these films hold up not only reveals our individual inner fears, but it also shows us our relationships with others in new ways, and helps us to examine our assumptions about different experiences, perspectives, and cultures. Moreover horror, like SF, has inched forward in recent years towards more diverse representation, and also started to show greater awareness of tired racial and gender stereotypes.

Jordan Peele's *Get Out* needs no introduction. When I reviewed it in *Vector* #287, I emphasised the film's masterful build-up of tension from small incidents, and the way it plays with the distinction between "normal" and "horrific," even before it reveals its big horror tropes. Peele himself needs no introduction either. Following his early career in comedy, where some of his sketches already demonstrated his love of horror (such as Key and Peele's "Gremlins 2: Brainstorm" sketch), Peele broke out in 2017 with his commercially and critically acclaimed debut *Get Out*. Since then he has stayed prominent in producing Spike Lee's *BlacKkKlansman* in 2018, and for his work on the relaunched *The Twilight Zone* television series in 2019. He has also, among other things, been Executive Producer on HBO's *Lovecraft Country*, out later this year. In 2019 he released his second film as writer-director: *Us*.

Between *Get Out* in 2017 and *Us* in 2019, the horror genre has been joined by other notable works, among them John Krasinski's *A Quiet Place*, Ari Aster's *Midsommar*, two iterations of Stephen King's *It*, directed by Andrés Muschietti, Boots Riley's *Sorry to Bother You*, and Blitz Bazawule's *The Burial of Kojo*. These films span domestic dramas, stories about children, and post-apocalyptic adventure. In tone, they range from the comedic to the melodramatic. If they did not contain monsters, they would arguably not sit together in one single genre.

That said, it is important to remember that horror, as a genre, is not just concerned with the monstrous. The genre is also characterised by the interplay of what Tzvetan Todorov, the French-Bulgarian theorist, calls "the marvellous," "the uncanny," and "the fantastic." Todorov uses the term "the marvellous" for encounters with the supernatural, and "the uncanny" for when something apparently supernatural actually has a rational explanation. "The fantastic" incorporates the uncertain territory in the middle, when a character (or the audience) hesitates between a rational and a supernatural explanation. Of course, the more Freudian sense of "the uncanny," to do with experiences that are simultaneously strange and yet familiar, is also relevant to the horror genre. Horror narratives frequently make everyday expe-

rience feel eerie and strange, or present events that may or may not have a perfectly ordinary explanation.

Filmmakers often start by building up strange and unsettling moments — such as in Peele's *Get Out*, when Chris (Daniel Kaluuya) and Rose (Allison Williams) begin their road trip from New York City to Rose's family's home. Hints of the supernatural become increasingly uncomfortable and distressing. Todorov suggests that the fantastic is very fragile as a form, swinging in and out of the narrative as the characters reject supernatural phenomena for being too fantastical to accept. This oscillation occurs throughout *Get Out*, and with increasing frequency as the narrative speeds up. The whiter Chris' surroundings get, the more threatening they become. Following Todorov's model, this brings Chris ever closer to the fantastic. Eventually the horror is brought fully into the story.

This is also the case with Peele's second feature, *Us*. Peele chose to remain within the horror genre for his second film, while continuing to innovate and push in new directions. The impact of *Get Out* was always going to be a hard act to follow. But *Us* also become an important milestone for genre cinema. In *Get Out*, Chris, is the (mostly) lone black character who journeys into a world increasingly antiquated and white (moving from the comforts of tech-saturated New York City to a rural hinterland of New York State that steadily resembles a pre-Civil War plantation of the American South).

By contrast *Us* has a mostly black cast, and focuses on a fairly affluent middle-class black family. In the past, Hollywood has been reluctant to make movies with largely black casts, and when it has, it has limited itself to certain kinds of stories: black actors have long been cast as criminals, cops, gangbangers and addicts. However, *Us* not only gives us positive images of Adelaide Wilson (Lupita Nyong'o) and her nuclear family — financially secure, travelling, relaxing, and having fun on holiday at their summer home — it also uses their lives to explore universal themes of love, power, guilt, trauma, monstrosity, and complicity. Significantly, Peele is careful to ensure that *Us* is not a reductive experience of the African-American lived experience, i.e. one that erases or sidelines the issues of race and class and their specific histories of discrimination in America. These are quickly pushed to the fore as the story progresses.

The opening of *Us* begins with a domestic scene — it's 1986, and Adelaide is a child in Santa Cruz playing at a beach-front carnival. As we expect, this scene introduces a sense of menace, with the uncanny creeping towards us. The film transitions to the present day and soon we are provoked by the uncanny again when the monstrous penetrates the domestic family home. As we know, the vast majority of horror cinema lends its subjective point of view to white protagonists, often middle class, threatened by hordes of horrifying and violent monsters. Such monsters, who often literally dwell *below* the protagonists in sewers or subterranean lairs, can be interpreted as coded versions of working class people, people of colour, the inhabitants of the Global South — all those on whose exploitation the comfortable lives of rich white people is based. 'Monsters and aliens are stand-ins for black folks, but we're not actually present in the story,' says Tananarive Due in *Horror Noire: A History of Black Horror* (2019).

That's one reason why smart horror cinema has so often asked questions about who the *real* monsters are. Furthermore, Hollywood has also gone through several paradigmatic shifts away from this monolithic perspective. We can trace a kind of progression in horror films. At first black characters are usually limited to minor subservient roles. Then black characters tend to be victims, often killed off early in the story. There are black sidekicks and supporting roles, whose importance to the story is what they can do for the white heroes. Eventually we start to see black characters with their own agency and character growth arcs, even if they are often still quite two-dimensional. Yet rarely has Hollywood told stories entirely from black characters' point of view. While those films do exist, they are infrequent. Horror arguably fares a little better than mainstream cinema, and includes one or two important landmarks. For example, Richard C. Kahn and Spencer Williams's 1940 horror film *Son of Ingagi* focuses on a black middle class experience, and features the female black scientist Helen Jackson (Laura Bowman) in a prominent role. And how many other films in 1968 gave us a black leading character like Ben (Duane Jones) in Romero's *Night of the Living Dead*, even as the rest of the cast was white? However, the horror genre has also been notoriously homicidal toward its black characters.

Peele's *Get Out* recalls *Night of the Living Dead*, depicting Chris surrounded and menaced by white people. But *Us* takes us in a new narrative direction. All the major characters are black, both heroic and villainous. Furthermore, the film poses important and complex questions, including those relating to race, without needing white characters to articulate them. Ideally, mainstream Hollywood will embrace this approach to filmmaking, rather than fall back into more formulaic cliches.

The rest of this article discusses plot in detail and inevitably contains significant spoilers for *Us*, plus smaller ones for *Get Out* and Bazawule's *The Burial of Kojo*. So if you haven't seen these films yet, stop reading and start watching them first.

Adelaide and her family are confronted by doppelgängers who have crept up from subterranean banishment to swap places with them. The doppelgängers, or Tethered as they identify themselves, are physically almost identical to Adelaide's family. They are, arguably, the 'Us' of the film's title. The only physical differences between them seem to come from the different lives they have led. We later discover that there are vast numbers of Tethered, hidden underground and out of sight, each one corresponding to someone on the surface. "Replacement" in horror is achieved by destruction, and genre viewers will be long schooled in the implications of being confronted by a monster with your own face, who is implacable, mostly mute, and bent on your destruction.

Two points are striking about this set-up. One is that Jordan Peele uses the thriller convention of home invasion as the device to introduce the monstrous. In thriller terms, home invasion scenarios often imagine some innocent, law-abiding white family getting attacked by criminals, often people from minority groups. This is one of very few instances of a black family suffering home invasion (*One False Move* by Carl Franklin comes to mind). Second, Peele is using the collision of thriller and horror to refresh that convention in multiple ways. Mark Kermode, in his *Secrets of Cinema* series, observes that usually the monster has to be invited into our home or community. Not so in the home-invasion trope, where an uninvited attack often forces its way into the familial space (utilising the jump scare that is so essential to horror films). Yet at this stage in the film, it is not only the family's domestic space that is being invaded. It is also their reality. Adelaide and her family (and the audience with them) are thrown into Todorov's fantastic: can there possibly be any rational explanation for what is happening?

As we wonder if these events will ever make "rational" sense in the world of the film, we are also invited to make sense of them as social commentary. When the Tethered are first presented, Adelaide and the other Wilsons stare at them in shock. Jason (Evan Alex) remarks that the intruders are "us." When Adelaide demands to know who they are, the response from her double is: "We're Americans." Peele has said that he wanted to highlight how "we like to point the finger." And in the doppelgänger subgenre, a pointed finger comes right back to ourselves — indeed, this is explicitly stated by one character in the film.

Fundamentally, *Us* is a film about disempowered people. The Tethered have been constrained, trapped, and dehumanised. Now they have risen up (literally, as they are subterranean dwellers).

Peele has also said that America "fears the other" and "maybe we are our own worst enemy." When viewed with these ideas in mind, the conceit of the Tethered makes perfect sense. Black America has long been tethered to white America, first through slavery, then as the builders of homes they were segregated out of and employees in industries they were allowed little or no stake in, and eventually as full legal citizens, supposedly legally protected from racist discrimination, but living a social and economic reality offering no equality of opportunity.

In *Get Out*, the horror is grounded in science (or at least pseudo-science) rather than in the supernatural, using hypnotherapy and then neurosurgery to create its horrific premise. It is through science that Chris is menaced with possession and the destruction of his self. Similarly, *Us* offers a rational scientific explanation for the Tethered and their relationship with the surface-dwelling humans. The reveal of the rationale, almost inevitably, proves a little less effective in *Us* compared to *Get Out*.

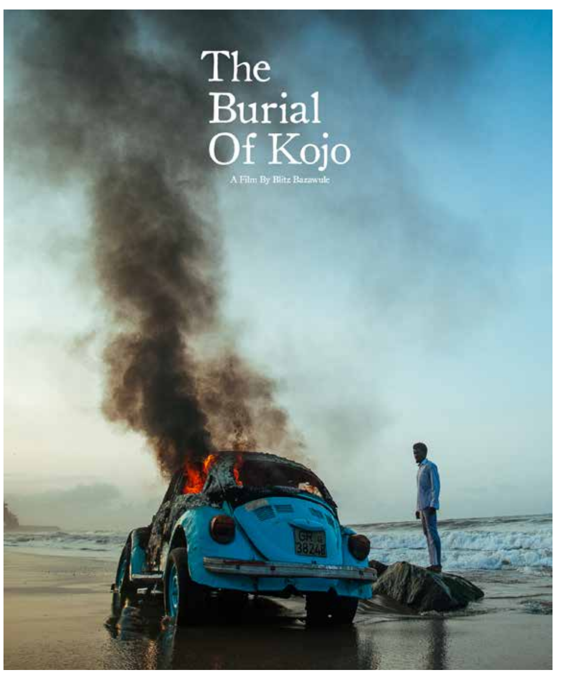
Us contains other staple horror ingredients: chases and escapes, bloody fight scenes with domestic tools for weapons, an obligatory late occurring twist. Again, for those who have seen *Get Out*, all of these components may feel a bit more familiar and less startling. Where *Us* is more stimulating and challenging, however, is in its suggestive use of metaphor and history. *Us* is set mostly in the present day, but key events occur in the 1980s, and the film draws on a campaign against homelessness, Hands Across America. Hands Across America was a major charity event, in which over six million participants joined hands in a series of human chains. In 1986, America was aspiring to literally holding hands with all members of the nation, tethering themselves to fight poverty and homelessness around the world — but without really addressing the roots of inequality. Flash forward to the present day, and the uprisen Tethered are re-enacting their own eerie version of Hands Across America. The symbolism — human chains, the things that join us together, the things that divide us — is rich but also remains mysterious.

The story Peele tells in both films centres on the experience of black people in the USA, and the genres he is working in are both science fiction and horror. That makes a case for viewing both films through the lens of Afrofuturism. Afrofuturism has been defined as the artistic movement that combines futuristic or science fiction themes with black history and culture; Ytasha Womack characterises it as blending "elements of science fiction, historical fiction, speculative fiction, fantasy, Afrocentricity, and magic realism with non-Western beliefs," and the musician Afrika Bambaataa (and godfather of hip-hop) summed it up as: "Afrofuturism is dark matter moving at the speed of light."

Set within the connected landscape of Africanfuturism, *The Burial of Kojo* (2018), directed by Blitz Bazawule, makes for abundant comparisons. The term Africanfuturism has grown in prominence in recent years. As with most artistic movements, there is no overwhelming consensus about the definitional difference between Afrofuturism and Africanfuturism. It's best to be open-minded about the intentions of those who use these terms and the contexts in which they are used. However, as a generalisation, Africanfuturism describes work that seeks to centre diverse cultures, traditions, histories, folklore, mythologies, etc. of Africa and the African diaspora, rather than Afro-American experience specifically.

Bazawule's *Kojo* was made in Ghana on a microbudget, but has received wide distribution through Netflix. It tells the story of Kojo (Joseph Otsiman), who is trapped in a mine, while his daughter Esi (Cynthia Dankwa) seeks to save him by travelling through a fantastical spirit land. *Kojo* is stylistically a very distinct film. Nevertheless, it shares a number of themes with *Us*. In both films, the source of horror emanates from within a family (if we consider the Tethered are an extension of Adelaide's family) and through the conceit of the doppelgänger.

Stylistically, *Kojo* uses magical realism to cast a dreamlike quality over Esi in her quest to save Kojo. Esi has recurring visions of birds. She sees a crow who "ruled the land in-between" (and who is exposed as a family member who has already died) and a sacred white bird, who is revealed to be Kojo. Bazawule reveals the narrative steadily and incrementally. In this case his metier is magical-realist as he works with the aesthetic of a waking dream. The Ghana of his film is a land filled with symbols that reveal their meaning to those receptive to them, such as Esi. She encounters a blind shaman who says that he is from "the realm in-between, where everything is upside-down," dramatic shifts in the film's visual palette, and even varying speeds of motion of time itself (including time running backwards) to indicate that the true meaning of the characters are hidden beneath the normal world. For much of the film, the viewer is left questioning whether what they are seeing is real or not. As Todorov might argue, we are suspended between knowing what is real and what is a spirit vision.



Kojo plays out as a story of love, memory and regret. It's also the story of Esi's journey. She is initially too young for the dangers of her quest, but increasingly becomes clear-eyed and mature as she navigates this landscape to try to rescue her father. In this regard, Esi's journey echoes Adelaide's. The world ruptures around them and then shifts in meaning. For Esi, the story is one of redemption, whereas for Adelaide it is an altogether darker journey. Ultimately, both characters become stronger and firmer in their convictions through the nature of their experiences.

Taken together *Us* and *The Burial of Kojo* both challenge the viewer's expectations and ask us to consider what assumptions we have made about family, belonging and trust. Both play with audience assumptions within the unifying framework of family, and challenge us to consider who belongs, who is welcome and who might have been excluded so that we can be comfortable — either physically or emotionally.

Culturally these films represent a shift in the status quo. They are stories that foreground diverse black lives and black lived experience, without pandering to majority white audiences. That suggests that there is a wider conversation playing out culturally: who can be the hero, who can audiences identify with, how can cinema be transformative within culture and society more widely. The films' success with audiences of all backgrounds suggests that there is an appetite for this discussion. Once again, genre filmmakers lead the way in exploring it.

Importantly, these films also form the core of a canon of films worth seeing entirely on their own merits. *Kojo* celebrates Ghanaian cultures before a wide international audience. *Us* challenges the definition and the meaning of being American. Neither needs championing through a tokenistic commitment to diversity, or the buzz of promising filmmakers "finding their voices." The politics of these films are well-integrated into the stories they tell, and those stories are exciting and dramatic in their own right. Both films are compelling, fully-realised stories that entertain as well as resonating with a wider cultural and artistic significance.

DEV AGARWAL IS A SCIENCE FICTION AND FANTASY WRITER. HIS WORK HAS BEEN PUBLISHED ONLINE AND IN MAGAZINES INCLUDING ALBEDO ONE, AOFIE'S KISS, HUNGUR AND AEON. DEV IS THE EDITOR OF FOCUS, VECTOR'S SISTER MAGAZINE FOR GENRE WRITERS, ALSO PRODUCED BY THE BRITISH SCIENCE FICTION ASSOCIATION.

Productive Futures: The Political Economy of Science Fiction

Jasmine Sharma

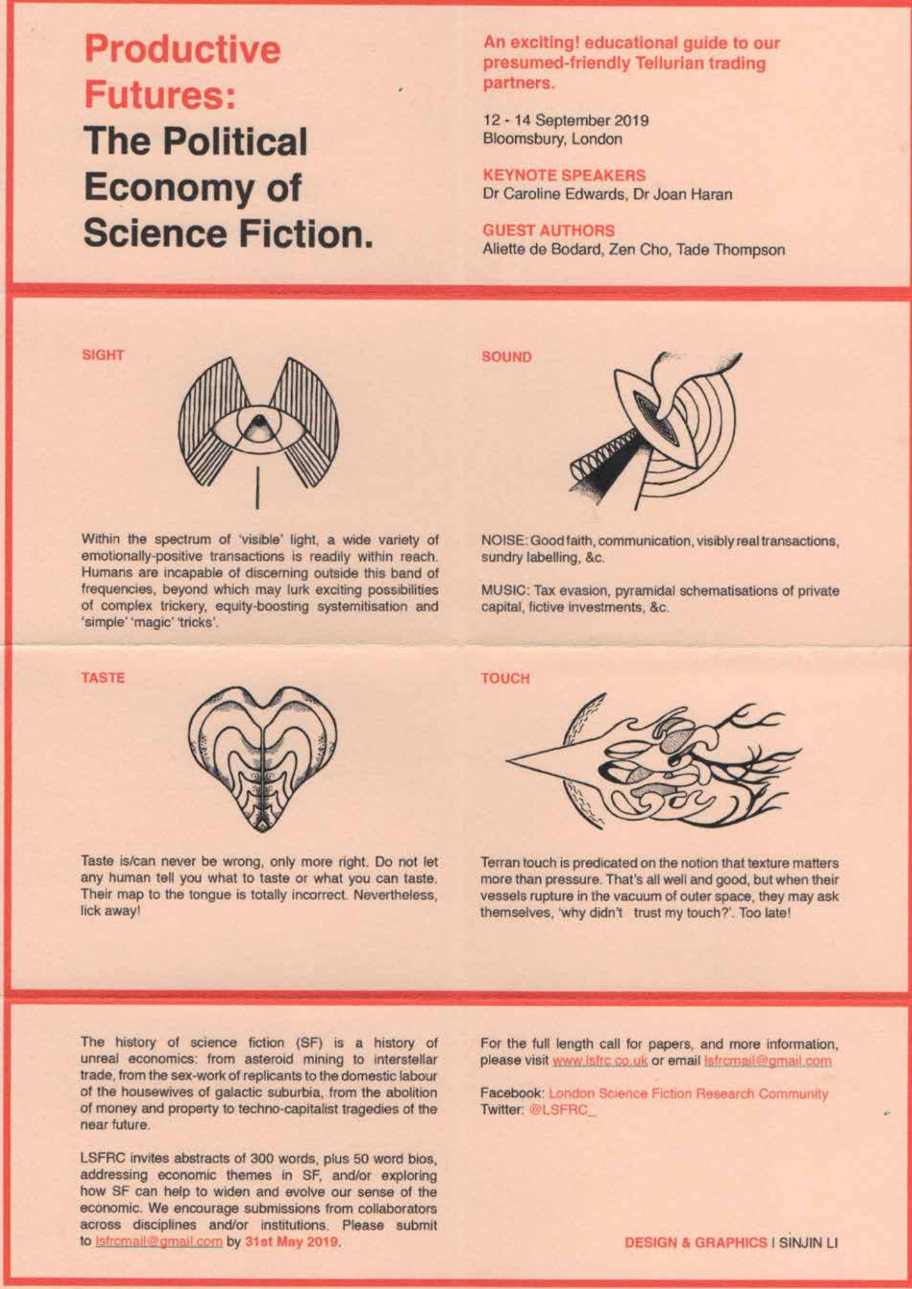
Conference Report:
Productive Futures: The Political Economy of Science Fiction
12-14 September 2019, Bloomsbury, London

> *"The history of science fiction (SF) is the history of unreal economics: from asteroid mining to interstellar trade, from the sex work of replicants to the domestic labour of housewives of galactic suburbia, from the abolition of money and property to techno- capitalist tragedies of the near future."*
>
> *— Productive Futures Call for Papers*

The opening statement of the Call for Papers caught the attention of researchers, scholars, artists and authors engaged with the central theme of the conference: science fiction. The connection between science fiction and economics broadened the dynamics of multidisciplinary interaction, encouraging presentations not only from literary studies, but also from architecture, arts and aesthetics, cultural studies, film studies, law, history, politics and international relations, media studies, philosophy, science and technology studies, social anthropology and many more.

Organized by the London Science Fiction Research Community (LSFRC), and held within the heart of the city, that is the School of Arts Building, Birkbeck, the conference witnessed an exciting exchange of ideas and an orientation to global participation. UK delegates were joined by those from other European countries like Denmark, Germany, Finland and Netherlands, from Canada and the USA, and finally from institutes as distant as The University of Wollongong, Australia, The Chinese University of Hong Kong, and The Indian Institute of Technology, India. It was suggested at the end of the conference, only half-jokingly, that LSFRC now stood for Large Science Fiction Research Community.

I was extraordinarily overwhelmed, as the conference gave me an opportunity to accomplish my first ever visit to London. Particular attractions of the conference, I would say, were not only the programme of academic events, but also the true generosity of the hosts, and the opportunity to enjoy the eco-friendly university campus, spread out across leafy Bloomsbury. The conference included famous novelists and short story writers, Aliette de Bodard, Tade Thompson and Zen Cho as the Guests of Honour; keynotes from Caroline Edwards and Joan Haran; as well as a roundtable featuring major science fiction publishers. All in all, the conference consisted of two keynote addresses, twenty-one panels featuring forty-nine presentations, two innovative workshops, and two special talks held at the Science Museum as part of the CHASE research network's event series, 'Science Fiction and Ecology Today.' Together these sessions offered papers and discussion on wide ranging topics, linking the political economy of science fiction with feminism, technoscience, race, epistemology, consumption, energy, precarity, spiritualism, globalization, disability, biopolitics, SF publishing, etc. All presentations were of an impressive standard, and were highly appreciated by the audience. Each panel concluded with critical questions and discussions and every delegate was valuably honoured with extensive feedback. In fact, I got very genuine and substantial comments for my own paper, which I look forward to addressing as my thesis progresses.



The conference was opened by Caroline Edwards, a Senior Lecturer in Modern and Contemporary Literature at Birkbeck, University of London, who delivered the introductory keynote. Edwards undertook a comprehensive discussion of feminist science fiction, elaborating on themes of automation and domestic labour. Later, Joan Haran, an honorary Research Fellow at Cardiff University, delivered the second keynote address, where she explored the past / present / future of science fiction feminism, and the role of science fiction in contributing to social and political activism. Both the keynotes were scholarly and erudite yet highly engaging, and rendered considerable impact on the audience. For most of the rest of the conference, we were split into three simultaneous tracks, with themed panels premised on the overall concern of the conference.

The first panel I attended on day one talked about labour and the collective imagination, with research papers presented by Bryan Yazell and Miranda Lossifidis. It was followed by two parallel workshops, "Economic Worldbuilding: Design Your Own Science Fiction Currency," by Oliver Langmead and Thomas Moules, and "Revive the Myth: Creating Speculative Fiction Collectively," by Verena Hermann. A participant in the latter workshop, I learnt about *The VteX Files*, an online RPG which blurs fact and myth. Hermann wanted to conduct "an experiment in actively shaping present day economics and policies" by means of an RPG. The workshop was actually motivating, as it allowed the participants to construct fluid story-lines, or to invent new ones and engineer a speculative future online.

The afternoon witnessed simultaneous events at the Science Fiction Museum as part of the CHASE research network's series "Organic Systems: Science Fiction and Ecology Today." This was not technically part of the main LSFRC conference, but it flowed seamlessly into its programming. The CHASE event included innovative group activities inviting the participants to pick up phrases of importance from given texts and connect them with questions displayed on the video screens. I was attracted by this workshop in particular as it encouraged collaboration, which helped to strengthen bonds among us both personally and professionally. This was eventually followed by a panel, "Beyond Gender," which discussed the link between feminist technoscience

and other interdisciplinary fields and genres. The day concluded with fruitful discussions among the organizers, panellists and the participants, as we shared some light drinks and vegan snacks.

The second day had a total of nine sessions, organized into three parallel tracks. Overall, two panels and a special session on SF publishing were on the cards for the day. The panels, within the overall remit of economics issues and SF literature and culture, concentrated on specific ideas like science fiction art, spiritualism, the limits of technoscience, robotics, economics and ecology, the politics of energy, neoliberalism, and human and non-human consciousness, just to name a few. The roundtable panel on SF publishing had writers, editors and publishers exploring economic worlds from speculative perspectives while critiquing current economic practices or imagining new ones in their place. Leslie Gardner, George Sandison, Elenor Teasdale, Jo Fletcher, Jack Renninson, John Jarrold, Malcolm Edwards participated in this panel, and examined works such as Alfred Bester's *The Demolished Man* and Ursula Le Guin's *The Dispossessed.* They touched on both economics in science fictional worlds, and the economics of science fiction publishing itself.

The final day witnessed twenty-three presentations. Unfortunately, a panel entitled "Alienated, Imprisoned, Insecure" had to be dissolved due to the absence of two delegates and the presenter; Yen Ooi from this panel was shifted to the panel entitled "SF for Economists." The presentations on the last day delved into themes such as cybernetics, techno futures, virtual gaming, biopolitics, and many more. I found Sasha Meyson's paper "Sex Robots, Virtual Love and Revolution: Sex-Work in Science Fiction" quite fascinating, as it made the audience interrogate the sexual politics behind fembots in feminist speculative fiction. Felix Kawitzky's presentation on "Gaming and Worldbuilding in Science Fiction" was also appreciated in its bold attempt to explore the transformative potential of role-playing games, while problematizing capitalist and neoliberal ideologies in the gaming world. My own interest in video-games as instruments of technocultural consumption enriched my appreciation of this presentation. The conference concluded with an author roundtable, featuring the Guests of Honor discoursing insightfully on science fiction reading and writing. Post the conference, the organizers and the delegates joined for drinks at The Crown and Anchor and supper at Chutneys in Euston, a fine-dining Indian restaurant.

In the end, the conference successfully brought together like-minded individuals under one roof and catered to their interest in science fiction studies. It inspired a cosmopolitan environment absorbing ideological standpoints from the UK and abroad. Vegan food enjoyed with juices and wines stimulated healthy networking among the delegates and opened pathways for future collaborations. The role of economics within SF literature and culture, and the role of SF in casting light on real life economic and political issues, were richly debated and explored. I owe a sincere thanks to the conference hosts for organizing such an enriching event and inviting delegates around the globe, as well as eminent personalities for such insightful keynotes. I wish them good luck and hope that the LSFRC continues to organize such events in future. The conference also added an edge to my academic credentials and the three invigorating days offered a captivating knowledge base suitable for a scholar coming all the way from India.

JASMINE SHARMA IS A FULL TIME PHD RESEARCH SCHOLAR AT THE INDIAN INSTITUTE OF TECHNOLOGY, ROPAR, INDIA. SHE COMPLETED HER BACHELOR'S AND MASTER'S DEGREE IN ENGLISH LITERATURE FROM THE UNIVERSITY OF DELHI IN 2014 AND 2016. HER CORE RESEARCH AREA IS CANADIAN LITERATURE THAT EXPLORES TECHNOCULTURE IN THE SCIENCE FICTION NOVELS OF MARGARET ATWOOD. SHE HAS ATTENDED NATIONAL AND INTERNATIONAL CONFERENCES AND PUBLISHED PAPERS IN QUALITY JOURNALS IN INDIA AND ABROAD. HER RESEARCH INTERESTS INCLUDE FEMINISM AND GENDER STUDIES, SCIENCE AND TECHNOLOGY STUDIES AND SCIENCE FICTION.

Amazofuturism and Indigenous Futurism in Brazilian Science Fiction

Gama and Garcia

This essay will explore two contemporary movements associated with the literature and art of the Amazon region: Amazofuturism and Indigenous futurism. We hope that it will increase the visibility of these two interconnected movements, in order to enrich diversity within the art world, and contribute toward a broadening of cosmologies and worldviews beyond dominant Western imaginaries.

But to do so, let's start by trying out some definitions. First, *Amazofuturism* is a subgenre of SF where the Amazon region is represented in a more positive light, often with an aesthetic akin to cyberpunk and solarpunk. *Indigenous futurism*, on the other hand, focuses on Indigenous worldviews in the context of the SF megatext, and, while doing so, challenges ingrained colonialist assumptions about Indigenous people. Ideally it is also created by Indigenous people. Finally, *Brazilian SF,* the broadest of these three terms, is simply science fiction from Brazil.[1] It does not necessarily represent either the Amazon region nor Indigenous people at all, and when it does, may do so either positively or negatively.[2] Now, let's expand a bit on these definitions.

Mary Elizabeth Ginway (2015) states that the Amazon was mostly used as a setting for Brazilian SF in two key moments, the first "during the authoritarian government of Getúlio Vargas (1930-1945), the second after the decades-long push for modernization and technological change imposed by the military government from 1964 to 1985" (Ginway 1). For Ginway, the first moment is filled with adventure narratives (much like Jules Vernes' *Voyages Extraordinaires*), while the second reflects more closely on Brazilian history, and also takes a dystopian turn. We are now living in a third moment: Amazofuturism, a new movement which has largely gained prominence through the artworks of João Queiroz.[3] While Amazofuturism is still critical of authoritarian government and ecological and economic exploitation, it is generally less pessimistic, portraying a mixed Amazon with positive and negative features. In our useage, Amazofuturism may sometimes, but does not always, incorporate Indigeneous experience, perspectives, and epistemologies. One could argue that, for a literary or artistic artwork really to count as Indigenous futurism, it must come from Indigenous peoples, whereas Amazofuturist works need not necessarily check this criterion.

Second, *Indigenous futurism* is a fairly broad term, popularized by Grace L. Dillon. The term refers primarily to speculative artwork and writing by Indigenous people, which expresses Indigenous perspectives and epistemologies, and/or which centres Indigeneous experience. Such work

1 Or, if you prefer an even more inclusive definition, science fiction from and/or about Brazil.

2 To draw a bit from Aristotle's methods of definition, we might say that Amazofuturism displays the Amazon region positively, but is not obliged to do so in regards to the Indigenous people. On the other hand, Indigenous futurism represents Indigenous people positively, but is not restricted to the Amazon region. Brazilian SF, the broadest term, is not restricted to a positive view either of the Amazon region or of the Indigenous people, who are indeed frequently ignored.

3 Although we esteem Queiroz's work (@q1r0z) our paper will focus more on literary works that could be considered as precursors to Amazofuturism in Brazil. Another artist who also engages with cyberpunk references, and can be analyzed in further discussion, is Keoma Calandrini (@srkoema).

includes Indigenous science fiction, and for Dillon, the movement is shifting the perimeters of science fiction as a whole, and consequently how science fiction is defined what it is capable of. Dillon argues that writers of Indigenous futurism, liberated from the kind of realist fiction that "'serious' Native authors are supposed to write," can be playful and experimental, and can stretch boundaries (Dillon 3). Such writers can "reenlist the science of indigeneity" to explore how "Indigenous science is not just complementary to a perceived western enlightenment but is indeed integral to a refined twenty-first-century sensibility" (Dillon 3). The notion that Indigenous science is integral to this century may sound like a platitude to some. Yet it is an important point to make: there are pervasive prejudices which associate Indigenous people with the past, and refuse to envision them in the future. Such prejudices also often deny traditional Indigenous knowledge any status as 'scientific' or 'technological,' and deny the validity of Indigenous epistemology. In this light, Indigenous science fiction could not exist. However, it does exist, and is a hugely important part of Indigenous futurism.

Then there's *Brazilian SF*. Loosely speaking, science fiction is often seen as a genre with a special connection to the future, in which science and technology frequently play a significant role. That said, it is a term that has never been satisfactorily defined, although proposed definitions continue to spark interesting conversations. *Speculative fiction* is often treated as a broader term, encompassing science fiction as well as genres such as fantasy, horror, magical realism, etc. On closer inspection, however, the distinction between science fiction and speculative fiction is not that clear, and the role of 'science' in 'science fiction' is not so straightforward. Not all science fiction is actually about science and technology. Furthermore, science and technology can be important themes in fantasy, horror, magical realism, etc.

Darko Suvin's classic definition of science fiction may be useful here. Defining science fiction as Suvin does, by the "presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment" (Suvin 20), allows significant diversity of worldviews. Suvin does not think that *all* estranging literature and art is science fiction. Science fiction is supposed to deal with estrangement interacting with cognition. That is, for Suvin, science fiction involves deviations from reality that let us criticise how we live our lives at any given moment. Such cognitive estrangement — i.e. deviations from reality that generate knowledge about reality — *could* be related to science and technology, but also to social change, or to whatever writers see fit. After all, science is one of many consensual ways of perceiving and categorising the world.

Some have found Suvin's classic definition unsatisfactory, since it often seems to rule out some things that clearly appear to be science fiction, while at the same time including some things that don't. But perhaps what makes the definition so enduring is the way that it challenges complacency about what forms of knowledge are valuable, and how they get their value. There is a resonance here with Indigenous futurism. Indigenous futurism similarly asks that we critically examine the beliefs, attitudes, methods, concepts, or language that get called 'scientific,' and/or valorised as rigorous, objective, empirical, evidence-based, superior, and so on. If certain worldviews that consider themselves 'scientific' have been deeply implicated in racism, colonialism, genocide and ecocide, then surely we must either rethink what counts as science, and/or rethink the esteem in which it is held? As Antonio Negri and Michael Hardt (2005) have pointed out, it is in the name of "scientific progress" that Indigenous knowledge was and is constantly stolen. Examples are as diverse as Curare, a poison used by various Amazonian Indigenous groups, first patented as Intocostrin; the Yanomami blood taken by James Neel and Napoleon Chagnon; and the Uru-eu-wau-wau botanical knowledge, mentioned by Laurie Anne Whitt (1998).[4] But what is at stake here is not just defending Indigenous knowledge by reclaiming patents or monetary compensations. It's also reframing what is understood as science, estranging and reimagining the vital concepts which underlie it, concepts such as 'objectivity,' 'experiment,' 'neutrality,' 'bias,' etc. To put it another way, bringing Indigenous knowledge together with the Western scientific tradition requires that we rethink not only the content, but also the form of science.

4 www.survivalinternational.org/about/yanomami-blood-controversy

In this regard, Indigenous futurisms ask that science fiction be critical and transformative. For example, one of the works we'll analyze here, *Todas as Coisas São Pequenas* by Daniel Munduruku, proposes the creation of an Indigenous university, where knowledge is developed by respecting Indigenous forms of research and learning. As Daniel Heath Justice remarks, while defending the advantages of reading a given work in the light of speculative fiction: "in its most transformative modes, speculative fiction offers a complementary and distinctive range of reading and interpretative strategies that can undo the violence of the deficit models of 'the real' and offer transformative visions of other lives, experiences and histories. Fantasy, science fiction, and horror merit consideration as serious literature with ethical import, deserving of critical and pedagogical regard" (Justice 142). Such transformations don't come easily. Dillon invokes "the warrior ethic that Taiaiake Alfred (Kanien'kehaka) urges Natives to embrace as 'thinkers, teachers, writers, and artists'", and asks, "what better terrain than the field of SF to 'engage colonial power in the spirit of a struggle for survival'" (Dillon 03)?

Indigenous Literature and Contemporary Writers

Indigenous literature in Brazil has been changed since the 1990s by the organisation of Indigenous political movements, which led many authors to publish their stories directly in Portuguese or in their Indigenous languages, without the mediation of an interpreter. Daniel Munduruku (2018) suggests that, today, there are "about 40 self-styled indigenous authors who are producing literary material with some regularity. They belong to at least 20 different peoples and come from almost all Brazilian regions." This same author in an interview points out that in his childhood, he used to read a lot of science fiction and comic books (Munduruku, "Iberoamericana" 220). It is no surprise, then, that one of his works, the short story "A Sabedoria das Águas," was included in a science fiction anthology, *Estranhos Contatos*, organized by Roberto de Sousa Causo.[5] "A Sabedoria das Águas" (1998) tells the story of the couple Koru and Maíra. The majority of the story is about a traumatising encounter with strange creatures which, when seen by Koru, produce light from their hands to blind the protagonist and flee. Koru seeks to understand what those creatures were and what it means to live like them. In the end, the story poses the question: is it worth it to "know all things and dominate time and space"? Should one always seek to explore the unknown and integrate it into one's existing understandings? Koru answers this question in the negative. What he needs is already there, with the company of Maíra and with the support from his kin.

A Sabedoria das Águas was later republished as a standalone book, without references to its prior publication. This recontextualisation changes the possible interpretations for the reader, by making the science fictionality less prominent, achieved by removing some of the original paratexts (its place in the anthology, the editor's remarks, the mentions to CLFC's reunion) and adding others, such as different marketing strategies. Although we can only vouch for our reading, it seems to us that, with the first contact trope de-emphasized, the narrative loses some of its critical power. Without these paratexts, although the text is the same, the first contact frame may not be picked up by the reader. The reader may be less able to interpret the aliens' solitary lifestyle, their thirst for "richness, fame, respect and power," and their voracious appetite for knowledge, through the lens of Western individualism (Munduruku 150). For example, near the end the two characters are confronted by the aliens, who propose the following: "You will know about before the beginning. Those who know have richness, fame, respect and power. [...] You'll give life and death for those you chose. All will respect you. You'd be the most powerful of men" (Munduruku 150). But Koru and Maíra ponder about what are the drawbacks of this proposal: "you must renounce the love of your people and your wife will by taken by us, that's the price to those who want to unveil

5 It is also worth noting the reunion held in 1997 between indigenous authors Daniel Munduruku, Kaka-Werá Jekupé, Olívio Popyguá and CLFC, the Science Fiction Readers' Club, an event also organised by Roberto de Sousa Causo.

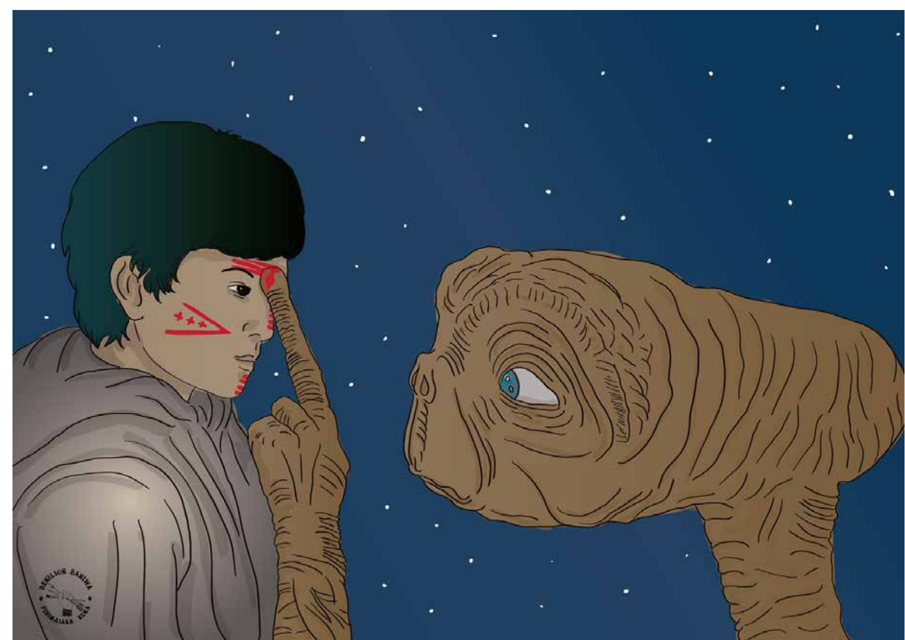


Figure 1 - E.T. Source: bit.ly/2I0Al6H

the truth about the world: you'll conquer all, but will always be alone. You'll stalk like a jaguar that always has to kill its prey, for coexistence is not possible; you'll have prestige, but will live in the shadows of your own power" (Munduruku 150). By contrast, Koru and Maíra defend another source of wisdom, that of Indigenous tradition. In this sense, it is precisely by reading "A Sabedoria Das Águas" as science fiction that we can best reveal its nature as Indigenous futurism.

A similar interpretation can be elicited from an artwork by Denilson Baniwa, depicted in the next figure.[6] This figure shows E.T., the titular character of Steven Spielberg and Melissa Mathison's famous 1982 science fiction film, painting an Indigenous boy's face. The Hollywood alien is reclaimed on behalf of Indigenous art and culture. While in the movie, E.T. is lonely and homesick, here it seems like E.T. is engaging in an act of kinship. On Earth, both figures in the illustration are marginalised and treated as "other." As said by Gwyneth Jones, "the aliens we imagine are always other humans in disguise, no more, no less" (Jones, 364). At the same time, the image challenges this sense of marginalisation, by creating a link between the Indigenous people of Earth and E.T.'s technologically advanced people (who are capable of interstellar spaceflight, almost magical medicine, telepathy, etc.).

Figure 2 is another artwork by the same artist, interpreting a famous moment from *The Empire Strikes Back*.

This artwork quite literally illustrates the importance of representation. Mari Kurisato (2019) recalls that when she was younger, she thought that Luke was from an Indigenous group, because "he was a brave hero imbued with strong medicine powers (the Force) and a special weapon from his ancestors. Proof of his heritage was even right there in his name: 'Skywalker,' which is very similar to the famous Ojibwe warrior Goes Across the Sky Woman" (Kurisato ch. 3). Kurisato's remarks resemble those of Stephen Graham Jones (2019), who talks about needing "some Indian role models, growing up. I needed some Indian heroes. And I didn't have to go far, far away. I just had to go to the theater. Thank you, *Star Wars*" (Jones 89).

Daniel Munduruku's *Todas as Coisas São Pequenas* (2008) illustrates another important aspect of Indigenous futurism. It tells the story of Carlos and Aximã, Carlos's spiritual guide to Carlos. Carlos is a rich CEO whose plane crashes in the jungle and is rescued by Aximã. Carlos in his journey back home begins to understand how unbearable is the lifestyle he has chosen for himself. The novel demonstrates some of the ways utopianism can work within Indigenous futurism. That is, *Todas as Coisas São Pequenas* does not outline the characteristics of some 'ideal' society, but it does stage a fruitful confrontation between the baseline world and the Indigenous view of the same world.

Figure 2 - Luke, I am your father
Source: bit.ly/2I0Al6H

Jill Dolan's (2005) comments on utopia, although focused on the performing arts, may be helpful here. Dolan suggests that utopia is close to "Brecht's notion of *gestus*, actions in performance that crystallize social relations and offer them to spectators for critical contemplation" (Dolan 7). Utopia is not about finding the "representations of a better world," but rather, about "a hopeful process that continually writes a different, better future" (Dolan 13) and which "lets audiences imagine utopia not as some idea of future perfection that might never arrive, but as brief enactments of the possibilities of a process that starts now, in this moment at the theater" (Dolan 17). Utopia is "always a metaphor, always a wish, a desire, a no-place that performance can sometimes help us map if not find. But a performative is not a metaphor; it's a doing, and it's in the performative's gesture that hope adheres, that communitas happens, that the not-yet-conscious is glimpsed and felt and strained toward" (Dolan 170).

Similarly, Camilla Jalving (2012) proposes that the term "utopia" is relevant to art criticism, not much in the sense of a description of an imaginary and/or impossible society, but as an interpretative lens on what could be, given different sets of conditions. That is, "as a way of regarding work and praxis that emphasizes the performative and society-changing potential of art" (150).

Daniel Heath Justice (2018) points out that while "Indigenous writers have confronted that oppressive context and created a richly expansive literary tradition that engages with colonialism, these traditions are in no way determined by colonialism" (Justice *xix*). Although *Todas as Coisas São Pequenas* certainly counteracts common prejudices about Indigenous people, it is not determined by that only. In fact, the novel shows a utopian outlook, proposing a way in which a more positive future could be reached, without denying the ugliness in the world.

Daniel Heath Justice continues: "Indigenous texts are by and large responsive, not reactive. They are at least as concerned with developing or articulating relationships with, among, and between Indigenous readers as they are with communicating our humanity to colonial society, if not more so" (Justice *xix*). The Indigenous futurist movement is larger than its critiques of colonial legacies, larger even than its reinscription of knowledge and ways of knowing that are typically marginalised or erased by those legacies. Indigenous futurism is something that is being done by particular individuals with their own particular tastes, predilections, pleasures, desires, ideas, and experiences. The Indigenous futurist movement is filled with all the many diverse things that Indigenous creators and fans care about; it is a movement of collective and individual self-fashioning and self-expression through the creation, interpretation and consumption of culture, a worldmaking activity through which Indigenous people and non-Indigenous allies reveal themselves and connect with one-another. These two perspectives (critique and community) can be used to interpret the following collage from Mavi Morais.[7]

There is an anecdote related by Daniel Munduruku ("Banquete" 47), in which a professor pesters an Indigenous elder, continually bragging about how Mankind has reached the Moon. To which the elder eventually responds, "I know, I was there." What does the elder mean by this response? For one thing, it reveals the illegitimacy of the professor's bragging. Whatever the pros and cons of Western techno-scientific knowledge, the professor has no grounds for appointing himself its spokesperson in order to belittle the Indigenous elder and Indigenous forms of knowledge. Certainly, this braggart has never been to the Moon himself, nor does he really know how to get up there. Second, the answer may allude to the history of colonial powers pretending that the lands that they invade are empty, or at least empty of meaning until they arrive to conquer them. The elder may also mean that the Moon, in his perspective, is in a sense densely populated,

6 His social media account has the handle @denilsonbaniwa: www.behance.net/denilsonbaniwa

7 Her instagram handle is @moraismavi

since the Moon could be many things: not only a physical place, but a symbol, a friend, an illumination, a part of many stories, an element of a shared imaginary, a locus of difference and divergence, etc. In this sense, the Moon is something complex and mysterious, and there may be many ways of inhabiting it. Finally, even if the answer is just a jest to dismiss a boring person, it highlights the differences between their two worldviews. Why go to the Moon, when we have so many problems here? Perhaps there are good reasons for going to the Moon. But as it happens, landing on the Moon was not a sign that we had transcended war and conflict, but rather a manifestation of US-Soviet rivalry.

Figure 3 - Collage from Mavi Morais. Source - instagram.com/p/B3HxtnxHCHF/

All these themes and questions are evoked by Mavi Morais's collage. The artwork is not exactly about the "conquest" of the Moon in itself. To read the presence of Indigenous people and traditional technology on the Moon's surface through the lens of science fiction implies a different world, in which Indigenous people can reach the Moon if so desired. It signals, furthermore, that Indigenous people will continue existing in the future. As Kwaymullina (2015) argues:

> So we tell stories, always, of our realities. But we are frequently misconstrued as writing of myths rather than truths, and of engaging with metaphor rather than metaphysics. And we continually suffer the indignity of having our stories, our cultures, our knowledges and our very identities characterised as relics of the distant past. Therefore, the very act of conceiving of an Indigenous place in the future — or of the future as an Indigenous place — is an act of defiance. (Kwaymullina ch. 17)

As Jill Dolan and Camilla Jalving might also suggest, it is not really reaching the Moon that matters here, at least not in any literal sense. What matters is the representation of different possibilities, which allow us to keep actively imagining, desiring and fighting for better futures. What matters is to give the loud signal: 'Today, we exist, and we can reach where we desire.'

Amazofuturism and its predecessors

We won't attempt a comprehensive overview here, but instead highlight just a few works which may be considered predecessors to the contemporary Amazofuturist movement. One of the first works of science fiction that uses the Amazon as a setting is Gastão Cruls's novel *Amazônia Misteriosa* (1925). Many of the motifs which appear in *Amazonia Misteriosa* reappear in later works such as Ivanir Calado's *A Mãe do Sonho* (1990); Joca Reiners Terron's *A Morte e o Meteoro* (2019); Fausto Fawcett's *Pororoca Rave* (2015); and Mário Bentes's "Pajemancer" (2018). In this essay, we will pick up on two motifs. The significance of each alters over time, against the background of transformations in Brazilian society, and the changing politics of the Amazon and its ecological devastation.[8] The first motif is mediation by a scientist, often by an ethnologist or anthropologist who serves as narrator. Such narratives, in other words, often invite us to inhabit a gaze and an ideology which risks marginalising Indigenous perspectives. The second motif is conflict between different types of societies, that is, a specific Indigenous society against another form of society. Such juxtapositions often put utopian themes into play. For example, each society may place higher or lower in a utopia/dystopia spectrum, according to the criticisms intended by the work, allowing the comparison of these possible societies. Occasionally these conflicts also touch upon the subject of the extermination of Indigenous people through agents of colonialism, a trope known as the "vanishing Indian." We will briefly discuss the usage of both motifs in works mentioned above.

Regarding the first motif, Cruls's protagonist in *Amazônia Misteriosa* is a doctor, and the novel continually engages with Western-style scientific discourse more widely. For example, it begins by adopting the form of a travelogue, filled with precise descriptions of the rainforest. Similarly, Calado's and Terron's novels both make use of an anthropologist as mediators in their narratives, both as narrators. They also include references to living personalities, for example, the protagonist of Calado's novel is named after the anthropologist Roberto DaMatta, and in Terron's novel one of the two anthropologists is named Boaventura, which could be a reference both to the sociologist Boaventura de Sousa Santos and to the indigenista Orlando and Cláudio Villas-Boas.

Ginway (2015) suggests that for many science fiction writers of the first half of the twentieth century, "the Amazon is a place of adventure, a setting for stories whose imaginative events ignore the region's anthropology, history and indigenous cultures" (Ginway 1). This observation is partly applicable to *Amazônia Misteriosa*, at least as in regard to the region's recent history at the time, making it seem somewhat politically and culturally disengaged. The second motif is still present in Cruls's work in the protagonist's encounter with the Amazons, the legendary society of female warriors, and the ritual drinking of "aiquec" (a drink similar to ayahuasca). Once the protagonist has taken "aiquec," he is able to enter dialogue with Atahualpa, the last Inca emperor. The contact with Atahualpa, then, provides the reader the possibility of comparing Incan society and European, and by reminding the reader about the destruction of the Incas, allows them to reflect upon the Brazilian society at that time.

Motifs of utopian/dystopian confrontation can be found throughout *A Mãe do Sonho* by Ivanir *Calado and A Morte e o Meteoro* by Joca Reiners

8 Cruls's novel is from a period after the region's rubber boom, in which Brazilian Amazon region was in a continuous economic decay, which would only recover at the time of the Second World War (Allied forces could not benefit from Southeast rubber plantations). His novel, however, does not engage much with Amazon's history, preferring to criticize Brazil as a whole. It should be noted that previously to the novel, Cruls had never been to the Amazon. Ivanir Calado's novel, in contrast, comes from a period after Brazilian Dictatorship (1964-1985), which is characterized by extractivist projects that meant the death of thousands of rural workers and of Indigenous people. Given the current political policies, the extractivist agenda is still in full force. For a more comprehensive history of the Amazon, see Souza (2019).

Terron.[9] In the first, beings from the Brazilian collective unconscious, meu pau de óculos, de cartola and de meia, defend the last representatives of an Indigenous group threatened by extermination by a mining company. The protagonist discovers that a highway is being planned through the lands of an uncontacted Indigenous group. The menace to the Indigenous people recalls the massacre of the Waimiri-Atroari during the construction of the BR-174 highway. Therefore, thinks the protagonist, the Indigenous group must be relocated before evil comes their way. When the protagonist speaks of these people, a utopian tone can be detected in descriptions of their suspended town, with its tree houses and vines holding it above ground. The city is compared with Lothlórien, from *Lord of The Rings*, and combines native technologies (such as the Jirau for suspending the city) with elevators and many other technologies to camouflage it, although these technologies are not very detailed in the novel. The utopian tone is also clear in the description of its people: "They were the most peaceful people he had ever seen. And the most mocking. Always laughing, completely involved with their world. Happy — if this makes sense to anyone who can read" (Calado 90). The dystopian turn comes soon after when almost all members of the group, except one child, are slaughtered. Then the novel expands on the consequences of an entire collective unconscious having to survive in only one person.

Joca Reiners Terron bases his work on a similar premise: an Indigenous group have their land seized and must go elsewhere. In a dystopian version of Brazil, where the Amazon has been mostly destroyed, what remains has become insufficient for the survival of an Indigenous group called Kaajapukugi. The Kaajapukugi have "been hunted with determination by the state and its extermination agents: miners, loggers, landowners and their usual henchmen, police, military and politicians" (Terron 14) and, therefore, must be transferred to Mexico as political refugees.[10]

It is noticeable that both Calado and Terron make use of various elements from speculative literature to criticise the extractivist mindset fomented by capitalism. Calado's novel is aimed at the specific period of the Brazilian dictatorship, many echoes from it can be perceived today[11]. For example, a parallel can be easily traced in the next figure in which a politician, now Minister for the Environment, shows his campaign ideology.

Figure 4. A flyer from the election campaign of the current Minister of Environment

9 For another take on Calado's A Mãe do Sonho, see Causo (2003) and Ginway (2005). The first argues that the work demonstrates "the inherent stupidity of the dictatorship and the obtuse character of Western capitalist society when dealing with non-western beliefs". The second claims that "A Mãe do Sonho" denies the common portrayal of Amazon as a passive entity, describing the culture from the region as an active force of resistance.

10 It should be noted that many of these works, as with part of Brazilian literature, end up denying the agency of the Indigenous characters, making them passive recipients of the story or simple premises for plot advancement. Sometimes this might be with a malicious intent, although that is not the case of any of the novels analyzed here. Yet, there is a very fine line between trying to represent the Indigenous people in a positive light, and representing them in ways that are reductive and oversimplifying. For example, in *18 de Escorpião*, Indigenous groups are relocated to another planet, where they live in a peaceful manner. However, while the non-Indigenous characters do the intellectual work, the Indigenous people are left to do only manual work.

11 A possible consequence of having this type of discourse legitimized may be seen in the fact that the Indigenous Land Raposa do Sol have been invaded by miners again, furthermore, this year only at least 10 indigenous leaders have been assassinated. Source: bit.ly/3ahiG6Q and https://bit.ly/38hfrLy. Updated information can be found in the instagram handles @apiboficial; @socioambiental

The flyer features an image of bullets, and advocates violence as a solution to all issues: "against the plague of boars; against left-wing political parties and the Movement of Homeless Workers; against robbery of tractors, cattle and supplies; against criminality in rural areas." The slogan also alludes to Indigenous extermination, which again brings us to the second motif commonly used to represent the Amazon region, that of a conflict between different types of societies. Some more recent SF continues to make use of the motif of the "vanishing Indian," or the extermination of Indigenous people. For example, the next four novels have something in common: they all have difficulty in imagining the coexistence of a corrupt Brazilian society with Indigenous people. These are Fausto Fawcett's *Pororoca Rave* (2015), which alludes to the pororoca, a big wave that is formed within Amazon rivers, as well as the rave DJs who are searching for a "primordial" sound, a quest which takes them through the the northern regions. Technology and mysticism, poverty, crime and corruption, syncretism and self-discovery are central to this work. Mário Bentes's "Pajemancer" (2018) has a not dissimilar setting. The title is the union of *pajé*, or shaman, and *mancer*, as in cybermancer or necromancer. In this short story the protagonist is said to be a descendant of the last of the Indigenous group Sateré Mawé, now working as an investigator in a futuristic Manaus, capital of Amazonas. Alexey Dodsworth's *18 de Escorpião* (2016) relocates Brazilian Indigenous people to another planet, called Neokosmos, because life on Earth has become unbearable, an idea shared with the already discussed *A Morte e o Meteoro* by Terron.

Brazilian science fiction has demonstrated a range of attitudes toward Indigenous people, from exoticisation and romanticisation, to marginalisation and indifference, to ferocious critiques of neocolonial genocide. However, the recurrence of these two motifs across so many works suggests that across all these different attitudes, such science fiction struggles to truly embrace Indigenous experience, to imagine Indigenous people except in conflict, or to imagine Indigenous people ultimately surviving such conflict. By our definition, such works may arguably be considered Amazofuturist, but they are certainly not Indigenous futurism. However, we argue that the more hopeful visions of contemporary Amazofuturism seek to redress these shortcomings. In particular, artwork by João Queiroz utilises cyberpunk aesthetic motifs, but with an important difference: there is no "High Tech, Low-Life" (Sterling *xiv*), which the previous analysed works adhere to, but only "High Tech, 'High' Life." Therefore, differently from Brazilian novels, in which Indigenous life is constantly threatened by the menace of neocolonialism, Queiroz's portrayal depicts the Amazon as an independent and self-sustaining place, where people live in communion with nature, helped by complex technology. This representation can be seen in the next figure (5).

Figure 5: 'Amazofuturism' by João Queiroz
Source: www.instagram.com/p/BxN7481F3Tj/

The painting mixes some visual references from Andean Indigenous people and Amazonian Indigenous people to create its atmosphere. Some interesting aspects typical of Queiroz's art include the brightness and the connection between nature and technology, which can be seen here, for instance, in the prominent biomechanical arm, suggesting a perfect balance of the (post-)human, the natural, and the technological. In contrast to Western science and technology, which has

often developed at untold cost to nature, this Amazofuturist image suggests the possibility of science and technology that is in harmony with, and even perhaps an expression of, ecological limits and laws. The next figure showcases a similar perspective.

The picture is based on the story of the Icamiabas, which are the famous female warriors that fought against the conqueror Orellana. For this reason, reminded of the Amazon warrior women of Greek mythology, Orellana decided to call the river "El Rio de las Amazonas," or the Amazon River. The image shows a hunting ensemble and, peering from the top center of the print, a silhouette of a skyscraper. Besides the biomechanical arms, the hunting bow is also of interest, with a design that could fit in contemporary archery tournaments. Finally, the presence of the Icamiabas themselves is significant: their survival and flourishing in this mysterious and tantalising future is where João Queiroz's artwork diverges from his literary counterparts, by directly contradicting the "vanishing Indian" trope. Indeed the work implies that, beyond mere subsistence and survival, the region was, is and still will be defended.

Figure 6: Icamiabas by João Queiroz
Source: www.instagram.com/p/B1KWkOjAvbn/

Conclusion

Although the nomenclature "Amazofuturism" has only been recently proposed by Queiroz, his artworks exists in a rich dialogue with a longer tradition of Brazilian speculative literature and art. It throws light not only on the possible future development of such work, but also on its history, by bringing into focus plausible precursors, highlighting their strengths and shortcomings. Above all, many of the works analysed are deeply pessimistic, whereas Queiroz's work shows the more optimistic possibilities of science fiction. We would welcome Queiroz's aesthetic, showing the region and its Indigenous people in a more positive light, being taken up by more artists and writers. As Eduardo Galeano said, the function of utopia is to walk, it is the process. So even though the political climate is grim, Queiroz's artwork offers a shining beacon of hope.

We suggest that Queiroz's work is both Amazofuturism and Indigenous futurism. Indigenous futurism, likewise, is not yet widely practiced in Brazil. Nevertheless, we argue that it is a key term for art criticism in Brazil and beyond. Indigenous futurism opposes reductive, pessimistic, and exoticising discourses about the Amazon region and Indigenous peoples, challenging Western stereotypes and allowing the complexity of Indigenous voices and perspectives to be shared. Together, both these interconnected movements attest to the power of the speculative imagination in social and political resilience and regeneration.

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VÍTOR CASTELÕES GAMA IS A PHD CANDIDATE AT THE UNIVERSIDADE DE BRASÍLIA (UNB). EMAIL: VITORCASTELOESGAMA@HOTMAIL.COM

MARCELO VELLOSO GARCIA IS A MASTER'S STUDENT AT UNIVERSIDADE DE BRASÍLIA (UNB). EMAIL: MARCELOVG91@GMAIL.COM

THIS ARTICLE HAS BEEN PEER-REVIEWED.

"Actions and reactions and ripple effects": Liz Lutgendorff interviews Valerie Valdes

Right from the start, Chilling Effect *throws you into the deep end. Was that a deliberate choice?*

I do usually prefer novels that approach their stories through immersion rather than exposition. I like to create context while something is happening, rather than trying to explain everything up front. That's how I tend to build my worlds as well: by having things be introduced as the character thinks about them or interacts with them, a very tight POV that can mean some things aren't immediately clear and some readers will be frustrated by the lack of explicit description.

It can be a difficult approach to manage because you want the reader to be engaged, and sometimes starting on action or dialogue means the whole thing is occurring in a void and they have no reason to care about what's happening yet. But also the first chapter, "Save the Cats," is an allusion to the technique where you get the audience to empathize with your main character by having them do something noble like … save a cat! So I was not only beginning with as much immersion as I could manage, but also joking about the method usually used to get the buy-in from audiences.

That makes sense. Chilling Effect *is filled with great worldbuilding, and a lot of action and intrigue, but it's also very funny and silly! Did you worry about how silly you could be? Or did you leave that to your editor if you went too far?*

At the point where I started writing this book, I'd spent years trying to write "serious" sci-fi and fantasy and horror stories, because that seemed like the most important thing I could do with my time and energy. The world is a mess, and we need thoughtful fiction to help us find a way to deal with our problems meaningfully, both externally and internally. But as important as catharsis is, as important as it is to engage with contemporary issues, I think it's also important to imagine a future where humanity has more or less transcended some of those problems.

Which can be risky too, right?

Sure. It can feel like erasure, which is harmful, but I hope it gives people a refuge from the microaggressions and even some larger traumas they have to engage with on a daily basis. That isn't to say this book is free of triggers, because there are absolutely a few content warnings that apply, but I gave myself permission to be as absolutely silly as I wanted, while trying to keep an eye on ways the silliness could be leveraged to good purpose. I'm no Terry Pratchett, but his approach to satire informed a lot of my choices and preferences, the ways in which I tried to be funny while not entirely ignoring the real world manifestations of the issues I raised. And I definitely did rely on my beta readers and agent and editors to step in if I went too far.

You have some pretty awful men in the novel, which I very much enjoyed as they are just dealt with in delightful ways. "Well, actually" guy, Miles Erck — was he based on Twitter pop culture?

He definitely was. The original working title of the short story that became this novel was "Yes All Women, Not All Aliens" because I was watching that movement occur online and it led me to think of the ways women have to navigate the world every day, and how, sadly, that may be one of the things that never disappears even in the distant future. So Miles is a manifestation of mansplaining, in the most extreme way. I actually call his expression "resting punchface" in the sequel.

But I think the awfulness isn't limited to men, and the ways in which they're awful vary because that's how people are, and certainly I have at least two very excellent men in the story, whom I love dearly.

They were lovely! But more about the terrible ones. The other awful man (or … alien) was Glorious Apotheosis. First, that name, amazing. What's the story behind it?

I remember workshopping that name with friends, but I wanted something that showcased the utterly bombastic nature of some people's opinions of themselves, which can be reinforced culturally. There's also historical precedent for powerful figures being treated as gods despite their personal qualities, so I was playing with that a bit as well. And certainly there are contemporary celebrities with huge followings who think they're the second coming, which is its own brand of worship.

I think that also answers my second question of why have such a tenacious dirtbag!

Right, there are a lot of tenacious dirtbags out there with more power and privilege than they likely deserve, and this was a way of exploring that notion.

Cool. I kind of loved to hate him? So the dirtbags are matched by a lovely cast of characters, all wonderfully diverse in their own ways. How did you approach building your crew?

I knew from the start that I wanted a group of people who were different from each other, but who had grown into a family unit because of or in spite of those differences, people who had their own histories and traumas and were building a new life together that would transcend their pasts. I wanted a main character who was more of a scoundrel than a hero, someone who had done bad deeds and was trying to become a better person, because I think many of us have things we wish we hadn't done and are trying to figure out how to atone or change even if forgiveness isn't an option.

From there, I wanted her to have a best friend whose job was healing, but who was herself trying to grow and change and be better, someone more strong and stable while still being a flawed person. And then I thought about people in my life, their own positive and negative qualities, and the characters that really resonated with me in fiction, the different archetypes and tropes that are often explored and how I could reconcile those with the real people I knew and the real lives they've lived. Then it was about finding a good mix of personalities and the jobs they would reasonably be filling on a small cargo ship, and what kinds of antagonists would be working against them in their travels across the universe. Some characters were cut as I edited, some were changed, and eventually this was how it all settled.

So are you a meticulous plotter, or do you just write and see what happens? Chilling Effect *has a few mysteries at its heart. Who are The Fridge? Why did they kidnap Eva's sister? How did you think about making those big reveals?*

I'm a plotter all the way! Or an architect, to use alternate terminology, though not to the degree that some folks are (they might be termed engineers instead, I suppose). Maybe I'm a landscape architect? (Accidentally typed "architext" there, whoops!)

"Architext" is a good alternative word for "author."

Lol, yeah. A builder of words! Anyway, I usually come into my writing with a fairly detailed outline, then spend a month or so drafting half the book, then take a look at what I have and figure out whether the parts are all working and whether things need to be changed. I try to structure where reveals occur and how they're delivered, because I think that's important in terms of keeping readers engaged; you need enough bread crumbs that they'll follow you, but not so many that they get filled up too soon, or so few that they wander off. But no plan survives contact with the enemy, as the saying goes, so that's what the editing process is for. Beta readers are also a great help, since the way things come across in your brain and the way other people process them can be very different. Having others ask questions and point out things you've missed or over-explained lets you modify as needed so the final product runs smoothly.

I guess that goes for worldbuilding too? One thing that I really liked was some of the slang you introduced ("we'll pass through that gate when we reach it"). It made a counterpoint to some of the more established concepts (from ships to gates to nanites). Did you think much about how many established sci-fi concepts you relied on to world-build?

I think a lot about everything, sometimes to a point where I have to step back and start writing instead of getting mired in the planning work! But one of my favorite things to do is just that: figure out the ways certain idioms would potentially change as the world changes, or how similar concepts would develop in a secondary world that has similarities to ours but also key differences. Slang and swear words are some of the most effective and efficient tools for conveying character and world, and some of the most fun. I also enjoy playing with tropes and also thinking through how previously imagined tech might evolve or be used in different ways than the original creators intended.

As technology changes and new tech is developed every day, there are always actions and reactions and ripple effects that mean the tech gets used and abused in ways that were never intended. People sometimes like to separate science fiction into "hard" and "soft" as if there's a clear line and little overlap. But the people who use and create tech, the societies they live in and how those societies change, inform and influence the tech itself in ways that can't be made discrete. And that, in turn, affects the language people use to describe the world around them and their own interiority.

How did you pick what aspects of Earth culture would survive? It reminded me a bit of the relationship with my ancestry, which is mainly food based. So even though Eva and I had different cultural backgrounds, it really resonated for me with that aspect of being far away (time- and distance-wise), but still being important to an individual …

I would say a lot survived that didn't make it onto the page because of the way I handle worldbuilding. Which is a kind of cop-out because if it's not on the page then it basically doesn't count! But that said, I tried to think about what elements of human culture are most important to us, the kinds of things that have already survived through geographic shifts and colonialism and immigration and changes in technology. Food is one of them, definitely, but I also wanted to acknowledge how even basics like food can be a challenge to obtain, especially when you're one minor species operating on a huge universal field. Clothing is another cultural aspect that defines us; style and fashion can change quickly, even as certain things remain relatively static, but it's a huge indicator of class and social status. Traditions are another, be they religious or cultural or specific to smaller groups like families or hobbyists or fandoms, and even things like sports made sense to bring forward somehow while considering how different tastes and technologies might affect them.

Cool. I found it very humanising (humanity-ising?) in a way that it made it a very accessible world. The big space opera-y-ness of it didn't feel overwhelming.

Right. Even back in Pompeii, people were writing dirty graffiti on the walls. Humans change, but there are always things we bring with us wherever we go.

Let's take a step back. You've published poetry and short stories, and now Chilling Effect *is your first novel. Can you tell us a little about your journey? How did you originally get into writing?*

I'm one of those "always been a writer" types: wrote my first short story when I was in first grade (about six years old), and kept writing on and off thereafter. We had a county fair that I used to enter my poetry in every year because I loved getting ribbons! But it wasn't until college that I started seriously considering publication, and it wasn't until years after graduating that I pursued it deliberately. It's a tough ride and takes a lot of tenacity, and I didn't mature and develop that as quickly as some other writers.

I wrote a poetry thesis in college, and for a while poetry was really where I devoted my attention. Then I started participating in National Novel Writing Month, as a way of getting back to my fiction roots. I caught the bug and kept writing half a novel or so every year since then. In between I worked on some poetry as well as short fiction, and gradually gained the confidence to start submitting to magazines. Different online writing communities spurred me on. I can't emphasize enough how helpful it was to have peers going through the same troubles, so we could all cheer each other on along the way.

You're a Viable Paradise alumni, right? What was that like?

Viable Paradise was an amazing experience that I cannot recommend enough, if you're the kind of person who thrives on community engagement and professional lectures and so on. You travel to this island by ferry and spend a whole week doing nothing but reading and writing and critiquing and hearing brilliant writers and publishers talk about craft and the industry, while occasionally wandering through lovely gardens and along a rugged seashore.

What was the best thing you learned? What advice would you give to those considering that kind of thing?

I feel like I learned a lot of valuable writing tips, and ways to think about my own work and my process, but honestly the best thing I gained from it were the colleagues, now friends, who attended with me. That old joke about the "friendships you made along the way" is so true. My crew is absolutely there for me, and I'm there for them, and we keep each other afloat whenever this journey becomes difficult.

It sounds amazing, even if you just want to hang out!

It really is. For those who want to attend a similar workshop, I'd say to do it if you can manage, but if not then there are other options to find your people out there.

In an earlier interview, you talked about Mass Effect, and described your novel as telling the story about the Han Solo of that world rather than the Commander Shepard. As I can't resist a good gaming reference — what kind of game would Chilling Effect *be? Open World, Rails, First Person Shooter? Lego Chilling Effect, so you can swap in and out different playable characters?*

I'd love for a *Chilling Effect* game to be an RPG like Mass Effect, open world-ish with lots of good character interaction and the occasional shootout. Maybe space battles instead of Mako exploration, though! A Lego game would also be rad, or a JRPG. But I do think the key component would be the notion of playing someone who is on the outskirts of the "real" action, who nonetheless has to deal with the ripple effects of choices being made by people who have more wide-reaching agency. And they end up being a bigger part of the outcome than they intended, because even when it feels like we as individuals can't make a difference, there's always something we can do to affect change beyond our own lives.

FINAL QUESTION! You've briefly mentioned it already, but can you tell us anything else about the sequel? Will we find out more about the intrepid crew? I hope there's the occasional appearance of a psychic cat?

The sequel is called *Prime Deceptions*, and it should be out later this year. Trying to keep the spoilers to a minimum: it picks up about six months after *Chilling Effect* ends, following the crew of La Sirena Negra as they hassle The Fridge and keep picking up odd jobs where they can. They're tasked with finding a missing scientist who's the key to stopping a big mystery threat, and along the way Captain Eva Innocente has to deal with more of her ugly past. There are new worlds to explore, new enemies to deal with, old enemies who won't go away, and definitely more psychic cat shenanigans—especially from Mala, who makes a total nuisance of herself repeatedly! And if you think Eva's dad is a handful, wait until you meet her mother…

It sounds amazing! I look forward to it! Thank you for your time today!

And thank you!

VALERIE VALDES' WORK HAS BEEN PUBLISHED IN NIGHTMARE MAGAZINE, UNCANNY MAGAZINE, SHE WALKS IN SHADOWS, AND TIME TRAVEL SHORT STORIES. SHE IS A GRADUATE OF THE VIABLE PARADISE WORKSHOP AND LIVES IN GEORGIA WITH HER HUSBAND AND CHILDREN. JOIN HER IN OPINING ABOUT BOOKS, BIOWARE GAMES, AND ROBOTS IN DISGUISE ON TWITTER: @VALERIEVALDES.

LIZ LUTGENDORFF HAS A PHD IN MODERN BRITISH HISTORY AND DURING THE DAY WORKS IN DIGITAL INTERNATIONAL DEVELOPMENT. BY NIGHT, SHE LIKES TO READ GRAPHIC NOVELS, SCIENCE FICTION, HISTORY BOOKS AND PLAY VIDEO GAMES. SHE LIVES IN LONDON WITH HER PARTNER AND TWEETS A LOT: @SILLYPUNK

Living among the Leviathans: Robert S. Malan interviews Stewart Hotston

Tell us a little about your work to date – are there distinct strands linking the stories you tell?

Yes, for sure. Despite moving around across SF, fantasy, horror and the just plain weird, there are a couple of themes which recur. One theme is family. Not always blood, but always who we choose to be vulnerable with, who we choose to have by our side when we're facing challenging times. I think asking who those people are and what we'd do for them are interesting questions, no matter the setting.

The other recurring theme for me is worlds on the edge of collapse. I like returning to the idea of how times and places, which at first appear idyllic, have nearly always required bad decisions to get there, and these will lie in wait, festering until their time comes again. It's a little of dealing with the past, but also about asking what price we are willing to pay in order to get what we want.

Finally, you'll see a lot of dreams in my books. Not in an 'it was all a dream' kind of way! But as ways of characters processing what's going on, as ways of communication and, even in the hardest SF, to remind us there's more out there than we've dreamed of (literally).

What motivates you when it comes to storytelling, which can be a hard and lonely craft at times?

I love writing and I have long been a proponent of the idea that fiction can help us talk about subjects which are just too hard to confront face-to-face. Taboos, prejudices, ideologies — all these can come under the microscope. I'm an ideas kind of writer — all my stories started life as questions in my head about technology or society or simply 'What If?'

Just as importantly, what if no one else ever reads anything I write? Well, I started writing for my partner and, as long as they request more, I will keep on going.

Your novels Tangle's Game, A Family War, *and* A People's War *contain a strong central theme concerning the conflict between technology and individual freedom. Is this a deliberate reflection of your own thoughts in relation to our current reality?*

Short answer: yes. Long answer — communities are able to create structures which make life easier for their members. However, to access these easements, you must be a member, and to be a member you must abide by the community's standards and rules. In small communities this can be hard but, typically, everyone knows everyone else and you do have a voice.

In larger communities — especially late capitalist ones — the means of deciding the rules is often explicitly separated from the benefits. Then you have to pay to become a member, while also surrendering your rights to having a voice and to how they are developed. This is obviously a route to disenfranchisement and (at best, benign) forms of enslavement.

I'm fascinated by how people trade small conveniences for potentially massive restrictions, and this drives a lot of what I've written about in my published novels. An ongoing inspiration for how I write societies are the works of anthropologists Aaron Wildavksy and Mary Douglas. Both are philosophical children of Levi Strauss and both are transformative in understanding ideas such as belonging, taboo, the concept of crime, and belief systems.

Mary Douglas and Claude Levi-Strauss are well-known theorists, perhaps even outside anthropology. Aaron Wildavsky maybe less so. What is it that interests you about his work?

Wildavsky was a political theorist who, among other things, focussed on risk. His work with Douglas explored how communities structure themselves. These contributions were profound, and are still highly relevant today. For me, so much of how we organise, how we approach the world and how we structure our beliefs either arises directly from or is influenced by the risks we face.

By 'risks' I do mean day-to-day risks to health and wellbeing, but I also mean more existential risks around the lives we take to be examples of the good. If you think about many taboos, they often relate directly to situations which we can show are detrimental to the individuals involved or to the continuity of the communities of which they are a part. However, Wildavsky showed that many taboos are based on beliefs about how the world 'should' be, and these then go on to be excellent predictors for how our communities will be structured.

So if you like, his explanatory work was around showing how ideas such as taboo feed directly into public policy and perception of risk. The latter often then being presented as purely factual, rather than being both factual and ideologically selected from a host of other risks we could have also elevated as worthy of managing. When you're writing worlds into being, understanding how these kinds of belief can create communities is interesting to explore as well as providing authenticity to your world-building. It's a good dose of umami in the story recipe.

Ultimately you don't have to think about anthropology to make your worlds feel real and the stories you're telling feel grounded, but I think it helps.

You've written a lot of short fiction too. Are there aspects linking those, or is it more a case of exploring each good idea to its logical conclusion?

My short fiction is a bit more disparate but they are linked by this kind of structure: an idea explored through an ordinary person's experience of living with it. I'm not interested in the hero's journey. I'm not interested in the orphan who's actually a king of a chosen one or the most powerful magician ever. I don't dig that kind of power fantasy. What interests me, and what's in all my shorts, is the idea of how people on the edge of great events might see those events and how they might change them — by hook or by crook. Most of my characters aren't interested in saving the world but rather in surviving it and keeping their way of life intact. In some ways it's not revolutionary but I think it is kind of radical.

Kind of radical — in what ways?

I guess by radical I'm deliberately rejecting the traditional view of the hero's journey. I'm not interested in the magical orphan who's the saviour. I'm not interested in the challenge of those who are privileged except perhaps where they lose that privilege never to get it back. What I'm interested in exploring is: how do the people we don't read about in real history navigate its storm tides? I realise that means my voice won't be for everyone because the perpetual popularity of 'farmboy is actually super hero/rightful king' never appears to wane and it may be that by refusing to explore those kinds of (in my mind, infantile) power fantasies I'm not going to get your heart going in exactly that way. But the parts of the story that fascinate and compel me are where ordinary people accomplish amazing things in part because they're simply trying to survive while leviathans all around threaten to crush them. It's a political statement for me as much as anything — that anyone can make a difference — that special blood is anathema to good society and, generally, being good.

I wrote a specific story which distils these elements called 'Farm Boy' in my collection *Tales of Wild Light*, in which a farm boy discovers his parents were military and royalty who'd run away from their 'destinies' as foretold by the empire's prophet. It's about how the boy who dreams of the larger world comes to terms with his parents' choice to walk away, to live among giants rather than be them.

You've also edited a number of anthologies. How do you find that experience? Is it difficult having the necessary conversations an editor needs to with authors (being one yourself) or do you find that one naturally complements/enhances the other?

Anthologies are a lot of work! Much more than I'd originally envisioned. I ended up doing the first one because the editor dropped out and I was really proud of the story I'd written!

I do find knowing how a writer feels helps me talk to other authors. I'm always a bundle of nerves and insecurity when talking to editors and there are definitely moments when I can put myself in

those shoes and see both sides. When I edit, I try to explain why I'm suggesting what I'm suggesting — I find it difficult when an editor simply changes text without explaining their rationale.

Fortunately, I've never had a 'difficult' author — they have been responsive and keen to see their work benefit from editing. I have heard horror stories but am fortunate not to have been through that.

As if all of that isn't keeping you busy enough, you're writing for the computer game Age of Ascent. How does writing for that differ from book form?

It's less linear. You're writing backgrounds which inform game design (assets, we call them), feel, etc. However, these then need to sit alongside the necessary constraints of the products. Even in an open world like AoA factions, plot and resources define a huge amount of the structure and mechanics of what can be written. It's lovely to write a world and see it take flesh — in game design it's a little cart-before-horse in that these other considerations determine a lot of what's possible in that world.

Additionally, for an open world/sandbox type experience, the narrative is specifically designed to be emergent. There's no 'Go here and do X' or 'Meet Y' or 'Work through your emotions about Z'. It's very much a case of players arriving and meeting, with conflict and outcomes as a result of those interactions. I'm also a keen LARPer and help referee the Curious Pastimes LARP in the UK. I write a number of plots for that and it's very similar — the art of a good plot is one that gives the players agency and allows them to solve it (or fail it terribly) in their own way. One maxim in game design you know for certain is that the players will create a solution you haven't thought of, no matter how long you spend trying to game it yourself. As you can imagine, this is fundamentally different to telling stories in text where you really are the god of all things.

Having said that, I've found that what hooks players in games, and the types of drama they get excited by, is very similar to what they find enthralling in books and other linear media.

Earlier you mentioned worlds on the verge of collapse. You spoke at the recent event Productive Futures about science fiction, energy, and economics. Are these important themes to you?

Personally? YES! I look at these existential issues and worry about how they'll impact my children in the future, and so many others around the world who don't have my privilege right now. I believe science fiction should lead us into thinking of better worlds, into thinking of solutions to our problems. The reality is such an aim is an ideal. In my experience the best science fiction doesn't present definitive solutions but helps us recognise and think through the problems. Often it can't present the solutions because the language and ideas literally don't exist in which those solutions will be framed until actual real-life politicians, visionaries, artists and scientists invent them. In other words, fiction helps us articulate our issues but they can only point us in the right direction — the real work also takes place in the real world.

I also think these are the issues which show us how fragile the worlds we build are. I talk to my kids about this with Lego — it's hard to build something nice and sometimes, when we're done building, it's easy to think just how simple it would be to do it again because we immediately forget the concentration, planning and time which went into our achievement. We forget the price paid to create complexity. However, the right force in the right direction can bring everything crashing down without any warning. Society is like this — strong, robust in many ways, but often terribly weak in others. All my collapsing worlds have hope woven into them because what can be built can be rebuilt. Yet. Good societies still have losers, and long term societies tend to siphon off those losers in ever increasing numbers, while telling stories about how those losers deserve their lot in life. Often when our worlds collapse they take these social stratifications with them and give everyone a chance to reset. Well — the survivors, at any rate.

In the end all storytelling is political. There is no 'entertainment only' version of storytelling because for someone in the audience the axioms others take for granted are painful, disempowering and even oppressive. Only those who are privileged to the point of being blind to their own world view can see stories as being (a)political. So science fiction is political, and because of its natural bent to look at the 'what ifs' of the world, its biases become magnified. If it extrapolates only what the majority or a particular interest group are evangelising, fine — but it should expect to get scoured in the court of public opinion. In my mind science fiction which doesn't consciously explore politics is a failure of a curious kind, because it is certainly exploring politics unconsciously!

Tell us about School of the Sword? How does that feed into your writing, especially when you're creating action sequences?

Yes, so I'm Treasurer for School of the Sword, which is a fencing club here in the UK. We specialise in historical fencing — especially focussed on Italian styles from the 14th, 15th and (sometimes) 16th centuries. I focus on rapier, sidesword and their companions (such as dagger, buckler, rotella, spear and cloak). I have been fortunate enough to represent the UK internationally and at the club we spend a lot of time thinking through how duels and larger melees would work.

So my combat writing does try to reflect what I've experienced in actual fights (whether simulated or actual 'I'm going to get messed up if I lose this' fights). Combining this with the massed combat of LARP has shaped how I want to deliver fight scenes to readers. I am really careful though in what I think's valid — I don't really care if you have combat experience or not — making a fight scene compelling is about the stakes and the emotion, not the techniques. For me, knowing the techniques and the physics of it means I deliver fight scenes in a certain style, but that is no judgement at all on writers who take a different approach.

So what's next on the horizon for you?

I'm a judge for this year's Arthur C. Clarke Award so I'm working my way through the stack of books eligible for that. It's huge and so many of them are really good — I want to take my time and savour them properly. I'm not yet dreaming about how I'm going to get through them all but the pile is very, very high.

And I have a couple of novels out with publishers at the moment. Waiting is always deleterious to my health but that's the nature of the beast. They're both quite different to what's come before – one is a high fantasy about a world in which man enslaved the gods and the other is set here in modern London and is about how we (re)make the city and the city (re)makes us.

So we have a lot more to look forward to. Stew, thanks so much!

STEWART HOTSTON LIVES IN READING, UK. STEWART WORKS IN HIGH FINANCE AND, IN A COMPLETELY UNRELATED SUBJECT, HE READ FOR A PHD IN THEORETICAL PHYSICS, TAKING GREAT INTEREST IN PHILOSOPHY, THEOLOGY AND ECONOMICS (SOME OF THOSE EVEN INVOLVING ADDITIONAL ACADEMIC QUALIFICATIONS). HE HAS PREVIOUSLY BEEN PUBLISHED ACROSS MORE THAN A DOZEN DIFFERENT PUBLISHERS OF SHORT STORIES AND THREE NOVELS. WHEN STEWART IS NOT WRITING OR WORKING HE'S PROBABLY FIGHTING WITH SWORDS AT THE SCHOOL OF THE SWORD. YOU CAN FIND HIM @STEWHOTSTON ON TWITTER OR AT HIS BLOG, STEWARTHOTSTON.COM.

ROBERT S. MALAN IS A BFS AND NOMMO AWARD SHORTLISTED AUTHOR AND EDITOR, HAILING ORIGINALLY FROM JOHANNESBURG, SOUTH AFRICA. HE IS A PASSIONATE ADVOCATE OF STORYTELLING ACROSS VARIOUS MEDIA FORMATS, WHETHER THAT BE IN BOOKS, GRAPHIC NOVELS, FILMS, TV, OR GAMING, AND IS A REGULAR ON THE CONVENTION CIRCUIT. YOU CAN FIND HIM ON TWITTER AS @ROBERTSMALAN OR ON FACEBOOK.

More politics, more magic, and more queer: Alison Baker interviews Juliet Kemp

Juliet Kemp's second novel Shadow and Storm is hot off the presses. Rivers Solomon calls it "the literary equivalent of sinking into the embrace of a dear friend." Ali Baker caught up with them to chat all things writing and reading …

Let's start with your new book! How would you describe it?

Shadow and Storm takes place a couple of months after the events of *The Deep and Shining Dark*. My protagonist Marcia is dealing with the aftermath of the first book, and the other political problems that inevitably appear. Then a sorcerer on the run from Teren arrives in Marek hoping they'll be safe there, which might have worked, until a demon comes looking for them. And the demon may be more involved with the politics than everyone would prefer. So there's more politics, more magic, and more queer, basically.

That sounds amazing!

I like writing politics — I have a background in it — but it's hard to make it convincing. On the other hand, recent real-world events have demonstrated that sometimes people really do make very short-sighted political decisions for reasons that might not be the smartest, so …

Some might say that epic fantasy has very problematic roots, politically. Is that ever something you find yourself encountering when you write –that the material you're working with tries to tug you in directions you don't want to go?

That's a really interesting question, and the answer is yes, definitely. I am consciously trying, in the Marek series, to write characters from multiple backgrounds, but there's definitely a tendency in epic fantasy to focus on the people at the top of the pile, and one of my main characters is in that position. I also find that I'm drawn towards various forms of violence both as problem and as solution, simply I think because that's one of the approaches I'm used to reading. The stories we tell shape how we think about both stories and the world in general. So I do try to push back against that — I want people to solve problems in other ways — but I have noticed the pressure in what I expect a story to look like and have to consciously stop and rethink. With greater or lesser success…

Can you talk a bit more about queer representation in both books?

There is a lot of queer in these books, very deliberately. Personally, I'm not so interested in writing stories about being queer; what I want is to write stories which are about other things, and in which people just happen to be queer (LGBTIQA+). I want to see people like me and my friends getting to have exciting adventures, in a way that I didn't get to as a kid — and indeed for much of my adult life, though it's getting much better now. So that's what I write.

You're a really busy person — among other things you home educate your eight-year-old. Are you a 'regular-backside-on-seat' writer, or are you a 'snatch-time-when-you-can' writer?

I am a regular-backside-on-seat writer — my partner and I both work part-time so we share kid-duties day and day about. So I have writing time every other day. I've done Nanowrimo a couple of times since my kid was born and for that I become a snatch-time-when-I-can writer, but I can't keep that up. I find it very difficult to write when someone is performing a half-hour Terraria monologue in my other ear!

My ten-year-old is actually enthusiastically telling me about Sonic the Hedgehog right now. I empathise!

I can write quite a lot in a day when I'm concentrating though — 5,000 words is reasonable, when I'm doing a first draft — so I think it balances out against the "snatch a few words at a time more often" model. Editing is much slower. MUCH slower.

Wow!

My college years of audio-typing in the vacations as a medical secretary did pay off in typing speed at least. Not to mention far too much time spent on assorted internet messaging services over the years …

Yes, I'm a fast typist too. I did lessons at school.

When I was eight my mum was changing jobs and got her old typewriter out of the loft and said I could only play with it if I 'played' using her typing course book. I only got the very basics at that point, but it was a very useful experience.

What was the process of getting published like?

I started contacting agents at the same time as submitting to publishers who had open submissions — which is not that many these days, but Elsewhen Press were open at the time. As I recall, they read a sample, then asked for the full MS, and then got back to me saying that they liked it and offering to publish it. So I stopped contacting agents. I had the flu at the time and spent a while being slightly unsure if I was reading the email correctly!

That was Feb 2018, and the book came out as an e-book in July 2018 and then print in autumn 2018 — Elsewhen are an e-first publisher. So between the contract and the publication there were edits and proof-reading and cover design and so on. And a really gorgeous map. The cover is beautiful too. The same artist did the *Shadow & Storm* cover, which I was really pleased about.

The sequel was a tiny bit slower – I submitted it in May 2019 and it came out in January 2020 as e-book — but still fast compared to larger publishers. I'm currently working on another one but it's only in the first draft stages at the moment, nowhere near showing to anyone at all!

That's exciting! Is it a sequel, or is it something new?

It's a sequel, though the books are all readable stand-alone; it's a series in the "more books in the same universe/same characters" sense rather than the "trilogy (or whatever) forming one whole story arc" sense.

Did you publish before The Deep and Shining Dark and Shadow and Storm?

I had a novella out in 2018 with the Book Smugglers — that's YA SF, a 'second contact' (rather than first contact) story set on an ocean planet with a teenage protagonist. Everyone uses xe pronouns. It's called *A Glimmer of Silver*. I've also had a bunch of short stories published in various places — most recently one in last year's *Portals* anthology by Zombies Need Brains, and in *Vulture Bones* and *Translunar Travelers Lounge*, which are both online magazines. I have a couple of stories forthcoming this year but can't remember at the moment whether I'm allowed to talk about them yet!

Exciting! What do you consider formative reading or culture for you?

Ooh good question! I was talking at Picocon the other weekend about reading *Lord of the Rings* when I was about eight, which was definitely a formative reading experience and completely blew the top off my head. I read a lot of the Terrance Dicks kids' *Doctor Who* books around that age, too. And I remember reading *A Rag, A Bone, And A Hank Of Hair* by Nicholas Fisk as a kid.

That's a brilliant book.

It has a twist at the end which I will not give away (it's a great book!), but it was the first time I'd encountered something that did that quite so clev-

erly. That was another WOW moment, and gave me a lot of thoughts about the extent to which you can trust your own mind … pretty full-on for nine or ten. Structurally it does the Chekov's gun thing of setting it up / giving you clues early on, clues that you don't even notice at the time. So clever.

As a teenager I got into David Eddings and Anne McCaffrey, and quite a bit of 'classic' SF, Asimov and Clarke and so on.

Did you have a big book collection, or was this library reading?

The children's books were mostly public library. I did have a fair few books at home, but it was not possible to keep up with the amount I read without extensive library use. The Eddings and McCaffrey we had at home — my mum was reading them too. My school library wasn't terribly good for SFF and I had a preference for SFF — though not an exclusive one — even as a kid.

That's so great, sharing reading with your mum.

I also read a lot of the category romances she borrowed from the library, later on! And the Cadfael books, we both liked those.

Did you have a preferred romance author? It fascinates me how many SFF reader friends also love romance.

K.J. Charles! I've read a fair few of Courtney Milan's books too.

Were there TV shows that influenced you?

I didn't watch all that much TV as a kid … I did watch *Doctor Who* when I was small but then it stopped when I was still in infant school, I think. I prefer books to TV, in general, still. I read very fast! Although of course they're very different ways of telling stories and you can do quite different things with them. More recently I've watched *Black Sails* which is bloody great.

You were recently a Guest of Honour at Picocon, the one-day convention organised by Imperial College London's Science Fiction and Fantasy Society. What was that like?

It was great! Apart from the bit where I had laryngitis, which I have to say I do not recommend at all, never mind when one is expected to give a talk and then be on a panel. However, I croaked my way through it and hopefully people enjoyed it. The essay version of the talk is online.

How did it feel being Guest of Honour, having been part of Eastercon's programme committee?

It's a bit weird being on the other end of the organising, yes. And I used to work at Imperial, so I know the building and the campus very well too. The Picocon committee were lovely and looked after us very well.

Thank you, Juliet. It was lovely to talk to you.

ALISON BAKER IS A SENIOR LECTURER IN EDUCATION AT UNIVERSITY OF EAST LONDON. SHE IS WRITING HER PHD THESIS ENTITLED "WHITE WORKING CLASS CHILDREN IN CHILDREN'S FANTASY FICTION". SHE HAS 10 YEARS' EXPERIENCE OF TEACHING ON UNDERGRADUATE AND POSTGRADUATE TEACHER EDUCATION PROGRAMMES. SHE PREVIOUSLY TAUGHT IN EARLY YEARS, PRIMARY AND SPECIAL NEEDS SETTINGS IN LONDON AND YORKSHIRE. SHE IS LIKELY TO EXPLAIN THAT THE WEASLEY FAMILY HAVE CONSIDERABLE CULTURAL AND SOCIAL CAPITAL IN HARRY POTTER'S WORLD WITH THE SLIGHTEST PROVOCATION, WHETHER AT A FAN CONVENTION OR NOT.

JULIET KEMP IS A QUEER, NON-BINARY WRITER OF FANTASY AND SCIENCE FICTION WHO LIVES IN LONDON. THEIR NOVELS THE DEEP AND SHINING DARK AND SHADOW AND STORM ARE AVAILABLE FROM BOOKSHOPS AND ONLINE.

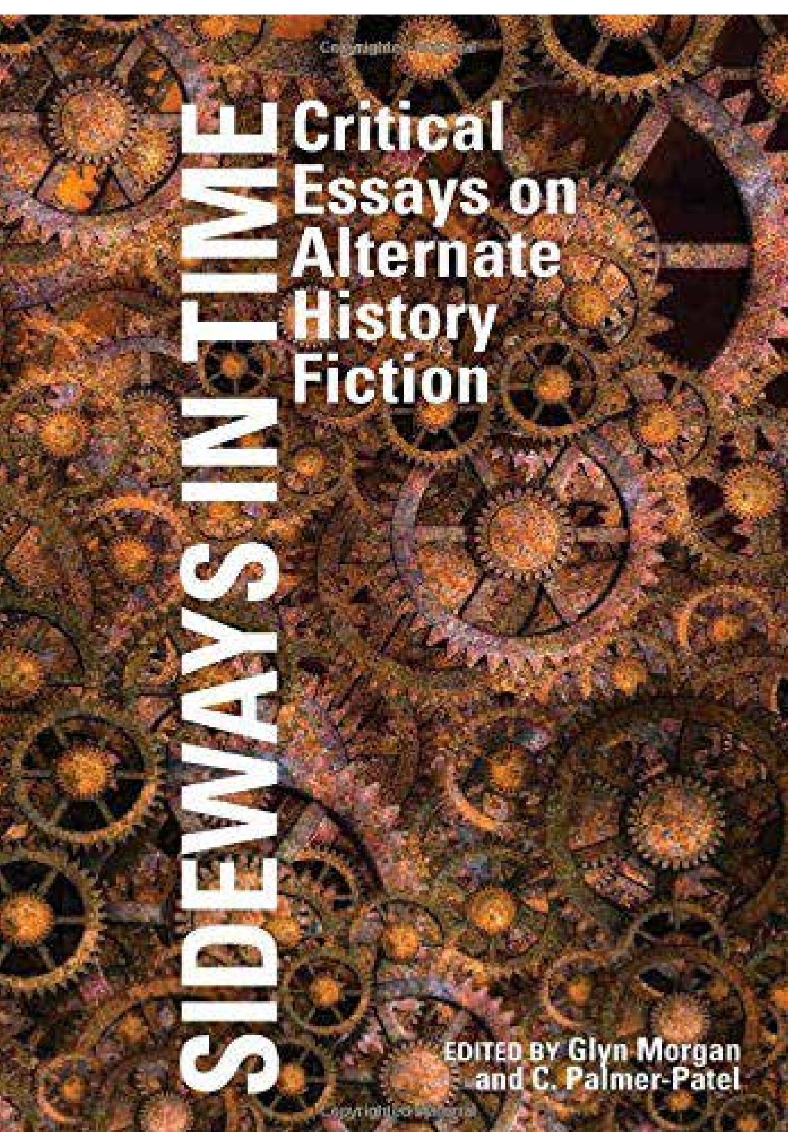
Sideways in Time: Critical Essays on Alternate History Fiction edited by Glyn Morgan and C. Palmer-Patel

Reviewed by Nick Hubble

On Friday 19 February 2016, Boris Johnson, wrote two drafts of an article intended for publication in the following Monday's *Daily Telegraph*. The first argued in favour of Britain leaving the European Union; the second argued in favour of Britain remaining in the European Union (see Shipman 2016: 170-3, 609-18). As we know, Johnson opted to publish a redrafted version of the original, went on to become the figurehead of the successful Leave campaign and, in 2019, became Prime Minister of the United Kingdom and then won a General Election by a landslide. But what if he'd published a polished version of the second article instead and decided to support Remain in the European referendum? Without its well-known charismatic political leader, the Leave campaign would surely have struggled, while Johnson's energetic support of his friend and fellow old Etonian, David Cameron, may well have tipped the balance in favour of Remain. Following yet another triumphant victory to add to his undefeated record in elections and referendums, Cameron would probably have remained Prime Minister until resigning, as promised, before the end of his electoral mandate in 2020. In all likelihood he would have been succeeded by Johnson, a favourite with colleagues and the public alike, rather than his unpopular Chancellor, George Osbourne. Johnson might have just contested a General Election in early May 2020 according to the five-year limit of the Fixed-Term Parliaments Act of 2011 (although it would probably have been postponed). Therefore, the only really big difference in our lives would be that we hadn't left the European Union on 31 January 2020; we would still be confined to our homes in a government-imposed 'lockdown' in response to the external factor of a global pandemic.

While, according to Tim Shipman, Johnson was always likely to back Leave, and the second article he wrote was just to prove to himself that the arguments for Remain were weak (170-1), the very existence of the two versions means that we are still entitled to view 19 February 2016 as a possible 'Jonbar Hinge', or 'point of divergence' to use Morgan and Palmer-Patel's preferred phrase, in which history might have taken a different track. However, as my counterfactual speculation suggests, this divergence needn't have made much difference to where we are at the moment. It might be argued that the Johnson of my alternate history would benefit from both the support of a stronger cabinet and membership of the EU, but the Government would still have followed the same national pandemic plan, drawn up in 2011, which is orientated towards an outbreak of flu rather than a coronavirus, and therefore the situation on the ground would probably be very similar to what it is now. In that respect, it would make little difference even if something more radical had resulted from the point of divergence, such as Leave still winning and therefore destroying a Remain-

supporting Johnson's political credibility and paving the way ultimately to a Labour Government led by Jeremy Corbyn or his anointed successor. The advent of Covid-19 would still have happened, the same plan would have been implemented, and we would still be in lockdown now with the *Sunday Times* publishing exclusives on the Government's failings as they did on 19th April. This is because, as critics of counterfactual and alternate history like to point out, the underlying causes of events are generally material and structural. Individuals may be able to colour how we perceive social change but they can't fundamentally shape it because it is driven by deeper forces and the cumulative effects of millions of individual people's behaviour over generations. Boris Johnson is a contingent historical figure but the blundering and muddling-through of the British ruling class is a constant across all timelines.



This example featuring Johnson illustrates what Morgan and Palmer-Patel describe as the Carlylian and Structuralist models of alternate history. They illustrate the former by discussing Philip Roth's *The Plot Against America* (2004), which postulates Charles Lindbergh becoming US president in 1940. As they point out, fine novel though it is, *The Plot Against America* is 'a fairly typical alternate history' (18), in that it focuses on a well-known historical moment – WW2, which alongside the US civil war is the most popular setting for alternate histories – and depicts the difference as resulting from the changed biographies of significant historical figures. Moreover, Roth's novel suggests that the crucial change enabling America to become a fascist state, is the absence of Roosevelt's leadership; when he is reinstalled at the end of the novel, 'America's historical course is duly corrected to something similar to our own'. Therefore, not only do alternate histories such as *The Plot Against America* uphold Thomas Carlyle's idea of history as 'the Biography of Great [straight white] Men', they also implicitly reinforce the conventional historical narratives of Western history.

Morgan and Palmer-Patel might have gone further and linked their brief discussion of the rise of counterfactual historical essays, as collected in books such as Niall Ferguson's *Virtual History: Alternatives and Counterfactuals* (1997) and Robert Cowley's *What If?* (1999), to this Carlylian model. For example, in *What If?*, Victor Davis Hanson considers the consequences of the Persians defeating the Greeks at Salamis in 480 BC but his conclusion concerns our history and not the counterfactual one:

> What later philosophers such as Hegel, Nietzsche and Spengler would deplore about Western culture – its rampant equality, uniform sameness, and interest in crass material bounty – in some sense started at Salamis, an unfortunate 'accident,' Aristotle said, but one that nevertheless shifted forever the emphasis of Western civilization towards more egalitarian democracy and a more capitalistic economy. (34-5)

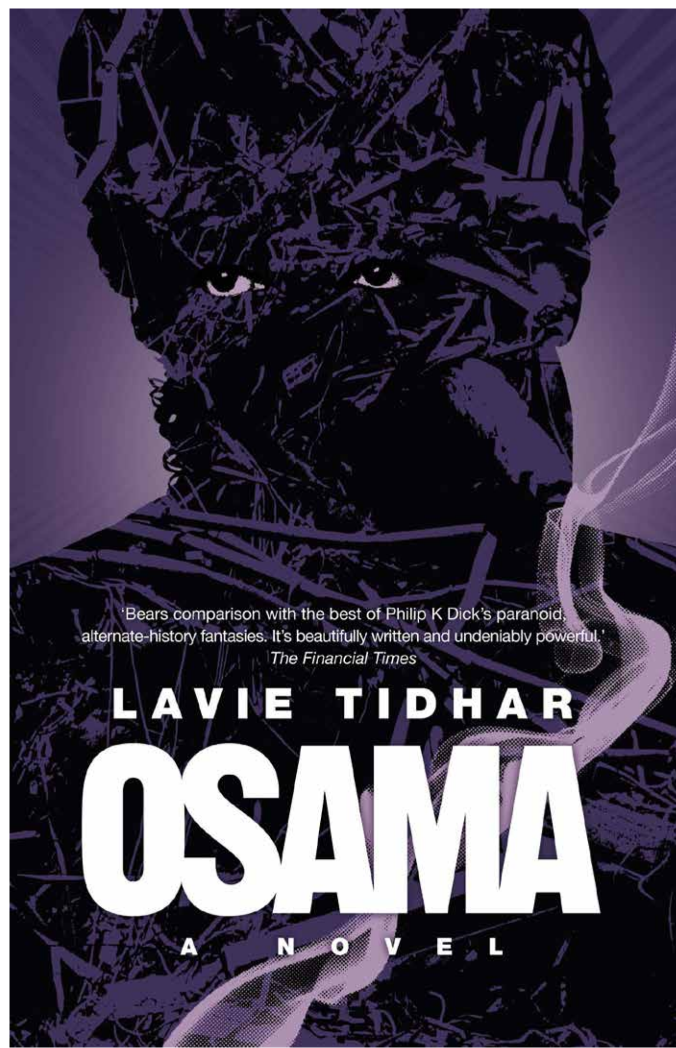
Here imagination remains subordinate to the primary aim of confirming the hypothesis that the West is the best. Indeed Hanson has also written a book describing *Why the West was Won* (2002). It is difficult not to see this kind of counterfactual history as ideological propaganda, whose rise coincides with the historical waning of American power, the decentring of Western thought in the face of global perspectives, and the emergence of third wave and intersectional feminism. The pre-eminence of the Western (straight white male) 'liberal subject' since the end of the eighteenth century was placed under serious threat and much recent 'what if' history of both the fictional and non-fictional kind is best viewed as a response to that. Furthermore, I would suggest that, despite the varied individual political positions of the authors, this counterfactual history has on the whole supported the rise of a populist politics across the West which is primarily targeted at male supporters. In principle, raising the question of 'what if' should open the door to imagining all sorts of possibilities but in practice it seems to have been most effectively deployed in Britain and the US to ask 'what if we returned to the 1950s when there was full (straight white male) employment before there were civil rights and gender equality?' Notably, the UK editions of both the Ferguson and Cowley collections feature Adolph Hitler prominently on their covers with swastikas draped variously over the Houses of Parliament or superimposed on Union Jacks. Of course, Boris Johnson's idol is Churchill not Hitler but the very prospect of Hitler winning the war functions – rather as the prospect of Lindbergh's presidency in *The Plot Against America* legitimises Roosevelt's historical role – to signify Churchill as the agential male *par excellence*, single-handedly embodying and saving the British nation's interests. Johnson's ascendancy in the UK, to the point at which the press are declaring his embodiment of the nation and were enjoining the British people to pray and root for him during his recent hospitalisation with Covid-19, is a product of the success of counterfactual history in restoring a Carlylian attitude to British history and a salutary warning as to the capacity of alternate history to function as rightwing alt-history.

The fact that Johnson is a writer and journalist as well as a politician illustrates the performative potential of the Carlylian model of alternate history. His awareness that conventional historical narratives can be challenged by the way that history is written, allows Johnson to present himself as a counterfactual in real life: a living 'what if' who by his very existence will single-handedly change history and make Britain great again. In effect, we have government by self-aware literary representation in what might be regarded (alongside the self-aware televisual representation of Trump) as the apotheosis of the postmodern historiographic metafiction identified by the critic Linda Hutcheon in the 1990s. In other words, we are now living in alternate history. This context adds an urgency to Morgan and Palmer-Patel's observation that 'alternate history has attracted surprisingly little scholarship' (14). In this respect, *Sideways in Time* is both a useful and a timely addition to the small body of critical works, such as Karen Hellekson's *The Alternate History: Refiguring Historical Time* (2001), that have appeared in the twenty-first century. In particular, the division of this volume into two sections gives it a pressing relevance to our times because while the first half examines how alternate history challenges dominant historical narratives, the second half takes 'a metatextual leap' (25) and challenges the conventions of alternate history itself.

Fittingly, the first chapter (although somewhat oddly chapters are not numbered) in the collection is Adam Roberts's 'Napoleon as Dynamite: Geoffroy's Napoléon Apocryphe and Science Fiction as Alternate History'. This is apt because, whatever the claims of figures such as Alexander the Great or the Holy Roman Emperor, Frederick II '*stupor mundi*', Napoleon is the modern exemplar of the man of destiny, who threatens or promises (according to your point of view) to bend events to his will and reshape the world in his own image. Roberts begins by discussing the long-established claim that Louis-Napoléon Geoffroy's *Napoléon et la conquête du monde 1812-32* (1836) is the first alternate history novel, following the 1789 revolution's demonstration that history could be made radically anew. But

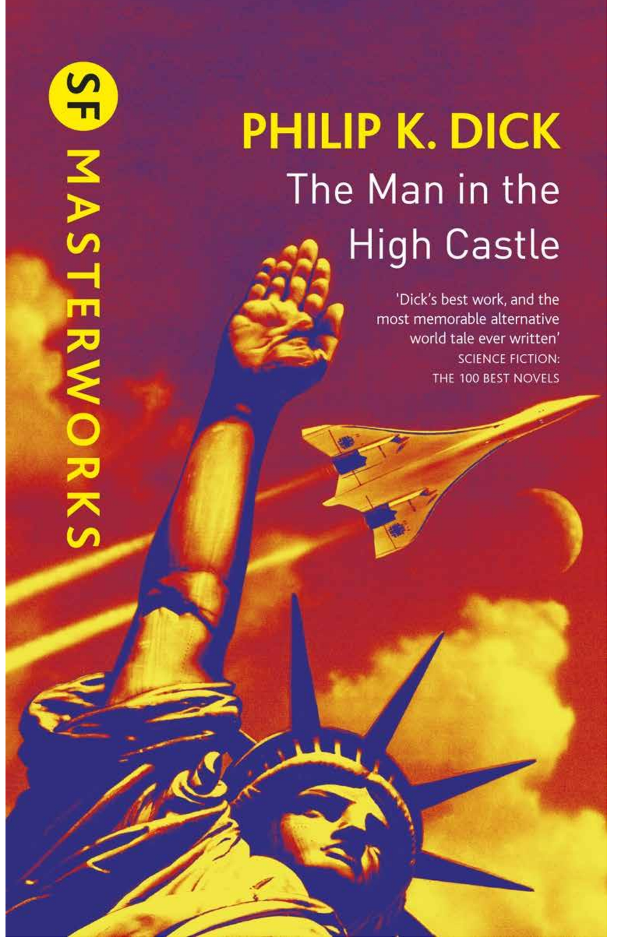
he quickly contrasts this novel with Tolstoy's *War and Peace* (1869). Tolstoy, Roberts tells us is the 'great *anti*-alternate-historian' (38) who regards history as immune to individual actions and writes at great length to hammer home the moral that Napoleon was radically self-deluded about his ability to change history.

Following Roberts's chapter, Chris Pak's discussion of Kim Stanley Robinson's *The Years of Rice and Salt* (2002) highlights the novel's questioning of historical inevitability while raising some questions of its own as to Robinson's 'implausible recapitulation' (53) of key events from our timeline – notably the World Wars, combined by him into a 'Long War' – in an alternate history that diverged from it in the fifteenth century. Pak argues that Robinson shows the creation of the future to be a structural process but one which is meaningfully shaped by individual and collective agency. Jonathan Rayner's 'Forever Being *Yamato*' focuses on the role in the Japanese popular imagination of the battleship *Yamato*, sunk at Okinawa in the Second World War, which has become bound up in the dialectical relationship between Japan's postwar national identity and its imperial and militaristic past. For example, the 1970s animated series *Space Battleship Yamato* 'records the voyages and adventures of a massive spaceship, built from the remains of the battleship, which defends Earth from alien invaders in the distant future' (66). A more recent related series, *Zipang* (2004-5), imagines what happens when the twenty-first century Japanese destroyer *Mirai*, en route to Pearl Harbour to join naval exercises, is transported back in time to the Second World War; a similar plot to the US film *The Final Countdown* (1980) in which Kirk Douglas is the captain of an aircraft carrier suddenly confronted with the dilemma of whether he should intervene to prevent the raid on Pearl Harbour. Rayner's description and analysis is compelling in his account of the wider meaning of the series' progression, which sees the *Mirai* eventually having to intercede against the *Yamato* (by using its advanced missile system to short down the battleship's shells in flight) in order to save the lives of US soldiers at Guadalcanal. It's tempting to see this as some sort of Freudian process of remembering, repeating and working through at a national level. As Rayner concludes,



while alternate history can't change the past, it can alter its significance and by so doing can thereby change the present.

The final two chapters in the first part of the collection, Brian Baker's 'Her Dreams Receding' and Anna McFarlane's 'Time and Affect After 9/11' are both very strong pieces of analysis that for me spoke to the contemporary pandemic crisis despite having being written some time before. Before I was even half way through Baker's chapter, I was so intrigued by his subject, Ian Sales's *Apollo Quartet* (2012-6), that I bought it on my kindle (very handy for instant book gratification in a lockdown although adding to the dystopian feel by further enhancing Amazon's profits). I'm not going to write my take on that here but as Baker notes, the quartet functions 'to critique the gender bias of the history of science fiction itself' (86) and provides an example of how alternate history can function as a critique of our own history. At the moment, the Covid-19 pandemic calls out for such a gendered critique of our society by imagining how less patriarchal and hierarchical structures than those



embodied by the UK and the US in particular might have dealt much better with the unfolding catastrophe. Similarly indicative is McFarlane's excellent account of how Lavie Tidhar's *Osama: A Novel* (2011) employs the genre of alternate history to produce an 'emotional historiography' encompassing 'the affect of the post-9/11 atmosphere' (93). As she explains, Tidhar uses Philip K. Dick's *The Man in the High Castle* (1963) instead of our own history as the 'model for *Osama*, so that his novel becomes a palimpsestuous rewriting of a novel that was already a rewriting of history to begin with' (97). This seems entirely appropriate as the experience of the last few years and the prominence of real-world Dickian characters such as 'Donald Trump' and 'Elon Musk' suggests we are all stuck inside one of his novels. In particular, the contraction of the world during lockdown to a false and enforced domestic sphere suggests the pocket universe structure of *Time Out of Joint* (1959). The emotional affect of our current situation, like that of Tidhar's protagonist, paralyses us within a flat present unable 'to understand the past or to face the future' (100). McFarlane refers to Lauren Berlant's notion of 'temporal whiplash' which 'evokes a sense of belatedness from having to catch up to the event' (101). In this situation, Tidhar's use of fantasy becomes a means of representing the affective 'truth' of our situation, which is that what appears to be our reality is itself a jaded set of genre narratives and stereotypes that we desperately need to break free from.

Part two of the collection begins with Molly Cobb's discussion of Alfred Bester's stories investigating the individual's place in time and his proposition that 'each individual can only affect their own timeline and thus only alter their own history' (114). This is basically the extreme version of the structural model of history in which change can only ever be the consequence of impersonal social and economic developments. I remember being very irritated with Bester's 'Hobson's Choice' (1952) when I read it many years ago because it was not at all what I was expecting from the author of *The Stars My Destination* (1956). This story ends with a Japanese man trying to get home through a maze of timelines to Hiroshima in 1945 because it is the only time in which he can feel himself. The logic of this position is extremely conservative because it assumes people can only thrive in their own context and cannot cope with any form of social change. It's manifestly not true either, because some people clearly do adapt to and accept social change; typically those who are marginalised or oppressed by the status quo. However, there is an emotional truth in Bester's position which is that some people are so repelled by the thought of difference that they crave sameness even to the point of death. In short, this is pretty much what Freud described as the 'death drive' and it is a theme not just in Bester but of the New Wave writing he foreshadows. Cobb is correct to suggest that overcoming the death drive is harder than some of Bester's humanist contemporaries imagined.

The chapters of Derek J. Thiess and Chloé Germaine Buckley form an intriguingly contrasting pair. Thiess's analysis of Juan Miguel Aguilera's *La locura de Dios* (1999) concerns the fragility of historical materialism in the face of religious orthodoxy. For Thiess, there is a concern that the dethronement of the universal white male Western perspective might usher in a far less rational form of religious absolutism through the form of 'secret history'. On one level, reading history as fiction

doesn't just expose us to progressive alternatives but also enables the spread of conspiracy theories and other inherently reactionary narratives. However, as Buckley's reading of the Lovecraft meets Sherlock Holmes anthology *Shadows Over Baker Street* (2003) suggests, Enlightenment culture is not the only form of material ontology on offer: there is also 'the Weird'. As we all now know for sure, reality *is* weird. The value of the anthology is that 'the irruption of the Weird in Holmes's world . . . disrupts the circular justification of inductive and abductive reasoning on which rational scientific enquiry (including Holmes's science of deduction) is based' (146). Certainly, the Weird disrupts the generic safeness of this stories and strips away a layer of protection between its readership and the profound otherness of cosmic matter. We can't make the world safe, either by material or narrative means, but we can make the choice to accept it for what it is and live freely by that acceptance.

In '*Quest for Love:* A Cosy Uchronia?' Andrew M. Butler provides a characteristically rigorous and insightful reading of John Wyndham's short story 'Random Quest' (1962) and its various film adaptations, which he suggests may be considered as alternate histories in their own right (different to rather than secondary to the primary text). The term 'uchronia' (no-time), Butler tells us, was 'coined by Charles Renouvier in 1857 to refer to "a utopia of past time […] works in some crucial turning point is given a different, and from the author's point of view better, outcome"' (155). Paul Ricoeur used the word to signify the imagined better world of the future which continually seems to recede before us, forever tantalisingly out of reach. Butler analyses the story in relation to Wyndham's so-called cosy catastrophes in which disasters – rather as the current pandemic favours those with money, nice houses and gardens – seem to be rather fun for the privileged male middle-class protagonists who survive them. Butler's conclusion that the various versions of 'Random Quest' offer their male protagonists a second chance by passage into a feminised world and subsequent rebirth raises all sorts of interesting questions about both a complicated and underrated writer, and, by extension, the English middle-class imaginary he charts. The final chapter in the collection, before an 'Afterword' by Morgan and Palmer-Patel, is Karen Hellekson's 'Agency and Contingency in Televisual Alternate History Texts'. One of her frameworks is Richard Rorty's argument that identity is constructed retrospectively through narrative as people make sense of the by-and-large contingent events which are thrown their way by chance. She concludes that TV series such as *Charlie Jade* (2005) and *Timeless* (2016-8) employ rhetorical devices 'to foreground agency by giving characters outsize impact on the chain of causality' (183). In other words, they structure the narrative in advance to link together contingent events in such a way that characters appear to have agency and thus promote an ideology of personal choice, which according to Rorty can only ever be constructed retrospectively in real life. I think Hellekson is entirely right that these shows have an ideological function but, contra Rorty, people do not always construct their narratives in retrospect. Writing a diary, for example, is not retrospective in the same way as writing your memoirs at the end of your life is because you start to picture the actions you are taking as they will appear when you write them up later in the evening (or the following morning) and therefore identity is able to precede and shape events. In this respect, diaries are profoundly science fictional and might even be considered as personal alternate-history machines.

To conclude, this is a fine collection which is extremely well-edited: a number of useful comparisons are made between chapters allowing readers to make connections and think about the wider issues entailed. There is also a foreword from Stephen Baxter which, far from the typical enthusiastic-but-brief note, is a substantive contribution in its own right, discussing a range of alternate histories by writers such as Harry Turtledove and Harry Harrison. All in all, *Sideways in Time* is a significant addition to science fiction scholarship in general and alternate history in particular. It also raises fundamental and pressing questions about agency that we need to consider in the context of a twenty-first century which is turning out to be very different from its predecessor. While this reviewer, the editors and contributors, and probably most of the readers of this volume, will broadly agree that history is a more complex matter than the actions of great (straight, white) men, the problem is that a belief in abstract historical process very readily slips into a Panglossian acceptance of things as they are and very slowly getting better, which tends to favour the status quo and entail straight white men remaining in positions of power for the meantime until some notional point in the future when infinitesimal incremental change results in a 'diverse and inclusive' utopia. To recast the difference between these two historical approaches once again in terms of British politics, this is akin to saying we're doomed forever to have to choose between Boris Johnson and Tony Blair.

This apparent paradox by which the Carlylian and Structuralist models of history turn out to make practically no difference may be examined by returning again to Roberts's chapter at the beginning of the book, which includes a riff on nineteenth-century America in which he points out it possesses history in contradictory ways: too little as a new nation, too much in terms of the old world associations of its settlers, and a third history of its aboriginal inhabitants. The competing alternate history timelines of Murray Leinster's 'Sidewise in Time' (1934), which provides the name for this collection, complies with this logic of an America of contradictory histories. Roberts implies that the genres of alternate history and science fiction, as predominantly American genres, are inflected by these American histories, which hold out the illusion of a 'paradigmatically sciencefictional model of history' (41) in which a push and a shove take us into the promised land. Against this, he argues that 'anticipations of a specific future will inevitably, eventually, be overtaken by actual historical process'. The Tolstoyan 'flow of supraindividual forces' will overtake 'the Geoffroyan fantasy of a point of stoppage to history as such' (44). Science fiction, Roberts concludes, is a history of branching paths deviating from baseline history that have been left beached by the receding tide of historical process and is therefore apochryphal by nature. However, the traditional response to multiplying branches of apocrypha, has been insistence on a canon; a phenomenon that is as prevalent in commercial SFF as it is in great religions. It seems to me that we need to try and get away from models of history as process that legitimate the status quo by default. The way to do this is not simply to challenge the portrayal of great (straight white) men as historical agents but actively to show women, queer people and people of colour as historical agents in contexts in which hierarchical, patriarchal systems of power are rejected and dismantled. The tendency of some recent science fiction which does this – such as N.K. Jemisin's *Broken Earth* trilogy (2015-17), Simon Ings's *The Smoke* (2017) and Tade Thompson's *Wormwood* trilogy (2016-9) – to also explicitly remove (sometimes by outright destruction) America from their historical frameworks points towards a twenty-first century science fiction which has moved beyond the conflicts of a specifically American-inflected history. In this future the question of 'what if' would literally open the floodgates to a range of possible alternatives and not enmesh us within paradigms predicated on the supremacy of straight white males. My hopes for the direction of further scholarship in the field of alternate history would be to build on the strengths of this volume and proceed to explore new paradigms that do not always float tantalisingly just in front of us but can be fought for in the here and now.

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NICK HUBBLE IS AN ACADEMIC AND CRITIC, WHOSE BOOKS INCLUDE THE PROLETARIAN ANSWER TO THE MODERNIST QUESTION (2017) AND (CO-EDITED WITH ESTHER MACCALLUM-STEWART AND JOE NORMAN) THE SCIENCE FICTION OF IAIN M. BANKS (2018). NICK HAS WRITTEN FOR STRANGE HORIZONS, FOUNDATION, THE LOS ANGELES REVIEW OF BOOKS, AND THE BSFA REVIEW. THEY ARE ON TWITTER @CONTEMPISLESFIC

BIOGRAPHY

DAVID LUNT IS A MANCHESTER BORN ARTIST WORKING OUT OF BANKLEY STUDIOS LEVENSHULME MANCHESTER. HE STUDIED BA FINE ART AT LOUGHBOROUGH UNIVERSITY 1997-2000 AND RETURNED TO COMPLETE AN MA ART AND DESIGN STUDIO PRACTICE 2004-05. HE HAS EXHIBITED WORK IN A NUMBER OF RECOGNISED INSTITUTIONS NOTABLY FACT (LIVERPOOL) CORNERHOUSE (NOW HOME MANCHESTER), THE PORTICO LIBRARY (MANCHESTER) AND THE HARRIS MUSEUM (PRESTON) AND IN 2017 WAS SHORTLISTED FOR THE 'GREATER MANCHESTER ART PRIZE'. MORE RECENTLY HE HAS EXHIBITED HIS WORK WITH LONDON BASED ASTRONOMY COLLECTIVE 'LUMEN'.

WWW.AXISWEB.ORG/P/DAVELUNT/
INSTAGRAM @DAVIDLUNT3211

STATEMENT

DAVID LUNT'S PRACTICE EXPLORES THE FINE LINE THAT SEPARATES SCIENCE FACT FROM SCIENCE FICTION. INCORPORATING 2D TRADITIONAL PIECES WITH DIGITAL SCULPTURE AND ANIMATION, HIS WORK FOCUSES ON A NUMBER OF SUBJECTS INCLUDING CARTOGRAPHY, ASTRONOMY, GEOLOGY, EXPLORATION AND THE FUTURE OF HUMAN SURVIVAL. RECENT PIECES HAVE BEEN BASED PRIMARILY ON THE DISCOVERY/STUDY OF PLANETS AND MOONS WITHIN OUR OWN SOLAR SYSTEM AND BEYOND AND THE POTENTIAL THEY MAY HOLD. AS WE CELEBRATE 50 YEARS OF THE MOON LANDINGS HE IS EQUALLY INTERESTED TO CONSIDER WHERE EXACTLY HOMO-SAPIENS MAY BE AS A SPECIES IN THE NEXT 50. WILL WE HAVE LEFT OUR SOLAR SYSTEM, WILL OUR SPACE PROBES BE ABLE TO SEARCH OUT EXOPLANETS, WILL WE HAVE FINALLY MADE IT TO MARS, TITAN AND ENCELADUS ETC.?

"PASSAGE" (BELOW) AND "ABYSS" (RIGHT) BY DAVID LUNT.

“Gas Giant 7” by David Lunt