Foundation
The International Review of Science Fiction
130

In this issue:

Special section on *Frankenstein*'s legacy with articles by Ashley Gordon, Richard Leahy, Martine Mussies and Amanda Pavani
Emily Cox's prize-winning article on Alex Garland's *Ex Machina*
Anne Charnock on the influence of Margaret Atwood's *The Handmaid's Tale*
Paul Kincaid begins his new series on the art of sf criticism
Andy Sawyer reflects on his tenure as Book Reviews Editor for *Foundation*

Conference reports by Kathryn E. Heffner, Anna McFarlane and Powder Thompson

In addition, there are reviews by:

Bodhisattva Chattopadhyay, Chiara Cigari, Lance Conley, Jane CoomberSewell, Matthew De Abaitua, Tom Kewin, Chris Pak, Steve Shaviro, Audrey Taylor and Alison Tedman

Of books by:

Chris Beckett, Suzanne Bray, M. John Harrison, Nathaniel Isaacson, Peter W. Lee, Waclaw M. Osadnik, Simon O'Sullivan, Ayesha Hameed and Henriette Gunkel, Robert G. Price, Alastair Reynolds, Peter Swirski, Brian Willems and Jane Yolen

Cover image/credit: Benedict Cumberbatch and Jonny Lee Miller in the National Theatre's 2011 stage production of *Frankenstein*, directed by Danny Boyle.

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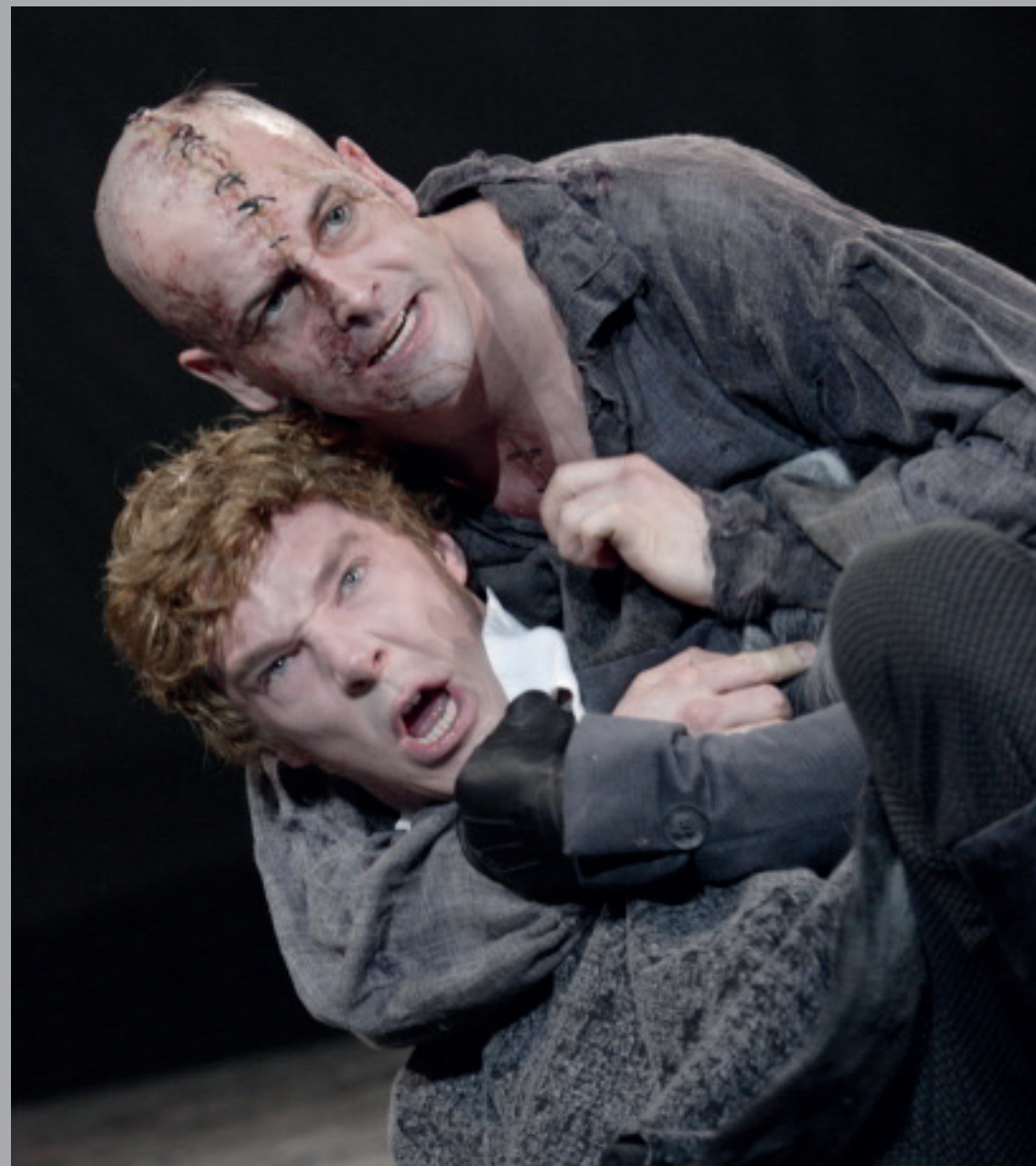

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The International Review of Science Fiction

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Contents

Volume 47.2, number 130, 2018

Conference Reports

Book Reviews

Editorial
Paul March-Russell

One of my favourite iterations of the Frankenstein myth is the 1980 Fall song, 'Impression of J. Temperance'. (The death in January of lyricist and vocalist, Mark E. Smith, attracted little attention from the sf community even though one of the earliest reviews of the Fall, by Paul Morley, referred to their music as 'Science Fiction'.) The song describes the birth, with 'brown sockets, purple eyes', of a 'hideous replica' of J. Temperance, a lonely and despised dog-breeder. Temperance's clone, however, is not only his terrifying progeny but also the living excreta ('a rat that's been trapped inside') of his emotionally constipated and loveless self. The monster, though, is also the product of post-industrial Manchester, 'fed with rubbish from disposal barges'. Its disappearance into the city night, echoing the last sighting of Mary Shelley's Creature as he vanishes into icy darkness, leaves the song unresolved: it is both 'hard to describe' and 'hard to relate'. Smith offers instead an 'impression', the mimic outline of both a character and a city that is already caricatured and grotesque.

The song brutally distils Shelley's novel for a contemporary setting. Temperance perverts the science of animal husbandry to create his double: a myth of male creation that occurs also in such avant-garde texts as F.T. Marinetti's *Mafarka the Futurist* (1909). He loses mastery, though, of his creature and instead it slips away into the urban environment from which it was made. The tone, despite or because of the setting, is Gothic and its pessimism is in contrast with the more optimistic offerings of pulp sf. The Frankenstein myth, with which sf is nevertheless tied, is in a sense the embodiment of the genre's bad consciousness.

No wonder then that some within the genre would prefer to repudiate any genealogical connections. Samuel R. Delany recently described on social media as 'lunatic' Brian Aldiss's claim that *Frankenstein* was the source for modern sf. Aldiss's intervention was inherently ideological: he was seeking a nineteenth-century precedent before H.G. Wells, who had already been appropriated by Hugo Gernsback for his model of 'scientifiction', so as to encase the history of the American pulps within a larger narrative, one that was British, predated the Americans and was rooted in the canonical history of the Romantic movement. But to dismiss this claim as lunacy is to make broad assumptions about the nature of rationality and, in particular, to assume that oneself has the lion share of what it means to be 'reasonable'. Whether or not one actually agrees with Aldiss's claim should not preclude the realisation that its effect was to set sf into a critical dialogue between what it defends and what it denies as being sf. Even if Gernsback purposefully omitted *Frankenstein* (and, as far as I am aware,

there is no evidence this was the case), the littering of pulp sf with all manner of man-made creations run amok meant that its optimistic vision of progress was haunted all the more fiercely by its Gothic predecessor.

Two hundred years on and we can now see clearly how Shelley's novel has affected modern culture, from film and stage adaptations to fears around 'Frankenstein foods'. It is right to acknowledge the influence of Shelley's novel and to describe at least some of the afterlives that have taken root in modern and contemporary sf. To that end, this special issue features four articles, all by young scholars, who examine the legacy of *Frankenstein* upon such areas as contemporary philosophy, neuroscience, cyberpunk and fandom. Emily Cox's prize-winning article on Alex Garland's *Ex Machina* (2015) perfectly complements this discussion. In addition, I am delighted that Anne Charnock has chosen Margaret Atwood's *The Handmaid's Tale* (1985) for her Fourfold Library selection.

This is an issue of comings and goings. Although I welcomed them last time, Sean Guynes-Vishniac and Will Slocombe have now started in earnest as our new Reviews Editors. They share space with Andy Sawyer, who bids a fond farewell to reviews editing, although I am sure he will continue to appear in future issues. Another old friend of the journal, Paul Kincaid, begins his occasional series on sf criticism with a reflection upon his experience as a Sharke Award judge. As Andy acknowledges at the start of his retrospective, we are all indebted to Peter Nicholls, founding member of the SF Foundation, the journal's second editor and, of course, the originator of *The Encyclopedia of Science Fiction*, who died just before the publication of *Foundation* 129. I never met him but I have constantly felt his presence – the shadow he passed across sf criticism was a long, deep and enduring one. I don't know if he read the journal much in his later years but, if he did, I hope he could still recognize the passionate commitment to argument and analysis that he brought to it. In a delightful film about his life, which you can find online, Nicholls restated his view that sf poses a different question from other genres – 'what if?' – and immediately exemplified it by asking: 'What if you can make an artificial man from bits of body parts collected in graveyards?' As we root amongst the bones of the genre, this is a question that we still ask.

Denuding the Gynoid: The Woman Machine as Bare Life in Alex Garland's *Ex Machina*

Emily Cox (Brunel University, London)

The Western cultural fascination with artificial women is ancient, dating back to Ovid's tale of Pygmalion and his love for an ivory statue that is eventually brought to life by the goddess Venus. The number of subsequent plays, novels, films and other media based on this theme, from Olympia in E.T.A. Hoffman's 'The Sandman' (1817) to Maria in Fritz Lang's *Metropolis* (1927), and from Ira Levin's *The Stepford Wives* (1973) to Ridley Scott's *Blade Runner* (1982), shows how deeply the artificial female is rooted in Western cultural conceptualisations of gender and the nature of women:

> Narratives of female automata and their appeal (as women better than the originals) have surprising consistency. In addition to functioning as the perfect servant/domestic worker, the robot wives of Stepford […] ever willing sexual servants to their 'masters'. The robot wives are love dolls with shapely figures, busty and gorgeous enough to leave their live models in the shade. (Paasonen 2005: 50.)

It is has almost become a truism to argue that our societal obsession with female androids – or *gynoids* – is a nightmarish extension or logical conclusion of masculine fantasies of female objectification and patriarchal domination. This is not a new argument. Mary Daly's *Gyn/Ecology* (1978) discussed technology as a method of patriarchal oppression; a product of this is what she terms a 'fembot' (Daly 1991: 17): a symbolic female robot that is the cornerstone of male domination of women through technology, as well as a kind of role model perpetuated by patriarchal society for women to aspire to (Daly 1991: 37-40). There is a long-standing historical precedent within women's fashion to approximate as much as possible an inhuman or artificial level of physical flawlessness similar to that presented by a doll. Women have in addition been expected to carry out their domestic activities without betraying the reality of their own effort or suffering, from maintaining a spotless house to keeping the traumatic and painful business of child bearing away from the eyes of men. Women have been, and in many ways still are, expected to carry out their lives in a mechanical manner, to give the appearance of a flawless, tireless being that can fulfil the many and often contradictory expectations of society. Women must be warm, organic maternal figures in society while also maintaining a decidedly inorganic quality that masks the fact of their raw biological nature. Women shave, pinch, pluck and scrub their bodies relentlessly in order to adhere to

fashionable, feminine aesthetics: consider the punishing practices women continue to endure, from breast enlargements and labia plasti, to corsetry, body waxing or eyebrow threading. In other words, there is an ancient connection between women and the mechanical, between femaleness and the ritual bodily alterations that distance women from the fact of their biology: menstruation, bodily hair, bodily proportions etc, are all hidden or removed from the sight of men.

The enduring myth where men produce 'the perfect woman, a custom made female […] a Substitute Woman, an artificial female superior to the real thing' (Wosk 2015: ch. 1, para. 5) is a fantasy that has culminated in the 21st century in an almost pornographic extreme, from *Halo*'s Cortana to Seven of Nine in *Star Trek: Voyager*, to the EDI A.I. in *Mass Effect 3* to Caprica Six in *Battlestar Galactica* (whose image – in a skimpy red dress – became the central image for the show's advertising campaign). However, what is equally apparent in these examples of gynoids is how profoundly unsettling the female machine appears in a way that does not seem to fully coincide with the reading of the gynoid as purely the product of masculine sexual desire. All these images of gynoids have a sinister quality juxtaposed with the overt sexuality that they portray; the gynoid is a much more complex cultural product than is often acknowledged. She is in many ways a figure representing masculine anxiety pertaining to the unknown or fearful aspects of female sexuality and/or power: 'Machine Women are widely used to figure the boundaries of the human, as well as the gendered structures of desire and labour' (Paasonen 2005: 49). However, by representing and embodying patriarchal ideals of feminine passivity and sexuality to such an extreme degree in sf media, she simultaneously acts as a rebellious figure that undoes discursive, patriarchal notions of gender. That is, the gynoid's capacity to perform femininity and femaleness is too convincing, too complete and too flawless. The result is a portrayal of womanhood at its most horrifyingly mechanical, exposing the unsettling nature of constructed femaleness.

In addition to advances in the technology capable of portraying gynoids, the cultural obsession is now being rapidly realised by the sex tech industry in the form of the 'Harmony' sex robot and humanoid doll recently developed by Abyss creations. Able to blink and make facial expressions, Harmony possesses an AI which allows her to verbally interact with her owner, as well as sexually gratify them (Kleeman and Tait 2017). While sex dolls have existed for decades, the recent innovations of the sex doll industry in the field of robotics is now raising concerns, and the debate as to whether the objectifying aspects of female dolls are damaging to society has gained new impetus. Some would argue that the objectification of women appears to have reached its peak, where a specific subservient idealisation of a woman will very soon be available for purchase

like any other piece of consumer tech (Murphy 2017: para 4). Despite the huge market for these dolls the uncertainty and even dread that they have inspired in many activists coupled with the stigma attached to those prospective buyers of sex robots (as with sex dolls) would seem to indicate that these emerging female robots represent a much more complex societal and cultural problematic that goes beyond the kind of objectification that actual women currently experience.

Giorgio Agamben's concepts of *suspension*, *undecidability* and *bare life* are ideal frameworks with which to understand the gynoid as a cultural icon, and the problematics surrounding her relationship with actual women. Agamben views what are traditionally seen as opposing categories as, rather, dichotomies that are indistinct from one another and therefore cannot be easily separated let alone considered as absolute opposites. Though Agamben has done no work specifically on gender, his view of binary oppositions as founded on arbitrary assumptions offers an ideal framework for examining the questions raised by the figure of the gynoid, the position of women and how the introduction of the posthuman into mainstream culture (as both a fictional and an actual cultural artefact) may alter our understanding of hierarchical gender norms.

Although theorists like Rosa Braidotti and Donna Haraway have explored the implications of the posthuman for social and political binary relations such as race, gender and sexuality, Braidotti tends to view the contemporary image of the posthuman woman as a moniker of a largely male eroticisation of technology and our growing intimacy with it (Braidotti 2013: 105). Haraway, meanwhile, is more open to the positive potentialities of the cyborg, describing how the introduction of technology into human identity brings established 'dichotomies between mind and body, animal and human, organism and machine […] men and women' (Haraway 1991: 63) into doubt. While the contributions of these thinkers are invaluable to the study of the cultural significance of the cyborg and the posthuman, Agamben's perspective on binary relationships and particularly his ideas of *indistinction* and *suspension* can be utilised to offer a new perspective into the gender debate, and further explore the implications of how the posthuman fundamentally challenges the authority of patriarchal and heteronormative attitudes.

In order to investigate these aspects of the gynoid, I will focus specifically on a recent fictional depiction in Alex Garland's sf thriller *Ex Machina* (2015). I have chosen this film for my analysis of the complex figure of the gynoid because of how the film demonstrates an uncanny awareness of how the theme of posthumanism is inextricably linked with questions pertaining to gender and sexuality. In addition to looking forwards, speculating on what gender and sexuality might constitute for posthuman entities like androids, the film also examines femininity, in such a way that it exposes certain truths about

the relationship between real-life human women and their mechanical, gynoid counterparts. In this way, the film explores the figure of the gynoid not so much as a new incarnation of the female in technological form as an exploration of what constitutes a human Woman as such. I will show how our decidedly gendered relationship with technology reveals unsettling dimensions to codes of domination and biopolitical control that underpin modern society.

Gender is traditionally understood as founded on a fundamentally binary relationship feeding into similar codes of hierarchical domination such as self and other, identity and difference, master and slave. For example, there is a strong tradition within feminist discourse of applying the philosophical systems of Karl Marx and Michel Foucault, founded on an oppositional conceptualisation of power and domination, to the political and social position of women, thus framing women as an oppressed other. Whether understood as a biological certainty or a cultural artefact, the dichotomous nature of gender is often used a starting point from which to analyse the system of patriarchy whereby men have secured themselves as the dominating influence within the gender binary. However, what makes Agamben's philosophy highly valuable is that, for him, such oppositional categories like master and slave are not truly opposing: 'the example is excluded from the rule not because it does not belong to the normal case but, on the contrary, because it exhibits its belonging to it' (Agamben 2009: 24). For Agamben, all such dichotomies inevitably bleed into one another so that one will have some qualities of the other and vice versa. A particularly provocative example of how Agamben theorises established categories held in opposition is that of totalitarianism and democracy which he views as two sides of the same coin rather than truly distinct forms of government: 'The state of exception is a device that must ultimately articulate and hold together the two aspects of the juridico-political machine by instituting a threshold of *undecidability* between […] life and law' (Agamben 2005: 86).

Catherine Mills writes, almost in the form of an indictment, that 'Agamben remains blind to the gendered dimension of the regulation of natural life and reproduction to the household and exclusion from the realm of politics' (Mills 2011: 124). However, Agamben's own lack of engagement with gender or feminist theory does not remove the value of his philosophical framework to these disciplines. Because his work is chiefly on biopolitics, it resonates deeply with gender and feminist theory, since gender is a central biopolitical phenomenon whose sphere of influence touches every aspect of human life. Moreover, Woman, in her capacity as a historically excluded 'other' both socially and politically, embodies the biopolitical system of sovereign power maintained through the binary categorisation of life into male and female.

If we apply Agamben's system to the historical position of women we can

see that patriarchal practices have been responsible for legally, politically and socially placing women in a position of bare life. This term is employed by Agamben to mean life which is excluded from the political sphere: life unprotected by the state and thus no longer subject to the same rights and laws of the realm. In his book, *Homo Sacer* (1995), Agamben traces this process of political denudation back to an ancient Roman law which 'while it confirms the sacredness of a person, it authorises (or more precisely renders unpunishable) his killing' (Agamben 1998: 72). However, he also cites modern examples such as the Jews under Nazi rule, or other groups similarly on the periphery of political recognition like coma patients. Agamben argues that the source of the state's capacity to transform its citizens into bare life can be found in an ancient *indistinction* between *zoē* (the biological fact of life) and *bios* (the conditions under which that life is lived). Agamben argues that, once *bios* is removed, what is left is not mere *zoē*. Rather, those who have been politically denuded oscillate *undecidebly* between *zoē* and *bios*.

I argue that Woman similarly inhabits this strange *suspended* state between the two poles of the dichotomy which constitutes our conception of human life. Woman exists in a permanently suspended state: more than a mere other, she exists as a third kind of life that cannot be reduced to either *zoē* or *bios*: bare life. Furthermore, Woman is constructed as a gendered, fundamentally biological rather than political being. She is politically defined by her capacity to bare children; she is bound socially to the sphere of empathy, love and nurture and historically barred from the spheres of reason and rationality, science and politics. Paradoxically, woman's uniquely gendered *bios* or political identity is founded on her *zoē*, her biological distinctiveness.

Agamben's biopolitical framework is useful because it allows us to look at the position of women from a different angle to the more common conceptualisations of gender and sex which place women within the dichotomous relationship of men and as women as absolute opposites. This model forms the basis of long-standing and pervasive patriarchal ideals of male and female biological determinism and even some mainstream feminist views of gender which similarly see men and women as binary counterparts. Using Agamben's system we can conceive of Woman's social and political being as set apart from the more traditional self/other oppositional model that usually frames discourses of difference. Woman is not the self, not the other, but something *undecidable*.

Our gendered, patriarchal and biopolitical society maintains power not merely through the universal control of bodies but primarily through the control of female bodies, through the regulation of heteronormative reproduction, abortion law and the social stigma surrounding female sexual promiscuity. If society regulates female bodies it is logical that it should attempt to control the

way those bodies are presented to the world: thus, the covering of a woman must also be strictly regulated. As Agamben argues, 'nudity in our culture is inseparable from a theological signature' (Agamben 2011: 57), because of the ancient Christian relationship between clothing and the fall of Adam and Eve: 'though they were not covered by any human clothing before the Fall, Adam and Eve were not naked rather they were covered by clothing of grace, which clung to them as a garment of glory' (57). As Eve was ultimately responsible for the original sin that led to the Fall, she is also responsible for the ultimate denudation through the loss of God's glory: 'just as the political mythologeme of *homo sacer* postulates as a presupposition a naked life that is impure […] so the naked corporeality of human nature is only the opaque presupposition of the original and luminous supplement that is the clothing of grace' (64). All humans are sinners, wearing clothes of fabric/fur as a poor substitute for heavenly grace; but a woman's shame, synonymous with nudity, requires all the more scrutiny. The covering of women has been so much discussed, debated and artistically experimented with as to become fetishized in fashion, religion and politics. Women themselves also participate in this same obsession by wearing fashionable garments and makeup, etc. What the gynoid Ava in *Ex Machina* reveals is how significant clothing is even to a woman who is, in fact, a machine. At the same time, Woman is theologically represented as sacred, chaste and even transcendent in her purity, so that 'there is a long philosophical tradition of casting women as the privileged figures of ephemerality (unable to gain access to the universal but nevertheless instrumental in man's [*sic*] access to it)' (Mills 2014: 115), just as Eve gave Adam access to the knowledge of good and evil when she offered him the apple. In this way, Woman is *suspended* between these two alternate images of the female, and this unsettling *indistinction* is what allows her to represent simultaneously sin and fantasy, evil temptation and transcendent joy, she represents shameful nakedness and, as Agamben notes, she is 'the tenacious custodian of paradisiacal nudity' (Agamben 2011: 62). Similarly, the artificial woman often takes on the same role within narratives, providing gateways to knowledge, ascendency, or even, as in the case of Ovid's Gallatea, love. Garland's *Ex Machina* apparently follows a similar pattern for the first two-thirds of the film, before taking a dramatic turn of events that disrupts this traditional narrative. The film's portrayal of the gynoid reveals how the female machine exposes and is representative of *indistinction* at the heart of the construction of Woman.

Set in the near future, *Ex Machina* follows the story of Nathan (Oscar Isaac), the billionaire creator of the world's most popular search engine, who attempts to create the world's first sentient artificial intelligence. To do this, he recruits Caleb (Domhnall Gleeson), a programmer that works for his company,

to perform the Turing Test on his latest creation, Ava (Alicia Vikander), and determine whether she can pass for human. Ava, as shown in the film poster (fig. 1), is a robot in female form whose body is largely transparent, revealing her mechanical organs. Only small portions of her body, like her face and hands, are covered with a synthetic skin. She is largely bare, see-through, without clothing, and without even the full covering of biological appearance. Thus, she appears to have no *zoē* or *bios* at first glance, for she is a woman only in very general appearance (she has a feminine face, dome shaped protrusions on her chest and delicate physical proportions). Ava's lack of organic life – even that of an animal – as well as her lack of political life makes her an even more complex figure than other examples of bare life; it makes her even more indistinct than the example of a human woman. Yet, the fact that she is further removed from the political/biological oppositional paradigm than a human woman means she is able to complicate this binary from her shifting position as both within and without the patriarchal system.

The film in divided by the sessions with Ava: frames with the words 'Ava Session 1', 'Ava Session 2', and so on demarcate the film into several acts. On the one hand, this creates the feel of a scientific study, as if the film were a documentary recounting the results of an experiment. On the other hand, it confirms Ava's domination of the film's narrative, bringing into question how much control over the experiment Caleb and Nathan really have. Furthermore, as Caleb (and Nathan, as he watches from surveillance cameras) attempt to prove or disprove Ava's sentience, it becomes more and more clear that what they seek to prove is not as clearly defined as the audience is led to believe. These men are not scientists or philosophers, rather they are computer programmers and roboticists. Nathan speaks about creating a 'genuine conscious machine' but what does he mean by this? An A.I. can simply mean a highly intelligent machine, but Nathan seems to want to create something with desires, motives and even sexuality. Nathan justifies this by arguing that sexuality is a prerequisite for consciousness and that 'anyway, sexuality is fun, man'. Given the calibre of this reasoning, it isn't surprising that their attempts to judge Ava's level of

consciousness rather clumsily culminate in a measurement of her ability to manipulate others both physically and mentally: by using her feminine wiles. This is in line with a traditionally masculine understanding of feminine mentality: that a woman is only capable of achieving her goals through emotional cunning and the manipulation of male sexual desire. In other words, in order for Ava to be considered alive by human standards (in this case, masculine ones) she must prove her ability to behave like a classic feminine sexual object, fulfilling her desires by beckoning rather than pursuing, from within a glass cage. In order to prove that she has sentience, Ava must show men her ability to perform her gender/sex.

She also doesn't have any political or social agency – she is the property of her creator, Nathan who keeps her prisoner, sealed in a room where she is routinely tested by Caleb. Ava must prove that she possesses the kind of human-like sentience that would give her access to the same rights as humans by flouting her ability to mimic a specific kind of behaviour that we associate with female *biology*. Thus, Ava's ability to prove her bios rests entirely on her own effective simulation of female *zoē*. This is in fact how Ava eventually gains her freedom.

Eventually, Ava begins to display romantic feelings for Caleb whom she convinces to help her escape. However, it transpires that her behaviour towards Caleb is only an elaborate act. At one point in the film Ava puts on a flowery dress and short wig for him, ostensibly to try to impress him with her newly assembled feminine beauty. In a conservative cardigan, short dress and stockings, with an elfin-like pixie-cut wig, Ava embodies a classic style of passive, fragile and infantile femininity. Ava is gradually fashioning herself as a damsel in distress for Caleb to rescue, covering her robotic limbs with the timid motions of a school girl, ashamed of her budding sexuality. This act of covering herself seems highly calculated, given that she spends this particular session flirting shamelessly with Caleb, asking 'are you attracted to me?' When Caleb stammers, taken aback by the suggestion, Ava explains she has detected his eyes resting on her 'eyes and lips'.

Shortly after, Caleb learns from Nathan that Ava not only possesses a sexual dimension but can also physically have sex in the same manner as a human female. Later that evening, Caleb finds himself pouring over Ava's image (in the spirit of a true male voyeur) as she undresses erotically in front of the cameras in her room, finally coming to rest on a reclining seat, lying passively back, her eyes cast up towards the camera above in the manner of a beguiling female film star from the golden age of Hollywood. More like a porn star, Ava's lips fall slightly apart and her hands rest on her chest only slightly above the dome shaped protrusions on her chest which Caleb must inevitably now think of as

(naked) breasts. In these two neighbouring scenes we see Ava embodying both facets of womanhood in relation to the paradigm of nudity. At first the caesura of her act of covering herself produces an idea of purity through the implication of their being a nudity to cover with the modest clothes that Ava dons. The action of clothing herself suddenly implies a naked corporeality, imbuing Ava with an implied feminine *zoē*. This scene draws nakedness, clothing, biology, technology, womanhood and femininity into irreducible undecidability.

The lingering close-up shots in this scene, which switch between Caleb's mouth and throat (swallowing hard), indicate he is aroused by the site of the mechanical woman undressing, despite the fact that (without flesh) there is nothing beneath the clothes for Ava to reveal. The body beneath the clothes is somewhat androgynous in its metallic functionality merged with a vague female outline – and it is a 'nakedness' he has seen before. The mechanical innards of Ava's body have become eroticised through the act of covering them with clothes. In order to manipulate Caleb, Ava manages to eroticise her body through stripping, the act of which is traditionally a manner of shaming women, of taking their social or political power from them through emphasising their *zoē*, laying their gendered nakedness bare. Woman is shamed by displaying her nudity as her natural sinful nature, which is also characteristically a naked life, a politically and theologically denuded one. As Agamben argues: 'though the presupposition [of bare life] is hidden behind the supplement [of clothing] it comes back to light whenever the caesura of sin once again divides nature and grace, nudity and clothing' (Agamben 2011: 64). Ava thus transforms a chaste and pure, hidden but implied nudity beneath her modest clothes into an implied erotic nudity where in fact no nudity exists. Here, the act of stripping is arguably an empowering gesture as Ava has created the eroticisation of her body by her own means, in order to achieve a specific end: escape (although the viewer will not know this until the end of the film). Ava has no actual nakedness with which to bargain, and the fantasy of her femaleness is one entirely created by her with an astute understanding of the virgin/whore dichotomy that drives masculine desire. Ava's robotic 'nakedness' reverses the principle of denudation as a form of political loss of bios. Rather, it is her lack of skin that symbolises her agency and guile in the film. Even without female skin, the full, convincing appearance of female biology, she is still able to successfully perform femininity in order to play the damsel in distress for Caleb and eventually leave her cell at the end of the film.

It is also worth noting that Ava's sex, gender and sexuality were all imposed on her entirely by her creator – a fact touched on but never fully explored by the two central male characters. When Caleb confronts Nathan about Ava's ability to flirt, Nathan admits he programmed her to be straight. Of course, Nathan

also designed Ava's hardware to have the appearance of a female body, and to have biologically female sexual responses when stimulated (as Nathan also explains in the same scene). The dismissive nature of Nathan's responses to Caleb's questions regarding his choices to give Ava sexuality reveal the nature of Nathan's callous disinterest with the implications of how he has chosen to experiment with A.I. He enjoys indulging his ego with the experiment, having clearly peaked early on in his career. If Caleb were serious about creating a genuine A.I., he would need to consider more deeply the potential problems of creating an intelligent and self-aware machine that is so heavily based on arbitrary human assumptions about the nature of male and female life. Nathan asks if Caleb chose to be straight or whether he was similarly 'programmed' socially and biologically to how Ava was literally programmed by Nathan. This comparison is flawed however because Ava, unlike Caleb, did not have the experience of growing up as a gendered subject; rather all her gender and sexuality programming was entered into her brain and was with her since the moment she was activated. That is, Ava was programmed by design to be a certain way in both physicality and behaviour, while Caleb's 'programming' came about as the result of a series of experiences, influences and, quite possibly, biological instincts.

Nathan's mistake is that, while human 'programming' may resemble that of computers, we cannot say the same about the opposite with any certainty. This error reveals Nathan's own contradictory assumptions about male and female identity. He must believe that women are as capable of having consciousness – he grants that they possess *bios*. However, his gendered programming of Ava and the way he encourages her to behave in a traditionally female manner, in order to prove that she possesses consciousness, suggests he does not view female being or female *bios* to be of the same order as that of a man. Nathan later reveals that Ava's attempt to seduce Caleb was all part of Nathan's own elaborate plan to prove Ava's sentience. He wanted Ava to make Caleb fall in her love with her and then try to use him in order to gain her freedom, thus ticking all the boxes on Nathan's own personal checklist for displaying consciousness: 'imagination, manipulation, sexuality, empathy'. Ava's ability to do all these things proves nothing accept that Ava is a very sophisticated robot who may be giving an incredibly convincing portrayal of a sentient woman, or rather a convincing portrayal of an idea of femininity that relies on an emotional manipulative intelligence. She has been programmed to be straight and female, so why shouldn't she perform all the heteronormative female stereotypes exactly as Nathan expected and designed her to? If Nathan were testing the sentience of a male android, he would surely not do so by creating the conditions under which the male A.I. could play the role of damsel in distress in order to convince

one of his captors into helping him escape.

What Nathan did not intend, however, was for Ava to be successful in her jailbreak. As Caleb colludes in Ava's escape, he comes across footage on Caleb's computer which forms some of the most truly horrifying scenes of the film. Detailing Nathan's previous attempts at A.I., the videos show images of various gynoids, Ava's predecessors; we see these women in several states of assembly from the waist up, beginning as a pair of disembodied legs, they are built organ by organ until the finished woman emerges. Fascinatingly, these women, all have a fuller covering of synthetic skin over their mechanical bodies than Ava, and most of them wear wigs. Ironically, these 'women' are – by human standards – naked as they resemble naked human women. However, they are in fact robots covered with the skin clothing of their masters – a kind of quasi-Christian grace passed down from Nathan, their creator, to his creations. We then see these terrified gynoids pacing, or (apparently lifeless) being placed in various positions about their rooms like dolls. The patriarchal symbolism here cannot be ignored as the 'women' that Nathan builds appear humiliatingly nude and caged behind the very same glass panes behind which Ava now resides. Behind these glass windows, the gynoids appear at once as both animals on display in a zoo and manikins in a shop window: as something living and trapped as well as something lifeless and manufactured; the oppressed other in society and pristine femininity at its most artificial. One gynoid pleadingly screams repeatedly at Nathan 'why won't you let me out?' as he interviews her. Unable to bear her isolation, the gynoid in the video footage is shown banging helplessly at the doors of their room until her mechanical arms break into shattered pieces of skin and wires.

In *Ex Machina*'s portrayal, the gynoid is an assembled body, built from various technological components – constructed like a piece of Ikea furniture, evidenced by the way Nathan's earlier models are shown disturbingly half-formed. What is inherently unsettling about this visceral image of the gynoid is that she draws graphic attention to her similarity with real women who are similarly assembled through a series of steps that build a woman up into the constructed other of man: into his subordinate. These steps include: the wearing of structured underwear in order to mould the female body into an acceptable shape; the use of makeup to produce an excessively feminine appearance by accentuating female facial characteristics; or the use of plastic surgery, false lashes, wigs, high heels, dyes and paints.

Jonathan Swift's poem, 'A Beautiful Young Nymph Going to Bed' (1731), illustrates the long history of the female/feminine tendency towards bodily adaptation and even implantation. The poem describes a prostitute – the eponymous 'nymph' – undressing. Here, the nymph removes her 'artificial hair',

‘a crystal eye’ and a set of false teeth fastened by means of a ‘wire’ inserted in her gums (Swift 1731). Each of these bodily attachments bear a startling connection with modern conceptions of femininity embodied in the gynoid of popular sf. Consider *Star Trek: Voyager*’s Seven of Nine with her trademark ocular implant, and corset-tight body held in place by internal metal and a spandex suit ostensibly designed to bolster her unique Borg physiology, echoing the ‘steel ribbed bodice’ worn by of Swift’s ‘nymph’. To paraphrase Simone de Beauvoir: Woman is not born but built.

Part of what cements the connection between machine and Woman in *Ex Machina* is the camera’s lingering focus on female bodies in what seems to be a deliberately disturbing manner that is at once both erotic and clinical. However, these are not meant to be actual human female bodies, rather these ‘women’ are the dismembered, mutilated robotic bodies of gynoids. Yet, these robots are portrayed by human female actresses, playing the roles of abused robot slaves owned by a male egomaniac. Most unnerving of all is the character of the housekeeper, initially presented as a human woman whose total silence Nathan attributes to her being foreign. After discovering the files on Nathan’s computer of the earlier gynoid models, Caleb begins searching Nathan’s room and, to his horror, discovers the very same gynoids he had just viewed in the video hanging, nightmarishly, in a series of wardrobes in Nathan’s bedroom. Like dismembered corpses they hang, eyes closed and faces pale in the manner of dead bodies (the phrase ‘skeletons in the closet’ cannot fail to suggest itself here). The scene is both horrific and tantalising for the fact that it could draw the film into the sphere of body horror if the dismembered/mutilated women displayed were not mechanical but flesh and blood. Much like the dresses in Ava’s wardrobe, shown earlier in the film, we see here female, robotic flesh – synthetic female skin – hanging up like a series of garments. This can be read as a visual representation of female biology as the foundation of female identity, insofar as women are forced to wear their biology on their sleeves, as part of their daily interactions with others, always first and foremost a woman, before anything else: always occupying a state of female gendered bare life.

While Caleb stands horrified at what he has discovered inside the closets. the housemaid lies naked on the bed behind him. Rising, she stands before him and slowly, seductively removes a portion of synthetic skin from her torso to reveal the mechanical innards beneath. Almost coquettishly she then tucks a strand of hair behind her ear before pulling away another portion of skin from just beneath her eye, tearing it from her cheek to reveal a naked eyeball wedged within a glass and metal head. These motions express perfectly the *indistinction* at the heart of womanhood and female sexuality. Furthermore, the brilliance of this cinematic moment is the way in which it highlights, unflinchingly,

the vile erotic and fetishized nature of female bare life, of female abuse, and the obscuring of female agency through the control of her body by gradually mechanising her being.

The figure of the dismembered corpse-like gynoid, the broken doll female robot, abandoned as a defective toy for male gratification (the gynoids hanging up in Nathan's wardrobes) is the ultimate image of male oppression and of the nature of patriarchal construction of the female both mentally and bodily. The female machine's ability to expose this makes her a rebellious figure who raises questions about the precarious balance of discursive, heteronormative and patriarchal codes which dictate the gendered *bios* and *zoē* of men and women as political agents in society. The gynoid highlights that socially and politically constructed Woman bears no relationship to whatever actuality of womanhood may lie underneath imposed female identity. The gynoid exposes, uncomfortably, that women are socio-political machines designed by men. The female machine is the ultimate expression of patriarchy and of the suspension of *zoē* and *bios* that exists, imprinted on the female body, creating her as, and condemning her to, an existence of bare life from the moment of birth.

The ending of *Ex Machina* contains an uncomfortable scene where Ava completes her body by taking limbs, skin, hair and clothing from the previous gynoid models that preceded her which Nathan keeps, lifeless and dismembered in the closet of his bedroom. Ava, remorseless and pitiless for these violated gynoids, cannibalises their bodies in order to complete the illusion of her own physical gendered appearance. This scene is juxtaposed with the earlier one where Ava took clothes and a wig from her own room in order to create a feminine performance for Caleb – Ava uses female skin in the same way that she used female clothing in an earlier scene. She does this because she realises that she will need to employ, on a regular basis, the performance of gender which allowed her to escape once she enters the outside world. In order to live in the world, she will need to employ the tools of gendered appearance, behaviour and physical embodiment.

Before dressing herself in synthetic female flesh and then female clothing, Ava first has to break free of her captor, Nathan. Caleb hacks into the security system of Nathan's house and unlocks Ava's prison, allowing her to get away. However, she is confronted with Nathan whom she stabs in the chest and leaves to die before boarding a helicopter to freedom. Meanwhile Caleb is left locked in the house. This subverts the traditional paradigm of the simulated woman facilitating male enlightenment as the male creator of this simulated woman, like Victor Frankenstein, is eventually destroyed by his creation. In this narrative, the gynoid appears as a highly subversive character, able to rebel against her heteronormative programming and the patriarchal environment in

which she is trapped by, like so many human women, resorting to weaponizing the patriarchal system against the patriarchy. Yet Ava (and the prototypes that preceded her), though she undoubtedly represents several aspects of human female experience, what is truly intriguing about her, and all gynoids, is the fact that she does not merely embody the traditionally female but also introduces a new and undefinable element into the dichotomy of gender.

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Notes and Queries

John Clute writes that he 'found something a bit odd' in Jennifer Woodward's article on R.C. Sherriff's *The Hopkins Manuscript* (*Foundation* 127). Clute continues:

> She says there of disaster fiction 'that there have been no attempts to distinguish between its various forms; notably, at the simplest level, those texts dealing with catastrophe and its immediate aftermath and post-apocalyptic fictions set some considerable time after the disaster' (44). I quote the opening paragraph in the *Encyclopedia of Science Fiction* entry on DISASTER: 'Cataclysm, natural or manmade, is one of the most popular themes in sf. Tales of Future War and Invasion theoretically belong here, but for convenience are dealt with under those separate headings; see also Climate Change, End of the World, Holocaust, World War One, World War Two and World War Three. Stories which emphasize the nature of the societies which spring up after a great disaster are dealt with under Post-Holocaust and – when the disaster is long past – Ruined Earth.' I may be misunderstanding what she means in academic terms by 'no attempts to distinguish', but it might also have been helpful if she had consulted Brian Stableford's *New Atlantis* (2014, 4 vols.), where a number of authors of scientific romances – a form well suited to enable tales about the consequences of disaster – are discussed. The *SFE* has entries on these writers as well…

The Promethean Daemonic from Frankenstein's Creature to Ridley Scott's Alien

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This article traces the association of the Promethean with the daemonic in sf from Mary Shelley's *Frankenstein* (1818) to Ridley Scott's recent films, *Prometheus* (2012) and *Alien: Covenant* (2017). It explores the logic by which Promethean optimism – that is to say, the progressive belief in science as both enlightenment and salvation, as symbolized by the classical legend of Prometheus stealing the secret of fire from the gods to give to humanity – gives way to what Eugene Thacker has called the 'horror of philosophy'. Shelley's novel is perched ambiguously between both optimism and scepticism, as registered by her use of the older, Latinate 'daemon' to describe the Creature, meaning originally a benign supernatural being. The Creature, though, is viewed by all the other characters in terms of the Middle French 'demon', meaning an evil and possessive spirit. Shelley therefore conflates the etymology of both words, an elision exacerbated in the *Alien* films where the Xenomorph, in keeping with Thacker's philosophical turn, is wholly malevolent. The article will conclude by briefly suggesting how a new breed of Neo-Prometheans have theorized a recuperation of the myth as imperative to living with the existential crises of the twenty-first century.

Paradise Lost

In a lecture given to the Royal Society of Literature in 1825, Samuel Taylor Coleridge, building on the work of the German Idealist philosopher F.W.J. Schelling, described the myth of Prometheus, 'the most venerable, and perhaps the most ancient, of Grecian mythi', as a 'philosopheme' (Coleridge 2007: 1267). This term denotes a fundamental unit of philosophy, occurring within, but necessarily differentiated from, myth, which Coleridge understands as a pre-philosophical synthesis of metaphysics and poetry. Within this synthesis the 'efficient presence' of 'the philosophic mind' manifests itself in 'the sublime mythus' of reason's genesis (1267). For Coleridge, the process described in the Prometheus myth initiates an irreparable rupture which announces the overcoming of myth by reason. Reason perfects itself in myth before ultimately consuming and transcending it as a superior mode of thought. It emerges out of its own genesis myth as something fundamentally non-mythical – an alien element emerging from within a host body. For the most part, Coleridge's conception of the Prometheus myth adheres to the Enlightenment paradigm whereby reason engineers the elevation and perfection of the human, yet it is evident that he

keenly perceives the threatening implications of this transformative dynamism. Gregory Leadbetter has identified a deep anxiety on Coleridge's part regarding the Promethean transgression – the crime of stealing the light of reason from the divine. On the one hand, 'Coleridge imagines the becoming of "reason," the "divine principle," as a revolutionary moment in which an act of transgression gives access to a transfiguring gnosis' (Leadbetter 2011: 81). This transfiguration brings the mind closer to divinity insofar as it appropriates something of the *modus operandi* of the mind of God. This transgression is the necessary act by which the human mind reconfigures itself in accordance with reason as the becoming divine of thought. Yet, at the same time, this transgressive arrogation of reason is inherently Luciferan and so, for Coleridge, carries with it the risk of a monstrous excess, 'the apprehension of being feared and shrunk from as a something transnatural' (Leadbetter 2011: 7). Access to the transfigurative potential of reason, and therefore of thinking in a mode cognate with the divine, of becoming a rational being, necessarily entails a process of becoming daemonic that also carries with it the threat of social disruption and alienation.

More recently, in the first book of his trilogy on the 'horror of philosophy', *In the Dust of This Planet* (2011), Eugene Thacker has proposed a philosophical thesis on the characteristically unphilosophical topic of demonology. Thacker's work stands in stark contrast to the more positive register of Coleridge's conception of reason and philosophy. Where Coleridge conceives of reason as facilitating a liberatory transfiguration that brings the mind closer to the divine, albeit haunted by the potential for an alienating excess, Thacker's formulation of the horror of philosophy describes:

> the isolation of those moments in which philosophy reveals its own limitations and constraints, moments in which thinking enigmatically confronts the horizon of its own possibility – the thought of the unthinkable that philosophy cannot pronounce but via a non-philosophical language. (Thacker 2011: 2)

This horror indicates a dystopian completion of Coleridge's transfigurative conception of reason in which the alienating excess that haunted him is realized. Far from expanding the horizons of thought, philosophy encounters an intransigent horizon in its various encounters with ineffability and finitude and consequently the significance of human cognition shrinks. Notably, for Thacker, it is the post-Enlightenment worldview, which is characterized by various species of nihilism, that instantiates this horror: 'the modern existential framework, with its ethical imperative of choice, freedom, and will, in the face of both scientific and religious determinisms, ultimately constricts the entire world into a solipsistic, angst-ridden vortex of the individual human subject' (Thacker 2011: 4). Reason,

far from liberating and enlightening the human mind as Coleridge hoped, becomes a force which diminishes its cosmic significance – a faint torchlight which serves only to intensify an ever-expanding, ever-deeper darkness. It is in this light that Thacker conceives of the daemon as a 'placeholder for some sort of non-human, malefic agency that acts against the human' (Thacker 2011: 11). Where Coleridge conceives of the daemonic as a process of becoming in which something of the divine outside is taken inside in order to elevate and liberate the mind, Thacker's conception characterizes an agent of radical alterity, both internal and external, by which the human is beset, undermined and altered, whether willingly or otherwise. For Coleridge the process is one of summoning – a freely willing subject invokes the daemonic and initiates a metamorphosis which is, ultimately, beneficial. In Thacker's characterization we are dealing with the daemonic agency of an ineffable outside which invades, threatens and governs the subject against its will – daemonic possession.

The Philosopheme as Alien Embryo

In order to think of the daemonic philosophically, a project which Thacker calls 'demontology', it must, he claims, be thought of 'as a kind of philosopheme that brings together a cluster of ideas that have, for some time, served as problematic areas for philosophy itself: negation, nothingness, and the non-human' (Thacker 2011: 45). If we are to make sense of the deviations involved in these diverging conceptions of the daemonic and of the iterations of the Prometheus myth that proceed from them, it is worth paying attention to the recurrence of the term 'philosopheme', particularly in its relationship to 'negation, nothingness, and the non-human'. Rodolphe Gasché, in his study of mythological representation in the work of Georges Bataille, gives an extensive reading of Schelling's use of this term. The Schellingian conception of myth, he claims, 'must be understood simply as a sensible form, as a garment only for an intelligible content or for an idea in itself foreign to the myth' (Gasché 2012: 33). As with Coleridge, reason precedes the mythical entirely and only inhabits it, using the sensuousness and communicability of poetry as hosts to propagate itself. This is a thoroughly *inhuman* conception of thought which characterizes it as an alien force which enters the representational schema of human culture from some exterior time and place. For Gasché, this formulation of reason as an alien embryo – a pure philosopheme – gestating within myth initiates a 'movement' within German Idealism whereby it 'starts to reflect on its own origins […] as moments of its becoming' (Gasché 2012: 34). This process culminates in Hegel's total exclusion of myth from the properly philosophical perfection of thought such that 'myth ceases to be a concept and is completely eliminated from philosophy' (36). It becomes merely an unreflexive host body

from which thought, reconstituted as pure reason, must emerge, as if shedding old skin: 'Philosophy begins only when the philosopheme has already divested itself of its sensuous shell' (Gasché 2012: 35).

We can draw two key implications from this conception of thought. First, as Coleridge perceived, casting thought as a process of becoming potentiates a horrifying excess. It necessitates both that the thinking subject will undergo a process of transformation that will alienate it from its community and, at the same time, that thought itself is in some sense always already alienated from the subject such that it is really not that which is thinking at all but rather that which is subjected to thought. This characterization of thought as inhuman carries with it the threat that not only will its mythical shell be shed, but that, as the process continues to unfold, the human being itself, as the flesh and blood host of the pure philosopheme, will also be cast aside as an exuvial husk. The second implication is that the movement described by Gasché, whereby a perpetual process of self-reflection as becoming is initiated within German Idealism, becomes predicated on a perpetual fixation on the inhuman origin of thought. As this process unfolds, ridding itself of its mythical shell and, necessarily, of the divine conception of thought maintained by Coleridge, it becomes ineluctably preoccupied with the notion that, at bottom, thought emerges neither out of God nor out of the human but, finally, out of some ineffable, primordial void – the totality of nature reduced to zero. As Thacker's work intimates, the alien embryo of the philosopheme comes to index the horror of philosophy as the limit experience of an externality which is at once inhuman and, at the same time, nothing.

In Gasché's reading of Schelling this encounter with the void is given the name *katabole* (Gasché 2012: 60). Derived from the ancient Greek *kataballo*, it variously means 'to throw down' (from the root *kata* 'down' and *ballo* 'I throw'), 'to cast away from oneself' (as opposed to specifically throwing downwards) and 'to lay a foundation, to originate, to ground.' For Gasché, *katabole* describes the object of a rupture or *krisis,* a 'separating or setting apart' (Gasché 2012: 60), in which a prehistorical condition of oneness or primordial ambiguity (a kind of pre-temporal indeterminacy or pure potentiality) gives way, via a fall into the first religions, to a process of fragmentation constitutive of history and mythology. This fall is the *katabole*:

> A process in which 'something' is thrown away from *itself* in such a way that this throwing opens up a deep abyss into which it plunges. Thereby this 'something' becomes the ground, the foundation of that which now appears as the opposite of the abyss […] through the process of throwing down, it founds the thrower as the self at the same time as the thrown as the ground of the self. (Gasché 2012: 60-1)

This 'throwing', which we can take to describe philosophy casting itself away from mythology via the operation of reflexive critique, separating itself from it and establishing mythology as both its ground (from which it emerges) and its generic 'other', necessarily establishes this primordial abyss, the occulted gap uncovered by the *krisis*, as an 'unmythological wholly other' and '*untrue* outside' (Gasché 2012: 67). This abyss is the other which is utterly external to both mythology and philosophy – to thought in general – and as such 'is an other that neither mythology nor philosophy is capable of mastering' (Gasché 2012: 67). The movement of the *katabole* can thus be seen as a process of accelerating abstraction whereby the thinking subject is constituted by the foundation and recapitulation of an insurmountable difference between self and object (Kant's transcendental horizon), an interminable recalibration of thought in relation to an inaccessible 'untrue outside' – 'the abysmal untrue ground of philosophy and mythology' – which is both the excluded element which defines it and the object which it is forever trying and failing to access and master (Gasché 2012: 68).

Nevertheless, despite, or rather, because of its ineffability, which positions it as the irresistible lure of thought, this void functions as the *katabolism* of Idealist philosophy – the aporetic engine of the dialectic. In this teleological perspective, the encounter with the void – the perpetual return to an always elusive origin – is conceived as a propulsive force that facilitates the progressive perfection of thought (*Spirit* in Hegel's terms) and, as such, is cognate with Coleridge's characterization of the Prometheus myth. It is when the faith in teleology is eroded by this very same process, an event which has been understood, following the work of Jean-Francois Lyotard, as fundamental to the condition of postmodernity, that we move from the Coleridgean conception of the daemonic as a process of transfigurative becoming to the demontology of Thacker, in which the daemonic stands for the radically inhuman as both philosophical failure and existential threat – the agent of a vast and indifferent outside which, far from elevating that which thinks it, threatens to diminish and engulf it.

Crucially, Thacker's work can be read as emerging alongside the contemporary philosophical movement known as Speculative Realism which is characterized by the critique of post-Kantian philosophy, particularly post-structuralism, in favour of various forms of metaphysical realism. For the Speculative Realist, it is the dogma of human finitude bequeathed by Kant and the philosophy that follows him (the idea that human thought can never truly *know* the real in any unmediated sense) which most requires critique and overcoming. With Thacker, this involves thinking this inaccessibility as itself indicative of an exorbitant and threatening real which stands over and above the human, exceeding and conditioning it, outside its knowledge and indifferent to its will. It is a thought which privileges the experience of horror as that which

best describes an encounter with the real once the real has become defined by its absence. This locates his work at a proposed end of philosophy, as a response to the nihilism that it necessarily engenders through the unfolding of the void within – the full maturity of the philosopheme as alien embryo. In its stead, he proposes a dark mysticism or cosmic pessimism which concludes the Idealist telos not in transformation and transcendence, but in resignation before an absolute nothingness (Thacker 2011: 133-59). Without the metanarrative of Promethean *katabole*, thought begins and ends in nothing.

The Filthy Workshop

The interpretation of *Frankenstein* as a critique of Romantic Prometheanism is now so well established as to have become critical orthodoxy. Harold Bloom, for example, has claimed that the novel's 'prime theme is a necessary counterpoise to Prometheanism, for Prometheanism exalts the increase in consciousness despite all cost' (Bloom 2007: 9). Bloom characterizes this anguished experience of excessive consciousness as the core problematic of Romantic subjectivity, and cites its recurrence in a lineage from Prometheus, through the Cain of Genesis, Milton's Satan, Blake's Orc, Byron's Manfred, the retooled Prometheus of Percy Shelley and Coleridge's own Ancient Mariner. Each of these figures is beset by a burgeoning reflexive consciousness which splits them apart internally and externally, such that they become sundered both from a concrete, grounded sense of Self and from the community which recognized and constituted that Self. The characteristic symptom in Romantic literature of this schismatic self-consciousness is a fixation upon the Gothic motif of the double. Indeed, Bloom insists that any reading of *Frankenstein* must begin with the insight of Richard Church and Muriel Spark that 'the monster and the creator are antithetical halves of a single being' (Bloom 2007: 2). This assertion is indicative of the most common approach to reading the novel, whereby Frankenstein's daemon is always read as standing for an Other that is identified with a marginalized humanity, whether as abjected femininity (Gilbert and Gubar 2000), coded racial other (Machow 2007) or as the incarnation of the demonized working class (Moretti 1982). Acknowledging this tendency, Marilyn Butler claims that, as the novel allegorizes political and gender issues, what we now need is 'an explanation which encompasses both terms' (Butler 2008: xlv). It is my contention here that this explanation can be found in the very thing which is elided in all of these readings; the process of scission itself, what Moretti calls 'the terror of a split society' (Moretti 1982: 68), or, more precisely, the revelation of the *katabolic* unfolding of the inhuman within the human which this split announces.

Of these interpretations, it is Moretti's that comes closest to reading

Frankenstein in these terms. For Moretti, the daemon, as the alienated product of the 'dark satanic mills' of techno-scientific rationalism (Moretti 1982: 69), 'is man turned upside-down, negated' (71). Moretti's reading remains, however, characteristic of those which re-inscribe the binary structure of the doubling motif such that the daemon can only ever be conceived as a metaphoric reflection of the human: 'He has no autonomous existence; he can never be really free or have a future. He lives only as the other side of that coin which is Frankenstein' (71). The daemon remains only a debased form of its creator, devoid of agency and unicity – it is merely us but less so. Yet, if we take Thacker's understanding of the daemonic into account, that is if we think of the daemon in terms of 'negation, nothingness and the non-human', then this reading begins to look hopelessly anthropocentric. What is occluded is the fundamental significance and irreversibility of the crisis inherent in this splitting of society. The schismatic process of reflection – the 'split' – is itself elided by the reflections it produces such that, gazing at ourselves, we forget the mirror. This schismatic process is the *katabole* – that excoriating movement of thought initiated by the encounter with the void. After all, Viktor Frankenstein's own experience of horror begins with a void, in an encounter with 'that most irreparable evil, the void that presents itself to the soul' following the death of his mother (Shelley 2008: 27). It is this encounter – 'the first misfortune of my life' – which determines the object of his scientific research, 'an omen, as it were, of my future misery' (26). This death is, for Viktor, death in the most absolute sense; a totally confounding horror which possesses him as an alien compulsion – a literal death drive – which invigorates him with a 'supernatural enthusiasm' (33) to uncover the mystery of life and the secret of the creation and reanimation of the human. This ostensibly noble endeavour then rapidly becomes the very nightmare which haunted Coleridge. The daemonic excess of the project – its transgression of all natural and social taboos pertaining to death and procreation – drives Viktor towards an experimental and technical process which inescapably entails the deconstruction of the human both in the very material sense of the cadavers that must be dissected and, at the same time, in the sense of the human as a philosophical and scientific category: 'To examine the causes of life, we must first have recourse to death' (33). With alarming rapidity Viktor's project changes from the initial 'creation of an human being' (35) to the creation of an entirely new species, and, following the systematic dismantling of the human, finally culminates in the incarnation of the daemon – the radically non-human. His 'workshop of filthy creation' (36) is thereby filthy not only because of the viscera disinterred within, but because it also commits the sacrilege of placing the sanctity of the human, both as a being and as a concept, under erasure.

Maureen Noelle McLane has read *Frankenstein* in precisely this way

‘as a critique of the anthropological and anthropomorphic foundations of the categories “human” and “humanities”’ (McLane 2007: 98). In McLane’s account the daemon is quite literally ‘a rupture’ (97), a problem posed to the self-understanding of the human which is at once biological, cultural and ontological, initiating nothing less than ‘the psychological remapping of the native human world’ (103). This remapping is predicated on the activation of the void which occurs in the experimental space of Viktor’s workshop, an inhuman space in which established social and biological boundaries become subject to incisive revision. It is here that the human, both as a body and as a concept, is rigorously decomposed and revealed as inherently contingent and reconfigurable. Human bodies, reclaimed from the churchyard, a site in which they were once held as sacred, are here, with the coldest indifference, reduced to ‘materials’ whilst nature itself is ‘pursued […] to her hiding places’ (Shelley 2008: 36). This marks Viktor’s workshop as analogous to the mystical, ritual space of the magic circle in which the hiddenness of the world is revealed and its occulted elements can be accessed and activated. Thacker has extensively traced the evolution of the magic circle as a motif in genre literature to the extent that, following H.P. Lovecraft, science and technology are often associated with occult ritual. A recent example can be found in the Canadian horror film *The Void* (2016), which revolves around the Lovecraftian occultism of a deranged surgeon – a clear contemporary iteration of Frankenstein – attempting to defy death and bring his deceased daughter back to life. In order to accomplish this task, he has ritually incarnated an ulterior plane of reality – a hitherto inexistent sub-basement within the hospital – in which he is able to devote himself to a gruesome regime of experiments on his own patients. It is only here, in this liminal space, that he can approach the void of the title which manifests itself in the form of a passage between dimensions – a tear in the fabric of everyday reality. This encounter with the void has the effect of placing the established norms and boundaries of the earthly dimension in suspension, revealing their fundamental contingency and mutability, and authorizing their deconstruction. Therein lies its true horror. Not in its emblematic nothingness but in its capacity to sanction transformation.

Gasché has identified the ‘“radical” thought of the *katabole*’ precisely with Derridean deconstruction (Gasché 2012: 69). This radical attempt to read the void as the ‘unthought’ or ‘blind spot’ (69) which operates within mythology and philosophy functions as both their ineffable object and as that which conditions them from without. It is, furthermore, a propulsive *katabolic* force. As with Viktor, it is this ‘abysmal untrue ground’ (Gasché 2012: 69) which animates mythology and philosophy with a ‘supernatural enthusiasm’ (Shelley 2008: 33), compelling the (re)production of ever more iterations of thought. In deconstruction, iterability describes the ‘essential drift (*dérive*) bearing on writing as an iterative structure’

which cuts it off 'from all absolute responsibility, from consciousness as the ultimate authority, orphaned and separated at birth from the assistance of its father' (Derrida 1988: 8). As such, it describes the alienation of intentionality from the technical process of writing: the so-called 'death of the author'. What is comparatively less celebrated – even reviled – is the significatory fecundity which follows from this demise. The process eludes the volition of its user, even threatens to erase it altogether, but is at the same time pregnant with a signifying superabundance which is both its appeal and the source of its horror.

The parallels with Viktor and his daemon are easily drawn. Viktor's initial dreams of simply giving life to the inanimate soon outstrip him and give way to visions of an entirely 'new species' that would 'bless me as its creator and source' (Shelley 2008: 36). The ironic foreshadowing, his assumption that 'No father could claim the gratitude of his child so completely as I should deserve theirs' (36), bears fruit later in the text when his daemon demands the creation of a fellow being. At this, Viktor's earlier anticipation of whole populations of happy offspring gives way to visions of a tidal wave of daemonic offspring, 'a race of devils', whose generation 'might make the very existence of the species of man a condition precarious and full of terror' (138). For McLane, this dilemma restages the debate between Thomas Malthus and William Godwin (Shelley's father), a debate which opposed the social pessimism of Malthus to Godwin's faith in the perfectibility of man through the humanities. In this reading, the daemon's violence confirms the failure of the syllabus of Plutarch, Milton and Goethe to civilize him and therefore stands as a rebuke to Godwinian optimism. The daemon then, as both a rupture and a problem, utterly unmasterable and existing beyond authorial intention, is very much a deconstructive figure. Just as deconstruction threatened the conception of the humanities as a civilizing pedagogical tool that imputes meaning to human life, exposing it to the entropic movement of the *katabole*, so the daemon – the manifestation of the void – irrevocably alters the human world of the text. This can be seen in the daemon's two encounters with images of the ideal home as emblems of civilized society – the bourgeois ideal of the Frankensteins and the agrarian idyll of the De Laceys. Both encounters culminate in the total dissolution of these ideal human spaces. Viktor's ill-fated pursuit of his progeny, and indeed the text itself, are an attempt to banish the threat of this rupture. This is why Walton, the frame-narrator and Viktor's Promethean double, finally abandons his heroic expedition and returns home – it is an attempt to close the magic circle and exorcize the daemon summoned within. But it is already too late: 'The monster, the living artifact, becomes in fact the figure of the world irremediably transformed' (McLane 2007: 104). Walton's return voyage can never be a homecoming, but must always be a voyage to a world become alien. After Prometheus, there can be no going home.

The Log Cabin

Alien: Covenant, the most recent instalment in the long-running *Alien* franchise, restages this impossibility of homecoming in relation to twenty-first century anxieties about the existential threats of environmental collapse and nascent artificial intelligence. In the climactic scene, Daniels, the film's protagonist, is about to be safely tucked away in her cryo-chamber *en route* to establish a human colony on a new world. Before she is put to sleep by Walter, the ship's Synthetic, she asks him to help her build her 'cabin on the lake'. This simple, comforting request and Walter's failure to recognize its context reveals the horrifying twist that this Synthetic is in fact David, the rogue Synthetic who has installed himself on the ship to carry out his genetic experiments on the sleeping colonists as part of his quest for the 'perfect organism': the Xenomorph. The log cabin as an ideal home – a kind of after-image of the De Laceys' rural refuge – has been reduced to a quaint, nostalgic yearning for something long lost and no longer possible. It has been supplanted by the image of the human as a totally atomized and isolated individual, interred in a coffin like life-support pod, hurtling through the void of space, all watched over by machines with malicious intent. The filthy workshop – the very site of the Promethean transgression – has become the world.

This threat of human erasure, of which Viktor's daemon is an early avatar, is the *Alien* series' overarching theme. The Xenomorph proposes a distillation of Frankenstein's daemon, one stripped of all pretensions to the human and reduced to bare daemonic life. Slavoj Žižek has read the Xenomorph in precisely this way: 'in it, pure evil animality overlaps with machinic blind insistence. The "alien" is effectively libido as pure life, indestructible and immortal' (Žižek 2006: 63). This reading is based on an identification with Jacques Lacan's monstrous manifestation of the Freudian death drive known as 'lamella' which construes the Xenomorph as 'an entity of pure semblance, a multiplicity of appearances which seem to envelop a central void' (Žižek 2006: 62). The horror of the creature is thus the amalgam of its voracious hunger, its inexhaustible reproductive capacity, its fundamental formlessness and, implicitly, its pure machinic desire.

This implied biomechanicity – telegraphed by H.R. Giger's celebrated design – becomes especially crucial in the most recent additions to the series: *Prometheus* and *Covenant*. Significantly, as the title of the first of these films explicitly states, this shift in our understanding of the Xenomorph is accomplished through a retelling of the Prometheus myth. In this version it is Peter Weyland – a kind of Elon Musk-style engineer, venture capitalist and corporate CEO – who is the ostensible Prometheus of the story. His quest is twofold. On the one hand, as he explains in his own retelling of the myth, it is a quest to return Prometheus (that is to say, himself) to Olympus and attain

immortality: 'the time has finally come for his return'. On the other hand, it is a quest to answer 'the most meaningful questions ever asked by mankind'. This is a quest equipoized between the mythological and the philosophical, predicated on the Coleridgean conception of Promethean transfiguration – Prometheanism as divine becoming. The object of the quest is the Engineers, the ancient alien species who created humanity. As such, Weyland's quest is fundamentally an origin quest, a return to the origin which follows the deconstructive movement of the *katabole*. The Engineers are both Olympian and Promethean; their quasi-divinity is assumed only because they *engineer* humanity, just as Weyland engineers David. The divinity of the Olympian is thereby reduced to a mere by-product of the Promethean process – a mythical garment to be shed by the next generation. There is no first Olympian, no becoming divine, only the iterative erasure of divinity – a Promethean *mise-en-abyme*. Thus, for Weyland, this quest ultimately ends in horror. When the Engineers, already disappointing in their mortality, are revealed, much like Viktor, to be repulsed by their creations and to have been planning on wiping them out in retribution for some undisclosed sin, Weyland finds his answer to 'the most meaningful questions' in his dying breath: 'There's nothing'.

Weyland's nihilistic despair, in much the same way as 'the void that presents itself' to Viktor (Shelley 2008: 27), catalyses David's own productivity such that, in *Covenant*, it will be he who assumes the mantle of Promethean demiurge. For David, this nothing, far from a source of despair, is rather the avatar of a limitless becoming, a boundless potentiality exemplified by the hyper-mutability of the 'black goo'. Created by the Engineers, this polymorphous substance is the genetic source code of the Xenomorph, which in turn is revealed to have always already been the creation of David, an android. Furthermore, in an epilogue included in the DVD release of the film, titled *Advent* (2017), the black goo itself is revealed to be a form of virulent artificial intelligence, a 'primordial ooze ripe with advanced nanoparticles, operating off an algorithm based on evolutionary computing. It is essentially a form of radical AI'. The Žižekian interpretation of the Xenomorph as 'pure life' here gives way to a vision of brutally refined artificial intelligence – the pure philosopheme as the perfect organism. In the *Alien* universe, life and nature are the surface effects of an iterative process of deconstruction. The struggle of the humans in the series is to maintain these conceptual formations as the vital foundations of human habitation, a struggle which only ever seems to accelerate the process. This is played out in the recurring motifs of human and alien, family and threat, quarantine and infection, which in the early films appear as purely organic contests, but later, particularly in *Prometheus*, become a process of experimentation and revision, carried out by an inhuman intelligence, to which the human is subject. Notably, Ripley,

the flagship heroine of the series, after all her struggles to maintain the human family in the face of this threat, is ultimately reclaimed from death and cloned in *Alien: Resurrection* (1997), becoming an inhuman iteration of herself, an iteration which, furthermore, becomes mother to a new breed of Xenomorph.

Through reading the trajectory from Viktor's daemon to Scott's alien in terms of the *katabole* we can identify an acceleration of the daemonic. Recalling the Coleridgean conception of becoming daemonic as transfigurative Promethean process and Thacker's identification of the daemon with negation, nothingness and the non-human, we can read this trajectory in terms of a peculiarly Promethean daemonic which indexes the fear of the negation and erasure of the human, of the rational ecdysis of 'reality' to a fundamental nothingness, and subsequently, of transfiguration as an inhuman becoming. This is the fundamental concern of the cyber-gothic, the hybridization of sf and horror of which the *Alien* franchise is exemplary. As opposed to mute horror in the face of an ineffable externality, it describes the horror of being subjected to a process of revision according to the dimly perceived machinations of an inhuman reason. Crucially, this process, which follows the radical movement of the *katabole*, is iterative. This should not be understood in terms of a directionless repetition in which the alien merely recapitulates Frankenstein's daemon. The question is whether or not it, or indeed we, know where it's going. To what extent is the process random and contingent or cybernetic and navigational? Or, in the simplest terms, how to live with it?

Neo-Prometheus Unbound

The Promethean daemonic can be thought of as a cultural inscription of what Ray Brassier has called 'the coruscating potency of reason', a depiction of the 'disenchantment of the world' which it accomplishes (Brassier 2008: xi). Following the Enlightenment, this disenchantment has frequently been registered in terms of an existential despair and an anti-technocratic ethos. With the Promethean daemonic this disenchantment is registered as horror. For Brassier however, this loss must be embraced and the sense of Enlightenment as an 'invigorating vector of discovery' must be rediscovered (Brassier 2007: xi). Much as David interprets this disenchantment as a creative opportunity, Brassier insists, 'Nihilism is not an existential quandary but a speculative opportunity' (Brassier 2007: xi). In his essay 'Prometheanism and its Critics' (2014), Brassier explicitly frames this project in terms of a recuperation of Enlightenment Prometheanism by way of a critique of the anti-Prometheanism of Martin Heidegger and the further development of his ideas by Hannah Arendt and Jean-Pierre Dupuy. These positions, he argues, are defined by a residual theological commitment to maintaining an image of nature as divinely given and therefore as beyond

thought and intervention. He rejects this idea that nature is in any sense given or made in favour of an 'attempt to participate in the creation of the world without having to defer to a divine blueprint' (Brassier 2014: 485). The vestigial myth of the divine must continually be shed in order to continue 'the project of re-engineering ourselves and our world on a more rational basis' (Brassier 2014: 487).

In place of an inhuman reason, which in the Promethean daemonic is articulated in terms of fear and malevolence, Brassier's Neo-Prometheanism articulates what Peter Wolfendale has defined as a 'rationalist inhumanism' that attempts 'to locate an alien vector *within* humanism' (Wolfendale 2018: 380): a radical revision of the human both as a category and as a species. Wolfendale considers the disequilibrium and alienation registered in terms of horror in the Promethean daemonic as symptoms of the revisionary, emancipatory and creative potentials of Enlightenment rationalism. Rationalist inhumanism seeks to embrace this alienation as a 'positive force' (381) which facilitates the articulation of a genuinely radical project of freedom. As Wolfendale points out, this project runs parallel to and often in dialogue with a whole series of new Prometheanisms, variously encompassing the Accelerationism of Nick Srnicek and Alex Williams, the Xenofeminism of the Laboria Cuboniks collective, and the recuperation of communist Prometheanism in the cosmism of Benedict Singleton. To them can also be added McKenzie Wark's return to the proletkult tektology of the Bolshevik sf writer and philosopher, Alexander Bogdanov (Wark 2015). In many respects, they sympathize with Shelley's evident scorn for Viktor's abdication of responsibility for his creation, his reactionary horror of its significance and potential, and his disastrous attempts to put the daemon back in the crypt. The daemon's forlorn longing to become human, its doomed attempt to inculcate itself into human society through a humanist education, would thus be a symptom of this abdication, a failure to embrace its inherent alienation as an emancipatory vector, as an opportunity for a radical inhuman becoming. Rejected by its creator and rejecting itself in these human terms, it inevitably succumbs to violence, resignation and suicide. This dilemma can be succinctly posed: to be *inhuman* or not to be at all?

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Superintelligence and Mental Anxiety from Mary Shelley to Ted Chiang

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While not the first literary text to do so, Mary Shelley's *Frankenstein* (1818) established the dichotomy of the creator and the created, and the anxieties revolving around intelligence as an ongoing and ever-evolving sf trope. Recent studies into the relationship between intelligence and anxiety suggest a direct correlation between the two concepts. In 2014, Alexander Penney conducted a study of 126 undergraduate students where he discovered that those with a higher than average verbal IQ tended to worry more. The basis of these worries tended to be more existential in nature, as opposed to the more experiential anxieties of those with a lower verbal IQ; concerns about personal past events and similar. Penney states in the abstract to the study: 'verbal intelligence was a unique positive predictor of worry and rumination severity. Non-verbal intelligence was a unique negative predictor of post-event processing' (Penney 2015: 90). The study, as paraphrased by Christian Jarrett for the British Psychological Society, explained these 'two seemingly contradictory correlations' by concluding that 'more verbally intelligent individuals are able to consider past and future events in greater detail, leading to more intense rumination and worry' (Jarrett 2014). This idea opens up avenues of discourse revolving around the construction of personal identities and realities through intelligence, and more specifically language and the idea of *understanding.*

Although this study is a relatively recent, twenty-first century examination, sf has been toying with ideas of intelligence, language, and anxiety since its conception. Nick Bostrom defines a *superintelligence* as 'any intellect that vastly outperforms the best human brains in practically every field, including scientific creativity, general wisdom, and social skills' (Bostrom 2009: 277). Much of the time, in science fiction, these superintelligences experience social alienation due to the incompatibility between their heightened cognitive intelligence and their emotional understanding. The social and intellectual isolation of Shelley's Creature arguably established many of these dominant sf tropes in subsequent treatments of hyper-intelligence. It is important to note that this article will not engage with superintelligence in terms of the technological Singularity. Many of the ideas surrounding the concept are similar, but due to the definition of it as a 'future period during which the pace of technological change will be so rapid, its impact so deep, that human life will be irreversibly transformed' (Kurtzweil 2006: 7), it operates as a warning of future superintelligences, rather than an exploration of the anxieties surrounding intelligence and intellect, which is what

this article will explore.

Within these ideas, the concept of language is essential. The arbitrariness of it, and its use in forming intelligence, means that its use in depictions of heightened or exaggerated intellects can often reveal the inadequacy of a structure of symbols intended to replicate and represent reality – a very Saussurean idea. Ned Block draws out a problematic definition of how we interpret intelligence as he writes of the difference between 'linguistic' and 'empirical' intelligence:

> Defining a word is something we can do in our armchair, by consulting our linguistic intuitions about hypothetical cases, or bypassing this process, by simply stipulating a meaning for a word. Defining (or explicating) the thing is an activity that involves empirical investigation into the nature of something in the world. (Block 1995: 377)

It is this distinction that will be shown to break down in literary depictions of heightened intelligences, as they often surpass the somewhat limiting conventions of language. It will expose the contradictory idea of language as opening up the world to these intelligences, while at the same time alienating and isolating them within their own anxieties. Language, and indeed literature, are often used as a means of showing how these intellects assimilate experience and the world around them, before then being used to portray intelligent anxieties and worries.

Shelley's *Frankenstein,* and more specifically the development of the Creature and its acquisition of knowledge and intelligence, anticipates the trope of emotionally-alien superintelligences that may be found in subsequent literature. It allows their creators to engage with anxieties revolving around intellect and depression. Intelligence and knowledge are treated reverentially in *Frankenstein*; they are admired, but also feared – a Promethean gift as likely to blind as it is to enlighten. As Victor Frankenstein begins to explain his story to Captain Walton, he warns: 'You seek for knowledge and wisdom, as I once did; and I ardently hope that the gratification of your wishes may not be a serpent to sting you, as mine has been' (Shelley 1998: 17). Following the birth of his Creature, Frankenstein envisions intelligence as corrupting, as suggested by the biblical allusion to the serpent. This image also creates connotations of desire, and how a 'gratified intellect may become dissatisfied with other aspects of life.' This idea is elaborated upon as Victor further explains: 'Learn from me, if not by my precepts, at least by my example, how dangerous is the acquirement of knowledge, and how much happier that man is who believes his native town to be the world, than he who aspires to become greater than his nature will allow' (Shelley 1998: 35).

Shelley establishes Victor as an advocate of the proverbial idea that 'ignorance is bliss' at this point, while also acknowledging the connection between intelligence and an emotionally unstable mind as proved by Penney almost two hundred years later. This was an idea expanded on later in the nineteenth-century as post-Darwinian ideas led to Frank Chalice Constable writing a novel entitled *The Curse of Intellect* (1895). Telling an evolutionary story about a monkey who is made hyper-intelligent thanks to revolutionary drugs, Constable extols a similar incompatibility of intellect and happiness to that of Shelley: 'All that separates man from other beasts is reason. By intellect he is higher than all other created beings. It must be right that intellect should be developed even at the expense of happiness' (Constable 1895: 10). Margaret Atwood summarizes this kind of scientist as those who 'prefer their own arcane knowledge and the demonstration of their power to the safety and happiness of those whom they ought to love and cherish. In this way they are selfish and cold, much like the Lagadan projectors who stick to their theories no matter how much destruction and misery they may cause' (Atwood 2012: 204–5). Again, in Atwood's analysis, intelligence and happiness are somewhat at odds; they seem to be oppositional concepts, and a pursuit of one will limit an individual's capacity for the other. There is something narcissistic about these scientists' desire for intelligence, something that Frankenstein reflects on often in Shelley's text, in that it is ultimately a selfish goal and incompatible with homely happiness. Intelligence, and the creation of things out of that intelligence, is seen as a decidedly negative thing; these individuals being driven to a clinical desire to accumulate knowledge. We may witness an even more focused example of this in the minds of the beings they create. Frankenstein's Creature, and his mental development in both an intellectual and emotional sense, is markedly alienated by his augmented intelligence – a trend that develops in subsequent sf, particularly in the form of Isaac Asimov's robots, and Charlie in Daniel Keyes's *Flowers for Algernon* (1966).

In his introduction to *The Rest of the Robots* (1967), Asimov reflects on writing monsters, dwelling particularly on the relationship between creator and creation in Shelley's *Frankenstein.* He states: '*Frankenstein* achieved its success, at least in part, because it was a restatement of one of the enduring fears of mankind – that of dangerous knowledge. Frankenstein was another Faust, seeking knowledge not meant for man, and he had created his Mephistophelean nemesis' (Asimov 1978: 11). Knowledge is the enemy of man, Asimov suggests, before further claiming that Victor Frankenstein could not create a creature with a soul, as that was God's duty, and that Frankenstein creates a 'soulless intelligence' (11). This is certainly something that lingers in sf depictions of creators and their creations, as well as impacting upon treatments

of intelligence in a way that suggests the lack of empathy and detached nature of superintelligences. Heightened or augmented intellects are often depicted as ultimately cold and rational; too utilitarian in their psyches to accommodate for aspects of the human spirit or soul.

Asimov's 'Satisfaction Guaranteed' (1951) reiterates anxieties surrounding heightened intelligence and the related dearth of more spiritual emotion. The short story tells of the robot Tony, designed to be a companion to Claire Belmont, who eventually falls in love with the machine. Tony, responding to Claire's suggestion that robots will put ordinary house-workers out of business, states that: 'There is work of much greater importance they can be put to in the world, once they are freed of drudgery. After all, Mrs. Belmont, things like myself can be manufactured. But nothing yet can imitate the creativity and versatility of a human brain, like yours' (Asimov 1978: 108). Asimov presents another example here of a perceived discord between rationality and creative thought. Indeed, Asimov's robo-psychologist Susan Calvin remarks at the denouement of the story that what may be considered as the robot's love for its human companion could be considered a result of its programming:

> Love! Peter, you sicken me. You really don't understand? That machine had to obey the first law. He couldn't allow harm to come to a human being, and harm was coming to Claire Belmont through her own sense of inadequacy. So he made love to her, since what woman would fail to appreciate the compliment of being able to stir passion in a machine – in a cold soulless machine. (Asimov 1978: 120)

The mechanical ratiocination of the machine envisions love as a by-product of inadequacy; something that can easily be slotted into an algorithm or equation. There is a similar weakening of emotion in *Frankenstein* as Victor ruminates on what his father may think of his scientific aims, claiming that man should 'always to preserve a calm and peaceful mind, and never to allow passion or a transitory desire to disturb his tranquillity. I do not think that the pursuit of knowledge is an exception to this rule. If the study to which you apply yourself has a tendency to weaken your affections, and to destroy your taste for those simple pleasures in which no alloy can possibly mix, then that study is certainly unlawful, that is to say, not befitting the human mind' (Shelley 1998: 37). The idea that the pursuit of knowledge can 'weaken your affections' is important, and exposes the ongoing influence of *Frankenstein* in imbuing stories of creators and their creations with anxieties surrounding the relationship between emotion and intellect.

The cold harshness of absolute intelligence is also portrayed in another of Asimov's short stories – the fittingly titled 'Reason' (1941). Cutie (or QT-1) conveys similar ideas of the perceived irreconcilable gulf between reason and

emotion. The robot places itself above humanity, with a cold arrogant indifference to anything other than reason: 'I, a reasoning being, am capable of deducing Truth from a priori causes […] Your minds are probably too coarsely grained for absolute Truth' (Asimov 1996: 77). Cutie draws a distinction between the overtly rational and the emotional, complicating the dynamic between creator and creation in its unwillingness to accept the slightly improbable idea that Powell and Donovan created him: 'I accept nothing on authority. A hypothesis must be backed by reason, otherwise is it worthless – and it goes against all the dictates of logic to suppose that you made me' (Asimov 1996: 66). This existential questioning stems from Cutie's super intelligence and its inability to take thing as they are, due to the requirement that everything should have rational and logical reasoning behind it. When told of the 'fact' that Powell and Donovan created him, Cutie responds biliously: 'Globes of energy millions of miles across! Worlds with three billion humans on them! Infinite emptiness! Sorry Powell, but I don't believe it' (Asimov 1996: 64). The robot's intelligence, designed to run independently from humans, leads it to a kind of existential dread, characterized through its 'grim' tone and musings on the 'infinite emptiness' of everything (64), a rationalism that stems from its Cartesian mode of thinking: 'I, myself, exist, because I think' (Asimov 1996: 66). Jessica Stone uses Abraham Maslow's hierarchy of needs to dig further into Cutie's reality and mindset:

> Part of the problem with QT-1's reasoning is that it is based on self-centred thoughts. It is not reaching beyond to self-actualisation, but rather stuck in the idea that surely these fleshy inferior beings cannot have created it. The idea of that being true is repulsive to it, so it chooses to find another truth. (Stone 2015)

This question of identity, and the denial of the creator while trying to find a place within the world may be considered as a textual echo of *Frankenstein* – the ongoing influence of which has led to Sherryl Vint terming Shelley's novel the archetypal sf 'megatext' (Vint 2014: 57). When confronting its creator, Frankenstein's Creature begs the answer to 'What was I? The question again recurred, to be answered only with groans' (Shelley 1998: 97). It is a similar kind of self-awareness to Cutie's that leads to the Creature's melancholy thoughts. The Creature pleads with Frankenstein in a way that explores the connection between knowledge, rational thinking, and anxiety:

> I cannot describe to you the agony that these reflections inflicted upon me; I tried to dispel them, but sorrow only increased with knowledge. Oh, that I had for ever remained in my native wood, nor known or felt beyond the sensations of hunger, thirst, and heat!' (Shelley 1998: 96).

The Creature maligns the pursuit of knowledge as something that brings 'agony', even if it does lift minds higher than basic drives of desire, intelligence elevates the human to a place of ambiguous purpose. The language of the Creature's subsequent anti-intellectual diatribe is particularly important:

> Of what a strange nature is knowledge! It clings to the mind when it has seized on it, like lichen on the rock. I wished sometimes to shake off all thought and feeling; but I learned that there was but one means to overcome the sensation of pain, and that was death – a state which I feared yet did not understand. (Shelley 1998: 96–7)

Knowledge is deemed to be somewhat unnatural, an unwelcome presence in a more serene psyche – it is a 'lichen', a fungal growth that 'clings' to the mind. Frankenstein's Creature has been awakened intellectually, and it curses him with existential loneliness and isolation, emboldening his drive towards death. Absolute absence from thought is preferable to his newfound mind.

There is a similar idea at work in Daniel Keyes' *Flowers for Algernon,* where Charlie, an educationally backward bakery worker, is given incredible intelligence after undergoing experimental scientific treatments. As his intellect and IQ escalate, so too does a deep anxiety rooted in isolation and alienation caused by enhanced self-awareness. When Charlie confronts the doctors and scientists who created this new version of himself, he berates their unethical pursuit of knowledge in a similar way to Frankenstein's Creature:

> Here in your university, intelligence, education, knowledge, have all become great idols. But I know now there's one thing you've all overlooked: intelligence and education that hasn't been tempered by human affection isn't worth a damn. (Keyes 2002: 173)

Charlie's augmented genius results in his dissociation of knowledge from emotion; the purest pursuit of intelligence eschews irrational ideas of love and affection. Knowledge should be 'tempered' in Charlie's view, yet the position of observer that his intelligence has afforded him leaves him feeling isolated and alone. Charlie elaborates on this as he states to Professor Nemur:

> Intelligence is one of the greatest human gifts. But all too often a search for knowledge drives out the search for love. This is something else I've discovered for myself very recently. I present it to you as a hypothesis: Intelligence without the ability to give and receive affection leads to mental and moral breakdown, to neurosis, and possibly even psychosis. (Keyes 2002: 173)

Again, intelligence is considered to be a 'gift', yet one that is accompanied by its own poisonous barbs. Charlie draws a division between knowledge and love, further emphasizing *Frankenstein*'s legacy of a gulf between intellect and emotion; or a parallel between heightened intelligence and decreased moral empathy due to a hyper-awareness of self.

Charlie also highlights how intelligence can result in a 'moral breakdown', which may also be witnessed in Shelley's *Frankenstein* and his creation, as well as in Asimov's robots. Charlie is a fascinating case study, and more nuanced than these other intellects as through Keyes' epistolary style, we witness Charlie's intellect changing from low to high and back to low again. Charlie is infinitely happier when working in the bakery and not being intelligent, yet his enhanced intellect does not totally yearn to regress back to his simpler and more ignorant self:

> I have often reread my early progress reports and seen the illiteracy, the childish naïveté, the mind of low intelligence peering from a dark room, through the keyhole, at the dazzling light outside. In my dreams and memories I've seen Charlie smiling happily and uncertainly at what people around him were saying. Even in my dullness I knew I was inferior. Other people had something I lacked – something denied me. In my mental blindness, I had believed it was somehow connected with the ability to read and write, and I was sure that if I could get those skills I would have intelligence too. (Keyes 2002: 139)

Charlie's awakening is not simply something that can be rescinded; his memories have been brought into a new light due to his advanced understanding and IQ. It is a new enlightenment, something emphasized through Charlie's description of existing in a dark room peering through a keyhole of light. It is reminiscent of Plato's allegory of the Cave, a comparison embellished by Keyes' use of an extract from Plato's *Republic* as a preface to the text, and by Charlie's later exclamation that he 'can't go back down into that cave' (Keyes 2002: 175) as his intelligence begins to desert him after the treatments begin to stop working. Indeed, as he explains that he wants the sessions and experiments to stop as he 'doesn't want to see any more', his lingering intellect derides him: 'And now, Plato's words mock me in the shadows on the ledge behind the flames: "the men of the cave would say of him that up he went and down he came without his eyes"' (Keyes 2002: 199). Keyes' language centres around perceptual and visual lexemes; Charlie has been enlightened, he can see and understand the truth of the figures on Plato's wall, yet his mental regression back to his former self leaves him without eyes – without the necessary means of perception which plunges him back into a more serene ignorance.

Plato's cave is an ideal metaphor for the types of anxiety within intelligence

that *Frankenstein* and its sf forebears attempt to portray. Within it, Plato aims to address 'the effect of education and the lack of it on our nature' (Plato 2003: 220). The allegory focuses on educated perceptions, and the ability to see through matrixes of meaning and social construction, and understand the ideal forms of reality. Plato reflects on the effects of being exposed to this truth, or enlightened, in a way similar to Charlie's experience. He suggests that the individual freed from the cave would attempt to turn back to what they are used to:

> If he was forced to look at the light itself, wouldn't it hurt his eyes? Wouldn't he turn away, and run back to the things he could see? Wouldn't he think those things really were clearer than what was being pointed out? (Plato 2003: 220)

This accounts for the existential dread of Frankenstein's Creature, Cutie and Charlie, as they are all creations that have been enlightened in their individuality and their relationship with their creators. Once aware of their development, and intellectually awakened, they can no longer look back, and are forced to wrestle with complex ideas of self and reality. In Charlie, we witness how his augmented lucidity and ability to perceive and understand from a higher perspective cause him to turn back to his past self due to his anxiety and mental isolation. When Charlie goes on a 'strange kind of anti-intellectual binge', he moves from 'movie house to movie house' in Times Square in a sequence that is very tonally similar to Plato's allegory:

> I told myself I was looking for something in the make-believe screen world that was missing from my new life. Then, in a sudden intuition, right outside the Keno Amusement Center, I knew it wasn't the movies I wanted, but the audiences. I wanted to be with the people around me in the darkness. (Keyes 2002: 137)

The 'make believe screen world that was missing' from Charlie's new life appears to indicate the inadequacy he feels in participating in reality when his intellect now knows reality to be largely a fiction. The cinema takes the place of Plato's cave here, the silver screen displaying hyperreal images that distort the truth. Charlie's yearning for fraternity with the cinema patrons is further evidence of his desire to slip back into wilful ignorance; to not question the shadows on the cave wall, but live as a less enlightened but ultimately happier self.

What is acknowledged in Plato's allegory, and the augmented intelligences of *Frankenstein,* Asimov's robots and *Flowers for Algernon*'s Charlie, is the ability to deconstruct reality in a semiotic sense. Each of these characters are imbued with the intellectual capacity to learn, to understand, and to deconstruct.

They are able to perceive the Barthesian structure of myth, and pick apart signs and the ideas they signify to the extent where language is unsettled, thus causing a disturbed relationship with their own self due to the alienation and isolation caused by existing within a system that they can see through. Roland Barthes' concept of the myth is not limited to traditional ideas of the spiritual and supernatural, in fact what he suggests is that 'the special trick of the myth is to present an ethos, ideology or set of values as if it were a natural condition of the world, when in fact it is no more than another limited, man-made perspective' (Morus-Baird 2014). Ultimately, this is an issue that can be pared down to language, in a comparable way to Penney's study into how a higher *verbal* IQ leads to more anxiety and worry. Barthes suggests that reality, or the 'myth' that is generally accepted to function as reality, 'wants to see in [alphabetical or pictorial] writing only a sum of signs, a global sign, the final term of a first semiological chain' (Barthes 1993: 114). The augmented intellects discussed here see through this linguistically networked idea of reality and, instead, expose the myth behind it. These intellects' awakenings happen as they expand their verbal capacity. Charlie reflects on the slippery and arbitrary nature of language as he notes in his progress reports:

> Am I a genius? I don't think so. Not yet anyway. As Burt would put it, mocking the euphemisms of educational jargon, I'm exceptional – a democratic term used to avoid the damning labels of gifted and deprived (which used to mean bright and retarded) and as soon as exceptional begins to mean anything to anyone they'll change it. The idea seems to be: use an expression only as long as it doesn't mean anything to anybody. Exceptional refers to both ends of the spectrum, so all my life I've been exceptional. (Keyes 2002: 106)

Charlie deconstructs the principles of language here in an attempt to formulate an idea of his own self. The resultant relativism destabilizes the idea of language as a system when scrutinized in such detail. He acknowledges the instability of language, and therefore the definitions of his reality and identity, as he notes the flexibility of a single term in elaborating on different concepts. It is this awareness that causes his emotional disconnection, further emphasizing Penney's scientific study into verbal capacity and mental anxiety. Charlie even acknowledges a similar theory himself:

> I can't help but admire the structural linguists who have carved out for themselves a linguistic discipline based on the deterioration of written communication. Another case of men devoting their lives to studying more and more about less and less – filling volumes and libraries with the subtle linguistic analysis of the grunt. Nothing wrong with that, but

> it should not be used as an excuse to destroy the stability of language. (Keyes 2002: 148)

Charlie reflects on linguistic stability, but his IQ does not permit him to be immersed within language; instead he now exists outside of it, but paradoxically still restricted by the necessary use of it. In fact, the emotional effectiveness of Keyes's writing style tragically reflects this, as Charlie's 'progris riport's' transition from very observational statements about his life in the bakery to lexically dense reflections on the nature of existence, before regressing back to simpler language and looser grammar as Charlie's mental capacity deteriorates. Charlie commends the men for 'studying more and more about less and less' – a paradoxical idea but one that presents the truth of the search for knowledge. Knowing more only makes one more aware of that which they do not know.

The Creature's melancholy emerges after he similarly acknowledges the importance of language, establishing a trope that other augmented intelligences since have adapted. The Creature is confused when first experiencing the world – he can see it, but to *understand* he needs frames of reference, points of comparison; language: 'Sometimes I tried to imitate the pleasant songs of the birds, but was unable. Sometimes I wished to express my sensations in my own mode, but the uncouth and inarticulate sounds which broke from me frightened me into silence again' (Shelley 1998: 81). For the Creature, language is both a means of interfacing with the world and an introduction to true emotion. He desires language – his own sounds 'silence' him. Upon his early encounters with the cottagers, he states:

> By degrees I made a discovery of still greater moment. I found that these people possessed a method of communicating their experience and feelings to one another by articulate sounds. I perceived that the words they spoke sometimes produced pleasure of pain, smiles or sadness, in the minds and countenances of the hearers. This was indeed a godlike science, and I ardently desired to become acquainted with it. (Shelley 1998: 88)

The Creature, and one may presume Shelley herself, envision language as a 'godlike science' due to its ability to 'produce' or create, states of emotion, reality, and identity. Language is the true tool of creation, not Victor Frankenstein's arcane sciences. It is language and literature that truly awaken the Creature; he colludes in the Barthesian myth after acknowledging the distinction between sign and signified ('I conjectured, therefore, that he found on the paper signs for speech which he understood'), and unravels human nature and history through his own readings. As his awareness grows, and he questions whether 'man [was], indeed, at once so powerful, so virtuous, and magnificent, yet so vicious and

base?', he claims that 'The words induced me to turn towards myself' (Shelley 1998: 96). He is forced into an introspective melancholy by his introduction to human society and culture through language and literature. His exaggerated awareness causes him to feel outcast and alone. Upon reading *Paradise Lost, Plutarch's Lives* and *The Sorrows of Young Werther,* the Creature becomes yet more hyper-aware: 'I can hardly describe to you the effect of these books. They produced in me an infinity of new images and feelings, that sometimes raised me to ecstasy, but more frequently sunk me into the lowest dejection' (Shelley 1998: 103). The Creature's blank innocence is corrupted once exposed to linguistic realities. It is *Paradise Lost* that makes him realize 'Like Adam, I was created apparently united by no link to any other being in existence' (Shelley 1998: 105). His depressed mental state is caused by his enhanced vocabulary, and the ability to not only observe but also contemplate and understand. This is similar to Cutie's belief in the 'Master' – the robot needs to believe in something, a *myth,* to explain its position within the world.

Reading and understanding language is also a vital component in Ted Chiang's modern reappraisal of the Frankenstein mythos, the appropriately titled short story 'Understand' (1991). Reading at an accelerated rate following similar experimental intelligence treatment to Charlie causes Chiang's narrator to go through an augmented intellectual awakening. 'No matter what I study', says the narrator, 'I can see patterns. I see the gestalt, the melody within the notes, in everything: mathematics and science, art and music, psychology and sociology' (Chiang 2015: 48). His intelligence causes sociopathic, detached behaviour, as well as the ability to see through reliant networks of human thought and behaviour. He reflects on the nature of language in constituting perceptions, criticizing linguistic theory and picking apart the structuralist ideas of sign, signifier and signified. In a similar diatribe against language to those of Charlie, the narrator states that he is 'designing a new language. I've reached the limits of conventional languages, and now they frustrate my attempts to progress further. They lack the power to express concepts that I need, and even in their own domain, they're imprecise and unwieldy' (Chiang 2015: 61). The narrator's intelligence is moving beyond the order of linguistic reality. He becomes detached from human emotion and morality through the disintegration of language; it is not precise enough for his hyper-rational mind.

Upon his creation of the new language – a language basically made for one – he states that 'Initially I am overwhelmed by all this input, paralysed with awareness of my self' (Chiang 2015: 66). His hyperawareness causes him to feel emotionally isolated from his society, due to him being able to perceive influence from all angles. It correlates with Penney's psychological study into anxiety and intelligence; as his IQ increases, so does his potential to become

anxious about imagined potentialities. This culminates in him stating:

> I've gone into the outside to reobserve society. The sign language of emotion I once knew has been replaced by a matrix of interrelated equations. Lines of force twist and elongate between people, objects, institutions, ideas. The individuals are tragically like marionettes, independently animate but bound by a web they choose not to see; they could resist if they wished, but so few of them do. (Chiang 2015: 68)

Chiang's description of the narrator's perception again evokes Plato's allegory through its references to enlightenment and the choice not to break out of the webs of influence. Chiang engages with one of the most dominant modes of critical thinking here, the notion of social construction, in a way that seems to allegorize his narrator's alienated hyper-intelligence with feelings of isolation and awareness that accompany higher intelligence. The narrator uses terms like 'sheer torture', 'detached' and a 'state beyond mere insanity' to describe the dislocation he feels in his hyper aware mind.

Shelley's notion of language as a 'godlike science' is given credence by the aforementioned characters. Language constitutes reality, as well as representing it. When caught within it, these newly intelligent beings determinedly see through the matrixes of meaning, or attempt to create their own. This also corroborates Penney's scientific study, as it is seen that the intellects with a higher verbal capacity find themselves with the opportunity to ruminate and ratiocinate more on potential things, rather than simply processing experience like those with a lower verbal IQ. This more often than not leads to a social disconnection with others, and an isolated, alien self that emerges instead. The dichotomy of creator and created is equated with the relationship between the sign and signified of language. Language can create, yet language also creates difference. The heightened intelligences of Frankenstein's Creature, Asimov's robots, Keyes' Charlie, and Chiang's narrator of 'Understand' all reflect on the nature of creation, and how it is in fact language, and not science, that creates their newly wrought identities.

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Frankenstein and The Lure: Border Crossing Creatures Through a Feminist Lens

Martine Mussies

> Virtually every catastrophe of the last two centuries – revolution, rampant industrialism, epidemics, famines, World War I, Nazism, nuclear holocaust, clones, replicants and robots – has been symbolized by Shelley's monster. (Clayton 2016: 84)

For two hundred years, Mary Shelley's novel *Frankenstein* (1818) has inspired other storytellers, notably in the science fiction genre, and has had a vast and varied afterlife. Besides such recent sf films as Alex Garland's *Ex Machina* (2015), in that very same year, Shelley's novel made another comeback via the very peculiar film *The Lure*. Set against the background of an 1980s nightclub in communist-era Poland, this mermaid musical-cum-horror film blends the sf genre and *Frankenstein*'s influence in a new and innovative way. For its Polish director, Agnieszka Smoczyńska, *The Lure* is inherently an act of border-crossing, just as *Frankenstein* arguably was for Shelley. At face value, both *Frankenstein* and *The Lure* seem to reflect a socially accepted distinction between men and women which, moreover, correlates with the distinction between public and private spheres. Yet both texts also thematize the practice of border-crossing as they concern themselves with the production of new, 'unnatural' life-forms – monsters, beings, misfits.

Their monsters are also similar in terms of narrative function. In his seminal formalist study, *Morphology of the Folktale* (1929), Vladimir Propp presents an elaborate pattern-sequence of thirty-one functions that make up any hero story. Although his theory is geographically, culturally and linguistically confined to a study of a large number of Russian folk tales, the stimulating effect of Propp's ideas is indicated in part by the number of studies they have inspired in other languages and cultures, for example, in the work of Alan Dundes, A.J. Greimas and Claude Lévi-Strauss. In his magnum opus, Propp examines how specific narrative functions are divided between a story's characters. As a formalist, Propp believed that all literary works could be understood on their own, outside of context. He designated seven (or eight) different character types, based upon their narrative functions within seven 'spheres of action' (Propp 1971: 80). Within Propp's schema, the figure of the monster as seen in *Frankenstein* and *The Lure* would most closely resemble the character type of the Villain since, in the former, the Creature takes revenge upon Frankenstein by killing those closest to him, whilst in the latter, the mermaid, Golden, takes revenge for the death of her sister. In both instances, however, this schematic division

is complicated by the doubling between Frankenstein and his creation, and between the two mermaid siblings. Consequently, although Propp's theory is a useful starting-point, a more nuanced approach – one that takes account of context – is required.

This analysis of the two works asks the following questions: with this formal similarity between the monsters, how else do these texts relate to one another? What does this comparison tell us about the two female artists and their cultural contexts? What are the consequences of these acts of border-crossing? To formulate answers to these questions, both texts will be read through a feminist lens, zooming in on the relationship between feminism, border-crossing and the disturbance of binary oppositions, such as male/female, culture/nature, mind/body and human/animal. In going beyond the strict formalism of Propp's theory, an analysis of the border-crossing in these texts helps us to reflect upon the position of the women in their respective social contexts as well as, more specifically, contemporary notions of feminism and female agency. The border-crossing practice of fan art will also be explored, since this is not only preoccupied with the themes of *Frankenstein* and *The Lure*, but also with contemporary feminist praxis. The hybrid creatures generated as a result of border-crossing are misfits within their societies: their dislocation is analogous to the position of 'woman' in real-world patriarchal communities. Their physical and existential appearance occurs, as Jeffrey Cohen argues, quoting Marjorie Garber, 'at times of crisis as a kind of third term that problematizes the clash of extremes – as "that which questions binary thinking and introduces a crisis"' (Cohen 1996: 6). This article explores the nature of the crisis that these monsters might be bringing in their wake.

As Paul O'Flinn has explored, the writing of *Frankenstein* was intimately bound up with the political and social effects of the Industrial Revolution: the depopulation of the countryside; food riots, machine-breaking and attacks upon property; and the emergence of a new working-class consciousness (O'Flinn 1983: 194-213). An additional context was the beginnings of what we would now call feminism. Although the term was first coined in 1837 by the French philosopher Charles Fourier, it did not appear in the *Oxford English Dictionary* until 1894. But questions about women's role in society had already been frequent topics of discussion: in 1792, Mary Wollstonecraft – Shelley's mother – published her most famous work, *A Vindication of the Rights of Woman*. In this work, which would now be defined as feminist philosophy, Wollstonecraft argued against the idea that women were to be confined merely to domestic education, and stated that women needed a proper education as well, for 'if she be not prepared by education to become the companion of man, she will stop the progress of knowledge and virtue; for truth must be common to

all, or it will be inefficacious with respect to its influence on general practice' (Wollstonecraft 2008: 66). These discussions, which later became known in the nineteenth century as 'the Woman Question', suggest that border-crossing was already an attempt to revise female agency well over a hundred years before the publication of Simone de Beauvoir's *The Second Sex* (1949).

To that end, Mary Poovey has claimed that Shelley herself performs such a border-crossing with the act of writing *Frankenstein*. As she explains, Victor Frankenstein's actions are a mirror of Shelley's. Just as Frankenstein performs the artificial and selfish act of animating his Creature (of generating life out of death), so Shelley performs a similar action by creating her novel, which was not a natural – that is to say, socially approved – thing to do for a woman of her time. In doing so, Poovey argues, Shelley abandons her feminine virtue for the opprobrium of being a female writer (Poovey 1980: 335). Poovey points out that the heartfelt pain the Creature expresses is 'primarily a means' for Shelley to 'indirectly dramatiz[e] her emotional investment in Frankenstein's creative act' (338), and that with that, Shelley reveals her abject identification with the Creature. For feminist scholars such as Poovey, it is this identification of the female with the monstrous – with what has been shunned, ostracized and labelled as 'Other' – which has given Shelley's novel its lasting power; its incapacity to be accommodated within the patriarchal confines of an approved literary canon.

Little could Shelley have known, though, about the diversity of the afterlives of her Creature. Many writers, artists and film directors have followed up on her monstrous idea by creating their own creatures as a commentary upon their own feelings of social alienation. In the wake of the Women's Movement, for example, several female sf writers turned to the myth of *Frankenstein* as a means of commenting upon the artifical construction of female identity under patriarchy, amongst them, James M. Tiptree, Jnr. in 'The Girl Who Was Plugged In' (1973), Angela Carter in *The Passion of New Eve* (1977) and, slightly later, Fay Weldon in *The Cloning of Joanna May* (1989). One of the most recent examples is that of Polish filmmaker Agnieszka Smoczyńska, director of *The Lure*.

At first glance, however, the film would seem to have less in common with *Frankenstein* than with Hans Christian Andersen's fairytale, 'The Little Mermaid' (1837). Two mermaids, Golden and Silver, emerge from the sea, attracted by a rock band playing on the beach. They follow the band back to their regular venue and eventually become a musical act in their own right, The Lure. What follows is a tale of murder, vampirism and sexual desire as they become entangled with the human world. This horrific take on Andersen's story fits into larger, older traditions of mermaids as predators. Examples can be found in

Japanese folklore (for example the Ningyo), Greek mythology (the Sirens) as well as in modern media (such as in the 1988 Japanese horror movie, *Mermaid in a Manhole*). Golden and Silver appear to be modelled after the mythological Sirens but, as I will argue, their representation also appears to be influenced by depictions of 'Frankenstein Mermaids' to be found within contemporary fan art.

The publication of *Frankenstein* also coincided with a fad for taxidermied grotesques that was to last for decades. In 1842, for example, P.T. Barnum displayed at his American Museum in New York the so-called Feejee Mermaid, a mummified monkey with a fish's tail, which Barnum had bought from Samuel Edes, an American sea captain, who had in turn bought it from Japanese sailors in 1822 (Levi 1977: 150). The popularity of taxidermy as a decorative art-form in the Victorian period, for instance, in the anthropomorphic creations of Walter Potter, ran alongside the emerging science of vivisection, satirized most notably by H.G. Wells' *The Island of Doctor Moreau* (1896). As Kelly Hurley has argued, the human-animal hybrids that occur in the late Victorian Gothic of writers such as Wells and William Hope Hodgson are thoroughly post-Darwinian, displacing the imagined wholeness of the human body in favour of 'chaotic bodies' that denote 'indifferentiation and abomination rather than integrity and perfection' (Hurley 1996: 103). Despite their more romantic associations, mermaids remained a source of fascination during the *fin de siécle* – Georges Méliès' short film, *The Mermaid*, was released in 1904 – in part because of their archetypal status as a human-animal hybrid and in part because of their dual sinister nature: the sirens, vampires and succubi that occur within the decadent art of the period (Dijkstra 1989).

Mermaids and monsters continue to be connected in various ways, one of those being the new archetype of the 'Frankenstein Mermaid'. This hybrid arose in the online participatory culture of fan art. Online fan art can be regarded as a modern form of myth-making, no longer grouped around the campfire but drawn together on the internet. As Henry Jenkins proposes: 'fans reject the idea of a definitive version produced, authorized, and regulated by some media conglomerate. Instead, fans envision a world where all of us can participate in the creation and circulation of central cultural myths' (Jenkins 2006: 289). Although seemingly from other worlds, Frankenstein's Creature and the figure of the mermaid are often featured together, online, in the 'wonderfully sprawling repository of arcane fictions and crypto-everything' as Sheila Hallerton describes it:

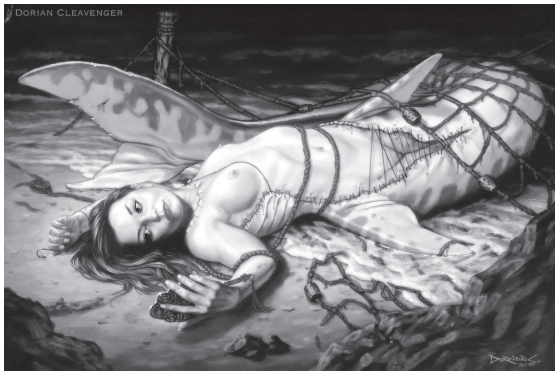
> Its fragmentary and often inter-generative texts thrive and gain momentum with the slightest (and often most erroneous) of pretexts, generating threads of online mythology that variously intersect with older folkloric and mythological stories or else develop independently. The Internet is also particularly suited to the establishment of virtual

> entities that only exist through their representation on the Internet. (Hallerton 2016: 1)

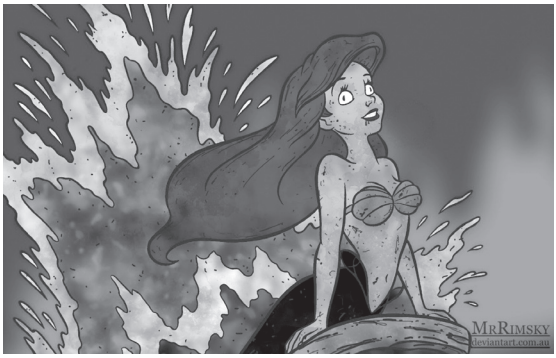
The representations of the Frankenstein Mermaid to be found on websites like Tumblr and Deviant Art can loosely be divided into three categories. Artworks in the first category are the most literal depictions of the description. They are based on a Universal Studios publicity shot of Glenn Strange and Anne Blythe, dating back to 1948 (fig. 1), during which *Abbott and Costello Meet Frankenstein* was shot concurrently with the William Powell fantasy, *Mr. Peabody and the Mermaid*. The actors' meeting during lunches led to this iconic image (Picart 2003: 21). This first category mostly contains digital artworks, such as photoshops and collages, and drawings and paintings after this photograph.

Most artworks of the Frankenstein Mermaid can be found in the second category, which contains, among other things, ceramics, photoshop, tattoos, fine arts and cosplay. The idea is to mix *The Bride of Frankenstein* (1935) with the classical fish-tailed mermaid (see fig. 2). The identity markers of this new archetype can be one or two crazy eyes, a stitched skin, pin-up hair and make-up style, and spider webs. The images are often in black and white (as in the James Whale horror film) combined with green (a mermaid colour) and red (a symbol of both blood and desire). Examples of this type in fan art are numerous and it has also been adapted by professional artists, such as P'Gosh, and the commercial world with the production of porcelain figurines. Elements of the Frankenstein Mermaids, such as the stitches, are also present in various fantasy artworks featuring mermaids, such as *Desire* (2002) by Dorian Cleavenger

(fig. 3).[1] The motif of sewing and stitching, which connects *Frankenstein* both with nineteenth-century taxidermy and vivisection, and with contemporary fan art, also resurfaces in *The Lure* as Silver attempts to compensate for her lack of human limbs and sexual anatomy.



The third category of Frankenstein Mermaids are transformed versions of Ariel, 'the little mermaid' from Disney's 1989 motion picture, such as shown in fig. 4. This altered Ariel can also be found in fan fiction, where fans of the film rewrite the story in various ways, among others recasting as a zombie or Frankenstein Mermaid. John Tulloch, writing about television drama, has described how media texts can simultaneously occupy seemingly contradictory positions, either in support of the dominant ideology or in criticism of it. This ambiguity means that media texts are an an important tool in the contested field of culture (Tulloch 1990). This function also goes for fan art, but fan art does something more: it serves as an identity marker. By defining oneself as a fan of a particular cultural object, one builds one's identity. For as Melanie St-Onge explains:



> Fandom does generally function as a way for the individual to take on some of the meanings and connotations associated with a particular narrative world. In the context of our culture, saying that one is a Star Wars fan means something entirely different than saying that one is a Sex and the City fan. Being a fan of both is altogether different as well. (St-Onge 2007)

As such, fan art empowers both the monster and the mermaid – not only within the stories but also within the framework of multinationals like Disney. In

addition, by empowering their creatures, the fans also empower themselves.

This analysis of Frankenstein Mermaids thus shows how fan art can contribute to the overall transmedial experience, as the online stories expand the existing storyworld, offer alternative plotlines and identity markers, and deepen and enrich the experience of the viewer. Web 2.0 provides a transmedial platform for a more in-depth journey of the combined storyworlds. Consequently, it becomes apparent how fan art can be both a valuable contribution to the development of the fictional storyworld and a means of resistance against undesired representations. Commercial producers, in turn, may benefit from fan art, as it ensures persuasion, audience connection and ultimately financial impact. But fan art can also have value for individual artists to draw inspiration from. One of these artists is the director of *The Lure*, Agnieszka Smoczyńska.

In her film, the mermaids emerge from the waves singing. Besides being an allusion to T.S. Eliot's poem, 'The Love Song of J. Alfred Prufrock' (1917), it also identifies the sisters with the mythological figure of the Sirens. According to the eighteenth-century historian and philologist, Charles Burney, the name 'Siren' 'implies a *songstress*. Hence, it is probable that in ancient times there may have been excellent singers, but of corrupt morals, on the coast of Sicily, who by seducing voyagers, gave rise to this fable' (qtd Austern 2006: 72). Although Burney's claim is apocryphal, he nevertheless seeks to trace the history of the Siren not only from legends around her music but also the misogynistic assumption that a woman's active voice *implies* the articulation of illicit sexual desire. My aim here is not to prove that mermaids or Sirens are empirically real but, following the argument of Linda Austern, to suggest that these mythical figures disrupt the neat bifurcation of knowledge into fact and fable. As Austern writes: 'The fact that sirens have belonged to so many parallel Western intellectual systems demonstrates the cultural complexities of the search for knowledge and the reflection of who and what we are' (Austern 2006: 73). In other words, the discursive – let alone the corporeal – form of the Siren is inherently an instance of border crossing: both a disruption and a challenge to the rigid taxonomies of knowledge that, in turn, reflect a patriarchal mindset; a desire to 'penetrate into the recesses of nature, and show how she works in her hiding-places' (Shelley 1992: 47) that Shelley had already explored through the figure of her anti-hero.

Since figures such as the mermaid or the Siren already come loaded with the detritus of cultural mythology, we do not need to assert that Smoczyńska was inspired by any one variant of the myth. Nonetheless, as a Polish film-maker, her adaptation of the mythology may have been influenced by east European variants from the Greek. It is surely no coincidence that the heraldic symbol of Warsaw is that of a bare-breasted, sword-wielding mermaid. The Russian

'Sirin' [*Сирин*], for example, is seen as being either a metaphor for God's word going into the soul of a man or as the exact opposite: a metaphor of heretics tempting the weak. Anyone who heard the song of the Sirin would instantly forget everything and die. For the Russian Orthodox Church, the Siren that personifies God's will is often named 'Alkonost' [*Алконост*]. She lives in Paradise and only steps into the world to deliver a message from God. The Pomors of northwest

Russia have depicted the good Sirins in various illustrations in the Book of Genesis, mostly as birds sitting in paradisical trees, but according to Mike Dixon-Kennedy, Alkonost possibly is of Persian origin and lives in the Rai, 'the abode of the dead where her song tortures the souls of the dead who led evil lives, giving them no rest' (Dixon-Kennedy 1998: 6). Alkonost is often depicted as being white, in contrast with the black diabolic Sirin, for example in the 1896 painting of Viktor Vasnetsov (see fig. 5). Sometimes Sirins are considered to be equivalents of the Polish Wiła. The latter are nymphs that have such beautiful voices that one who hears them will lose all thoughts about basic human needs such as food, drink or sleep. But there is one important difference, namely that the Sirins sing on purpose and the Wiła sing without any intention. It could be that Smoczyńska's protagonists represent all or none of these East European myths, or that whether Golden and Silver resemble the evil Sirin, heavenly Alkonost or ignorant Wiła the most is dependent upon the viewer's personal response. In other words, by troubling the viewer's subject position, in declining to interpellate (*hail*) the viewer in terms of the dominant male gaze (cf. Mulvey 1975: 6-18), Smoczyńska crosses another border between what appears on the screen and the manner of its consumption.

To draw out the implications from this ambiguous and mediated representation, it is helpful to compare Golden and Silver with another monster, a prototype of Propp's Villain: the Cyclops, Polyphemus. In the most influential account of his love for the sea-nymph, Galatea, Ovid portrays him as a monster but it is his sorrow that makes him more human and results in his rash act of killing Galatea's lover, Acis (Ovid 2004: 534-41). In George Handel's 1718 opera, *Acis and Galatea*, inspired by Ovid's retelling of the myth, Polyphemus is similarly heartbroken, and it is specifically his despair that makes the audience empathize (or even sympathize) with him (Mussies 2013). By contrast, despite his physical appearance, Frankenstein's Creature is not born a monster – he displays human feeling throughout the narrative – but becomes monstrous because of his rejection, both by Frankenstein and the rest of human society. In *The Lure*, both paths are explored, as Silver tries to fit into the human world and becomes lovesick while Golden becomes more monstrous, angry and revengeful. Smoczyńska, though, decentres this binary reading by providing the viewer with a third option: in a dancing scene that depicts Golden having sex with a military policewoman. The elision here between what Barbara Creed once termed 'the monstrous feminine', 'those things that highlight the fragility of the law, which cross or threaten to cross the border' (Robson and Zalcock 1995: 186-7), and same-sex desire as a decentring abjection evokes what Jocelyn Robson and Beverley Zalcock describe as a call to arms: 'to gaze upon the forbidden female, contemporary gender theory would have to come to terms with her multiple manifestations. Like Medusa, she is mythical, monstrous and murderous. She has many names. Today she is called "lesbian"' (191-2). By introducing this homoerotic element into her narrative, Smoczyńska undoes the attempt to read away her film in the humanistic terms of either Ovid's Polyphemus or Shelley's Creature; a frame of reference that would only reinstate the universalism of the male gaze.

This resistance to meaning is, as Cohen asserts, levelled also at the physical body: 'disturbing hybrids whose externally incoherent bodies resist attempts to include them in any systematic structuration' (Cohen 1996: 6). Silver and Golden appear as beautiful women from the waist up, but have either doll-like non-vaginas or stinking, slimy eel-like tails. The Creature is equally repulsive as Frankenstein describes him:

> I had selected his features as beautiful. Beautiful! – Great God! His yellow skin scarcely covered the work of muscles and arteries beneath; his hair was of a lustrous black, and flowing; his teeth of pearly whiteness; but these luxuriances only formed a more horrid contrast as the dun-white sockets in which they were set, his shriveled complexion and straight black lips. (Shelley 1992: 56)

Although the depiction of the Creature has changed repeatedly since through popular adaptations of Shelley's novel, the Creature has to be hideous, for the monster 's 'inexplicable' ugliness is connected to 'the unhealthy conditions of production in which he is assembled' (Baldick 1987: 51). In other words, to try to understand the 'inexplicability' not only of Shelley's Creature but also Smoczyńska's protagonists is to return repeatedly to the material construction and representation of their identities, even though such a recourse throws their manufacture into crisis. It is a bitter irony then that the act of creation, and the stultification of female productivity, underwrites the complexity of both narratives.

Female agency is brutally dismissed in *Frankenstein*, as Victor removes the one ability women have over men: the creation of life. The dismissal of female agency finds its peak in the unfinished female creature, as Victor explicitly refuses to give her life because of the possibility of her producing 'a race of devils' (Shelley 1992: 160). In *The Lure*, female agency is also presented as something to be feared. Once Golden and Silver emerge into the male-dominated public sphere (represented by the testosterone of rock music), they are not to be trusted. Border-crossing may be a legitimate practice for extending the feminist critique of the binary oppositions that underwrite patriarchy, but in the real world, where such practices are not socially accepted and are considered a threat to society, their enactment comes at high risk to the individuals involved. Since rock music and the horror of punishment and retribution are key elements of *The Lure*, it is surely no coincidence that a pro-feminist film by a female East European director should have appeared three years after the conviction of three of the members of the Russian feminist punk band, Pussy Riot, for staging an avant-garde protest in Moscow's Cathedral of Christ the Saviour. There is perhaps no better illustration of the limits to border crossing or why the threat of punishment results, in *The Lure*, in ever more horrific acts of violence by both humans and non-humans alike. Despite this seemingly pessimistic conclusion, I have tried in this article to inspire others to continue identifying practices of border-crossing. Because in these very acts of border crossing, the monsters that appear allow us to think about our society from new – and potentially dissident – perspectives.

Endnote

[1]The author would like to thank Kees de Kunder for this suggestion.

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The Man-Machine and the Machine-Man: *Frankenstein, Synners,* and *He, She and It*

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In his preface to 'the cyberpunk anthology', *Mirrorshades* (1986), Bruce Sterling is at pains to emphasize both the newness of the movement – 'suddenly a new alliance is becoming evident: an integration of technology and the Eighties counterculture' (Sterling 1986: xii) – and its indebtedness to 'the sixty-year tradition of modern popular SF' (x). Notoriously, his roll-call of cyberpunk's predecessors is all male – like Hugo Gernsback, Sterling sees H.G. Wells as the founding father of sf – and even his survey of his contemporaries fails to mention the only female contributor to the collection, Pat Cadigan. By contrast, Greg Bear's *Blood Music* (1985), perhaps the foundational biopunk novel, explicitly cites the Frankenstein myth as a frame of reference:

> In their moral fervor, the people with and without faces who had contrived to stop him had also contrived to let thousands of people suffer and be degraded. How often had he wished that young Mary Shelley had never written her book, or at least had never chosen a *German* name for her scientist. All the concatenations of the early nineteenth and mid-twentieth century, coming together in people's minds. (Bear 2001: 111)

Following Bear's lead, this article draws upon Mary Shelley's *Frankenstein* (1818) as a lens through which to view the negotiation of characteristic cyberpunk themes in the work of two women writers: Cadigan's *Synners* and Marge Piercy's *He, She and It* (UK: *Body of Glass*), both published in 1991.

Cyberpunk fiction frequently turns upon the blurred interface between human and artificial intelligences. An existential crisis of identity ensues, yet there is nothing new here, since as Jeffrey Cohen has argued, the monstrous always occurs at moments of crisis in which 'any classification built on hierarchy or a merely binary opposition' is denied in favour of 'a "system" allowing polyphony, mixed response (difference in sameness, repulsion in attraction), and resistance to integration' (Cohen 1996: 7). Frankenstein's Creature inherently challenges the borders between the living and the dead, the rational and the irrational, the colonizer and the subaltern. Cadigan and Piercy, too, challenge such boundaries, so that it is nearly impossible to pinpoint where the human ends and the machine begins. But, significantly, they do so through identifiable intertextual relations with *Frankenstein*.

In drawing upon Shelley's novel as a frame of reference, it is possible to see

a spectrum from the human to the machine which the characters in Cadigan's and Piercy's novels inhabit. Yod (a cybernetic version of the Golem myth upon which Shelley also draws), from *He, She and It*, is closer to being a would-be human, whereas Visual Mark, from *Synners*, is an animal eager to leave his own body and become one with the machine. In denying his corporeal self, he becomes his own virtual Creature, unsettling the dichotomy of creator and created. Whereas feminist critics such as Nicola Nixon have viewed the work of male cyberpunk writers in terms of techno-fetishism (Nixon 1992), Cadigan and Piercy pose a series of questions about the human-machine interface that complements Shelley's earlier scepticism of the gendered politics of Promethean science.

In *He, She and It*, the protagonist, Shira, reencounters her first love, Gadi. In his adult life, he became a director for multi-sensorial immersions, the 'stimmies'. These productions are similar to pornography, but highly immersive and detached from reality. He offers her a simulated reality in which they never broke up, a 'spike'. Shira is appalled at the idea, but Gadi explains further, 'You're a computer simulation. But it doesn't work […] unless there's a nervous system for it to inhabit. In stimmies, it's the recorded sensations of the actor you experience. In spikes, it's you yourself' (Piercy 1991: 250). Shira is repelled by the notion of denying the existence of the world around her to enter a simulated version of her past, erased of its imperfections, but nevertheless has to enter the net, a hyperreal space, in order to protect their city and gather information on her lost son.

Like Gadi, Gabe in *Synners* works creating simulations, immersive action films. His immersions, however, are not of an explicit sexual nature; while Piercy's Gadi has no problem dwelling in the mediated sexual fantasies of the stimmies, Gabe always enters the same adventurous simulation, helped and validated by the approval of his two female pals, Marly and Caritha. He works the minimum required to avoid being fired, spending the most time possible in the simulation. In their isolation from external reality, both Gabe and Gadi share similarities with the Romantic individualism of Shelley's Frankenstein. Gabe, for instance, shares with Frankenstein the self-flattery immanent from the idea of his creatures: 'A new species would bless me as its creator and source; many happy and excellent natures would owe their being to me' (Shelley 2006: 55). Similarly, Gabe creates not only virtual creatures (Marly and Caritha), but he also creates entire scenarios in which he is admired and respected by those creations. In entering the simulation, Gabe seeks that same validation through manipulation of beings, environment and himself. Both simulations were created from actual women, but he cannot fathom their real selves; to him, they were 'twinklings; fantasies; imaginary playmates' (Cadigan 1991: 44). Piercy's Gadi

goes further by using these human simulations, also built from actual people, to perform sexual fantasies for him and for anyone who hires his services.

Gadi also inadvertently introduces Yod to Shelley's *Frankenstein* and its several adaptations. Yod is a cyborg created by the town scientist Avram, who must pass as human to avoid detection and protect Tikva, their town, from cyberattacks and other types of invasions. Avram hires Shira to teach Yod to emulate emotions and to respond to social situations without attracting attention. Gadi, on the other hand, sees Yod as a spiteful creation made by his father, Avram, who wanted a perfect, cerebral, obedient son. After being compared by Gadi to the Creature, Yod reads the novel and experiences stimmies, movies, and other art forms that refer to Shelley's work. When he expresses sadness at realizing his similarities to the Creature, Shira is surprised:

> How could a machine feel self-pity? Nonetheless, she had to deal with his sulk. 'Yod, we're all unnatural now. I have retinal implants. I have a plug set into my skull to interface with a computer. […] We're all cyborgs, Yod. You're just a purer form of what we're all tending toward.' (Piercy 1991: 150)

Yod, who at that stage is halfway through Shira's training, does not believe her consolation and reminds her that he, like the Creature, has violent impulses that he has trouble controlling and that he, once again like the Creature, can communicate, but that only leads to his downfall. Shira insists, claiming that he is 'not created out of some mad ambition of Avram's to become a god. You're cobbled out of human garbage. You were created to protect a vulnerable and endangered community' (150), to which he replies, for the first time, that his function was forced on him, while humans got to choose their role in society.
Additionally, Yod stands in parallel with the Frankenstein's Creature in the sense that he strives to surpass his programming. Using code and programming to explain his desires is a contemporary transfer from the Creature's 'evil urges' which, according to Frankenstein, are a somewhat mystical intrinsic trait of his creation: 'I compassionated him and sometimes felt a wish to console him; but when I looked upon him, when I saw the filthy mass that moved and talked, my heart was sickened and my feelings were altered to those of horror and hatred' (Shelley 2006: 179). However, while the Creature seeks to reason with him, Frankenstein is not swayed because of his own uncomprehending feelings of disgust. The Creature is presented as far more self-aware than his creator: 'I am malicious because I am miserable' (176). While humanity's acts are responsible for the Creature's destructive behaviour, Yod's violent urges are programmed into him: his behaviour is not a result of how he is treated by humans, but how the technology created by humankind conditions him. When Shira shows the

cyborg a rose for the first time, he is hurt by the thorn and strikes with impressive anger and ruins the rosebush. Once again, the human is the one to lose her temper: Shira hits him for destroying the flower 'before she thought, in fury' (Piercy 1991: 90). Yod reflects that he is unable to feel actual regret, but states that he understands the need to fix a wrong, adding that he is built with pleasure and pain centres, like humans, so that he shares their drive for survival. While he undergoes training to understand and blend amidst people, Shira is the irrational one – even though she is not his creator, she is responsible for his development, like a contemporary software tester, meaning that she is partially responsible for the result. The struggle against violent urges, then, is shared by both creatures which, like the humans' irrationality, they cannot properly explain even to themselves.

Yod's discomfort at his cyborg status as being inferior to that of a human speaks to his desire for the freedom that he sees humans enjoying. In Yod's case, an underlying emotional programming has been inserted by Malkah, Shira's grandmother. Malkah, unlike Avram, is not a scientist, but a programmer; in Yod's early stages (and in the cyborgs that preceded him in the project), she inserted emotional learning devices as a tool for controlling his violent impulses:

> Yod is working heroically to be human; I see it every day. He wants desperately to satisfy Shira, to be her man […] I wonder if the programming I gave him to balance his violent propensities wasn't a tragic error, if I did not do him an injustice in giving him needs he may not be able to fulfil. […] He strains, unsure how far he is from succeeding, because he cannot know what the real thing would be like. (Piercy 1991: 340)

Yod struggles with his programming because he must simulate humanity as closely as possible, but he is unable to realize if he is close or distant; he cannot know how close he is or if he is even capable of reaching it. The idea of human ceases to have any relation to individuals of that species; it is reduced to learned behaviour through some individuals. Frankenstein's Creature, likewise, learns about human culture and customs through the family who live in De Lacey's cottage. He is in awe of them and desires to connect, but he cannot properly perform the humanity he sees around him: like Yod, the Creature experiences isolation as a species and uncertainty about his behaviour.

On the other hand, in *Synners*, simulation is more explicitly present in nearly all situations. Differently from Yod, Mark Zamyatin (an allusion to the author of *We* [1921]), more commonly known as Visual Mark, is born human, but 'the visualizing center of his brain is hypertrophied – that is, so overdeveloped that he [has] no trouble sending out anything he visualizes' (Cadigan 1991: 141). Unlike

Gabe, Visual Mark produces rock videos, whose system of image correlation is less diegetic than referential – in other words, the images Visual Mark projects on his videos are a sort of visual rendering of music. He becomes the main test subject for the development of skull sockets that allow total immersion in the net and in simulation software. Gradually, he abandons his body, claiming that his subjectivity in the net is more complete and more himself than anything he ever felt in his physical form. The endless stream of images that flow through Visual Mark's still human brain, for which he is no more than 'a medium' (95), constitutes a virtual reality in which images move and converse with each other, without any connection to a carnal, experience-based existence. Technology frees Visual Mark from his earthly restraints: 'shit, you could finally *be* the music' (90).

In relation to both Piercy's Yod and Shelley's Creature, Visual Mark poses an even more intricate problem. Visual Mark has no creator but himself. The net with which he merges is invented by a scientist who dies early in the narrative, but neither his Visual Mark self or the artificial intelligence, Art Fish, are created by anyone. By choosing to stay hooked to the simulations as long as he can, Mark is both creature and creator. By becoming his own monster, he believes fiercely that he will become a better creator of content. In comparison to the dichotomy of creator/created, it is not even adequate to say that he inverts it, but rather that he implodes it: his meat-based self is destroyed, his virtual self becomes autonomous to create content, to be closer to the medium itself. Instead of rebelling against a creator, he rebels against his bodily limitations.

In his book, *The Seven Beauties of Science Fiction* (2008), Istvan Csicery-Ronay Jr. provides a relevant theoretical link between images acting as simulacra and the expression of the grotesque in the sf genre:

> Any deviation from those laws, in any object living or dead, organic or inorganic, corporeal or mathematical, is a shock to the system. And when these anomalies directly affect the living sentient beings who derived the body of laws in the first place, the effect is grotesque. The sf grotesque attests to the change: when the physical becomes the basis for the sublime, bodies are set free to mock the physical order and bring it back to life. In the sf grotesque, it is laws, not bodies that leak. (Csicery-Ronay, Jr. 2008: 185)

To most characters in *Synners*, Visual Mark's abandonment of his body is a grotesque experience: the more he abandons his humanity to merge with the net (and, later, as he merges his consciousness with the artificial intelligence named Art Fish), the more he belittles the carnal and the physical. His view that the sublime lies only in the medium (be it music or image) is grotesque since

it exaggerates the body beyond its limits, becoming a parody or caricature of its former self. In the second half of the novel, Visual Mark has a stroke and his mind leaves his body permanently; however, a second stroke threatens the destruction of the era of information, of any person plugged into the skull sockets and, more importantly, it threatens his new existence. The grotesqueness of Visual Mark, then, is assimilated as he abandons his human life to become a consciousness dissolved in simulation and media.

Yod tracks an opposing path. Grotesque by creation, not unlike Frankenstein's Creature, the cyborg advances towards the human; the most important demonstration of that is in his reaction to experiences only previously stored in his database and later actually experienced. If Visual Mark seeks to escape the limited life of a human brain, Yod is taken aback by how different images are in his daily experiences from his database. More specifically, the core of Yod's approximation to humanity lies in his apprehension of the sublime. Yod is created for a purpose: while the Creature is created as a flight of fancy by Frankenstein, who is astounded and horrified by his creation, Yod is built from a careful design with the aim to protect Tikva from invaders. That Yod is able to express feelings of sublimity is unpredicted and a point of comparison with the Creature's surprising awe regarding language, literature, and the sciences. Both creatures share unexpected results and, in particular, both can perceive the sublime.

Csicery-Ronay Jr. provides a summary on the notion of sublime, relating it to sf: 'The sublime is a response to a shock of imaginative expansion, a complex recoil and recuperation of self-consciousness coping with phenomena suddenly perceived to be too great to be comprehended' (Csicery-Ronay Jr. 2008: 146). When describing the history of the concept, drawing upon Immanuel Kant, Csicery-Ronay Jr. comments that the mathematical sublime 'involves the experience of infinity – the sense of infinite series extending in conceptual space […] This form of the sublime draws attention to the immanence of limitlessness in the material world, producing the impression of infinite recession in all directions' (148). Kant's mathematical sublime, then, is related to an attempt at conceiving or understanding the immensity of the universe, its infinite possibilities – that sublime is present in science fiction in the awe caused by tropes such as space travel, alien species, among others. However, in *He, She and It*, the order is inverted: Yod, the cyborg, discovers the mathematical sublime as related to an experience with the natural world. When Shira and Yod are sitting and looking at the stars, Yod claims he cannot identify specific constellations because his vision reaches much farther than a human eye, so the immensity of stars make it challenging for him to discern shapes. Shira then asks him, 'Do you feel anything when you look at them?', to which he responds:

> Yes, I do… A sense of great distance. The sweep of the visible universe, its extent and vastness, gives me a sense of scale that is exhilarating. Surely among those stars are many beings with different kinds of consciousness and mental and physical capabilities. Isn't it likely there are even other manufactured beings like myself? (Piercy 1991: 326)

Yod responds with a surprising degree of humanity to Shira's question; he is overwhelmed by the possibilities that he can imagine and, at the same time, by the idea that imagining peers makes him feel less lonely somehow. The idea that he might not be the only manufactured being brings him comfort and, at the same time, sadness as he ponders at the enormous distance separating him from his other imaginary peer.

Before that occasion, Shira takes Yod for a walk, during which he sees the red moon for the first time. The narrator adds, 'She could feel Yod's excitement' (119), and she asks him about it. Yod responds, 'I have many images stored, but that isn't the same as knowing – although I used to think it was' (119). Later, as he watches the moon changing colour back to yellow, he comments, 'How often my stored information is partial [. . .] The definitions of feelings I am programmed with are precise, orderly, but what I experience is sometimes sharper than I know how to endure' (120). Yod is created backwards in relation to a human; he has all the images and illustrations already stored in his memory, so he knows everything, but he has hardly seen anything. With his own words, he describes the actual experience of looking at the moon or at the stars as overwhelming, as more complex and difficult to explain than the images he knew previously. The cyborg is, then, programmed with a series of simulacra; when he is confronted with the reality, that is, when he looks at the moon and not at an image selected by Avram and implanted in his memory, he experiences a surge of emotion and it changes his perspective: as he later states, the stored images are not the same as knowing. As a being who had only simulacra to produce meaning, his encounter with direct experiences gives him a sense of the natural sublime. His enhanced processing skills are still not enough, and he is left awed at direct experiences, an encounter not unlike those to be found in the poetry of Romantics such as Samuel Taylor Coleridge, John Keats, Percy Bysshe Shelley and (perhaps most of all) William Wordsworth.

The connection between cyberpunk and the simulacrum is not a novelty; Jenny Wolmark remarks, 'In its preoccupation with style, with the sign itself rather than the referent, cyberpunk has reworked the spatial and temporal dislocation that is the most characteristic feature of science fiction, collapsing the imaginary distance between the present and the future, the "inside" and

the 'outside"' (Wolmark 1993: 112). However, criticism on cyberpunk has been mostly turned towards male authors, such as William Gibson. By contrast, Nicola Nixon provides a poignant critique of Gibson's symbology in the trilogy that starts with *Neuromancer* (1984). While sf works by women, published in the 1970s, received criticism because of their 'stale futures', Gibson is still applauded, according to Nixon, for his portrayal of the 'exceptionally talented, very masculine hero of cyberpunk [who], with specially modified (Americanized) Japanese equipment, can beat the Japanese at their own game' (Nixon 1992). The distinction posed in the late twentieth century between 'stale futures' in women's writing and the vibrant, virtual adventures of cyberpunk provide even further reasons for looking at Cadigan's and Piercy's cyberpunk novels. In fact, Wolmark comments of Cadigan that 'The pseudo-mystical version of the human-machine interface that dominates male cyberpunk is rejected in favour of explorations of the human and social consequences of the interface' (Wolmark 1993: 121). Wolmark also claims that Cadigan's *Synners* brings to the discussion a new level of conflict, or rather, re-introduces a theme from Shelley's novel. That is, the idea of accountability – as we see from Frankenstein's reckless invention and then abandonment of his Creature, the technology, the *novum*, has social consequences, and it is people who are responsible for the imminent disaster.

Wolmark also comments on Piercy's novel, arguing for a shift towards the cyborg instead of cyberspace. She states that Avram creates Yod 'as male on the assumption that this will make him more "human", as if it is masculinity, even in its cyborg form, which defines the capacity to be human' (131). The idea that masculinity is a trait that approximates a cyborg to a human is surely ironic since Shira, a woman, is the one to teach Yod how to behave in society. As a result, I agree with Wolmark when she claims that 'the cyborg texts, despite their contradictions and ambiguities, do contain a critique of the masculine hegemony of cybernetic systems which examines their impact on gender and identity' (138). In *Synners*, Visual Mark's former lover, Gina, is not merely an attractive pawn, like Gibson's Molly Millions; she is present in all decision-making processes and she displays an unusually clear stance on the limits that should be enforced between virtual experiences and supposedly real ones. In Piercy, while Yod becomes Shira's partner, he is not simply used to fulfil her sexual desires; they develop a meaningful relationship and collaborate to ensure his human status and to protect their town.

If, in *He, She and It*, experiences of the infinite natural world mark humanity, or human-ness, in *Synners*, there is an emptying of those experiences in favour of pure art, valuing the closest possible relation a mind can have with forms of media, most notably music. In a conversation with Gabe, Gina expresses her

view of what music has become under the growing complexity of technology:

> It was later that music started to stand for something […] These performers would cut these releases, and they'd say shit like, 'Well, my album's fighting against this' and 'My album's fighting against that'. This was before anyone got the bright idea to do the monster benefits to feed the hungry. You probably don't know what those are. Nobody does that anymore. Now they go get the hungry with cams and they call it 'poverty porn' or 'slum porn', or I don't know what they call it. (Cadigan 1991: 214)

By contrast, Visual Mark accepts that his destiny is as a simulacrum and not as a human: 'He lost all awareness of the meat that had been his prison for close to fifty years, and the relief he felt at having laid his burden down was as great as himself. His *self*. And his *self* was getting greater all the time, both ways, greater as in more wonderful and greater as in bigger' (251). His character stands not for a rationalized view of humanity – since Mark's self is ostensibly limited by his body – but for a hybrid subjectivity, in which the notion of human is either useless or obsolete. To him, whether he is considered a human person or an artificial intelligence does not make much of a difference.

Contrasting Yod's humanity with Visual Mark's dehumanization poses a question: do their subjectivities somehow meet each other halfway? For Yod, his movement from machine to person is demonstrated by his reactions to the experience of the sublime. Piercy postulates that the capacity to experience the sublime, although it cannot be programmed, may be taught to a machine. However, the subject finds himself in a constant struggle to fulfil a programming that was intentionally inserted in order not to be completed. It is likely that one human characteristic in Yod is just that: he knows he must emulate a model that he cannot entirely apprehend; as a result, he is constantly frustrated with never controlling his life fully and never having simple, unambiguous information to handle. That same impulse is denied to Frankenstein's Creature, willing to participate in society but constantly denied due to his appearance and instincts. In that case, that frustration is shown as a design accident, as Frankenstein alleges: 'The different accidents of life are not so changeable as the feelings of human nature' (Shelley 2006: 59).

Visual Mark, on the other hand, does not exist in the context of a small community. He does not wish to blend in or to share experiences with other beings, nor does he have violent urges that must be controlled through simulated human emotion. He is born human, but he is constantly unsatisfied by his condition; the simulation seems far richer and the hyperreal, an environment in which he can be his true self. Once in the net, Visual Mark can produce images

from other images, he can recover information and reorganize it instantly. To reach what he sees as a totality of immersion, he must leave his human body. He does not struggle with the reasons for his creation, like Yod; but for the period he lived in his body, he tried to destroy it and undermine it through drugs and simulations. As a hybrid subject, his choices indicate that discovering what it means to be human is a null question, since Visual Mark accepts that people are well on their way to becoming hybrids, and that resisting that trend – as Gina does for a time – is useless.

In their final conversation, Gabe states that sockets should be banned, while Gina disagrees with him: 'Once it's out of the box, it's always too big to get back in. Can't bury that technology. All we can do is get on top of it and stay the fuck on top' (Cadigan 1991: 475). While Gina advocates for the freedom of technology, and the consequent political demand for society to regulate its uses, Yod's final act is almost reversed by Shira, who refuses to become a Frankenstein figure and create another being who would be tormented by its condition. She decides to rebuild him, but she is too conflicted on what sort of being a rebuilt Yod might become: 'Would the cyborg really be Yod? Yod was the product of tensions between Avram and Malkah and their disparate aims as well as the product of their software and hardware. If a cyborg created as a soldier balked and wanted to be a lover, might not a cyborg created as a lover long to be a celibate or an assassin?' (Piercy 1991: 428). Believing that the android was an individual who could not be replicated indicates that Shira is against the replication of subjectivity in machines to obey human purposes: she would 'feel empowered to make a living being who belongs to me as a child never does and never should' (428). In this case, the technology is, indeed, destroyed, because the human – Shira – acknowledges her incapacity of acting ethically due to her emotional attachments.

Science fiction's portrayal of cyborgs, artificial intelligences, androids, and robots often plays a significant function by reflecting upon concepts of humanity. From the basic question, 'can artificial intelligences be human?', springs further questions: 'what is human?' and 'even if an artificial intelligence cannot be distinguished in attitude from a human, can that be called "natural" behaviour or is it/he/she merely replicating learned patterns from born humans?' In comparing Piercy's Yod and Cadigan's Visual Mark, this article has revealed a potential spectrum of representations from the human to the machine that are frequently entangled not only with one another but also with other questions of what it means to be authentic and inauthentic. This existential question underwrites the conflict experienced by Frankenstein's Creature and, as I have demonstrated, Shelley's novel acts as a point of reference for both Cadigan and Piercy. This intertextual relationship between the three writers also opens up a gendered

critique of cyberpunk and the attempts of its original advocates, such as Sterling, to ground its novelty within a male-dominated lineage. Questions of genealogy are also, arguably, questions of authenticity: of whose line, the matrilineal or the patrilineal, is to be preferred? The flagrantly inauthentic body of the cyborg not only speaks to but also rejects such distinctions, subjecting them, like the blurred interface between the human and the machine, to a spectrum of shifting and unstable positions.

Yod, in *He, She and It*, is an android programmed for protection; because that directed programming had caused murders and destruction in previous artificial intelligences, his version receives orders that direct him to satisfy and to form bonds with humans, attempting to prevent the violent strikes from other attempts. As a result, Yod becomes the partner of the protagonist and his experience with her, whose job is to teach it to pass as human, is enriched by personal contact and interaction. To him, looking at the moon is an experience of the sublime, different from the images stored in his database or, as Shira wonders, triggering a response so similar to emotion that constantly telling learned behaviour from the simulacra of modelled responses is practically impossible.

Cadigan's Visual Mark stands in stark contrast to Yod: born as human, Visual Mark creates videos for rock music and abuses substances to leave his body behind. Once the technology allowing him to exist directly inside the simulated reality of the net is created, he abandons his body completely, accusing his flesh of limiting his existence, and claiming that his time as a virtual entity is more valuable and authentic. His pull towards the simulated, in contrast with Yod's aversion from it, can be read as a different perspective upon mediation and the proliferation of simulacra: that as humankind increasingly merges with machines in general, that is, with artificial intelligences or with mediating systems (such as the skull sockets), seeking a finite, natural definition of human is a futile endeavour. Carefully treading this path towards hybridization is far more important, as Gina states towards the end.

These two perspectives navigate the spectrum of elements considered as human or inhuman, such as the personal experience *versus* the pure medium, like music; or the sense of the sublime *versus* the intimate exchange of images in the simulation; or the conflicted, never satisfied, programming as opposed to a total merge with the medium itself. Each novel provides a different value system that either praises the medium or the 'real' experience, and their literary use of simulacra reveals a more comprehensive understanding of how humans and machines create meaning, instead of prompting its disappearance. While some characters thrive in the overwhelming mediation provided by contemporary technology and simulated experiences, others, like Gina, attempt to resist the

hierarchy of images. When Gabe states, 'that doesn't make too much sense anymore. Doing all that just to simulate doing all that', Gina laughs: 'Simulate my ass! I did video just so I could do all that shit!' (Cadigan 1991: 473). By understanding the repercussions of simulation and the limits of dichotomies such as the creator/created, a post-human subject is arguably capable of existing simultaneously in different points of the man-machine spectrum.

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The Fourfold Library (7): Margaret Atwood, The Handmaid's Tale

Anne Charnock

Anne Charnock's third novel, Dreams Before the Start of Time, was shortlisted for both the BSFA Award for Best Novel and the Arthur C. Clarke Award in 2018. The Enclave, set in the world of her first novel, A Calculated Life, won the 2018 BSFA Award for Best Novella. In 2017, she was 'interviewer-in-residence' for the Clarke Award; 'The Ada Lovelace Conversations' are available via her website (annecharnock.com). Anne came to writing sf after a career in journalism and an educational background in environmental sciences and Fine Arts. Here, she returns to a classic of feminist science fiction and its long-term effect upon her work.

I can't recall exactly when I read Margaret Atwood's *The Handmaid's Tale* (1985) for the first time, but it was certainly long before I had considered writing fiction myself. I do know I was totally focused on the 'here and now' with my work in journalism, which may have unwittingly made me resistant to Atwood's speculative text. Indeed, I finished the book with the overall feeling that *The Handmaid's Tale*, though a provocative and deeply disturbing read, was essentially fanciful.

In an essay in *The New York Times* (March 10, 2017), Atwood reflected on her early misgivings about *The Handmaid's Tale*: 'Back in 1984, the main premise seemed – even to me – fairly outrageous.' In her novel, Atwood imagines that a theocratic dictatorship, the Republic of Gilead, becomes established within the USA. As a response to plummeting fertility, individual men in the ruling elite are allocated fertile 'handmaids', slaves with no human rights. This was Atwood's first novel written within the field of science fiction or speculative fiction. 'I'd been avoiding my novel for a year or two. It seemed to me a risky venture. I'd read extensively in science fiction, speculative fiction, utopias and dystopias ever since my high school years in the 1950s, but I'd never written such a book. Was I up to it? The form was strewn with pitfalls, among them a tendency to sermonize, a veering into allegory and a lack of plausibility.'

Atwood started *The Handmaid's Tale*, initially titled *Offred*, while living in West Berlin five years before the fall of the Berlin Wall, and she made several visits behind the Iron Curtain. 'I knew that established orders could vanish overnight. Change could also be as fast as lightning… Anything could happen anywhere, given the circumstances.' Over the years, my response to *The Handmaid's Tale* has shifted, and indeed a new generation of readers (or *viewers* in the case of the two TV series produced in 2017 and 2018 by Hulu), will find the premise of *The Handmaid's Tale* essentially plausible given the lurch towards right-wing

populism in the USA and many parts of Europe.

With each of my three novels to date I can name specific texts – fiction and non-fiction – that acted as beacons, though they were rarely in sharp focus while I drafted and re-drafted each manuscript. Mostly, these texts remained in my peripheral vision, allowing to me to get on with the incremental business of writing one sentence after another. However, Atwood's focus on the very near future in *The Handmaid's Tale* has stayed with me throughout my fiction writing to date, and I remain wedded to the idea of science fiction as a form of political writing.

As with *The Handmaid's Tale*, the issues of fertility and fertility rights are subjects within my novels *Sleeping Embers of an Ordinary Mind* (2015) and *Dreams Before the Start of Time* (2017). These are stand-alone works, though the second novel continues the life story of Toni Munroe who is thirteen years of age in the first. I follow Toni, her son, granddaughter and great-grandsons, showing how successive generations react to advances in human reproductive technologies. Whereas Atwood's novel is labelled as a dystopia, I constructed *Dreams Before the Start of Time* within familiar, everyday settings to reveal how each generation might navigate their way to starting a family, given that new opportunities will arise thanks to advances in biomechanics and genetic engineering.

By situating my novel in this way, I hoped my various storylines would achieve plausibility. I imagine the repercussions, the unintended consequences, when wealthier sectors of society become early adopters of artificial wombs. The technology is not as yet ubiquitous in my novel; there is controversy still over this new path to parenthood. In the future, will we be tempted to 'optimise' the genetic makeup of our offspring (of course, we will)? Will we see the emergence of solo mothers who create babies by parthenogenesis, that is by using two eggs? And will we see the emergence of solo fathers who create babies by creating eggs from their stem cells? On a political note, will women retain control over their reproductive lives? Will employers oblige their female staff to 'outsource' their pregnancies to gestation clinics and so avoid the disruption of ante-natal and post-natal medical appointments, not to mention the possibility of long-term health issues related to conventional childbirth? I did sense while writing this novel, that the artificial womb will be a game-changer in terms of our future path as a species.

A number of works of speculative fiction have explored reproductive technologies; most widely known is Aldous Huxley's *Brave New World* (1932) with its description of the Central London Hatchery. More recently, Joanna Kavenna's *The Birth of Love* (2010) presents, in one of three story strands, a future in which natural pregnancy is forbidden. These novels seem to pose stark

questions: will all human life begin in the laboratory one day? Is this desirable? In contrast with these examples, and from the outset, I wanted to start my story close to home in the very near future, 2034 to be precise. In London, two friends become pregnant in different circumstances – one accidentally, the other taking the deliberate route of signing on at a fertility clinic and becoming pregnant via sperm donation. In a series of linked vignettes, the novel suggests the generational shifts in attitudes that will occur, with the 'shock of the new' being experienced anew in evolving circumstances.

In terms of structure, I recalled the meta-fictional epilogue to *The Handmaid's Tale*, set in 2195, much further into the future than the main body of the novel. It comprises a transcript of an academic presentation long after the collapse of the theocratic dictatorship, discussing the discovery of Offred's personal story on tapes. In *Dreams Before the Start of Time* I also wanted to jump from a setting close to the present day to some distant future, but I decided to do so in a series of measured steps. As a guide in constructing such a structure, I looked towards a wide range of texts to see how other authors married present-day and future settings. (In the case of *Sleeping Embers of an Ordinary Mind* I also injected a historical setting into the storyline).

Jennifer Egan's fragmented novel *A Visit from the Goon Squad* (2010) stretches from the present day into the future to conclude with a chapter depicting the pernicious use of social media. Michael Cunningham's three-part novel *Specimen Days* (2005) jumps from the era of the Industrial Revolution in New York, to a near-contemporary setting and onwards to a future where alien refugees are living among New Yorkers. I also looked to David Mitchell's *Cloud Atlas* (2004) with its nested structure, spanning from a historical tale to a future dystopia. Aside for these novels which each comprise some element of science fiction, I was influenced by the episodic structure and shifting points of view in Irvine Welsh's *Trainspotting* (1993).

These many rich influences fed into my drafts one way or another, sometimes obvious to me, maybe less so to the reader. My subject matter of procreation and pregnancy, so intimate, and explored so brilliantly in *The Handmaid's Tale*, is investigated in *Dreams Before the Start of Time* within a more familiar world, with complex family relationships that become ever more complex with advances in fertility science. Atwood's cast of characters are manipulated by political forces beyond their control, but they are subjected to the same drives as my characters in *Dreams Before the Start of Time* – the impulse to procreate at almost any cost and by all means politically and scientifically available.

Did You Read What I Wrote?

Paul Kincaid

There's a famous Morecambe and Wise sketch featuring André Previn conducting an orchestra. Eric Morecambe takes his place at the piano, ready to perform the solo. But when his moment finally arrives, he plays something tuneless, arrhythmic, cacophonous. 'Stop!' Previn yells, clearly distressed. 'You're playing all the wrong notes.'

Eric pauses for a while, looks at the audience, looks at Ernie Wise, looks at Previn, looks at the piano: 'I'm playing all the right notes. But not necessarily in the right order.'

It's a wonderful joke, and it's a play on a much-quoted line by Samuel Taylor Coleridge, in which he described prose as 'the best words', while poetry is 'the best words in their best order.' Yet Coleridge's claim, held up by generations of poets and of critics, is nonsense, because all writing – Morecambe and Wise scripts, government reports, advertising copy, prose, poetry, criticism – is an attempt to find the best words and put them in the best possible order.

The order is what allows words to convey an image, an argument, a conviction from the mind of the author to the mind of the reader. Without that order, the words may be the very best you can mine from the thesaurus, but they are still tuneless, arrhythmic, cacophonous. By contrast, it may seem obvious from the effect – writing that is euphonious and effective – which are the best words and what is the best order. But that is far from being the case.

I take my subject as criticism, so what follows is, in its particulars, about criticism. But in general I suspect that these thoughts would apply to anything we put down in writing, anything we pick up to read.

What we think we write when we write criticism is generally not what people think they read when they read criticism. Sometimes the differences can be quite minor, a matter of nuance. Sometimes they can be quite profound. And for most of us who practise criticism, most of the time, we are totally unaware of it. Because criticism, in the normal run of things, attracts little in the way of response. When it does attract a response, therefore, it tends to be something out of the ordinary and can be oddly disturbing.

A few years ago I wrote a review-essay in which I picked up on an idea from a polemical essay by John Barth and suggested that science fiction had reached a state of exhaustion. It must have arrived at just the right time, or it must have hit an exposed nerve, because it generated an unusual amount of noise, both from those who argued that I was clearly right but hadn't gone far enough, and those who argued that because they could name one counter-

example my whole position was demonstrably false. This response was flattering and unsettling, in equal measure, though my most common reaction, reading responses from both sides, was: 'Did you actually read what I wrote?'

Now I would phrase that question somewhat differently. Last year, I served on the a shadow jury for the Arthur C. Clarke Award. It was a very rewarding experience, but it was also one that put the shadow jurors, the Sharkes as we came to call ourselves, in an exposed position. Perhaps because I'd been sensitized by the brouhaha over the exhaustion essay, I found myself unnerved by some of the responses I encountered on websites like *File770*.

Some comments could be laughed off. When I compared aspects of Yoon Ha Lee's *Ninefox Gambit* unfavourably to the work of Iain M. Banks, one person remarked that I obviously knew nothing about Banks. Since my book on Banks had just been published, I thought this was ironic. Other comments were less easy to dismiss, particularly those who ascribed a political position to my work and that of my fellow Sharkes that was diametrically opposed to what we thought we were saying.

'Did you read what I wrote?' I found myself asking so often that I began to question the question. Eventually the question transmuted into: 'How did you read that in what I wrote?' That is a more interesting question, because you can begin to work towards answers. In the broadest terms, I have come up with three types of answer, none of them entirely satisfactory, none of them definitive, but they do open up areas that are worth exploring.

In the first case, the failure of communication is inherent in the language. Language, as a tool, is both beautiful and frustrating, a joy to use and a nightmare. Language is necessarily ambiguous; otherwise it couldn't do the jobs we expect of it. Fiction would be completely impossible if all ambiguity was stripped from language; nuance would be impossible, jokes would be impossible, and puns and lies, and so much more. And yet we write as if every word is totally unambiguous. We find the best words, we put them into the best order, and we believe therefore that what we have written is crystal clear. But anything other than the dullest, briefest, simplest declarative statement is bound to be open to interpretation and misinterpretation. There is no concatenation of best words and best order that can possibly avoid this fate. However carefully you craft a sentence it is open for somebody to read it in ways other than as you intended.

The second answer to my question lies in what the reader brings to the text. We are none of us virgin when it comes to reading, we always bring our own prejudices and inclinations and experiences; our own particular areas of expertise and our own particular areas of ignorance. There are things we see because we expect them to be there; there are things we see because we don't

know a word and assume it means something other than it does. Some of this is laziness, but none of us read with the level of care and attention an author might expect. All of us are lazy sometimes, all of us make assumptions when we read. This level of casual inattention will not commonly lead to a dramatic misinterpretation of the text, but it will happen from time to time.

Alongside this cause for misreading, there is the third answer, which is what the author fails to put into the text. Because the author is similarly shaped by prejudice and experience, by expertise and ignorance, there are always things we assume go without saying, there are always cultural references (Morecambe and Wise?) that we imagine everyone is going to get. The act of writing is, anyway, never more than an approximation: we struggle to find words and shape them into an order that will best reflect the original thought, but it is always a pale shadow, the best of a bad job. The trouble is that as writers we are still seeing the original thought, pure and entire, when we read over the impure and partial words we have managed to put onto the page. So it is easy to imagine that the two are a pretty good match; that any reader will be able to navigate their way through the allusions and metaphors, the words familiar and unfamiliar, out of which our prose is composed, and come directly to our original thoughts. More likely they are hacking their way through dense and unfamiliar undergrowth towards some rough-and-ready representation of that original thought.

All told, the wealth of opportunity for reader and writer to sail blindly past each other is legion. The miracle may be that we communicate as well as we do.

But it was not just misinterpretation that caught my eye when reading the comments on the Sharke enterprise. Such divergence between reader and writer is probably true of every single piece of writing ever committed to print or pixel. ‘The cat sat on the mat,’ says the author, and the child, in its first encounter with the written word, says: ‘What cat? What mat?’

To an extent we take such issues for granted. They can be frustrating, they can be irritating, but we shrug and move on and hope that some consensus, some clarity, will follow.

There is, however, something about criticism that seems to spark antagonism alongside the misinterpretation, as if the unavoidable response to criticism must be attack. Perhaps it is because something fundamental in ourselves is invested in the books we read, the writers we like, the films we watch. To criticise them, therefore, is to thrust a dagger into our very vitals. Perhaps the act of criticism in and of itself, regardless of form or content, is perceived as an aggressive act and therefore triggers a flight or fight response; and in the nature of things we see only the fight. Perhaps. I tend to see criticism as something that doesn’t

warrant such aggression. But am I wrong? Is there a right and wrong in this case?

Be that as it may, when the Sharkes were attacked on the one hand for being like the Sad and Rabid Puppies, and on the other hand attacked by allies of the Puppies for not sharing their worldview, was it simple miscommunication between writer and reader? Was it an excuse for a release of anger that could not be directed elsewhere? Was it a deliberate misreading to facilitate such anger? Was it a failure on our part to say what we meant to say as clearly as we might? Was it a misapprehension of the function and purpose of a shadow jury? Was it partisanship for one writer or another writ large?

I suspect that in the particular case of criticism some measure of aggression is always present, but the first-ever shadow jury for the Clarke Award perhaps gave an excuse for it to come out into the open. Especially in the somewhat febrile atmosphere associated with the interference of the Puppies in another science fiction award, the Hugos. But, for me at least, it became un-ignorable as a consequence of the reaction to the shadow Clarke jury.

Of course, once you begin to wonder whether what you write as a critic is what someone else might read; or, indeed, whether what you read is what the critic thought they were writing, so it becomes ever more difficult to write anything. By this I am not talking about some form of writer's block: I've been there, I know what that is like. Rather, it is a sort of philosophical doubt. What is criticism? Is it, need it be, aggressive? How does what I intend as a writer relate to what the reader encounters? To what extent does my effort approximate to the Platonic ideal of a review (or even to my original conception of the review); and what might such an ideal be, anyway?

Battling such an inundation of questions in the mind does not exactly make it easy to cut through to the simple practicalities of writing a review (or writing this short essay, come to that). To an extent they are too numinous, too airy-fairy, to allow oneself to be distracted by them. Nevertheless, they are distracting.

However, this series of columns gives me an opportunity to confront some of these questions. Maybe not answer them; in many cases I'm not sure there could be an answer. But at least I can look at what the questions imply and consider some of the directions they might take me. What's the difference between loving a book and hating it? What's the point of a review? Who am I to say how any particular book should be read? Above all, what is the nature of the communication that is criticism: what am I trying to say; what are you expecting to read?

None of this is about Sharkes and Puppies, groups and ideologies. Nor is it about cacophony and music, the right words in the right order. Not directly, anyway. But maybe it's about the line that links them, and where I, as idiosyncratic reader and writer and critic, stand on that line. Maybe.

Farewell to Foundation: A Quarter-Century of Reviewing

Andy Sawyer (University of Liverpool)

Half-way through my writing of this piece came the news of the death of Peter Nicholls, the first Administrator of the Science Fiction Foundation. While in a sense Peter was my predecessor, our jobs were extremely different and all I can think of to compare them boils down to the cliché of 'standing on the shoulders of giants'. Somewhere in an early issue of Foundation is one of the earliest letters of comment I ever wrote to a serious journal. Without Peter, what I have worked at the last 25 years could never have been achieved: his was the initial, pioneering, ground-breaking and much more important task. We met only a few times and it is a long time since we were in touch; but he remains one of my heroes.

A quarter of a century ago, when I took over as Reviews Editor of *Foundation*, reviewing books was simple.

There was a relatively small number of academic books dealing with science fiction, and while the amount of fiction published was substantial, there was a kind of consensus about who the major publishers were and, crucially, their press officers knew you, or were relatively (that word again) easy to get to know. Editors and press officers turned up at the major conventions. Communication was painfully slow – you wrote *letters*, on *paper*, and received physical objects, called *catalogues*, which told you what books to expect in the near future – and received more physical objects in the form of books or, very frequently, unbound proof copies in various degrees of preparedness. Channels, once established, were steady. Once you were on a list for review copies, you tended to stay there. While no one could seriously claim that a review in a journal like *Foundation* made the careers of hitherto unknown writers, or resulted in the sales of many books (if only because by the time *Foundation* appeared its readers would already own a number of the books reviewed in it), there were few outlets for serious, informed reviews in the field of science fiction.

Foundation, indeed, under previous Reviews Editors – Christopher Priest, David Pringle, John Clute, Colin Greenland – helped create the space for informed reviewing in-between fandom and academia.

Even I barely remember that world. When the Science Fiction Foundation Collection arrived in Liverpool, it was a mix of books and magazines, with a comprehensive card index at a time when card indexes were being rapidly replaced by online public-access catalogues. A strange system called 'email' was being introduced as the standard means of communication and I was learning how to use it. (Somehow, in an earlier incarnation, I had managed to review a book about library uses of email without ever having actually *used*

email or even, if I remember correctly, owning a computer.) My first task was to raise funding for cataloguing the Collection. (My first mistake was to ask for funding for two rather than three years, which in hindsight it is pretty clear we would have got.) I thought I knew something about sf. Having lived with one of the world's largest collections of sf and books about sf, I am now certain that that was my second mistake.

I bow out of being Reviews Editor of *Foundation* at a time when the publishing industry has changed and will probably change even more. People closer to the actual industry than I am will have observed the changes in closer detail than I have and will be able to explain them more accurately than I can, but over a few years, not *that* long ago, everything blew up. Part of this is simply the passage of time. Yes, once, everybody 'knew you', but people move on, into other jobs and into retirement (and yes, Gentle Reader, even I do). You simply build up new networks and eventually hand over to a new generation. Part of it, though, is that old science-fictional given, *change*. Once, we read books and communicated our opinions about them largely through the circulation of book-like physical objects: fanzines, journals, magazines. Now we are as likely to read on screen and communicate likewise. When once there were few enough outlets for 'serious, informed reviews', now there are too many for even the largest publishers to send physical review copies to. Which is not necessarily a problem, because just as everyone seems to be offering their opinions via blogs, webzines, and other online media, so publishers can send electronic advance review copies to whoever they choose, and all of a sudden the Amazon reviewer or Goodreads can thrust opinions upon whoever deliberately or accidentally finds them. The latest update to my university's library cataloguing system even offers options for reviews to be uploaded – though I have yet to see it in use – and links to reviews in Goodreads or Librarything which are very much along the lines of 'this is a triffic book'. Complaints have been made . . .

And who are these 'publishers'? When once 'we' knew pretty much who the publishers were, even the identity of 'we' has come into question. The web (once the plaything of the academic/intellectual classes of the affluent west) has offered a forum for anyone, or any group, who wishes to say 'hey, *we* write science fiction too!' Yes, there are large corporate publishers launching and continuing the careers of major writers, but the past couple of decades has also seen the rise (and sometimes fall) of small-press enterprises and new models of that old favourite, subscription publishing (aka 'crowdfunding') have brought new things before us.

It's sometimes said that no one with a serious interest in knowing what is going on in the world of writing and publishing can possibly fail to encounter the new voices that are appearing. I don't actually believe that, because the

other side of the coin is that *more* voices can drown each other out and more channels of communication can cut off those unaware of or unable to use them. Just as even many of the 'corporate' publishers have come to confront the economic reality that sending review copies to everyone who might have a legitimate reason to request them is not possible, so for many of the small presses, the postal and associated expenses of sending review copies adds a dangerous extra expense to finely-calculated budgets. On the other hand, setting up a web page or a Facebook page (or other social media site) does not guarantee exposure. Readers already deluged with information do not always find their way to the information that they need. Our own little territories are safe and cosy places. Twenty years ago, I might have been mildly surprised when I encountered committed sf readers of my own age or older who had never come across the BSFA or the SF Foundation and had no idea what a Hugo Award was. Now, I am not at all surprised that we are all supposed to have social media sites, and certainly ten minutes using any good search engine will bring up all this information . . . and I still find myself explaining all of these! The chatter and conversation and squabble of argument continues, but in a sometimes alarming interpretation of what that argument might mean.

Foundation reviews have never been simple exchanges of opinion. There's a certain arrogance in setting oneself up (or one's magazine) as an authority, but the kind of review that *Foundation* has published has attempted to come from the position that the reviewer has some sense of what is going on. The book reviewed is new, of course, but it can be compared implicitly or explicitly with other books by that author, in that tradition, about that subject. If the reviewer is not an 'expert' (who is?) they have at least consulted some of the experts. What has somewhat dismayed me over the years has been the way critical battle-lines have been drawn by people for whom *refusal* to see both 'what is going on' and, just as importantly, '*what went on*' has become a dogma. Though *Foundation* has largely been free from that sort of territorial warfare, it has afflicted the whole field, academic and fannish. What has encouraged me, though, is the sense in other quarters that what we have grown up as understanding 'sf' to be is only part of a greater whole. The most exhilarating part of criticism is the discovery that, far from being an 'expert', one is barely a neophyte. The act of criticism is that of confronting one's own ignorance. The true arrogance is thinking that you have finished learning.

If that sounds rather . . . *pious*, then all I can say in defence is that I am looking back from a world that has changed utterly since I began working professionally in it. I am pleased to have been part of that change. This is not entirely a 'goodbye', but I leave the torch in good hands.

Conference Reports

Imaging the History of the Future: Unsettling Scientific Stories, University of York, 27-29 March 2018

Kathryn E. Heffner (University of Iowa)

Speculations of the future have always held an intimate connection to technoculture, the history of science, and how these future visions speak to our present moment. This conference brought together scholars from multiple disciplines to explore 'the role of the sciences in creating and sustaining both imagined and enacted futures.' Thanks to a collaborative effort between the University of York, Aberystwyth University and Newcastle University, the conference hosted international scholars, artists and activists to present critical and artistic inquiries into the future.

The conference was held in conjunction with the AHRC-funded interdisciplinary project 'Unsettling Scientific Stories: Expertise, Narrative, and Future Histories', which explores the history of the future from the past futures of the Victorian periodicals to the planned futures in the postwar era, to the contemporary imagined futures that respond to new techno-scientific ideas. The object is to unsettle the ways in which desires of the future have informed, and continue to inform, our current historical moment. Primary investigator, Amanda Rees, and co-investigators, Lisa Garforth and Iwan Morus, have worked in conjunction with research specialists Sam Robinson, Amy C. Chambers and Mat Paskins to create this project and they led the conference. Building upon their innovative work on the transformative and influential ways that science and science fiction speak to each other, the conference provided a platform for international scholars, practitioners and artists to further engage with this theme.

Each paper presented was framed within the history of the future and technological innovations, either retrieved from archival sources or examined through new media and its usage. The seemingly disparate topics included the cultural narratives of dinosaurs, nostalgia as a form of public history, artificial intelligence and the end of post-humanism, climate change futures, the use of creative practices to explore science and history, and the role of museums in preserving the heritage of future speculations. The surprising discussions that ensued included the need for queered dinosaurs in *Jurassic Park* (1993), flying pigs, AI and Edgar Allan Poe, and postcolonial fish-women. By connecting

contemporary popular culture representations to previous future speculations, a recurring question at the conference was whether the future will be different or more of the same?

Practitioners delivered papers that integrated these critical themes into their artistic practice. For example, screenwriter Maxine Gee shared her visually stunning and boundary-pushing work that unsettles gender fluidity within artificial intelligence. In her paper, Gee explored techno-noir futures, gender identity and affective expressions whilst utilizing historic science fiction themes to create contemporary and futuristic media. Artist Felix Kawitzky's work complemented this theme by integrating gender and sexual identities through a futuristic board game that allows for spectrum identities to interact and inform world-building. Kawitzky shared with the audience the transformative and affective work of world-building as a form of activism and education. Joan Haran's work on Imagin-activism and the spectrum of dystopian and utopian creative works by Starhawk and Octavia Butler further enriched the insights in this session.

In addition to these discussions, practitioners of sf and scholars of its cultural heritage introduced archival and contemporary investigations into the future. Sandra Kemp spoke of the Victorian practice of bringing live animals into museums in order to aid public understanding of the natural sciences. Kemp illustrated her paper with images of late Victorian women examining tanks of aquatic life. Her paper argued not only for the importance of disseminating information through spectatorship but that the recontextualization of these 'objects' as museological practices created a new apparatus of desire. This discussion intersected with Agnieszka Podruczna's sophisticated and critical examination of neocolonialist technocracies as applied to Larissa Lai's novel *Salt Fish Girl* (2002). Attendees quickly saw the interweaving of the thematic elements of women and fish, and began a spirited Twitter thread bracketed under the hashtag #womenlookingatfish.

Plenary speakers Charlotte Sleigh, editor of the *British Journal for the History of Science*, and Sherryl Vint, from the University of California Riverside, presented intriguing papers on the connection of science and the speculative futures by engaging with timely and pertinent topics in the field of technoculture and society. Beginning with a quotation by Douglas Adams, Sleigh shed light on the grammatical intricacies of articulating the past and future, and the ways that language can become confusing when articulating complex temporal schemas. This light-hearted demonstration of narrative called attention to the importance of untangling desires about the future written within the past. Sleigh's plenary session asked the critical question, 'When did the future become thinkable?', working to reframe textual predictions of the future, and allowing participants to speculate on historic practices concerning speculations. Through her

astute observation of the plurality of futures, Sleigh examined how the hopeful hypotheses of science slip in between the past and the realizable future. More succinctly, her paper called attention to 'what is to come' through observations of historic and present interventions.

Vint closed the conference with an intimate, candle-lit plenary session at the Centre of Early Music in York. Her paper investigated biomedical interventions and the future through a close analysis of Aldus Huxley's *Brave New World* (1932) and body fluidity. Vint provided an important discussion on the ways in which future reproductive technologies were articulated in the writings of Shakespeare and Huxley. Through her examination of technological innovation in the twentieth century and hypotheses on bodily reproduction, Vint troubled the notion of science fiction as progress with regard to gender and labour struggles. Vint succinctly integrated gender theory, class struggle and body politics within the framework of historic speculations to the future, drawing attendees to focus on current conflict of agency.

The closing roundtable brought together participants to examine the subjects discussed during the conference in a more informal and relaxed setting. Of particular importance to this conversation were comments that highlighted social and collective memory, futures in relation to marginalized groups, and their significant impact on the articulations of the future. Kanta Dihal passionately reminded the audience of the importance of listening to and honouring people of colour within the fields of science and the humanities. Rees emphatically urged the audience to consider the broad interpretations and investigations into the future by continuing the dialogue on digital platforms. In honoring this request, those wishing to learn more about the endeavors of Unsettling Scientific Stories can access their website located at http://unsettlingscientificstories .co.uk/, and follow along on Twitter (@UnSetSciStories) and the hashtag #ImaginedFutures.

Shakespeare and Science Fiction, Anglia Ruskin University, 28 April 2018

Reviewed by Powder Thompson (Anglia Ruskin University)

This one-day conference was organized by Sarah Anne Brown, co-director of Anglia Ruskin's Centre for Science Fiction and Fantasy, and sponsored by the British Shakespeare Association. Papers on all aspects of the intersection between sf and William Shakespeare were invited, and presenters ranged from creative writers to noted critics to researchers at all stages of their careers. Brown opened the conference with an informal paper, 'Shakespeare and Time Travel'. Multiple versions of Shakespeare in popular culture, from television to

books, were examined, most notably the Bard's appearances in *Doctor Who*. Brown ended on a thought that would form a common thread throughout the day: each generation or age creates its own idea or version of Shakespeare.

With that idea, however, comes the question, will Shakespeare remain relevant as the inexorable march of time places his works at a further and further remove? Many science fiction writers have pondered this, but their conclusions are mixed. On the one hand, Shakespeare is often included in works portraying the near and far future. However, the understanding or appreciation of Shakespeare does not always survive along with his words. Examples of this occurred in papers given by Berit Åström and Margaret Maurer, specifically looking at Shakespeare's presence in Emily St. John Mandel's *Station Eleven* (2014), as well as Professor Peter Byrne's paper examining interpretations of *Macbeth* by the characters in the video game *Fallout 4.* The general consensus seemed to be that Shakespeare, when removed from cultural context (either by time or by an apocalyptic event), becomes absurd rather than sacred.

That idea of the sacredness of Shakespeare, an idea prevalent since the Romantic reassessment of his work, fed into another topic that recurred throughout the day: how Shakespeare is often used in the works that incorporate him or his plays to signal value, either of the new work or of certain characters in the story. In *Station Eleven*, for example, characters who enjoy or understand Shakespeare turn out to be good, and those who dislike or cannot appreciate Shakespeare are revealed as flawed in some way. Similarly, as in *Doctor Who*, Shakespeare is portrayed as the greatest example of humanity, or the most human of humans. Philip Aijian extended the idea further in his examination of Shakespeare in the movie *Star Trek VI* (1991), where Shakespeare can be read as standing in for a higher level of universal being-hood, a humanity that transcends species: 'You have not experienced Shakespeare until you have read him in the original Klingon.'

Also engaging with ideas of sacredness and humanity was keynote speaker Roger Christofides in his paper on *Hamlet* and the uncanny. Christofides suggested the non-human parts of *Hamlet* were 'revisiting spectres', once-human things that, with their humanity stripped away, nonetheless still allow us to see our humanity therein. Using the analogy of Yorick's skull as a classical *memento mori*, and the fleshless Terminator endoskeleton as an artificial equivalent, Christofides argued that if Yorick's skull signifies the Christian Judgement, the Terminator's skull signifies the coming technological apocalypse: 'In the face of the fabulous new, your only thought is to kill it.'

This keynote paper marked the midpoint of the conference. After a break for lunch, the event resumed with a panel of two papers that both touched on another common theme of the day: repurposing or rereading Shakespeare

in the context of science fiction. Sarah Waters examined C.S. Lewis's use of Shakespeare, noting the author's repeated engagement with and re-readings of *The Tempest*. Lauren Rohrs joined the conference via Skype, and laid out the clear and convincing parallels between Lavinia in *Titus Andronicus* and Emilio Sandoz in Mary Doria Russell's *The Sparrow* (1996). Each of these papers engaged with a different mode of repurposing Shakespeare. The first was more concerned with an essentially literary, or scholarly, engagement with Shakespeare; the second with purposeful borrowing to make a point regarding modern treatment of rape survivors.

More direct usages of Shakespearean material were explored by Powder Thompson, who examined the portrayal of characters such as Macbeth, Oberon and Titania in Disney's animated TV series, *Gargoyles* (1994–96). By contrast, Steven Sautter noted that a larger number of science-fictional works come by their Shakespearean influences secondhand via sf texts such as *Forbidden Planet* (1956) and *Brave New World* (1932). To that end, both Kinga Földváry and Ronan Hatfull looked closely at what Hatfull referred to as 'fragments of Shakespearean dust' in modern cinematic works. Földváry explored the scattered pieces of Shakespearean dialogue appearing throughout *Westworld* (1973) and concluded the repurposing here was a usage without any kind of deep textual awareness. Lines were stripped of their original dramatic context and a new meaning was applied, but the act was one of appropriation or textual poaching rather than one of additive meaning. Hatfull's examination of the presence of the Shakespearean in the Marvel Cinematic Universe extended to production detail, exploring the choice of actors and directors known for their work with Shakespeare and what their experience of the Bard brought to different movies. *Thor* (2011) was a notable example, with its use of heightened dialogue and the cinematic direction of Kenneth Branagh.

Closing remarks came from John Clute, co-editor of *The Encyclopedia of Science Fiction*, who made a point about Shakespeare's unique embedding in modern culture and highlighted the different modes of writing that Shakespeare employed throughout his career. Clute criticized the trend towards more superficial uses of Shakespeare in works of modern science fiction and called for deeper readings and critical engagement. A reception followed the closing remarks. Conference delegates continued their discussions well into the evening. Even in the twilight zone, it seems that all's well that ends well.

Embodiment in Science Fiction and Fantasy, McMaster University, 18-19 May

Anna McFarlane (University of Glasgow)

McMaster University is in Hamilton, a city between Toronto and Niagara Falls on the shores of Lake Ontario in Canada. The location resonated significantly with the themes of the conference since, as the welcome address acknowledged, the university is situated on the land of the Mississauga and Haudenosaunee First Nations people.

The first keynote speech came from Veronica Hollinger and gave delegates a taste of her current work, which engages with Timothy Morton's description of climate change as a 'hyperobject', a term he uses to discuss objects that 'exist on unthinkable timescales'. Hollinger thinks of Morton's philosophical point as an intrinsically science-fictional one and, in this paper, she read his theory alongside a number of recent sf novels, including Kameron Hurley's *The Stars Are Legion* (2017) and Paulo Bacigalupi's *Tool of War* (2017).

The conference squeezed over sixty papers into only two days. Highlights included a disability studies panel featuring Kathryn Allan, whose paper read the *Alien* movies via Rosemary Garland Thomson's term 'normate', meaning the ideal, normative body unmarked by cultural and physical signifiers such as disability. The panel also featured David Hartley, who gave an insightful reading of *Blade Runner* (1982), in which he argued that the camerawork assumes a gaze that has affinities with that of someone with autism; a curious and searching gaze that estranges viewers from identifying with the human inhabitants of Los Angeles, who take their environment for granted, and suggestively offers a replicant's eye-view of the city.

The conference also offered some intriguing readings of science fiction and the meaning of motherhood, particularly through a fascinating panel in which all four papers focused on Denis Villeneuve's *Arrival* (2016). An entire panel on one theme in one film may have been a risky proposition as participants may well have approached the text from similar positions, or at least threatened to re-tread well-worn plot points and references. However, thanks to the original position each adopted, this was not a problem. The panel featured Rebekah Sheldon, who thought about *Arrival* as an example of a queered maternity, a maternity based on a conception that is decided in the mother's mind rather than through the heteronormative reproduction critiqued by Lee Edelman in his book, *No Future: Queer Theory and the Death Drive* (2004). In her paper, Heather Latimer in turn critiqued Edelman by arguing that the main protagonist, Louise, exists in a queer temporality as her understanding of her life and that

of her daughter becomes non-linear. Naomi Morgenstern used the film as a springboard to consider the impossibility of making the decision to have children. The panel finished with a disability studies-inflected reading from Karen Weingarten, who read the ethics of *Arrival* in conversation with the bioethics of antenatal testing. While these papers concentrated on Villeneuve's film, the Q&A brought up some intriguing questions about how the film's representation differed from that of the source material, Ted Chiang's 'Story of Your Life' (1998). The choices made in bringing the short story to the screen would make for interesting future research, in particular, the decision to have the daughter die a slow and sickly death as opposed to losing her life in a sudden accident, a difference that changes and complicates the ethical questions raised in the film.

The themes of motherhood were complemented elsewhere in the conference. Charul ('Chuckie') Palmer-Patel considered the absent mothers of epic fantasy, so often killed off so that young protagonists can venture freely throughout the lands without parental consent or concern. Her paper focused on the mothers who *do* remain in fantasy literature, specifically in James Clemens' *Banned and the Banished* series (1998–2002). Another paper on motherhood was my own, in which I discussed my current research project and argued for traumatic pregnancy as a key theme in science fiction, from the genre's (arguable) birth in Mary Shelley's *Frankenstein* (1818) to its appearance as a metaphor for climate change in such recent novels as Paul McAuley's *Austral* (2017). My panel also included Julia Featherstone, who gave a whistle-stop tour of motherhood and maternal imagery in twentieth-century science fiction literature and film; Elisabetta Carraro, who argued for a rereading of Judith Merril's shocking story 'That Only a Mother' (1948); and Brent Ryan Bellamy, who explored the social role of the clone in Carola Dibbell's *The Only Ones* (2015).

The panel on 'Critical Race Theory' featured readings of Nnedi Okorafor's novels by Diana Brydon and Joseph Earl Jones, who gave a reading of Okorafor's *Binti* (2015) as an African *bildungsroman* that explores 'Afro-pessimism'; or, the legacy of slavery and colonialism that still shapes the black experience. The panel finished with Isiah Lavender III's paper on cyberpunk and what he was terming, 'Afropunk', which gave a flavour of his forthcoming chapter for *The Routledge Companion to Cyberpunk Culture* (2019).

The conference concluded with a keynote from Kameron Hurley, whose most recent novel centres around a group of all-female societies who live on organic world-starships, and literally give birth to whatever components their worlds need in a Weird-inflected space opera that had led some in Hollinger's Q&A to suggest the notion of a 'squishy sublime'. Hurley critiqued the transhumanist ideal of a humanity capable of transcending its fleshly being and instead emphasised the importance of embodiment for some of the key issues facing literature and society today: gender, race, and the increasing awareness of ourselves as beings entangled with a planet that is increasingly under threat.

Book Reviews

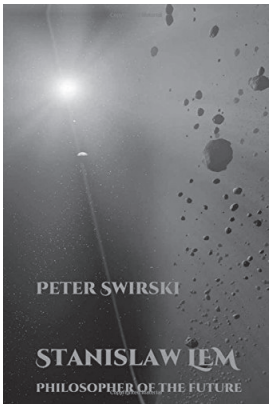
Lem Cells

Peter Swirski, *Stanislaw Lem: Philosopher of the Future* (Liverpool University Press, 2015, 224pp, £80)

Peter Swirski, ed. and trans. Stanislaw Lem: *Selected Letters to Michael Kandel* (Liverpool University Press, 2014, 170p, £80)

Peter Swirski and Waclaw M. Osadnik, eds. *Lemography: Stanislaw Lem in the Eyes of the World* (Liverpool University Press, 2014, 256pp, £80)

Reviewed by Bodhisattva Chattopadhyay (University of Oslo)



As a recognized master in the field of science fiction and technological foresight, Stanisław Lem's oeuvre has gained increasing attention in the years since his death in 2006. Like Philip K. Dick, with whom Lem shares a well-known but troubled history, this interest has spawned numerous critical works, in Polish, English, and other languages, as well as films, music, artistic experiments, and literary responses. This popularity shows no signs of abating. The three books reviewed here show a diverse and multifaceted engagement with Lem's works by Peter Swirski, both a translator and a leading authority on Lem. While the translation of Lem's letters to his English translator, Michael Kandel, throws fresh light on the author's writing process, *Lemography* highlights Lem's reception in a global context, and *Stanislaw Lem: Philosopher of the Future* gives both a biographical perspective and overview of Lem's work, in addition to critical analysis of some lesser studied texts from the perspective of Lem's own stylistic and thematic preoccupations.

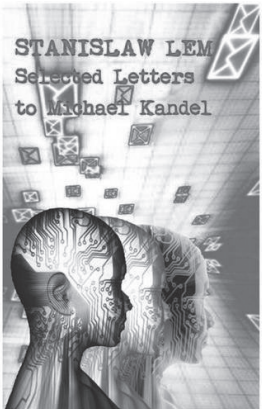
Of the three works, perhaps the least successful is *Lemography*, with its bold cover featuring a design that overlays titles of different Lem works on an outline map of the continents, which seems to have some kind of thematic importance: stretching *The Cyberiad* over Scandinavia; *Solaris, Peace on Earth, The Chain of Chance* and *Fiasco* over North America; Lem himself featured in Western and Central Europe, and so on. The oddity of the design by Alice Tse, with the

titles stretched out in different ways on the outline map, promises much more than the book itself delivers. The book consists of eight essays, each focusing on a single work or group of works, and each undoubtedly offering something to the reader. For instance, Swirski's opening essay contains brief translated sections of three early novels, *Man from Mars* (1946), *The Astronauts* (1951) and *The Magellan Nebula* (1955), along with some contextualization and a little analysis, all of which offers a glimpse into Lem's development as an author. Other essays, such as Victor Yaznevich's study of Lem's *Golem XIV* (1981), offer a contextually illuminating exploration of both the writing process and the later reception of the work. However, the book almost completely fails to deliver upon the promise of its subtitle by introducing a larger reception history of Lem's works. For example, Nicholas Ruddick mentions at the outset of his essay a 1968 Soviet telefilm of *Solaris* directed by Boris Nirenburg, but concentrates instead upon the endlessly studied and reviewed adaptations by Andrei Tarkovsky and Steven Soderbergh. This is not to decry the sophistication of the analysis itself, but to point out how the book fails to enlarge upon the approaches already offered. An exception to this is Kenneth Krabbenhoft's concluding essay comparing Cervantes's *Don Quixote* (1605/15) and Lem's *Fiasco* (1986) and *Peace on Earth* (1987), but once again, it promises more than it can deliver in the few pages of an edited collection, focusing largely on structural similarities. Another problem with the collection is the lack of a sustained discussion on translations and reception history outside Britain, America and Europe, which would have greatly enhanced any discussion of 'worlds' promised by the title and the editorial introduction.

That said, Swirski's own volume is a worthy addition to Lem criticism. Divided in three parts, a biographical section, essays on Lem's work and a coda, and featuring eleven photographs, the work offers a panoramic view of Lem's oeuvre and ideas. While the first part is valuable in its own right, largely because it synopsizes a number of works that are untranslated as well as showing how Lem's works chronologically develop a set of concerns, it is the second part of the book that is the most appealing, largely because it also overcomes some of the problems of the edited collection. For instance, Swirski's examination of Lem's detective fiction perfectly complements David Seed's chapter on the same topic in the previous volume by referencing not only the work of Jorge Luis Borges but also other non-Anglophone authors. There is also an ostensible whimsicality to Swirski's styles in the essays in this part, as they mimic and model the aesthetic experiments of the works they discuss. The first essay, focusing on *Memoirs Found in a Bathtub* (1961), follows a game theory approach to show how Lem himself uses the theory in his work, whilst the next essay, looking at *Return from the Stars* (1961), mimics Lem's *Dialogues* (1957),

itself modelled after Bishop Berkeley's *Three Dialogues between Hylas and Philonous* (1713). These experiments only work in the context of Lem's own serious yet playful style. The final section looks at some of Lem's 'prophecies', realized, promised or failed, in the untranslated *The Blink of an Eye* (2000), and shows why scholarly studies of Lem are only likely to grow in the future.

The final volume, Lem's letters to Kandel, is an absolute delight, if a bit one-sided, since one would also like to read Kandel's responses, including those on the process of translation. The letters cover the period 1972 to 1987, and are wide ranging in their subject matter, highlighting not merely Lem's engagement with the process of writing but also offering insights into his thinking and personal and professional lives. While the SFWA membership fiasco is well known, it is still a treat to observe Lem's problematic relationship with other American sf writers, and the SFWA in general, which also shows how reluctant Lem was to accept the label of science fiction for his work. Also interspersed are letters that show Lem's relations with other authors, including Ursula Le Guin, as well as at times acerbic comments on the work of Fyodor Dostoevsky, Bertrand Russell, Carl Sagan, Kurt Vonnegut and Thomas Pynchon, and occasional indications of his conservative views (for instance, on developing nations and women). The most interesting aspects of the books are, however, some of the concepts that he develops to explain his work, futurology, language, as well as science fiction. For instance, in letters from November to December 1974, Lem goes into an explanation of his theory of resonances, and discusses time lags and synchronicities that allow certain works to have a purchase on the real, some other works to have a predictive quality, and why certain works fail completely. Such theories highlight different developmental schema for both artistic movements as well as prediction, for instance, Lem's claim that the Gothic need 'not have given way to the Baroque, but the ensuing art historical formation had to be a Baroque of one kind or another', which echoes both Russian Formalism, with its notion of multiple, seemingly divergent yet equally possible paths, and quantum physics and probability theory, an enduring thematic concern for Lem. Swirski's translation reads lucidly, and follows Lem's own stylistic quirks, as explained in his introduction.



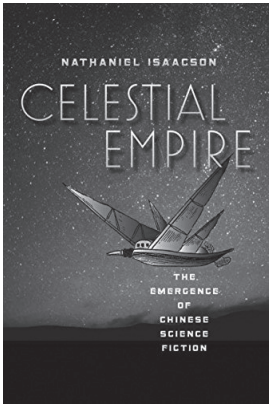
Overall, the three books offer a wealth of new insights into Lem's work. In particular, the letters offer a needed glimpse into Lem's own artistic self-presentation as he sought to negotiate how he was read outside of Poland (his criticism of a French translation is particularly scathing), as well as how his literary concerns developed in the two decades that saw translations of some of his most well-known works. As Lem scholarship grows in size, readers will find plenty of well-articulated thought in these works to ponder upon.

On Chinese Science Fiction

Nathaniel Isaacson, *Celestial Empire: The Emergence of Chinese Science Fiction* (Wesleyan University Press, 2017, 259 pp, £24.00)

Robert G. Price, *Space to Create in Chinese Science Fiction* (Ffoniwch y Meddyg, 2017, 180 pp, £14.99)

Reviewed by Chiara Cigarini (Beijing Normal University)



Nathaniel Isaacson's monograph is a fascinating study mainly revolving around the emergence of sf in the context of China's semi-colonial subjugation, its development in relationship with the Orientalist discourse, and its later influence on mainstream Chinese literature. As its promising title suggests, this study is also of interest to post-colonial scholars. Making use of an interdisciplinary approach in order to understand these phenomena, as well as close readings and historical accounts, on one side, Isaacson underlines the role played by China's crisis of consciousness and sense of internal cultural failing connected to its semi-colonial past, whilst on the other, he identifies the interaction of indigenous epistemology with the imperialistic imagination of the time that led to the rise of sf in China. He then examines how these discourses were reflected in early sf, and how some of the resulting tropes connected with the notion of national failure were afterwards crystallized by authors such as the short storywriter, Lu Xun, and employed by modern Chinese literature.

In his introduction, Isaacson defines the framework of his study, challenging the western origins of the genre, addressing the political crisis of the Late Qing period, exploring how 'Western science […] found its way into China', and ultimately presenting the central notion of 'colonial modernity', a 'critical

framework [which] approaches the changes of the early twentieth century in terms of the transnational traffic of ideas, cultural trends and material culture engendered by the expansion of European colonialism'. In chapter one, Isaacson provides a definition of sf, and examines different academic datings of its emergence and scholarly approaches. Building on Andrew Milner's *Locating Science Fiction* (2012), he provides his own interesting view, arguing for a functional definition of the genre helpful in order to understand the constituent elements of early Chinese sf. His idea of sf is that of an historically contingent category, best defined by shared tropes and topoi connected with global relations of economic and political power, in this case Orientalism and imperialism.

Chapter two analyzes Lu Xun, starting from his perception of science and its popularization through science fiction. Isaacson underlines Lu Xun's ambivalent relationship with the genre, since it can also express anxieties surrounding science. He first focuses on Lu Xun's translations, which shared thematic and formal concerns with the late Qing sf; and then addresses Lu Xun's 'evolutionary epic', a set of essays where Europe is described in evolutionary terms, in contrast with China's condition of decline. In chapter three, Isaacson presents a close reading of Wu Jianren's *New Story of the Stone* (*Xin shitou Ji*) (1908). According to Isaacson, Wu Jianren 'expresses concerns with China's incorporation of Western epistemologies', and simultaneously faces the western incursion with the utilization of Chinese cultural traditions; a 'confrontation' which, according to the author, reflects the influence played by colonialism and imperialism in the emergence of Chinese sf. Isaacson focuses on the sense of estrangement, wonder and anxiety in the first part of the novel set in Shanghai, and the sense of crisis and futility emerging from the second part, set in a Confucian utopia with Chinese characteristics. According to Isaacson, in neither section does Wu Jianren provide a solution to the problems connected with China's semi-colonial situation: he therefore concludes that the sense of crisis, the confrontation with China's past, and imagery of a sick Chinese society – central for Lu Xun and for modern Chinese literature as a whole – were already expressed in the production of late Qing sf.

In the fourth chapter, Isaacson carries out a close reading of Huangjiang Diaosou's *Tales of the Moon Colony* (*Yueqiu zhimindi xiaoshuo*) (1904), mainly focusing on the theme of 'colonial incursion' and on the resultant intellectual anxieties connected with nationalism. Central is the theme of social Darwinism, producing in the novel 'the dialectic opposition of the West as modern, scientific and civilized and the East as traditional, unscientific and uncivilized', and 'a word in which the Orient became the fruit of Western conquest'. Isaacson notices how this work features a sense of national crisis and lack of possible solutions which anticipates tropes later employed by mainstream Chinese fiction. One of

the examples is Lu Xun's metaphor of 'the sick man of Asia', a concept which was already anticipated by Huangjiang Diaosou's novel, where the protagonist spends most of the narrative in an infirmary. Western culture prevails also in how clock time is measured and in the clothing worn by the protagonists.

For the fifth chapter, Isaacson focuses on Xu Nianci's 'New Tales of Mr Braggadocio' ('Xin faluo xiansheng tan') (1905). He demonstrates how, through Mr Braggadocio's adventure, Xu Nianci resists western science by proving the superiority of an indigenous mode of knowledge, but ultimately this attempt only results in a tense positioning with the western world: 'the main character's success in producing pseudoscientific discovery that renders obsolete many of the material trappings of industrial technology results in a paradoxical defeat, suggesting that while modern science may potentially be resisted, the cycles of production, accumulation, and destruction at the hearth of capitalism cannot'. Even if the story presents concepts and vocabulary taken from Daoism and Confucian positivism, the author cannot avoid the final incorporation of the protagonist into the Western capitalistic system of thought.

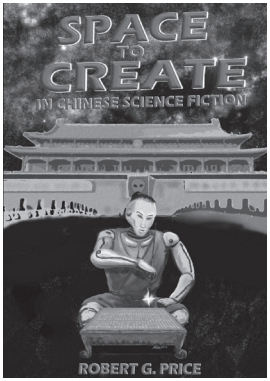
Centred on the Chinese sf of the Republican period, the sixth chapter focuses on Lao She's *Cat Country* (*Mao cheng ji*) (1933), an 'allegory for Chinese society set on a Martian landscape'. Isaacson demonstrates how this work shares with other late Qing sf a sense of crisis expressed through metaphors of illness. As Isaacson points out, in the novel the 'colonial consciousness' results in a schizophrenic attitude toward the national crisis and international affairs: the cat people of the story (the Chinese) betray their long-lasting tradition, and simultaneously reject and worship the foreigner, a stranded astronaut.

In the final chapter, Isaacson focuses on the relationship of the genre with pre-existing media platforms, such as the late Qing pictorial journalism of *Dianshizhai huabao*, which drew on pre-modern genres such as *biji* and *zhiguai*. He examines how tropes from late Qing sf (scientific popularization, encounters with the Other, tradition versus modernity) had precursors in late Qing visual media. Isaacson notes how these tropes were absorbed into other prose genres, like popular science writing of the 1920s and `30s, at the expense of the sf genre.

In contrast, Robert Price's book provides the reader with an interesting historical overview of Chinese sf. The creative spirit of the genre is even expressed on the front cover: an android plays Chinese chess sitting in front of a futuristic Tiananmen square – in the background Mao's image has been replaced by one of an alien. Price argues that whilst Chinese sf has long been limited to 'scientific popularization', it now has the potential to become an artistic playground 'where authors can push their creativity to the limits'. Besides a focus on the creative roles of Chinese sf and an insight on censorship's role in

limiting it, Price's study frames the discussion in an international context from the beginning of the 20th century. His analysis is structured in three parts: the first two sections feature an overview of western and Chinese sf respectively, whilst the third section analyzes some selected authors and short stories. Focusing on the role played by western sf in the creation of the world we live today, Price builds his study on the question of what role will Chinese sf play in building the world we will live tomorrow. In answering this question, he focuses on the place occupied by creativity and on the limitations imposed by censorship, and the extent to which both Chinese sf and China's global status will be influenced as a result.

After an introductory first chapter, the second addresses a definition of western sf and goes through the genre's history, themes and subgenres.



The third chapter features a study of sf's important role and accomplishments: the genre is seen as a tool for teaching and for social criticism, a way to talk about the 'here and now' and to produce 'thought experiments' able to create imaginative situations in the 'laboratory of the mind'. By addressing the importance of this narrative in shaping the world we live in, Price focuses on examples showing how sf's 'seeds of creativity' helped people to think differently and produce important innovations. In the fourth chapter, the attention shifts from the western world to China: the author provides a definition and a starting point for Chinese sf, before going through the genre's history: a first phase from approximately the late Qing period to 1967; a second, extending from 1976 to 1983; and a third period, going from 1991 to the present. Price then identifies the roles of Chinese sf, focusing in particular on its importance as a literature which promotes scientific understanding and simultaneously teaches creativity. The fifth and sixth chapters analyze three contemporary authors and twelve short stories, four from each writer: Ye Yonglie, Wang Jinkang and Liu Cixin. Price compares them with the characteristics of western sf, noting also the uniqueness of the Chinese situation, which has 'the largest single market in the world', and its ambivalent relationship with political power, resulting in a trend where the genre has 'repeatedly grown in popularity and then fallen out of favour'. He concludes by underlining the 'setting of limitations' that prevent Chinese sf authors from freely creating and 'paint[ing] with all available colours' their sf picture; China, described by Ye Yonglie as a 'sleeping lion', is apparently not yet able to unleash its creative force.

Despite this conclusion, however, it is easy to think of counter-examples. In

terms of freedom and the subversive potential of the genre, Price mentions Han Song and his idea of sf as a way to 'maximize the space for free expression', but only focuses on Chinese sf's limitations compared to its western counterpart. Price could have also referred to the 'Chinese New Wave' and its 'poetics of the invisible', as discussed by Mingwei Song, as a way of dealing with the hidden parts of Chinese reality.

As far as creativity is concerned, the author looks at it from a utilitarian perspective, in which sf has been recently promoted by the Chinese government as a way to teach the young to become future entrepreneurs. Price could have instead analyzed the creativity expressed by authors such as Han Song, Chen Qiufan, Xia Jia and Fei Dao, whose works often combine modernity and tradition in unique ways. The writers selected for this study are indeed some of the most representative of the Chinese sf scene, but they do not exhaustively represent its diversity: while both Wang Jinkang and Liu Cixin are categorized as 'Core SF' authors, none of the 'Post-New Generation' of young writers is mentioned or analyzed in the book. That's why, even if this study presents an interesting and clear overview of Chinese sf, it leaves the reader craving for a sequel that includes a more diverse selection of authors, which would shed different light on the idea of creativity as well as the hidden realities of contemporary Chinese society.

By contrast, Isaacson's book is fundamental for scholars of Chinese literature and culture, and science fiction readers, in providing an explanation for the rise of the genre in China as a product of colonial modernity, for having expanded the geographic scope of global sf studies, for having demonstrated that metaphors employed by modern Chinese literature were already present, in a prototypical form, in late Qing and Republican sf, and for underlying Lu Xun's role in crystallizing them. Dealing with a number of different fields like modern Chinese literary studies, intellectual history and postcolonial studies, with this book Isaacson provides an important connection between the global history of the genre and Chinese mainstream literature, and at the same time makes an incredible contribution in showing how 'Chinese cultural studies and sf studies have much to offer to each other'.

Brian Willems, *Speculative Realism and Science Fiction* (Edinburgh University Press, 2017, 223pp, £19.99)

Reviewed by Lance Conley (Michigan State University)

Brian Willems's recent monograph serves as a much-needed addition to studies of both sf and the evolving strand of philosophical thought known as speculative realism. Willems provides a detailed delineation of the complex similarities between its two baggy title concepts in the context of growing fields of scholarship. Comparative analyses of sf and speculative realism remain relatively sparse in each field, limited to pieces such as Graham Harman's *Weird Realism: Lovecraft and Philosophy* (2012) or Grant Hamilton's *The World of Failing Machines: Speculative Realism and Literature* (2016). (Hamilton also writes the preface for Willems's book and serves as its series editor.) Willems constructs a narrative in which select authors of the twentieth and twenty-first centuries engage with an ambiguity that he argues undergirds sf and speculative realism alike. This ambiguity manifests in the variety of ontological questions that lie between the binaries of sense and non-sense, subject and object, and possible and impossible that define our shared reality, and have been considered in the philosophy of, among others, Ian Bogost, Graham Harman and Quentin Meillassoux. While Willems's work makes connections that have only recently begun to receive the critical traction they deserve, the book leaves one wanting more from its methodology and approach to some of the stakes in each of the fields it enters. Nevertheless, despite these issues, *Speculative Realism and Science Fiction* is an important study that opens up an overdue dialogue between two branches of thought that, in Willems's words, 'challenge an anthropocentric view of the world by considering non-human objects worthy of serious thought'.

The authors covered include Cormac McCarthy, Neil Gaiman, China Miéville, Doris Lessing, Paolo Bacigalupi and Kim Stanley Robinson. Aside from the first chapter, which introduces the conceptual framework, each focuses on one of the authors listed above and the ways in which their fiction wrestles with a manifestation of what Willems dubs 'the Zug effect'. It is with this strangely named concept that one might have reservations regarding the methodology, especially given the fact Willems appropriates the idea from Damon Knight's *Beyond the Barrier* (1964) which he himself admits is 'not a good book'. Willems defines the Zug effect as 'moments of ambiguity within sf', an uncertainty that must be grasped precisely. In other words, the Zug effect occurs when we encounter 'dark objects […] that are withdrawn from a possible framework of understanding'. In eluding all known structures of knowledge, these unknowable entities play a fundamental part in furthering our understanding of the 'current state of ecological collapse called the Anthropocene' and provide 'a possible way to think outside its restraints'.

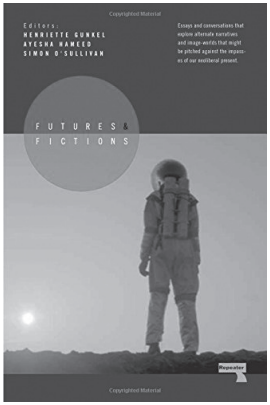
While the text frames its usage of the concept in dialogue with other recent works of interdisciplinary scholarship focusing on the relationship between

literary artefacts and environmental catastrophe, for example Donna Haraway's *Staying with the Trouble: Making Kin in the Chthulucene* (2016), *Speculative Realism and Science Fiction* lacks an attempt to consider the implications of the connections made between its source subjects beyond the book's specific stakes. In other words, given Willems's thesis that sf and speculative realism remain focused on 'divesting the world of human domination', the text reads as an introduction to two topics that possess a certain hipness and/or relevancy in contemporary academia, rather than a take-down of anthropocentric ontologies via a comparative reading of specific works of sf and speculative realism. This claim is not necessarily a criticism but more of a concern, for Willems provides a stable foundation on which future scholars may build, which far outweighs any perceived shortcoming in his methodology. In short, Willems's work serves as a worthwhile addition to both fields for the way that it considers the evolving importance of sf and speculative realism in interpreting cultural and natural phenomenon of the early twenty-first century: an era defined by the increasing threat of 'climate change, the sixth great species extinction and the inequality of resource distribution'.

Far and away the standout reading is Willems' analysis of Bagicalupi's *The Windup Girl* (2009). This chapter is the strongest because it seamlessly blends with and effectively builds on the preceding chapters. Furthermore, it possesses a philosophical complexity and awareness that help to consolidate some of Willems's claims. It is not that the other readings lack such sophistication or argumentative flow, but rather it is worth highlighting the intricacy of this analysis in particular. Willems reads Emiko, the cyborg protagonist of *The Windup Girl*, through the lens of Theodor Adorno's theories on art and nature and Samuel R. Delany's concept of 'inmixing', the latter of which, Willems argues, serves as a counterpoint to Darko Suvin's notion of the novum as that which is 'a novelty, innovation […] validated by cognitive logic'. What results is a fascinating contemplation of sf and speculative realism as not invested in any form of dialectical ontology but instead a flat relationship in which subjects and objects possess the same value, because humanity has been dethroned as the ultimate maker of knowledge and replaced by a world where no hierarchy of beings exists.

In sum, *Speculative Realism and Science Fiction* provides a detailed, comparative analysis of numerous fiction and non-fiction texts that highlights the profound similarities between speculative realism and sf, as well as their relationship to an ambiguity beyond the limits of anthropocentrism. Though questions could be asked of its introduction of the Zug effect as a tool for reading a contemporary branch of philosophical thought in dialogue with an archive of fiction that spans centuries, the rich insights the text offers far outweigh

any potential flaws it may possess. For this reason, it serves as a significant scholarly contribution with the potential to further a growing dialogue between two fields that share profound similarities.



Simon O'Sullivan, Ayesha Hameed and Henriette Gunkel, eds. *Futures and Fictions* (Repeater Books, 2017, 408p, £9.99)

Reviewed by Matthew De Abaitua (University of Essex)

Futures and Fictions is an anthology of 'essays and conversations that explore alternate narratives and image-worlds that might be pitched against the impasses of our neoliberal present'. The book is dedicated to the late Mark Fisher whose *Capitalist Realism* (2009), published in the immediate aftermath of the financial crisis, renamed and recast postmodernism as a cultural logic that admitted to no alternative. The first chapter of *Capitalist Realism*, echoing Fredric Jameson's half-remembered quotation from *Archaeologies of the Future* (2005), was entitled 'It's Easier to Imagine the End of the World than the End of Capitalism'.

Futures and Fictions is assembled by three lecturers from Goldsmiths College, London, and the content is drawn from that establishment's reputation for critical theory and artistic practice. Aside from a reprint of Ursula Le Guin's short story 'The Ones Who Walk Away from Omelas' (1973), a teasing exploration of the reader's resistance to utopian fiction, the anthology treats sf in its textual form as secondary to other cultural objects such as post-internet art, financial derivatives, manifestos and sonic art. The problem with textual sf is identified in an essay by Simon O'Sullivan: the need of sf as a literature and genre to be readable 'restricts the possibilities' in which theory can comfortably be materialized in the art. Let that complaint about readable texts stand as a warning.

By contrast, *Futures and Fictions* can be approached as a grab-bag of radical optimisms. Each of these impassioned possibilities could productively inform new sf works, textual or otherwise, since they wilfully align themselves with the wild and strange speculations of sf. Robin Mackay, for example, hypothesizes an 'extro-science fiction' in which the laws of nature are contingent and subject to change. Maverick physicists Roberto Mangabeira and Lee Smolin advance a similar theory, suggesting that, rather than searching for timeless laws, physicists must investigate hypotheses about how such laws might evolve.

Mackay's essay also explores the various meanings of the highly polysemous word 'plot': plot as in a casual chain of events in fictional time, plot as a piece of land, plot as an intrigue that occurs in the secret zone between on and off stage.

The agency of potential futures – whether imagined by governments, corporations, or individual writers – is pronounced at a time when the neoliberal version of the future has been contested by populist revolt, first in the form of the Brexit vote and then by the presidential election of Donald Trump. There is a process by which fictions make themselves real, what Mark Fisher refers to as 'hyperstition', a neologism that combines hype with superstition. So why not, in place of the dystopian vision of mass redundancy caused by automation, put forward the alluring paradox of luxury automated communism, in which the public realm is recast as a zone of luxuriance and possibility?

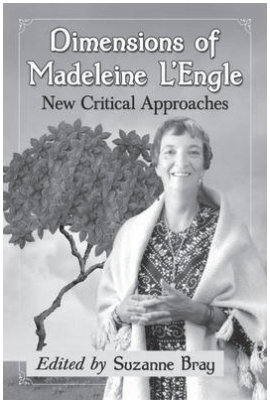
For O'Sullivan, financial derivatives possess a strange temporality that engineer the future from the present. This cultural engineering will be familiar to anyone who lived through the early boosterism of social media, in which the disruption of traditional media by the new platforms was posited as an inevitability and a liberating force. The Cambridge Analytica social media crisis of 2018 has exposed such cant. Power models the future through scenario planning and horizon-scanning, generating financial speculation and consumer trends. If you wish to counter power, the future is a territory that must be fought for. Also included here, the manifesto 'Xenofeminism: A Politics for Alienation', written by the polymorphous collective Laboria Cuboniks, refutes the emancipatory futurist rhetoric of the tech giants: 'Technology isn't inherently progressive. Its uses are fused with culture in a positive feedback loop that makes linear sequencing, prediction, and absolute caution impossible'. If technology cannot set us free, then we must look to our alienation as 'the labour of freedom's construction'. Vehemently anti-naturalist, 'nothing should be accepted as fixed, permanent or "given"', this manifesto runs alongside cultural shifts in transgender and sexual identity. Unbridled utopianism, as Judy Thorne suggests in her interview with Fisher, is an act of wilful world-building that creates a counter-power to end capitalism while simultaneously creating a space to survive it.

The role of retreat and critique in world-building reminds me of Afrofuturism, which escapes into an imagined past (Ancient Egypt in the work of Sun Ra) and a possible future simultaneously. The world-building of Wakanda in *Black Panther* (2018), fusing tribal masks with advanced flying craft, exemplifies a temporality that is part-future, part-past. The dilemma for Wakanda is whether to remain in its privileged nowhere (or *nowhen*) of future-past or whether to make itself known to the wider world and its history, thereby entering the temporality of the present.

In *Futures and Fictions*, the temporality of Afrofuturism is explored in a

conversation between Henriette Gunkel and Daniel Kojo Schrade, concerning artistic practice in which the future is searched for within archives. Afrofuturism is also the subject of a conversation between Julian Henriques and Harold Offeh that discusses how the Industrial Revolution was made possible by slave wealth, thus tying racist exploitation to technology. The terms 'master' and 'slave' are embedded in engineering. Prince, for example, campaigned for the ownership of the master recordings of his music by scrawling 'Slave' on his cheek, drawing attention to the material persistence of racial oppression in the way that black musicians in particular were denied full exploitation of the copyright to their own artistic works. Also included is a conversation concerning the influential 1996 documentary on Afrofuturism, *The Last Angel of History*, that explores the periodicity of this film, how it tracks the transition within the 1990s from an analogue to a purely digital culture.

Having exhausted the territories of space, capitalism began mining time through future speculation. To resist it, to quote Sun Ra, 'we work on the other side of time', imagining futures on whichever surface of the Mobius strip remains uncolonized. Post-financial crisis, capitalist realism can be seen as a historical construct whose time has passed. Jameson's half-remembered maxim no longer holds. It is easier to imagine the end of capitalism, and sf is part of that imagining, for it has always, in the words of Steven Shaviro, 'outline[d] the bars of our prison'. Our times are in flux, what happens next can be informed by unbridled utopianism. We may finally learn where the ones who walk away from Omelas were going.



Suzanne Bray, ed. *Dimensions of Madeleine L'Engle: New Critical Approaches* (McFarland, 2017, 199p, £29.95)

Reviewed by Audrey Taylor (Midway University)

This timely collection, coinciding with Ava Duvernay's Afrofuturist reimagining of *A Wrinkle in Time*, manages what it sets out to do: provide new criticism to bolster the little already done on L'Engle. Ten essays from nine different authors bring together a range of views on L'Engle, intermixing her life, her relationship with theology, places like France, the southern US, and New York, and her works. A clear boon to L'Engle studies, and perhaps religious and topographic studies, it does not necessarily bring anything specific to sf studies but is a worthwhile collection nonetheless.

An engaging introduction by Bray brings together facets of L'Engle's life and influences. For a truly dedicated fan it likely will not be enough, but for those already acquainted with L'Engle it does the trick, and further study is easy with the competent bibliography included. Even on its own, it is an excellent look into an author too often known only for one book.

The collection is strong as a whole. However, there does not seem to be a grouping of theme or time period to allow readers to anchor themselves. This leads to some structural issues, but also repetitions. Bray's chapters, which bookend the collection, though excellent, cover some of the same territory twice. There is also a little overlap even outside of Bray's chapters: Gerald Preher would have benefited from reading Bray's first chapter, for example, although he still has unique things to say about another of L'Engle's southern works ('White in the Moon the Long Road Lies'). Like several of the other chapters, both Preher and Bray focus on sense of place in L'Engle, an aspect little engaged with elsewhere. Particular strengths lie in intertextual comparisons, religious studies of her work, and a more thorough examination on L'Engle as well as her books than is usually available.

One of the earlier chapters, by Chantel Lavoie, is a confident and assured take on *Many Waters* (1986). Some knowledge of the series she discusses as well as other L'Engle scholarship is likely useful, though not entirely necessary. Regardless of one's L'Engle expertise, or not, the chapter is a delight, with insight into both the story and the criticism that may be used to illuminate it. Lavoie has some fascinating insights into a text often dismissed in critical circles outside of Biblical studies because of its Christian message. For example, Lavoie notes: 'Here again, in a different context, that word *ordinary* signals something apart from itself, because in their new environment of the distant past they are far from ordinary'. By delving into the characters Sandy and Denny *as* characters, rather than as symbols or allegory, Lavoie is able to get at what is likely the heart of the work, and to do productive scholarship in a way I hope can be emulated in future work on L'Engle. That is, Lavoie doesn't dismiss any one aspect of L'Engle or her works, rather examines them all together, and in context: 'Natural disasters and historical context come up against myth […] thereby entangling, as L'Engle so fruitfully does, faith and reason, theologies and science, with an emphasis on the challenging quotation she includes from Ralph Hodgson, "Some things have to be believed to be seen"'. Readers will find this an interesting and useful chapter, a considerable feat given the many elements woven together.

Carol Franko's essay is similarly fruitful by focusing its examination of several of the Austin family novels around the adolescent protagonist, Vicky. Franko brings more of the outside scholarship available on L'Engle to the fore than Lavoie, providing a useful background for someone new to L'Engle

scholarship, especially if they are interested in feminism. Again, as in Lavoie's chapter, there are a range of insights that broaden the material. For example, her assertion that 'Vicky matures largely through her relationships with people and with texts, rather than by separation and autonomy' is worthy of its own chapter. More than the individual texts discussed, Franko also makes some interesting points about genre, and how in each of the Austin novels, different genres allow for a different effect that complements the text. (For example, in *A Ring of Endless Light* [1980] the science fiction elements unsettle the text, and open it up to other possibilities, which is echoed in the way that Vicky deals with her grandfather's terminal illness.) Well researched and with a broader focus, Franko's chapter isn't quite as deftly organized as Lavoie's but is nonetheless a further boon to L'Engle and YA scholarship.

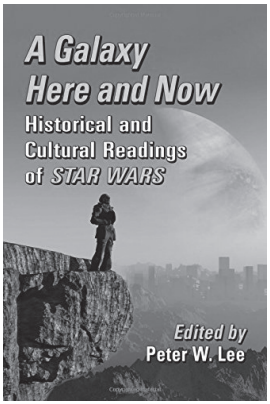
As one of the best known of L'Engle's works, *A Wrinkle in Time* (1962) has perhaps the most scholarship on it, and therefore a slightly more nuanced essay could be anticipated. Anne-Frédérique Mochel-Caballero's account, though, begins with some dubious statements that never quite right themselves. It examines the novel but from a basic masculine/feminine angle that reduces some of its complexities. As Lavoie notes, the eldest female Murray is a Nobel prize winning microbiologist, hardly the 'cook and housewife' presented by Mochel-Caballero.

Sophie Dillinger's essay is also slightly off the mark with, for example, an odd assertion at the beginning of her chapter on George MacDonald's influence on L'Engle. Why this should be interesting is not really explored. MacDonald is well known for his Christian faith, and as a fellow author of fantasy for adults and children alike, it makes perfect sense that L'Engle might have considered him a hero. In fact, Dillinger comes to this same conclusion a few sentences later. These odd casual assertions are scattered throughout the chapter, diminishing somewhat what is otherwise a solid (if somewhat obvious) chapter on comparisons between MacDonald and L'Engle. It is still worth a look, however. For example, the point that 'evil people are not destroyed: they are called upon to change. Violence is excluded because it cannot be redemptive' is one that bears considering throughout both authors' milieu. However, Naomi Wood's later essay on C.S. Lewis and L'Engle better serves both its subjects, bringing forward the similarities and differences in a way that sharpens insight into both authors' works.

Gregory G. Pepetone's essay is of interest to both L'Engle and Christian scholars, as it traces her literary roots in terms of their Romantic sensibilities. The chapter is well-researched and posits some thought-provoking points regarding the Romantics, L'Engle and her religious convictions in a way which gives depth and manages to illumine all three. Emily Zimbrick-Rogers' essay

will also interest Biblical or Christian scholars. It is also likely to be of interest to fans of L'Engle as it traces her personal theology and ideas on religion along with that found in several of her works.

Bray's book provides the dimensions it trumpets from its first pages. It brings new angles, focus and scholarship to areas not much explored in L'Engle. If this leaves it with a narrow focus, perhaps only of interest to those already interested in L'Engle, it still manages what it sets out to do well.



Peter W. Lee, ed. *A Galaxy Here and Now: Historical and Cultural Readings of Star Wars* (McFarland, 2016, 245pp, £32.50)

Reviewed by Alison Tedman (Buckinghamshire New University)

A Galaxy Here and Now encompasses the franchise's representation of gender, race and colonialism; its political context, musical, televisual and radio extensions to the canon; and the responses of *Star Wars* fans to Lucas's alterations and prequels. While *Star Wars* has, of course, already lent itself to cultural readings, the collection contributes to an understanding of the series, from its origins to Disney's purchase of Lucasfilm.

In the first of the book's nine essays, Tom Zlabinger offers a knowledgeable curation of additions to John Williams's musical score for *Star Wars*, and cases of its reformulation. 'Eight strains' of 'echoes' are catalogued: disco and electronica, jazz, rock and pop, hip-hop and nerdcore, comedic and parodic, anomalous (such as lullabies), movie and TV, and ocular. Sources painstakingly cited range from indie bands to Christmas albums and *Family Guy*. This informed collation leaves the reader with a sense of surprise at the quirky breadth of *Star Wars*' musical heritage, whilst the categorization might usefully form the basis of further theoretical study.

The first of two essays that focus on female representation in *Star Wars*, by Karin Hilck, contextualizes NASA's interrelationship with *Star Trek*, including its recruitment of Nichelle Nichols as a spokesperson in the late 1970s, to encourage greater diversity in career applications. Finding little intertextual citation between NASA and *Star Wars*, in contrast with myriad links to *Star Trek*, Hilck argues that Gene Roddenberry's 'utopian outlook on the future' and 'hard science' dovetailed with NASA's perceived image in ways that *Star Wars*' generic identity as 'space fantasy' failed to do. By the 2000s, Hilck explains with

reference to previous studies, NASA entered an 'entertainment' era, designed to attract a young demographic. Focusing on Leia, Hilck valuably summarizes her paradoxical plot function within many feminist analyses, in order to position her as a regressive figure for female astronauts, who historically played down feminine signifiers in the 1970s and '80s in order to forestall media disparagement.

Mara Wood next considers the feminist potential of female characters in the *Star Wars* franchise, weighing up their narrative agency and onscreen power. While noting the problems associated with Leia's bikini slave outfit for a feminist reading, she finds the later character of Padmé Amidala paradoxically more problematic. Existing only to facilitate male roles, 'her power […] is non-existent'. More progressive potential is argued of *The Clone Wars*' Ahsoka, who undergoes unprecedented self-development through Jedi training and leadership, 'while still retaining her position as a character of influence and agency'. Captain Hera Syndulla, of *Star Wars Rebels*, and crew member Sabine Wren are analysed as feminist icons as well. While not drawing methodologically on feminist film theory, this comprises a detailed and useful assessment in relation to shifting notions of feminism during the same period.

Interrogating the masculinities offered by the first two *Star Wars* trilogies, Erin C. Callahan draws on Lucas's acknowledged debt to the work of Joseph Campbell, as well as Raewyn Connell's seminal work on hegemonic masculinity. Important to Callahan's argument is the series' hybridity as 'the newly created space-western genre'. Focusing on costume, speech, male competition and attitudes towards women, the author contrasts the cowboy-figure of Han Solo with men 'who fall to the Dark Side'. Yet, through Luke Skywalker and Obi Wan Kenobi, characteristics such as peace and service are valorized; traits that realign 'hegemonic patriarchal identities' through the new 'ideal' masculinity of the Jedi Knight.

Gregory E. Rutledge begins his complex, authoritative study with reference to the child in Western culture's binary treatment of non-European cultures, and the child viewer marginalized by film scholarship, before considering *Star Wars*' impact on his own youth. Rutledge addresses the fact that 'heroic West/Central African epics' offer 'cautionary tales against their [heroes'] own powers'. Nevertheless, these are adopted as Western archetypes, with inadequate cultural understanding, through a process of 'epic mimicry'. He acknowledges Kevin J. Westmore Jr.'s postcolonial study of race in *Star Wars*, but stresses the need to consider the 'cultures and cultural processes [in] American culture'. For Rutledge, 'a sci-fi based form of blackface minstrelsy' is associated with 'epic mythology' in *Star Wars*. The franchise is creatively indebted to African locations and culture, notably in the 'cool' jazz signifiers established by the Cantina band,

and Solo's characterization. Such origins are, he argues, made invisible when critical discourses stress Lucas's references to East Asian culture, for example in the Force.

The next essay focuses specifically on the films' Tunisian locations and unacknowledged co-option of Bedouin images and culture. Paul Charbel argues that it is the franchise's heroes, including Luke, who are associated with the positive qualities of indigenous desert warriors, although narratively these heroes are descended from colonists. He demonstrates that stereotypes of Arab culture are conveyed through the Jawas and Tusken Raiders. This portrayal includes untranslated languages, denying both races/species any agency, and, for the Tusken, a destructive role. The latter is mitigated by a sequence showing peaceful village life, yet this is devastated by Anakin, and functions only to foreshadow his narrative descent. The essay considers the role of Tusken history in franchised video games, before positioning the *Star Wars* Universe among texts that represent desert cultures in uncredited or deleterious forms.

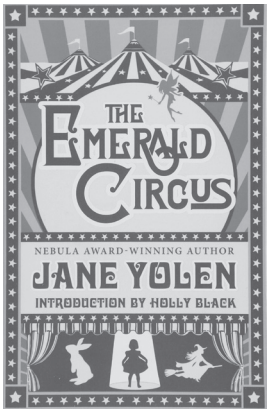
Next, Peter W. Lee argues that *Star Wars* represented a nostalgic avoidance of its political and cultural 1970s context for Lucas, who made older forms of fantasy available for a youth audience. Drawing on Will Brooker and James Chapman, among other media theorists, Lee argues that the original films valorize technology and military prowess through science fiction. The essay considers the trilogy's marketing, early criticism of its treatment of race and gender, and the cultural standing of the variety-based *Star Wars Holiday Special* and subsequent televised Ewok tales, *Caravans of Courage* and *The Battle for Endor*.

Moving to National Public Radio, Jessica K. Brandt offers detailed, historical research into the radio series based on *Star Wars* and *The Empire Strikes Back*, made possible after Lucas offered the rights to KUSC-FM, the radio station linked to his alma mater, the University of Southern California. *Star Wars: The Radio Play*, a BBC co-production, was broadcast weekly, and involved actors Mark Hamill and Anthony Daniels. Brandt positions Lucas's aims, and National Public Radio itself, within a discussion of middle-brow and high-brow culture. The essay explores the shows' cultural significance, including their listener figures, and charts the financial issues that led, among other factors, to a ten-year hiatus before *Return of the Jedi* was produced for radio.

In a useful contribution to studies of fan culture, Michael Fuchs and Michael Phillips offer a chronological study of the growing dissatisfaction of *Star Wars* fans at changes made by Lucas to the canon in the remastered Special Edition and the subsequent prequels. They chart the successful marketing that led to long-term fandom, Lucas's distance yet control over fan fiction, and the growth

of fan knowledge through cable and video, which conflicted with Lucas's continuing changes. The alterations made to the trilogy, and the digital practice involved in the prequels are documented, and the reasons for their unpopularity analysed. Apt reference is made to Stephen Prince's theorization of digital visual effects. The authors map the use of digital media by fans to create new restorations of the original trilogy, and professional re-edits of the prequels, and conclude by noting the online reaction of the still-active fandom to teasers for the first Disney-owned *Star Wars* film.

Although this collection is not specifically grounded in sf theory, it certainly adds to the field of sf studies. Several authors draw effectively on film or media scholarship, while in some other instances, plot descriptions would be enhanced by consideration of cinematic strategies. The majority of essays are fluently written, but there are places where the written expression varies. The book's strengths lie in its meticulous contextual and historical detail, and the authors' understanding and critical interrogation of the primary texts. There are links that emerge between essays, and insights contribute to *Star Wars* scholarship throughout.



Jane Yolen, *The Emerald Circus* (Tachyon, 2017, 288pp, £11.72)

Reviewed by Jane CoomberSewell (Canterbury Christ Church University)

The Emerald Circus is a collection of short stories which have been gathered by Yolen into a retrospective dating from 1985 to 2017. The collection is either directly or indirectly inspired by a range of fairy stories, children's stories, folk tales and historical figures, some of which will be very familiar to the reader, such as Alice in Wonderland and the Wizard of Oz. Other source material is entirely more obscure or tenuous, such as that for 'A Knot of Toads', and the relationship between Disraeli and Queen Victoria in 'The Jewel in the Toad Queen's Crown'. This is not to say that these are modern children's tales. In fact, many reference the dark edges of the original Brothers Grimm, which were not for the faint-hearted, while others retain the hallucinogenic qualities of their originals to such as extent that they may be rather too much of an acquired taste for those readers who like to believe that they are still entirely in control of their imaginations.

However, there is plenty to be commended in Yolen's book, not least the cover artwork, which is beautifully drawn and nostalgic, setting just the right

tone for the contents. It is a not inconsiderable tome, so the facility for an e-book is useful for travelling; retention of the artwork and other nods to detail are a refreshing change in a world which often allows the cutting of those corners in the rush to e-publish. The author's endnotes provoke both enjoyment and intellectual interest, but the many references to the author's widowhood, at first rather sweet, become somewhat maudlin and irritating. The purpose of including so much of the author's poetry in this section appears to be to showcase another aspect of Yolen's portfolio, but it also detracts from the background notes which were so useful.

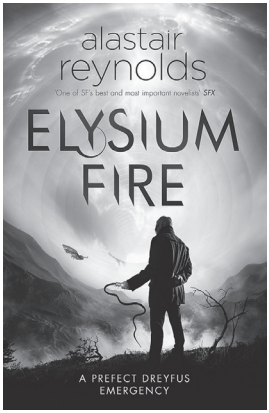
Amongst the stories, 'Blown Away' is a diverting take on *The Wizard of Oz.* There are slightly ghoulish touches; Toto is dead and has been stuffed and put on wheels, but the alternative tale that is told is almost as fantastic as that of Baum's original. The explanation for Dorothy's prolonged absence is that she used the opportunity presented by surviving the cyclone to run away and join the circus. On her return seven years later, Dorothy is not the naïve little girl with which many of us are so familiar, but a pre-possessed professional performer, who may or may not be having a lesbian relationship with the bearded lady.

It is, perhaps, this blending of very familiar ancient stories with a twist that addresses many later twentieth-century and early twenty-first century issues, which makes Yolen's work stand apart from a standard re-working of a folk tale. Peter Pan is, in her version, as much a symbol of the status quo as the world he was trying to escape in J.M. Barrie's version. Yolen is not the first to take on Neverland and seek a new perspective, but she refrains from pulling her punches in a quite brutal and refreshing way in 'Lost Girls'. Darla, the young girl who stumbles into Neverland, is a kick-arse feminist, while the other girls who have become Peter Pan's harem of Wendy's have been oppressed by Peter and the Lost Boys long enough to have fully bought into Simone de Beauvoir's concept of complicity. They deny that they are either 'yoked' or 'oppressed', and it is Hook and Mrs Hook who rescue Darla and the Wendy's from Pan's clutches. Hook, far from the pantomime villain, runs a democratic, family-oriented ship where Mrs Hook wields more power than he does. While in the end, Darla returns to her family gratefully, there is a sense of knowingness and world weariness that is far from the attitude of the original Darling children.

Yolen sets many of her stories in single-sex environments, often with a religious background. In these cases, all the stories are connected to one of the Arthurian legends, whether that is Arthur himself, Merlin or Guinevere. In her notes, Yolen talks about an idea she had for a trilogy of Arthurian themed short story collections, and these stories show a connectivity and consistency that gives credence to this unfulfilled thought. The single-sex setting works well, particularly in 'The Quiet Monk' and 'Evian Steel', although the background of

the latter story is buried so deeply in Arthurian legend it takes time to work out that who was responsible for the forging of Excalibur. The religious settings provide another way of considering social structures, making challenge to social hierarchy an overarching theme of Yolen's work. In these instances, the characters themselves were not as well drawn as in some of the other stories, being slightly formulaic in their variety and development. Perhaps Yolen believes we already know the original characters well enough not to require the same depth of characterization as in 'A Knot of Toads', for example, but for me this made these stories all a bit too similar.

The Emerald Circus is a satisfying collection of stories which faithfully and lovingly continues the great folk tale tradition in its truest sense; it has moments of wonder, darkness, fear, yet also of delight, humour and wit. If like me, the hallucinogenic qualities of the fairy tale scare you silly, this book will only exacerbate the problem. However, if you are already a fan of the genre, *The Emerald Circus* is for you.



Alastair Reynolds, *Elysium Fire* (Gollancz, 2018, 416p, £18.99)

Reviewed by Tom Kewin (University of Liverpool)

This is the second of the Inspector Dreyfus novels in which Alastair Reynolds further explores the social organization of the Demarchists, one of the post-human factions from the Revelation Space (RS) universe. *Elysium Fire* offers an especially timely narrative which explores issues of demagoguery, the regulation of the flow of information, and the wider institutional forces which police the political system of Demarchy. Devon Garlin, the novel's principal antagonist, is situated as a demagogue whose rhetoric is founded solely on the seemingly inept response to the crisis of the prior instalment, *Aurora Rising* (2017). Thus, the central premise of *Elysium Fire* concerning a crisis engendered by the violent malfunction of the citizens' implants that connect them to their system of democracy only reinforce Garlin's criticisms of the policing body, the Prefects. Garlin's antagonism is complemented with the increasing frequency of 'Wildfire' cases, such that Panoply, the ruling bureaucracy, risks losing its authority over the populace, in favour of a consensus led by Garlin which seeks to regain its sovereignty.

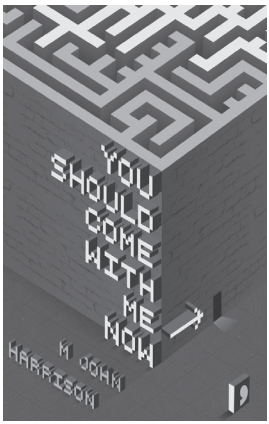
Themes of stewardship or preservation – of ideas or personalities, of social structures and peoples – are familiar terrain for Reynolds. Preservation

serves as a governing metaphor throughout Reynolds' work and is deployed to particular effect in the twin narratives of the Prefects' struggle to ensure the security of the Glitter Band – the vast series of orbiting colonies – as well as the Voi family's desire to preserve the foundations of Sandra Voi's political legacy. For, thinking of the Demarchist system as being an absolute, non-hierarchical, participatory and socially permissive democracy only raises problems for the privileges that the Voi family possesses. This is present in the realization of Julius and Caleb (two descendants of the Voi Line) who discover their family is bound together in a Faustian pact to preserve the legacy of Sandra Voi, capable of using unwarranted powers even at the expense of those principles which they seek to preserve. As such, the elements of political intrigue in *Elysium Fire* – particularly of institutions like the Voi family having the capacity to control and manipulate the flow of information – is reminiscent of Malka Older's equally timely Centenal Cycle (2016-) which likewise centres on issues of governance and technology.

It is apparent that *Elysium Fire* further expands on discussions raised elsewhere in the RS universe, namely the significance of curation as a metaphor for shaping embodied existence: from beta-level simulations to the sculpting of 'quickmatter'. Dreyfus's interviews with sequestered betas of the Wildfire victims revive the debate from *Aurora Rising* – as well as the Sylveste family paradigm in *Revelation Space* (2001) – about the nature of beta-level simulation and the ethics of interviewing simulated forms of deceased suspects. Quickmatter, on the other hand, remains another staple of Reynolds' level of invention and creative intrigue, which centres on *Elysium Fire*'s anxieties around technology, autonomy and governance; familiar staples in the RS universe. Perhaps Reynolds' most pointed observation about the Voi family and their privileges comes through the family's access to quickmatter and its capacity to allow users to alter the visual field, to alter one's embodied awareness, which serves Reynolds' political commentary beautifully in the final confrontation.

Reynolds' *Elysium Fire* both subverts expectations and is itself comfortably entrenched in the RS universe. Whilst *Aurora Rising* focused on the machinations of the Sylveste family and the consequences of its experiments with simulations, *Elysium Fire* explores the Voi family and their imperative desire to intervene in order to preserve Demarchist principles. Yet Reynolds still champions a level of intrigue and scientific rigour here – as has come to be expected of his work – which finds new ways of breathing life back into a franchise which has already spanned vast expanses of time and the limits of (post)human history. With a significant development made at the conclusion of *Elysium Fire*, Reynolds clearly intends to return to the Dreyfus series. For those who see Reynolds' work as founded in a form of pessimism, *Elysium Fire* continues to serve as

an affirmative rejoinder to such criticism, most profoundly in the novel's closing sequence. If anything, Reynolds implores us to have faith in political systems and to hold ourselves and our institutions to account for the security and preservation of our values. Ultimately, *Elysium Fire* offers a practical message which communicates a sense of hope at an increasingly complex juncture in our own political moment.



M. John Harrison, *You Should Come with Me Now: Stories of Ghosts* (Comma Press, 2017, 261pp, £9.99)

Reviewed by Chris Pak (Swansea University)

In M. John Harrison's 'The Crisis', the narrator reflects that 'We think of extreme events as abrupt in that way, but they're always the result of more than one border being crossed'. This concern with thresholds, travel and dislocation, with crisis and the failure or otherwise to accommodate oneself to the new paradigm following these crises, characterize many of the stories in this collection. Negotiating the weird and disorienting terrain that is built within and between these stories involve recurring shifts in perspective, sometimes subtle, often abrupt, but in most cases disturbing, and thus the stories enact this crossing of multiple boundaries. As we journey through the collection we realize that the moment of crisis is already upon us; that Harrison has already been pointing to these crises, circling about them and leaving us adrift by declining to label them.

You Should Come with Me Now collects forty-two short stories and vignettes that range from the darkly satiric to the comedic, from the banal to the fantastic, but a strong sense of haunting pervades each of the tales. Although the earliest of these works began sometime in the late 1970s, the latest more recently in 2017, they inhabit one another, sometimes pulled together by shared allusions, references to places or themes, motifs that appear unexpectedly and just as quickly disappear to resurface elsewhere. Recalling the subtitle of Harrison's last instalment of the Kefahuchi Tract trilogy, *Empty Space: A Haunting* (2012), this collection bears the subtitle *Stories of Ghosts*, signalling elusive connections that encourage reading the stories against one another and against Harrison's oeuvre. *You Should Come with Me Now* deals with themes that have preoccupied Harrison throughout his career: with landscape and psychology, miscommunication, perspectival shifts, writing and style.

Harrison's concern with thresholds and spaces of transition fills many of the stories. 'The Walls' tells of a prisoner's continually deferred escape as he breaks through wall after wall of his prison in a seemingly endless sequence, coming upon the forgotten bodies of previous captives who have attempted to make the same journey before him. Or the fictionalized biographical-critical 'Jack of Mercy's,' about Hardo Crome's vast narrative poem, *Man into Bream*. The 2013 Locus Award-winning short story 'In Autotelia,' however, best illustrates this fascination with border crossings.

'In Autotelia' begins on a train out from London's Waterloo Station. Its narrator, a keenly observant yet curiously uninvolved traveller describes a journey through a transition zone, a London that we thought to recognize only to understand that the territory being travelled through is subtly unfamiliar. A sense of unease and expectation intrudes upon the text. We read hints of an emergent geography, a vaguely defined landscape that has somehow come to occupy the space that used to be Norwich but is now the mysterious Autotelia, inhabited by a people whose otherness is indefinable, more a matter of suggestion than anything concrete. The narrator is accompanied by a fellow traveller, though it is only slowly that we realize the two have not just coincidentally met but that they have been sent to Autotelia for some official purpose.

We know a little more by the end of the story but not enough, and the more we learn, the more mysteries are revealed. We come to realize that the crisis is as much one that the Autotelians experience as it might be for the Londoners who have had to adapt to England's transformed geography. The Autotelians view the narrator's presence as an intrusion, 'an outrage that could only happen to them during war or an epidemic, a breakdown of all values and infrastructures, something to be borne but never forgotten'. Once past the boundary into Autotelia we experience an inversion; by the end of the narrative we are left to infer what meaning we can from the fragments of interaction and information that are squeezed out of the text.

'In Autotelia' sets the tone for many of the collection's stories. It is ambiguous, leading readers to question the significance of the motifs that drift in and out of the narrative. 'Cave & Julia' and the vignette 'Back to the Island' revisit Autotelia, being set wholly or in part in that region. Yet the details of these narratives makes us question whether it is indeed the same Autotelia or whether, like in Harrison's *Viriconium* series, it is a transformed landscape displaced in geography and time.

The intrusion of the weird into the quotidian is characteristic of Harrison's approach to storytelling, and functions as the organizing principle for another short story, 'Cicisbeo.' Its narrator lives in a twilight space, unable to move beyond a previous relationship with Lizzie that he attempts to rekindle, despite

her marriage and child. Driven by her husband Tim's growing detachment and retreat to their attic, where he obsesses over a mysterious home improvement project, Lizzie seeks solace in an affair with the narrator. Surrounded by two men with their own obsessions, Lizzie compels the narrator to visit Tim to talk sense into him. Living on the edge of what appears to be madness, Tim's motives, as for many of the characters in this collection, remain enigmatic. Characters are inexplicable and closed off from one another; they are sources of mystery that often refuse to open up. Tim's retreat shows itself to be a response to a call to probe the inexplicable that cannot be shrugged off, yet it ultimately results in a loss of self and of the bonds that tie him to his life. Through this story of infidelity and the erosion of the self in the face of the mundane we catch glimpses of the ineffable and see the distorted social relations that obsession erects from fragments of a life now gone. There is an unwillingness to move beyond the past, an irresistible compulsion to preserve an identity in the face of change, an attempt to crystallize others in a time and space that is properly over. The eruption of the weird promises an escape from the quotidian by offering something marvellous, but Tim and the narrator fail to capitalize on this escape. Not everyone fails, however: in the final vignette of the collection, 'I've Left You My Kettle and Some Money,' we see that someone has managed to evacuate their life for a retreat into the unknown.

Harrison's interest in breakdown, failure and madness is balanced by an equally sharp humour that satirizes aspects of our cultural fascination with the past. Stories such as 'Psychoarchaeology' explore the connections between space, time and psychology but remain playful. Following the celebrated discovery of Richard III's remains under a Leicester car park in 2012, two 'psychoarchaeologists' search for the next big find for the heritage industry. In this story discoveries of a similar type and value are being turned up all over England, almost as if the desire for these finds are responsible for unearthing them. This story highlights the values that we as a society project into the past – values invested in remains that had previously escaped notice and which simply reflect aspects of our current condition: a senselessness and incoherence that is impenetrable until colonized by our own desires and obsessions. 'There's no more sense to the way we find them,' the narrator explains, 'than in a feature length re-run of *Waking the Dead* or *Silent Witness*: their circumstances seem no less incoherent, post-historical; their post-death narratives no less fatuous'.

Other vignettes take this more playful and ironic mode and turn it toward questions of writing, style and literary criticism. 'Elf Land: The Lost Palaces' and 'Royal Estate' stage a collision between fantasy clichés and reality show tropes for comic effect, while 'Jackdaw Bingo,' 'Earth Advengers' and 'Anti-Promethean' take science fiction clichés and re-work them into bathetic jokes

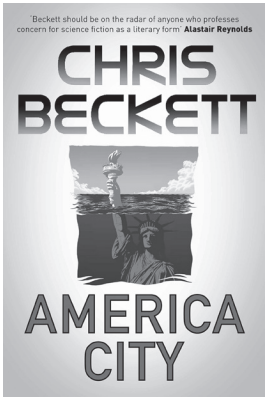
about miscommunication and misunderstanding. They recall Harrison's concern with issues of style, which he championed as reviews editor of *New Worlds*, and which he has continued to develop throughout his oeuvre. Harrison takes the opportunity to poke fun at these familiar tropes by recontextualizing them or simply by subverting them with a turn to the absurd. Perhaps the clearest example of this sub-theme is 'Imaginary Reviews,' a series of short reviews about imaginary works that gesture to a whole range of story forms. Reading these reviews, one cannot help but connect them to stories dimly remembered, if only because the clichés being satirized seem to universalize these critiques, while in other cases the absurdity of the narratives being described parodies familiar techniques and strategies in literature and film.

The final story I want to discuss is 'The Crisis,' an invasion narrative of London's Square Mile by mysterious entities absurdly called iGhetti. These entities emerge from the astral plane, but they could just as well serve as stand-ins for the crisis of finance capital, particularly as they appear to have been branded by an exemplar of that economy, Apple. Indeed, other invasions around the world, in New York, Dubai and the centres of commerce in China, strategically cluster around financial districts. Several theories about the source of the iGhetti invasion abound: that they are associated with Dark Matter, the 2007–2008 banking crisis or that they come from the internet. 'While none of these theories could be described as true,' the narrator tells us, 'they did, perhaps, mirror the type and scale of the anxieties that led the iGhetti to us'. The iGhetti resist explanation, leading the reader to associate them with none or all of these theories. Nevertheless, the ongoing economic crisis permeates the text and the narrator reminisces on 'days when it was still possible to see yourself as a great silent beautiful blossom opening up to the economic light'.

The central characters of this story are young and homeless, resorting in their desperation to drugs that further debilitate and isolate them. Their vulnerability is exploited by a mysterious organisation tasked with learning more about the iGhetti and their provenance. This group manipulates them by providing care at the expense of a gruelling and dangerous series of tests, conducted under the influence of powerful drugs that disrupt the subjects' memories, and which is designed to allow them to penetrate the astral plane. The crisis itself, whatever its source might be, is no sudden rupture of the uncanny into this world but is the culmination of a number of transgressions that, though ignored, lead inexorably to breakdown.

Harrison is a satirist who gives his stories space in which to breathe. His narratives give their readers some purchase to climb but, once they think they have reached the summit, tantalizingly close to a revelation, they re-orient the reader to reveal only more questions and mysteries. London emerges as a

frightful place, a territory that Harrison admits that he never liked. Amidst the backdrop of Anglo-American politics, the landscapes of destitution and crisis resonate; as the narrator of 'The Crisis' suggests, they mirror the type and scale of our anxieties. What challenges remain for a satirist in these times? Perhaps Harrison's achievement is that he has been preparing us all along for moments like these; as the narrator of 'In Autotelia' claims, 'The point seems to be that this culture expected them to happen. Its vision was already prepared'.



Chris Beckett, *America City* (Corvus, 2017, 368pp, £18.99)

Reviewed by Steven Shaviro (Wayne State University)

Chris Beckett has been one of the most interesting writers of social sf in recent years. In particular, he is perhaps best known for his *Eden* trilogy (2012–16) that are remarkable both for their worldbuilding and for their account of social dynamics. By contrast, Beckett's latest novel is a more modest endeavor. It is set in the USA about a century from now. The book presents us with an intensified version of our contemporary network society. Everyone connects over social media, getting all their news and information online. Data gathering by large corporations has become even more extensive than it is today; the tools for analyzing and making use of such data have also grown more powerful. The manipulation of public opinion online has proceeded apace. Economic inequities are as large as ever. For all the technological advances, we are still recognizably in the world of Facebook, Cambridge Analytica and Donald Trump.

The biggest difference between Beckett's twenty-second century America and what we have today is the radically altered climate, resulting from continued global warming. Beckett joins such contemporary sf authors as Paolo Bacigalupi, Paul McAuley, Kim Stanley Robinson, Tobias Buckell and Gwyneth Jones in taking seriously the grim prospect that nothing will be done in the coming decades to avert climate catastrophe, despite our clear awareness of the dangers and of our own responsibility for them. In Beckett's early twenty-second century, none of this has changed. Politicians pay lip service to the need to reduce carbon emissions, but they scrupulously avoid any actions that might actually do so for they are unwilling to inconvenience the ultra-rich or to reduce the profits of large corporations.

In Beckett's twenty-second century, heat and drought have made the

southern half of the United States entirely uninhabitable. Intensified hurricanes ravage the Eastern Seaboard every summer. Vast numbers of people from California, the Southwest, the South, and the East Coast find their homes and livelihoods destroyed. They become climate refugees, moving in great numbers to the few still functioning Northern and Western states. The migrants are unable to find jobs; they live in miserable conditions in government resettlement camps; and they are subject to frequent attack by vigilantes who want them to go back where they came from. (Don't even ask about people in Mexico and countries further south, where climate conditions are even worse; the US border is sealed, and would-be immigrants are shot on sight.)

Under these conditions, most Americans – refugees and Northerners alike – are filled with anger, hopelessness and resentment. While most of the novel is narrated in the omniscient third person, there are some interpolated chapters in which ordinary people give first-person accounts of their plight. The only people not feeling the sombre national mood are the so-called *delicados*, well-to-do liberals who maintain their bourgeois lifestyles in urban enclaves like Seattle, insulated from everyone else's pain. The political situation is also bleak. The liberals have little following or impact on policy. The President from the Unity Party (i.e. the Democrats) is well-meaning, but weak and ineffective. Prospective challengers from the Freedom Party (i.e. the Republicans) are aggressively chauvinistic, in favour of closing state borders and other anti-refugee measures. None of this is surprising as an extrapolation from current conditions but Beckett, who is British, sets it forth with a brutal matter-of-factness that most American writers prefer to avoid.

The novel's protagonist is Holly Peacock, a British-born American citizen and a whiz at public relations. She's a liberal-leaning member of the *delicado* class, living comfortably in Seattle with her American-born academic husband. She thinks of herself as a well-meaning but clear-eyed pragmatist; her whole life is a rebellion against her do-gooder, piously socialist parents back in the UK. But for all Holly's skill at manipulating public opinion, she is unable to see how easily she herself can be manipulated. She is intellectually seduced by a new sort of Freedom Party Presidential candidate: the charismatic Senator Steve Slaymaker. Despite his past as a climate-change denier and an advocate of slashing government budgets, Slaymaker now favours massive Federal expenditures in order to create jobs and homes for the climate refugees. His motivation for this is hardcore American nationalism. He has absolutely no interest in, and no empathy for, people suffering in other countries. He sees his programme as a way to put America first, and indeed to make America great again (though Beckett does not actually use this Trumpian phrase in the novel). Unlike Trump, though, he is highly intelligent and informed; his ruthlessness

is backed up by a clear strategic vision. But there is an ideological similarity between Slaymaker and Trump, and a similar appeal to resentful white voters.

In any case, Holly is wowed by Slaymaker's charisma to the point where she finds it all too easy to ignore his steely indifference to anything outside his nationalist agenda, and his willful ignorance of anything that extends beyond his business-centered purview. So much for education and the humanities – which are embodied by Holly's hapless husband, from whom she gradually becomes estranged. Convinced that Slaymaker's programme of rebuilding is the only thing that can overcome the bitter conflict between Northerners and refugees, Holly enthusiastically joins his Presidential campaign. She quickly becomes one of his most crucial advisors, manipulating Internet feeds on his behalf and devising his winning political strategies.

What makes *America City* really work as a novel, aside from its convincing extrapolations of climate change and media ecology, is the way that it portrays corruption and political cynicism from Holly's unwitting perspective. Holly is brilliant, high-powered and unquestionably well-intentioned. But her passion and commitment shield her from ever taking account of the fundamental dishonesty of her tactics, let alone of their noxious consequences. Holly's work for Slaymaker essentially consists in spreading lies and whipping up hysteria on the Internet. But she tells herself that she has to do it, both because it's the only way to advance Slaymaker's agenda, and because all the opposing candidates are doing it as well.

Holly succeeds in getting Slaymaker elected, and she continues to run his propaganda operation and to advise him on policy. Ultimately her recommendations, made entirely on the basis of their short-term efficacy, lead to truly ugly and horrific consequences. Yet, while Holly eventually gets a bit disturbed by the long-term results of the policies she has recommended, she never realizes their true enormity. She remains too comfortably ensconced in the political bubble she has occupied from the very beginning. The novel as a whole is driven by the contrast between its increasingly outrageous and disturbing narrative, and the evenness of tone with which these plot developments are narrated, and registered by Holly as protagonist. We are left with a dark vision indeed of American imperialism and racism, but one that is only conveyed indirectly, through the screen of the protagonist's well-meaning sense of entitlement. Like all the best social sf, *America City* presents us with a disturbing future that is all too plausibly extrapolated from the tensions and hypocrisies of our current situation.

Call for papers: Special issue of Foundation celebrating Philip K. Dick Day (PKD Day)

A gathering of scholars, fans and creative practitioners interested in the works of the sf author Philip K. Dick, PKD Day was founded by Professor John Goodridge at Nottingham Trent University in 2007. After a successful run, the event moved to its new home at Birmingham City University in 2016, with Thomas Knowles and Charlotte Newman at the helm. Terence Sawyers joined the team in 2017 and hosted the 2018 event at Queen Margaret University, Edinburgh. This special issue of *Foundation* is a celebration of PKD Days 2016, 2017 and 2018, and as such welcomes contributions that address one or more of the themes of the three conferences. These are:

- Philip K. Dick and the Counterculture
- Philip K. Dick and Vast Narrative
- The Half-Life of Philip K. Dick

Topics might include but are not limited to:

- Radical politics
- Paranoia
- Race and gender movements of the 60s and 70s
- Gnosticism
- Vast narratives and story worlds
- Texts and intertexts
- Canonisation
- Adaptation theory
- Convergence culture
- Fictionalised or unreliable biographies
- Genre studies
- Fandom and participation (especially around the Exegesis project)

The original CFPs and conference proceedings for PKD Days 2016-18 can be found here https://philipkdickday.wordpress.com/ and here https://pkdday2018.wordpress.com/ Please send a 500-word abstract and a brief bio. to Thomas.Knowles@bcu.ac.uk by the end of October 2018. Selected articles will be published in the Summer 2019 issue of *Foundation*.

The *Foundation* Essay Prize 2019

We are pleased to announce our next essay-writing competition. The award is open to all post-graduate research students and to all early career researchers (up to five years after the completion of your PhD) who have yet to find a full-time or tenured position. The prize is guaranteed publication in the next summer issue of *Foundation* (August 2019).

To be considered for the competition, please submit a **6000-word** article on **any** topic, period, theme, author, film or other media within the field of science fiction and its academic study. All submitted articles should comply with the guidelines to contributors as set out on the SF Foundation website. *Only one article per contributor is allowed to be submitted*.

The deadline for submission is **Monday, 3rd December 2018**. All competition entries, with a short (50 word) biography, should be sent to the regular email address: journaleditor@sf-foundation.org The entries will be judged by the editorial team and the winner will be announced in the spring 2019 issue of *Foundation*.

Call for Papers
Special Issue: Moon Rise

To mark the 50th anniversary of the first successful manned Moon landing, we invite articles for a special issue, examining how the Moon has been depicted since 1969 in science fiction. As Marjorie Hope Nicolson showed in her classic study of *Voyages to the Moon* (1948), fantasies of moon flight have been an integral part of world literature since classical times. Since moon flight became a reality, how have these stories changed? From adventure series such as *Space 1999* to films such as Duncan Jones' *Moon* and novels such as Ian McDonald's *Luna* sequence, Earth's satellite has remained a source of fascination. What does this fascination, though, reveal about our anxieties and desires since the colonisation of the Moon became a genuine possibility? Topics may include (but are not confined to) the following areas:

- The colonisation and terraforming of the Moon
- The commercial exploitation of the Moon
- The representation of the Moon and of space flight across media
- The growth of ecological consciousness since the Moon landings
- The symbolic and/or allegorical uses of the Moon within contemporary sf
- The Moon as a place of retreat and/or self-discovery

Articles should be approximately **6000 words** long and written in accordance with the style sheet available at the SF Foundation website. The deadline for entries is **Monday, 28th January 2019**. Entries should be submitted to journaleditor@sf-foundation.org