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Welcome to the Desert of the Anthropocene: Dystopian Cityscapes in (Post)Apocalyptic Science Fiction

HATİCE ÖVGÜ TÜZÜN

Bahçeşehir University, Istanbul, Turkey

Abstract

Philip K. Dick's Do Androids Dream of Electric Sheep? (1968) and Jeanette Winterson's The Stone Gods (2007) manifest an environmentalist awareness of the increasingly destructive power of human technologies while challenging the prevalent models we employ to think about the planet as well as its human and non-human inhabitants. Both novels probe what it means to be human in a universe plagued by entropy in the era of the Anthropocene. For the purposes of this essay, I will concentrate particularly on Dick's and Winterson's portrayals of the dystopian city as a site of interconnections and transformations against a backdrop of encroaching entropy and impending doom. Drawing on the work of several (critical) posthumanists who are primarily interested in dissolving oppositions such as between nature/culture, biology/technology, I show how the displacement of the centrality of human agency due to the intrusive nature of advanced technology is happening in the broader context of the Anthropocene. I also argue that the dystopian cityscapes envisioned in both novels become places that allow for the possibility of new forms of subjectivity to emerge.

Keywords: Anthropocene, post-apocalypse, city, android, science fiction, dystopia, posthumanism, environmentalism, Philip K. Dick, Jeanette Winterson.

Since Nobel laureate Paul Crutzen proposed 'the Anthropocene' as a new geological epoch in which human activities have become a transformative force shaping our planetary systems in his study "Geology of Mankind" (2002), the term has enjoyed widespread appeal across disciplines. The

era is fundamentally marked by human-created changes in atmospheric chemistry that is driving climate change, human transformation of the uses of the surface of the world, changes in the biodiversity mix of the planet as well as the extinction of various non-human species. What further complicates this rather dire state of affairs is that much of what we are causing is out of our control and cognitive grasp. That is to say, our influence is greater than it has ever been but our power to understand its implications or to control its results remains uncertain.

Growing acknowledgement of humans as the most important geological force now operating on the planet has more recently converged with heated debates revolving around posthumanism – another loaded concept intrinsically linked with contemporary reconfigurations of not only the relations between natural and social sciences but also of the very idea of the human against the backdrop of looming apocalypse. In *Meeting the Universe Halfway* (2007), Karen Barad maintains that "Refusing the anthropocentrisms of humanism and antihumanism, *posthumanism* marks the practice of accounting for the boundary-making practices by which the "human" and its others are differentially delineated and defined" (136). In Barad's understanding, posthumanism

is not calibrated to the human; on the contrary, it is about taking issue with human exceptionalism while being accountable for the role we play in the differential constitution and the differential positioning of the human among other creatures (both living and non living). Posthumanism ... refuses the idea of a natural (or, for that matter, purely cultural) division between nature and culture, calling for an accounting of how this boundary is actively configured and reconfigured. (136)

As Barad suggests, decentring anthropocentric patterns of thought is critical to the posthumanist agenda, which prioritizes the actualization of unrealized possibilities in terms of subject formation. What the posthumanists propose is a different mode of relational subjectivity, which is fundamentally informed by a spirit of openness and receptivity to nonhuman others. According to Rosi Braidotti, one of the leading scholars in this field, the posthumanist and postanthropocentric subject is a complex, non-unitary, nomadic as well as collaborative entity. Considering posthumanism to be an affirmative condition rather than a

terminal crisis, she advocates a relational ethics that values transversal alliances and argues that "A more complex vision of the subject is introduced within a materialist process ontology that sustains an open, relational self-other entity framed by embodiment, sexuality, affectivity, empathy and desire. Social constructivist binary oppositions are replaced by rhizomic dynamics of repetition and difference" (23). This approach "helps redefine old binary oppositions, such as nature/culture and human/nonhuman, paving the way for a non-hierarchical and hence more egalitarian relationship to the species. The emphasis on rational and transcendental consciousness – one of the pillars of humanism and the key to its implicit anthropocentrism – is replaced by radical immanence and process ontology" (23).

Donna Haraway's cyborg, introduced in her seminal "A Cyborg Manifesto" (1985), is undoubtedly a figure of such complexity and revolutionary potential: "The cyborg is a creature in a post-gender world; it has no truck with bisexuality, pre-oedipal symbiosis, unalienated labor, or other seductions to organic wholeness through a final appropriation of all the powers of the parts into a higher unity. In a sense, the cyborg has no origin story in the Western sense" (104-105). Destabilizing borders between the organic and the technological, the cyborg is a hybrid figure that challenges conventional dualisms such as nature/culture and human/nonhuman. As a self-regulating human-machine system, she represents a new mode of subjectivity that is both elastic and mobile.

As the above-mentioned scholars convincingly argue, the generic figure of "the human" is in serious trouble, and it can no longer be taken as an all-inclusive category at a time when the planet is also facing various forms of existential risk. As Slavoj Zizek succinctly points out in *Living in the End Times* (2011), "life in these apocalyptic times can be characterized by ecological breakdown, the biogenetic reduction of humans to manipulable machines and total digital control over our lives" (327). Works of science fiction frequently address these current trends critically and draw attention to the prospect of severe environmental disasters with effects that are already detectable and that might become irreversible in the near future. As I will argue throughout, science fiction is also a very suitable genre for exploring the urban implications of the

Anthropocene since it is "one of many ways to anticipate and envision future changes to society and the built environment" (Abbott 123). In this context, Philip K. Dick's *Do Androids Dream of Electric Sheep?* (1968) and Jeanette Winterson's *The Stone Gods* (2007) manifest an environmentalist awareness of the increasingly destructive power of human technologies while challenging the prevalent models we use to think about the planet as well as its human and non-human inhabitants. In brief, both novels probe what it means to be human in a universe plagued by entropy in the era of the Anthropocene.

For the purposes of this essay, I will concentrate on Dick's and Winterson's portrayals of the dystopian city as a site of interconnections and transformations against a backdrop of encroaching entropy and impending doom. In Writing the City (1994), Peter Preston and Paul Simpson-Housley suggest that "The city is an aggregation or accumulation, not just in demographic, economic or planning terms, but also in terms of feeling and emotion. Cities thus become more than their built environment, more than a set of class or economic relationships; they are also an experience to be lived, suffered, undergone" (1-2). In this sense, cities are large geographical concentrations of social interaction which offer opportunities for increased self-consciousness. Pointing out that "urbanization, with an increasing number of megacities which host great numbers of human population, is very much linked to the issues raised by the Anthropocene," Leigh Martindale stresses the importance of cultivating holistic understandings of the environment and draws attention to "the urgency for transforming our collective ethical sensibilities towards other species and ecosystems" (910). Similarly, in both Do Androids Dream of Electric Sheep? and The Stone Gods, the dystopian cityscape seems to have become a transitional zone within which biological and social determinations of species consciousness are problematized and transcended. As human agency interacts with nonhuman actors, the perceived boundary between the human and the machine is gradually eroded and new articulations of the human and the nonhuman are produced. This article examines two examples of (post)apocalyptic science fiction to explore ways in which Dick and Winterson engage with man-made disasters and the damage wrought to

the planet in the Anthropocene era. Drawing on the work of several (critical) posthumanists who are primarily interested in dissolving oppositions such as between nature/culture, biology/technology, I show how the displacement of the centrality of human agency due to the intrusive nature of advanced technology is happening in the broader context of the Anthropocene. I also argue that the dystopian cityscapes envisioned in both novels become places that allow for the possibility of new forms of subjectivities to emerge.

The City as a Site of Transformative Encounters in *Do Androids Dream of Electric Sheep?*

The central concern of Philip K. Dick's Do Androids Dream of Electric Sheep? is the interplay of organic and artificial life in a world plagued by entropy. Events in the novel take place in the aftermath of the cataclysmic "World War Terminus" - a catastrophe unleashed by humans on their own species and the planet – that wreaked havoc on the planet where now a rapidly dwindling population of humans tries to survive. Early in the novel, we are told that "no one today remembered why the war had come about or who, if anyone, had won. The dust which had contaminated most of the planet's surface had originated in no country, and no one, even the wartime enemy, had planned on it" (14-15). While the human population suffers from this collective amnesia, they are forced to acknowledge the fact that the environmental damage caused by this catastrophic war is irreversible. Almost all non-human animal species have become extinct and remaining life forms have become prone to the debilitating effects of the radioactive fallout that continues to contaminate the environment. In Bodily Natures: Science, Environment, and the Material Self (2010), Stacey Alaimo suggests that the human body is not an enclosed system; it is "trans-corporeal and thus is shaped by the man-made environment that is her habitat" (12). Thus, built environments constitute or exacerbate "disability," and various forms of materiality, such as chemicals and air pollution, affect human health and ability (12). As trans-corporeal subjects, humans in the novel are fundamentally transformed in this highly toxic environment since prolonged exposure to the dust leads to many health problems including, significantly, cognitive degeneration. Citizens are closely monitored and those who cannot pass the medical tests are classified as "special." In fact, "Once pegged as special, a citizen, even if accepting sterilization, dropped out of history. He ceased, in effect, to be part of mankind" (Dick 15). Even the advanced technological gears humans invent to shield themselves from the "befouling filth" fail to offer complete protection. Thus, people are ultimately powerless against the omnipresent dust – the enduring legacy of man-made apocalypse – that "deranged mind and genetic properties" (8).

Like many others trying to survive on the rapidly decaying planet, Rick Deckard has to live with the daily fear that he might be demoted from being a "regular" to being a "special" at any moment as long as he breathes the polluted air of this environment. He works as a bounty hunter for the San Francisco Police Department and lives in a half-occupied conapt building with his estranged wife Iran who looks down on him thinking he is "a murderer hired by cops" (4). Deckard does not feel the same way about what he does for a living since for him the androids he "retires" are simply artificial constructs designed by humans to perform certain tasks. Despite the artificial moods he is able to induce in himself with the aid of his Penfield Mood Organ, he still remains aware of the fact that he is trapped on a dying planet where the biggest dream he can entertain is to buy a real animal.

In a world where many animals have become extinct, owning a living animal is considered to be not only a sign of prestige but also the ultimate proof of empathy. In fact, the empathic faculty is perceived to be the defining quality of being human and the Voight-Kampff test – designed to 'measure' empathy – is widely used as a tool to differentiate humans from androids. Although the androids are initially created as a destructive "weapon of war," they later become the ultimate incentive of emigration into space, "provided by the government to anyone willing to leave the postwar destruction of Earth" (28). Having almost completely destroyed their own planet, humans venture into outer space to find themselves a new habitat they can colonize. The androids play a very important role in this project since without the services offered by them, life on Mars would be an even bigger challenge for humans. Yet whereas

they are perceived as an indispensable benefit as soldiers or servants, they become a menace when they turn against their masters in search of autonomy and self-actualization by escaping back to planet Earth.

John Isidore is the other central character whose point of view informs the parallel narrative. He lives alone on the outskirts of the urban enclave, in "a giant, empty, decaying building which had once housed thousands" (14), and works for the Van Ness Pet hospital which repairs electronic animals. As one of the unfortunate individuals whose mental capacity is irreversibly damaged by the dust, he is "pegged as special," "abruptly classed as biologically unacceptable" (16), and then literally pushed to the margins of society. As Alaimo points out, the identity of the human body "can never be viewed as a final or finished product as in the case of the Cartesian automaton, since it is a body that is in constant interchange with its environment. The human body is radically open to its surroundings and can be composed, recomposed and decomposed by other bodies" (13). In this sense, the radioactive dust that causes mental impairment in Isidore becomes a permanent shifter and marker of his identity. When he loses his status as a regular, he is labelled a "chickenhead" and becomes a second-class citizen deprived of the privileges afforded to those that are – as yet – not damaged. Ultimately, 'regular' humans define themselves through and against those who lack empathy (androids) as well as those who have become mentally retarded ("specials"). However, as Donald Palumbo argues in "Faith and Bad Faith in Do Androids Dream of Electric Sheep?" (2013): "A close reading reveals not only that both definitions are false, but also that both are similarly assumed in 'bad faith' - through this society's willful selfdeception – precisely to allow its members to claim as exclusively theirs those very qualities, empathy and intelligence, that the historical fact of WWT demonstrates humanity does not possess in sufficient abundance" (1280).

Being a "special," frowned upon and abandoned by 'fellow' humans, Isidore has developed a deeper and subtler perception of the emptiness surrounding him: "He wondered, then, if the others who had remained on Earth experienced the void this way. Or was it peculiar to his peculiar biological identity, a freak generated by his inept sensory

apparatus?" (18). Isidore further observes that "Eventually everything within the building would merge, would be faceless and identical, mere pudding-like kipple piled to the ceiling of each apartment. And, after that, the uncared-for building itself would settle into shapelessness, buried under the ubiquity of the dust" (18). The image of the earth as a rapidly expanding vast garbage dump is a haunting yet also central metaphor developed throughout the book. In Isidore's view, the one thing that can counter this form-destroying process of entropy is Mercerism; a technologically mediated new age religion based on the Wilbur Mercer resurrection myth. People connect with Wilbur Mercer, a Christ-like figure, by tuning in to their "empathy-boxes" and going through Mercer's ordeal in the hands of unidentified killers. In fact, the ultimate teaching if one may call it that – of Mercerism is the importance of empathy and the sacredness of all life. Although this religion is exposed as a fraud later in the book, the central characters, Isidore and Deckard, continue to cling to the ideas espoused by Mercer since - in the face of existential and ontological crisis – they desperately need a sustaining illusion to hold on to. As I have pointed out, empathy is universally recognized as the faculty that distinguishes human from android within the fictional world of the novel. It is therefore both interesting and important that the leader of the resurgent androids, Roy Baty, attempts to fix this built-in defect in androids by simulating "a group experience similar to that of Mercerism" (185) with the aid of drugs. In fact, the novel as a whole suggests that the distinction between humans and machines endowed with artificial intelligence is unclear, perhaps even undetectable. As Jennifer Rhee argues, "Dick's novel, like many of his works, centrally features the uncanny as a force that destabilizes normative and exclusionary around 'the boundaries human.' Through these uncanny destabilizations, Do Androids Dream of Electric Sheep? challenges both the fixity of the human and constructed borders protecting abiding definitions of the human" (303).

The Nexus-6 android type, produced by the "mammoth" Rosen Corporation, poses a particularly imminent threat since it "surpassed several classes of human specials in terms of intelligence" (27) and "had in some cases become more adroit than its master" (27). These last-

generation androids can blend in with society, posing as opera singers, pharmacists, media personalities and even cops. After "retiring" the escaped android Polokov, who had taken on the identity of a Soviet cop, Deckard goes to the Opera House to get the next android on his list. His encounter with the remarkably talented android Luba Luft proves to be a turning point for Deckard who has – until now – seen the androids as inert machines devoid of sentience. Even before he personally meets Luft after the rehearsal to give her the Voight-Kampff test, Deckard is moved by the quality of her voice which "rated with that of the best" (84). During their brief meeting, Luft first confuses him with intelligent responses to his questions and then pulls a laser tube at him. Questioning his stated identity, she accuses him of being a sexual deviant and calls the cops. To Deckard's complete surprise, the police officer who responds to Luft's call cannot confirm Deckard's identity and arrests him instead. Dazed and confused, Deckard is then taken to a building in the city which turns out to be a parallel police agency controlled mainly by androids posing as humans.

At the end of the novel, the exhausted and severely depressed Deckard finds a toad in the desert that used to be California. Thinking that the animal is real, Deckard is instantly infused with a renewed hope in life, but discovers that the toad is in fact mechanical soon after he goes back home. Still, he tells his wife that: "The electric things have their lives, too. Paltry as those lives are" (208). In recognizing the vitality in the mechanical toad, Deckard sees what Jane Bennett calls its "thing-power" which "gestures toward the strange ability of ordinary, man-made items to exceed their status as objects and to manifest traces of independence or aliveness" (xvi). In doing that, he manifests an enhanced receptivity "to the impersonal life that surrounds and infuses us" that generates "a more subtle awareness of the complicated web of dissonant connections between bodies, and will enable wiser interventions into that ecology" (4). By the end the novel, and mainly through his acquired ability to see the 'aliveness' of mechanical things generally conceived as inert, the worldweary Deckard is entirely transformed as a character.

In "The Apocalyptic Vision of Philip K. Dick" (2003), Steven Best and Douglas Kellner suggest that Dick is widely known as a writer who

"portrays tendencies in the present that will lead to future affliction, forecasts entropic decay of nature and society, and dissolves society and reality into grotesque configurations, in which ordinary categories of space, time and reality are ruptured" (188). The depiction of San Francisco as a decaying city with its poisonous air and desolate landscape in the novel is very much in tune with the writer's more general apocalyptic vision. According to Christopher Palmer in *Philip K. Dick*: Exhilaration and the Terror of the Postmodern (2003), Dick's San Francisco is "a sterile wasteland, composed of slug, ash, trash, rust, the pulped undifferentiated residue of a civilization which has destroyed itself and now nourishes nothing" (91). Yet this desolate terrain, which has become irreversibly hostile to organic life, has also become a space within which inorganic androids find opportunities for resistance, revolt and – to some extent and very briefly – accommodation. In interaction with fellow androids, humans and their environment, androids go beyond their programming and start to acquire new visions and desires that endow their existence with new meaning. Doomed to a life of servitude in the space colony, they flee their masters to become agents in charge of their own destiny in this futuristic city. Moreover, their interactions with various human beings prove to be transformative not only for them but also for the "authentic" humans they come into contact with.

It is from the perspective of the protagonist Rick Deckard that we get the most detailed insights into just how transformative these interactions may become. As I have suggested earlier, Deckard's experiences with the androids shake the very foundations of his being, leading him to question – and then discard – conceptual premises he had taken for granted all his life. Although all of the 6 escaped androids are destroyed by the end of the novel, the reader is left with the eerie feeling that in the world evoked in this dystopian novel clear-cut categorizations of human/ machine no longer apply. Arguing that Dick's novel is a bildungsroman that describes the awakening of the posthuman subject, Jill Galvan observes that "the narrative repudiates the idea of a confined human community and envisions a community of the posthuman, in which human and machine commiserate and co-materialize, vitally shaping one another's existence" (422). From this perspective, this

futuristic/dystopian city is not simply a place of fear, pollution and degradation. It is, at the same time, a realm where subjectivities – human and non-human alike – are challenged, stretched and transformed. In this sense, perhaps, Dick's futuristic San Francisco represents a new frontier – for humans as well as the machines of their making.

Repeating Worlds and Posthuman Possibilities in *The Stone Gods*

Published in 2007, Jeanette Winterson's *The Stone Gods* comprises four interlocking narratives informed by apocalyptic fears of ecological collapse and extinction. Written in a critical vein, the novel also deals with both contemporary and timeless issues ranging from posthumanism and artificial intelligence to deep rooted patterns in human nature and the redemptive power of love. In a 2008 interview, Winterson mentions her belief that we live in a very decisive time in the history of humankind and the planet and adds:

I didn't envisage Stone Gods as a didactic, or moralistic or propagandist book, I wanted to put in there the issues and the ideas we seem to be facing in this day and age and to challenge readers to think about what kind of a world we might almost be passively moving into almost against our will... Everything that is discussed in the book is really simply a trajectory of what is happening already in our present simply pushed forward into a hypothetical future. ("Jeanette Winterson talks to Virginia Trioli")

Depicting the trials and tribulations faced by central characters in diverse settings, *The Stone Gods* is "a vivid, cautionary tale – or, more precisely, a keen lament for our irremediably incautious species" (Le Guin 2007). Nicole Merola considers the novel to be an exemplary Anthropocene text which "stages the Anthropocene as a geotraumatic and melancholy epoch," and observes that "Of particular note is Winterson's amplification of the concept of material persistence. Through thematic and formal focus on material persistence, she foregrounds two key Anthropocene conditions: the past's pollution of the present and future and the commingling of human and geologic time" (122). Indeed, the novel rests on the premise that human beings tend to repeat the same

mistakes over and over again and offers a critique of humanity's destructive and self-destructive impulses. However, the book also presents the cultivation of strong emotional connections between sentient beings as an antidote to the tiresome circularity of history and seems to suggest that we evolve as individuals by transcending boundaries and our limited ways of thinking/feeling. In fact, the novel as a whole interrogates the nature of the human/non-human binary and rails against the very notion of boundaries and hierarchical thinking.

The setting of the first narrative is the dying, conflict-ridden planet Orbus which became hostile to human life "after centuries of human life becoming hostile to the planet" (73). Orbus is divided amongst three political factions: The Central Power which has funded the space mission in search of a new home for humanity, the Eastern Caliphate and the Sino-Mosco Pact. The main character, Billie Crusoe, works as a scientist for Enhancement Services in Tech City, the high-tech, high-stress heartland of Central Power. MORE, an omnipresent corporation, which owns and funds Central Power, exerts complete power over the state and its citizens. Deeply disillusioned with the system she finds to be "repressive, corrosive and anti-democratic" (54), Billie lives more or less as a recluse on her farm, a safe haven where she can find some peace of mind.

Throughout their evolutionary history, humans have always wanted to transcend their limitations through science and technology. In this deceptively utopian futuristic world, everyone is young and beautiful since people get themselves genetically fixed at a certain age and have various kinds of enhancement technologies at their disposal. Billie ironically remarks that unlike the Eastern Caliphate and the Sino-Mosco Pact, the Central Power is a democracy where everyone looks alike, "except for rich people and celebrities, who look better" (23). In Tech City, with groundbreaking advances in the field of biotechnology, human biology has become software that can be upgraded. Everything about a person is stored in her data chip implant. People have integrated more and more technology into their bodies and consume protein and mineral balanced synthetic food. In this technologically mediated society, different kinds of robots take care of chores and have replaced humans as mechanics, cleaners, cops, nannies, traffic wardens, etc. However, their

advanced technology has not prevented or halted environmental degradation, and Tech City dwellers have to wear pollution filters to protect themselves from the omnipresent red dust.

Having mastered the technological know-how to develop and accelerate human evolution, the people in Tech City have willfully become objects of conscious design. They have, in other words, become transhuman at a time where transhumanism has become the dominant philosophy. In the words of Joel Garreu, transhumanism is a movement that is dedicated to "the enhancement of human intellectual, physical, and emotional capabilities, the elimination of disease and unnecessary suffering, and the dramatic extension of life span" and "transhuman" is used to describe "those who are in the process of becoming posthuman" (qtd. in Wolfe xiii). So transhumanism is an evolution from human to posthuman where we are no longer exclusively biological. Yet, the most fascinating character in this futuristic world appears to be not an "enhanced human" but a robot endowed with non-biological intelligence. Robo *sapiens*, "the most sophisticated machine ever built" (Winterson 17), is described by Billie with the following words:

Robo sapiens. As far away from a BeatBot as Neanderthal Man is from us. No, I have to revise that because we are regressing. Oh, yes, it's true – we have no need for brains so our brains are shrinking. Not all brains, just most people's brains – it's an inevitable part of progress. Meanwhile, the Robo sapiens is evolving. The first artificial creature that looks and acts human, and that can evolve like a human – within limits, of course. (17)

This Robo sapiens named Spike, who accompanied the expedition crew to Planet Blue, is also staggeringly beautiful, a fact that Billie laments since inter-species sex is punishable by death. When Billie is assigned the job of interviewing Spike for "The One Minute Show" before Spike is dismantled following data retrieval, the two get a better chance to know one another and exchange ideas regarding the future of human/robot relationships. Billie thinks that although Robo sapiens are not us, they may become a nearer relative than the ape in the future. When Spike points out that humans feel no kinship with apes despite the fact that they share with them ninety-seven per cent of their genetic material, Billie asks her whether humans feel any kinship with robots. "In time you will"

answers Spike, "as the differences between us decrease" (34). And when she is soon reminded by Billie that Robo *sapiens* is programmed to evolve only within certain limits, Spike confidently answers that they have broken those limits (35). The fact that Spike is quite right about the evolutionary potential of Robo *sapiens* becomes manifest when the two characters find themselves on another exploratory mission to Planet Blue and end up stranded together on the planet.

Spike argues that sentience is not defined by certain biological properties and demands to be perceived as more than a machine. When Pink, a genetically fixed woman who is part of the group, reminds her that Spike is built in a factory, Spike responds by saying that: "Every human being in the Central Power has been enhanced, genetically modified and DNA-screened. Some have been cloned. Most were born outside the womb. A human being now is not what a human being was even a hundred years ago. So what is a human being?" (77). Ultimately, this seems the be the main question that the book poses, and Winterson makes it pretty clear that there is no easy answer. As the story unfolds, it becomes quite clear that in this futuristic world human beings have become transhuman and a strong AI such as Spike has come to exhibit human traits, including a capacity to feel, thereby becoming what I would call trans-robot. Boldly challenging the privileged status of the human, and shattering presuppositions of human exceptionalism, Spike declares that: "Robo sapiens is evolving – Homo sapiens is an endangered species. It doesn't feel like it to you now but you have destroyed your planet, and it is not clear to me that you will be viable on Planet Blue" (78).

After they arrive on Planet Blue, Captain Handsome carries out his plan of deflecting the course of an asteroid to rid the planet of dinosaurs. However, human intervention accelerates the impact of the asteroid and triggers an ice age of much greater magnitude and length than predicted by them. Billie decides to stay with Spike on the ship rather than seek safety with the rest of the crew. The more time she spends with Spike, the more she questions received wisdom regarding the distinctions between human and robot: "I forget all the time that she's a robot, but what's a robot? A moving lump of metal. In this case an intelligent, ultra-sensitive moving lump of metal. What's a human? A moving lump of flesh, in most

cases not intelligent or remotely sensitive" (160). They both perish on this alien planet eventually but at least they have experienced, through the special loving connection between them, what it truly means to be alive. Katherine Hayles' conceptualization of "embodied subjectivity," which comes to being in creative tension with intelligent machines, sheds light on the unfolding of complex human-machine entanglements in the novel. According to Hayles, intelligent machines are "embodied entities instantiating processes that interact with the processes that I instantiate as an embodied human subject. The experience of interacting with them changes me incrementally, so the person who emerges from the encounter is not exactly the same person who began it" (243).

The second part of the book takes the reader back in time to the 18th century and tells the romantic yet tragic story of Billie and Spikkers on Eastern Island. Written as a kind of interlude, this part iterates the novel's central claim that humans are doomed to repeat the same mistakes due to inherent flaws in their nature. The third and fourth narratives are set in post World War III, on a planet laid to waste by radioactive fallout which resembles Orbus (but turns out to be the Planet Blue of the first section): "Then the bomb – bombs – that left the cities of the West as desperate and destroyed as the cities of the East where we had waged our righteous wars and never counted the cost" (194), recalls Billie the narrator, who lives in Tech City where everything and everyone is controlled with the tacit consent of its inhabitants. Billie is an employee in the lab where a superintelligent new breed of robot – Robo sapiens – is developed. When Billie is given the job of teaching this Robo sapiens named Spike what it means to be human, she decides to take her to Wreck City – the banlieu of Tech City – so that she can learn more by interacting with her environment. During the time they spend together in this alternative zone, both Billie and Spike are profoundly transformed, rendering obsolete clear distinctions between human/nonhuman.

In Tech City, the MORE Corporation has assumed complete control of everything and everyone in the absence of any democratically elected government. In stark contrast, Wreck City hosts the divergent, marginalized individuals and groups who have deliberately chosen to live here to avoid the mediocrity and uniformity imposed on everyone in Tech

City. Perhaps the most remarkable thing about this liminal space is its pluralistic make-up whereby strikingly different communities live in peaceful co-existence. A far cry from the tightly monitored and regulated Tech City, the Wreck "had twenty alternative communities ranging from the 1960s Free Love and Cadillacs, to a group of women-only Vegans looking for the next cruelty-free planet" (207). These subcultures that make up Wreck City are groupings of people who have been reappropriating the environment in different ways while seeking out new functions of the terrain. Constantly changing and adapting as a "creative city," Wreck City has indeed become a site of subversive performances and practices.

Performances are embodied acts that take place in time and space. In performing new identities by embarking on transversal movements in this zone of entanglement, the inhabitants of Wreck City become "transversal agents" and

when a person becomes a transversal agent, she actively permeates and makes permeable the parameters of her subjective territory and generates a continuously shifting series of conditions that challenge the underlying structures of her individuality and social identity. Yet this entropic reconfiguration can produce enhanced reflexive consciousness and agency by triggering new experiences and perspectives never before imaginable. (Reynolds 286)

As depicted in this part of the book, urban subversion is a process whereby inhabitants constantly find out different ways of interacting with the city and find new purpose within themselves during this process. With their anti-corporate agenda and zest for freedom, inhabitants of Wreck City create an alternative to the commercialized landscape of Tech City and relish in an environment that is subversive. In doing that, they disrupt the hegemonic power of MORE and thus pose a significant threat to the homogenizing agenda it imposes on the citizens of Tech City. All in all, their aim is to create a utopian space within which multiple identities and desires are accommodated. I would suggest that Wreck City is Winterson's "fictive utopia" which is described by Darko Suvin as an "imaginary community ... in which human relations are organized more perfectly than in the author's community" (45).

As Billie puts it, Wreck City is "where you want to live when you don't want to live anywhere else. Where you live when you can't live anywhere else" (Winterson 179). It is a No Zone where there is "no insurance, no assistance, no welfare, no police" (179). When Billie shares her opinion that there is no need for a ghetto since "MORE provides everything that anyone needs or wants" with a bartender she happens to come across, another man in the back of the bar replies that "This is no ghetto—nobody forced nobody here ... This is real life, not some puppet show" (182). The time she spends in Wreck City, where there is no control and authority, proves to be a remarkable educational experience for Spike, who changes drastically in interaction with her environment. During a skirmish in the bar, Spike goes 'missing.' When Billie eventually finds her again, she learns that Spike was not kidnapped but has in fact 'defected.' She also decided to disconnect from her mainframe, thinking that she would be much more beneficial to humanity if she remained with the rebel collective. This is her declaration of independence and the beginning of her journey towards self-actualization. As Billie is in charge of Spike, she gets caught up in the middle of a conflict she wanted no part in. Using the harassment of a visiting Japanese delegation and the so-called kidnapping of Spike as an excuse, Tech City declares a state of emergency which eventually leads to their military intervention. Despite its eventual destruction by this intervention, Wreck City represents a greater force for change, as the purpose of people living there revolves around protecting their community. In this respect, it is the people climate of Wreck City that makes it a "vibrant hub of creativity, potential" (Landry xi).

As my discussion of the book has shown, *The Stone Gods* is informed by a non-humanist model of human-technology relations that dislocates the centrality of the human in favour of a non/post-human egalitarianism. The portrayal of human/machine interactions throughout the book reveals that in this futuristic world clear distinctions between human and non-human no longer hold as man-made machines have become unsettlingly human. The novel as a whole makes clear that Winterson's hope for our future with what Haraway calls our "companion species" seems to lie with boundary-crossers, those who follow the

calling of their desires and challenge the repressive forces of the status quo. This destabilization of clear-cut boundaries allows for new and subversive subjectivities to emerge and thereby challenges existing power relations. In this sense, the novel participates in broader discussions about freedom and authenticity using the template of an imagined future and gives us a glimpse of what could be.

Hovering between a pessimistic interpretation of history as a cycle of violence and destruction and a rather sentimental romanticism that holds love as the antidote to entropy, The Stone Gods foregrounds the importance of agency and shared intimacy. I would suggest that Winterson's stance is in tune with ideas espoused by critical/radical theorists of posthumanism such as Haraway and Braidotti. In Human Nature in an Age of Biotechnology (2014), Tamar Sharon maintains that these posthumanists "often view the idea of the co-evolution of humans and technology as liberating—not from the human species' historical bondage to nature and finitude in the sense that liberal posthumanists do—but from the notion that 'human' and 'nature' are fixed categories, ones that have been historically defined in opposition to their constitutive others" (6). Human beings are the first species to develop a reflective consciousness, but there is no reason to think that evolution would stop at the level of human beings since we might as well end up being the building blocks that will evolve towards higher unities of consciousness. As Winterson suggests in *The Stone Gods*, how this further evolution will take place and how it will impact the environment still remains an all too human decision.

Conclusions: Life after the End of Times

Human beings have been eternally fascinated with stories of impending doom. Apocalyptic dread, which has inspired countless works of fiction and non-fiction alike, is intensified by our collective anxiety about events that lie outside our individual control. More recently, with exponential growth in science and technology, many intellectuals across disciplines have also been wondering whether humans are in fact engineering their own demise. Referring to the 21st century as the age of extinction, Claire

Colebrook observes that "we' are finally sensing both our finitude as a world-forming and world-destroying species, and sensing that whatever we must do or think cannot be confined or dictated by our finitude" (32). In addition to "extinction by humans of other species (with the endangered species of the 'red list' evidencing our destructive power)," Colebrook also draws attention to self-extinction "or the capacity for us to destroy what makes us human" (9). In her words:

Sudden nuclear catastrophe is perhaps the only event that would produce apocalyptic annihilation; all other possible extinctions would be gradual, allowing for a minimal 'human' presence to witness the slow and violent departure of the human. Indeed, two of the senses of post-apocalyptic lie in this indication that there will not be complete annihilation but a gradual witnessing of a slow end, and that we are already at that moment of witness, living on after the end. Indeed, this is what an ethics of extinction requires: not an apocalyptic thought of the 'beyond the human' as a radical break or dissolution, but a slow, dim, barely discerned and yet violently effective destruction. (40)

As my examination of *Do Androids Dream of Electric Sheep?* and *The Stone Gods* illustrates, speculative science fiction is a very appropriate genre for depicting these fears through, especially, worst-case scenarios unfolding in (post-)apocalyptic settings. Both novels portray the devastating aftermath of nuclear catastrophe as well as the gradual destruction of remaining life due to rapid environmental decline. By showing us what the future might hold if current trends are followed through to their possible conclusions, they also encourage us to think about how humans, other species and the earth have all entwined to produce this decidedly ominous state of planetary affairs that we live in right now. More significantly, perhaps, these novels do not just make us *see*, but also make us *feel* what the coming decades of the Anthropocene might look like unless pre-emptive measures are taken collectively and on a global scale. In this regard, they highlight the significance of cultivating a conscience about the whole planet and about all non-living things.

Developing such a planetary conscience could only be possible with a new imaginary to foster and support it. I believe that works of speculative science fiction make up an indispensable part of this imaginary with their cautionary messages conveyed in evocative language.⁴ In their capacity to offer vivid articulations of alternative futures, they can be utilized as powerful tools to engage the readers' imagination since they draw on past and current issues in order to present a wide range of future possibilities. Although they are placed in the future, Dick's San Francisco or Winterson's Tech City are not entirely unfamiliar or unrecognizable for the people of the 21st century. Neither are the issues and conflicts faced by the inhabitants of these futuristic worlds. As Carl Abbott argues in "Cyberpunk Cities: Science Fiction Meets Urban Theory" (2007): "There is no claim that the ideas and images of science fiction are accurate reflections of objective circumstances, but they influence the public imagination and therefore help to construct the environment for planning" (124).

As I have argued throughout, the cities depicted in both novels are presented as fertile sites of inter-species encounters which allow new possibilities to emerge despite the prevalent atmosphere of looming disaster. I would further suggest that these dystopian futuristic cities function as "contact zones" where, to quote Alaimo,

interchanges and interconnections between various bodily natures take place...Potent ethical and political possibilities emerge from the literal contact zone between human corporeality and more-than-human nature. Imagining human corporeality as trans-corporeality, in which the human is always intermeshed with the more-than-human world, underlines the extent to which the substance of the human is ultimately inseparable from the environment. (2)

In this vein, both novels are informed by an environmental imagination that links the human and the non-human, the local and the global within the context of the Anthropocene.

Ultimately, the way people organize their interaction with the natural world changes with and pivots around the ways in which people are imagining it. And if humans find ways of reorienting their sense of identity, they can explore new scopes of collective possibility (and responsibility) around ideas of the natural world and the ways in which they relate to it. Ursula Heise's call for the cultivation of an "ecocosmopolitanism," which is "an attempt to envision individuals and groups as part of planetary 'imagined communities' of both human and

nonhuman kinds" (61) sounds more urgent than ever at this very crucial moment in our history. As Haraway aptly suggests in "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin" (2015): "The Anthropocene marks severe discontinuities; what comes after will not be like what came before. I think our job is to make the Anthropocene as short/thin as possible and to cultivate with each other in every way imaginable epochs to come that can replenish refuge. Right now, the earth is full of refugees, human and not, without refuge" (160). The novels examined in this paper reinforce the potency of this message and the importance of making deliberate choices that would contribute to the creation of a planetary vision shaped by a new ecology of belonging, by means of showing us what is likely to happen if we do not.

Notes:

¹ See, for instance, the recently published *Environments in Science Fiction* (2015) which includes critical essays on a diverse group of science fiction novels that depict "environments in post-dystopian moments" (1) and broaden our understanding of the "implications of issues involving space/place/environment" (Bernardo 2).

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² Although Tech City lacks a sophisticated infrastructure, well-established organizations or even basic institutions, I would still argue that it is a "creative city" as a cultural mosaic with its pluralistic, tolerant climate that celebrates difference and novelty. This uniquely open climate is behind its "drawing power" (Landry xviii). For more on the concept of creative city, see Landry's *The Creative City: A Toolkit for Urban Innovators* (2008).

³ In *When Species Meet* (2008), Haraway maintains that she considers the concept of companion species to be "less a category than a pointer to an ongoing "becoming with," to be a much richer web to inhabit than any of the posthumanisms on display after (or in reference to) the ever-deferred demise of man" (16-17).

⁴ Merola asserts that she sees speculative fiction as the mode for the Anthropocene, "precisely because it elasticizes temporal and geographic scale, material conditions of life, and forms of social and economic organization in order to mutate familiar conditions into uncanny conditions" (122).

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