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Science, Myth, and Spirits: Re-inventions of Science Fiction by Women of Colour Writers, Between Africa, Europe and the Caribbean

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ABSTRACT This paper explores the way in which women of colour writers are changing the face of science fiction (sf), both by their mere presence within the genre and through the hybridisation of 'hard science' fiction with spirituality, mythology and indigenous scientific literacies from Africa and the Caribbean. The methodology adopted in this paper is a textual analysis of literary and visual media, with specific focus on the geographical, historical and cultural contexts of these texts and of the narrative traditions from which they emerge. Focusing on Jamaican-born Canadian writer Nalo Hopkinson's *Brown Girl in the Ring* (1998), British-Jamaican author Jennifer Marie Brissett's 'Kamanti's Child' (2016), and Kenyan writer and director Wanuri Kahiu's short-film *Pumzi* (2009), I will argue that global variations on the genre are correcting myopic understandings of what sf looks like, both as a 'science'-forward branch of speculative fiction and as a traditionally white/male discipline. The result is a healthy genre re-brand, in which mythology and spirituality is set against a backdrop of technology to specifically stress the relevance of women of colour in the future.

INTRODUCTION

In 2016, for the first time in the history of any science fiction prize, women won all of the four most prestigious Hugo Award's. Of those four, three are women of colour. These wins mark an important affirmation of the relevance and talent of women of colour in the genre. Their success is twofold; not only do these writers challenge the stereotype of the White, bespectacled science fiction writer, but they have also expanded the definition of science fiction to include non-Western elements, and challenge the much-trusted definitions of science fiction fashioned by Darko Suvin, Carl Darryl Malmgren, Edward K. Chan and others. This essay will explore how women of colour writers are imagining beyond the conservative limitations of genre fiction to clarify three important premises. Firstly, as explored in Jennifer Marie Brissett's short story 'Kamanti's child' (2016), that future civilisations might reject technology and opt to live in the style of ancient tribal communities; secondly, that what Grace L. Dillon has termed "indigenous scientific literacies" (2008) should recover their rightful place in contemporary science fiction, as Nalo Hopkinson achieves in *Brown Girl in the Ring* (1998), and lastly, as addressed by *Pumzi* (2009), a short film directed by Wanuri Kahiu, that there is a long-standing tradition of futuristic and scientific narratives from Africa, and that Black women, and not white men, are likely to be the saviours of the human race and the makers of a better future. This analysis should demonstrate the richness and variety of their critique not only concerning issues of race and gender, but science and technology. By imagining the future, and imagining it differently, these narratives make a declaration of hope for women of colour in the present.

OBSERVATIONS AND DISCUSSION

'Kamanti's Child', a short story by British-Jamaican American writer Jennifer Marie Brissett, playfully navigates both the Western reader and sf scholarship's conception of what the genre looks like. In doing so, it attempts to subvert the primacy of Western models of science as the go-to foundation of the future. The story's heroine is Kamanti, a pregnant woman living in a small village. For Kamanti's community, it is normal to "mindspeak" to a baby in utero, a "gift given to women to hear the voice of their unborn child". Over the course of the story, Kamanti engages in a seemingly magical conversation with her child, apparently free from technology, which potentially marks the narra-

tive in the direction of the fantasy genre. The reader is not told where the story takes place, but the names of people and objects suggest multiple cultural influences; her name, Kamanti, is Sri Lankan, but the key technology of the story, the "nanathi", is also a South African Christian name. In this place that does not yet exist, Kamanti lives with her husband, until he leaves with the village war party to defend their territory from an unnamed enemy. On that day, he gives Kamanti the "antique" "nanathi orb" that hangs round his neck. When the village falls under attack, and Kamanti must hide in the "sacred forest" nearby, she feels the protection of the "nanathi". Its force is tested on multiple occasions, including when a wild boar wanders into her makeshift camp:

A sus, small and tough and violent, with two small tusks protruding from its snout, stopped in place before her, breathing heavily as if confused. Kamanti couldn't move. Her chest thumped. The animal paced back and forth, then turned to attack. It stopped short and huffed and stamped. The nanathi shield was in full effect.

The Western reader is positioned to interpret this protective shield as an object of fantasy; as a woman living in a hut in a remote village, it is unlikely-based on a Western understanding of what technologically advanced communities on Earth look like-that Kamanti has access to rare kinds of high-tech. The story contains no laboratories, no space craft, and no aliens. Or does it? For Kamanti's words are not spoken or whispered, but "hummed", "clicked" and "purred". These adjectives could possibly be metaphors for the softly spoken bilabial clicks of Botswana's now scarcely spoken ÂHõã language, or the paralinguistic kiss of some West African languages, or even the click consonants of Xhosa, Yeyi, Ndebele or Zulu. But Brissett points the reader beyond human language. When a small "cub" rushes out of the bush and saves her life, she calls it "hooman", a false homonym and thinly disguised play on "human". If the "cub" is othered through its status as "hooman", then it follows that Kamanti is of a different sort. The reader discovers that in Kamanti's world the human race has evolved into many different species, separating Kamanti's kind from the "pale-skinned" "hoomans", both socially and linguistically. A further set of segregations is introduced by the narrative as we learn that:

There were many cities of the Fourth Tribe, and Ctzhngmuti was the nearest. Once as a child with her father, Kamanti had gone to that city. The sights and sounds overwhelmed her. Her father warned her to not be too captivated by all that she saw. As miraculous as it seemed, the people there did not know Balance, he told her. They had forgotten the richness and joy of living on the soil and clung to the ways of machines and metal. Mostly the different tribes left one another alone. But Kamanti knew that in the end, regardless of tribe or caste or anything, they were still one people, one blood, and she could seek safety among them.

Her father's warning suggests that the city is not a magical place: something far darker and more tangible lurks beneath its hard lines. The "ways of machine and metal" echo Max Weber's waking nightmare of the modern economic order, the "[iron] cage of the future", in which "specialists without spirit, sensualists without heart" abide, in a "nullity" which "imagines that it has attained a level of civilisation (*Menschentum*) never before achieved" (2012: 33). The Ctzhngmuti's choice to invest in a specific kind of civilisation has brought with it an emptiness and a soullessness that cannot be remedied by technology. For, as Kamanti's father reminds her, with the glory and glitter of the technological city, there is something "forgotten": the "richness" and "joy" of the miracles of the land. Kamanti's tribe has chosen to forget technology, and in doing so, they occupy a specific spatio-temporal positioning in the future beyond science fiction, a space and time after the normalisation and subsequent rejection of "miraculous" advanced technology. In an interview, Brissett explains that "The nanathi is not magical, it's lost technology, a remnant of knowledge that Kamanti's people once possessed but that her particular tribe has chosen to forget" (2016). Just as many in the Western world have forgotten that anatomical science has its roots in astrology-a science that is today so low ranking that it has been almost unanimously disqualified as a science at all-Kamathi's tribe has rejected the ontology offered by high-tech in favour of another mode of being and knowing. This spatial and temporal ploy, in which the far future resembles the 'past' of the West and the present of many African communities-necessitates an interesting manoeuvre for many technology-dependent readers, as we wonder why anyone in the sci-

ence fictional future would ever want to 'go back' to tribal living. When she next sees the city, it is "floating in the sky and held there by some invisible means". Technology in 'Kamathi's Child', then, is an empty performance that has, even in the interval between Kamanti's childhood and motherhood, so much lost touch with the Earth that it must levitate above it.

Kamanti's life runs parallel to, but at odds with, this city of "machines and metal". While she lives in the "marriage hut" of a small, technology-free village, Ctzhngmuti operates at a moment in time and space that identifiably belongs to the sf future. And yet, Kamanti does not know how the protective field of the "orb" functions, describes Ctzhngmuti as "floating", and the weapon that destroyed her village as a "black flock of metal birds". These descriptors, which make no allusion to either science or technology, at least in the Western vocabulary, position the tale at odds with a genre that usually defines itself in relation to the characters' awareness that they are in contact with advanced pieces of equipment. Like Buchi Emecheta's celebrated *The Rape of Shavi* (1984), in which inhabitants of a mythical African kingdom perceive aeroplanes as "birds", Kamanti's perception of technology reads as a magical combination of engineered, urban and natural ("metal birds", "floating city"). The story weighs in on the use value versus the consequences of a technologically-fuelled future, which relies on the replacement and othering of the natural environment to exist, making birds from metal and cities that resemble clouds. In so doing, the narrative both embraces and rejects technology as a mode of imagining what is yet to come: Kamanti's story takes place in the far-future, but her community has opted out of the way in which some communities-including the science fiction community-imagine that future.

To reason within Dark Suvin's definitions of science fiction, if both the reader and the characters have not had the story's proposed technology presented to them with a scientific explanation, then the story might not count as sf at all (Suvin 1977). Further, if 'Kamanti's Child' is science fiction but Kamathi does not understand the technology, she might be seen to disqualify herself from her own story. We can counter the absurdity of these statements with a famous sf adage on perspective. Arthur C. Clarke's "third law" reminds us that our perception of technology does not affect the nature of that technology, for "[a]ny sufficiently advanced technology is indistinguishable from magic" (1999: 2). The narrative riffs on the statement to offer a simple but insistent rebuttal to the logic of Western progress, claiming that magic is what we perceive as magical, and science is what we perceive as scientific. A recent corroboration can be found in Andrew D. Gregory's essay 'Magic, Curses, and Healing' (2016) in which he suggests that there is no objective relationship between magic and science:

We have moved beyond hierarchical developmental views typical of the nineteenth century, which stated that for humans first there was magic, then there was religion, and then there was science in ascending order of human intellectual achievement, each view superseding its predecessor. Nor do we view magic as failed science or the supposition of ideal connections for real ones, but often more fruitfully as a system of beliefs embedded in a specific social context (420).

And yet, in Gregory's utopian account of a world where all value systems are equally validated, there lurks an invisible "we" that presumes itself the worthy historical lens through which to asses the relationship between magic and science. This "we" is a combination of influential European anthropologists, from Lévi-Strauss, to Canon and Lévi-Bruhl, who are cited earlier in his paper. As Gregory explains, paraphrasing them under the inclusive pronoun "we", they propose that tribal beliefs in magic "are coherent, often empirically based", a language which grounds them in their Western assessment of what is "coherent" and what is "empirical" (420). While he might claim that European anthropology has "moved beyond" the (often race-based) prejudices that grant or deny validity to certain belief systems, sf and its literary criticism are certainly defined by little other than one Western model of progress and achievement. It is difficult to forget Darko Suvin's swift dismissal in 1979 of "mythical tales" as lacking in "the presence of scientific cognition as the sign or correlative of a method (way, approach, atmosphere, sensibility)" (1979: 81). The legacy of Suvin's *Metamorphosis* and its extensive analysis of which forms of knowledge can be cognitively understood and which cannot, continue to wield their influence in present day sf criticism. In *The Racial Horizon of Uto-*

pia (2016), Edward K. Chan defines the "estrangement" of science fiction as "cognitively arrived at-not a magical incantation invoking the novum but instead a something-else produced rationally through the logical and empirical knowledge of the times" (2016: 5). Where Gregory suggested that "magic" is not defined in relation to Western models of "science", because "we" know that "science" is itself embedded in a specific social context (420), Chan validates only one tradition through which estrangement can be "cognitively arrived at". The "logical and empirical knowledge of the times" is one single fashioning of cognitive and scientific knowledge, because "the times" is an expression of one single temporality. The implication is that forms of estrangement that are not, according to a Western logic, arrived at "cognitively" are either not "logical and empirical" [believable] or not "of the times" [and are therefore behind the times]. Chan's recent contribution to sf criticism pays homage to what are, according to Gregory, outdated paradigms of scientific reasoning. 'Kamanti's Child' self-reflexively takes as its theme Western science's system of legitimisation and dismissal. The city of "machines and metal" is built, presumably, on a similar set of futuristic mathematical "logic" and "empirical" evidence. Kamanti's father questions the reasoning behind disconnecting cities and citizens from the original human habitat of soil and rock. Brissett's contribution to science fiction, then, aside from the brilliance of her work, is her important consideration of whether an advanced race could be a water pot-carrying, hut-dwelling tribe, and whether "technology" could ever be considered "ancient", a thing of the past. In doing so, she challenges Western conceptions of technology and the sf principle of estrangement in relation to Western cognitive modalities.

Toronto-based, Jamaica-born Nalo Hopkinson is also asking the question of what the future looks like for whom, and who decides. The novel that brought her initial critical acclaim and a Locus Award for best first novel, *Brown Girl in the Ring*, takes its title from a West Indies traditional children's game and song thought to have originated in Jamaica. While Caribbean vocal group Boney M brought the children's song into the golden era of disco with their 1978 classic of the same name, Hopkinson offers the traditional tune a home in post-apocalyptic Toronto. The story takes place in the weeks and months following an economic crisis that provoked inner city riots and forced those who could afford to leave the city out into the suburbs. The collapsed "inner city" (10) has subsequently been left with neither government nor law enforcement, which were rendered impotent during the riots that forced formal social governance out to the richer suburbs. Instead, criminal gangs have taken charge of the abandoned city and its remaining populace, namely minorities and the very poor, who are left to fend for themselves. To survive, they must return to old forms of knowledge: farming, exchange of goods, and herb lore that uses Canadian equivalents to indigenous Caribbean plants. Our heroine, Ti-Jeanne, heavily pregnant with a baby she did not plan for, moves in with her grandmother, "Mami" Gros-Jeanne. With medical care rare in inner city Toronto, Gros-Jeanne plays an important role in the community as a healer, drawing heavily on the spirit world and the careful rituals it demands to "serve the spirits and heal the living" (51). But Gros-Jeanne is not alone in soliciting the spirits: the chief of Toronto's inner city gangster mob, Rudy, routinely mutilates and slaughters the poor and helpless to work the dead, feeding his "duppy bowl" with undead spirits who must do his bidding until they are too weak to serve (104). Where Mami's spiritual interventions and alternative forms of medicine are based in friendship and reciprocity between herself and the natural and spiritual worlds, Rudy is haughty enough to believe that he has tricked the spirits, calling them "stupid" for underestimating his cruelty (205). Above Rudy in the city's hierarchy is Premier Uttley, a white Canadian politician with a weak heart who has enlisted Rudy-the most powerful man in the inner city-to find a human donor (dead or alive) for her upcoming heart transplant. The language around the transplant is laden with sf tropes of advanced medicine, cloning and murky ethics. The rich satellite towns have their own porcine organ farms which make suitable replacements for all human organs readily available. But now that a pig virus "so new that the scientists had only named it 'Virus Epsilon'" has damaged much of the organ farm, and her morally questionable advisor has told her she could raise her place in the voting intention polls by figure-heading a popular campaign to bring back human organ donors, Uttley chooses a human heart, which must be found at any cost (31). By infusing the

science fiction of white people (power politics and high-tech transplants at the expense of ethnic minorities) with the resurgence of Afro-Caribbean folklore, the narrative investigates at whose expense these innovations come. Post-apocalyptic Toronto thus allows for multiple conceptions of the future: one replete with the tropes of Western sf, and the other without. Those affected by violence, poverty and social exclusion must draw on mythology and spirituality instead to forge themselves a space in an alternative conception of the future. In doing so, they are the only people to be able to survive in a city destroyed by apocalypse. The exclusion of this economically fragile Afro-Caribbean community from the boon of Western medicine that the sf future affords to some, speaks not of their defeat, but their ability to survive and ultimately thrive in even the most inhospitable conditions.

For Premier Uttley, Ti-Jeanne has no future, indeed, she is already dead: unbeknown to her she is Rudy's chosen subject for Uttley's transplant. Ti-Jeanne's life, and that of her breastfeeding baby is irrelevant to the imperialist imagination, which cannot think the future of Toronto's inner city. Indeed, Uttley's advisor, referring to the physical and economic reconstruction of the "doughnut hole" (10), warns her: "Premier, you know that project has always been a death to politicians. No one's been able to do it yet" (231). The spatial selectivity of the future has already been mapped out in the erected roadblocks and the dividing line of the Niagara Falls which separate the "satellite cities" of the future from the buried inner city that represents Toronto's past (4). As emphasised by the advisor, to imagine beyond those borderlines is "death" to those safely harboured in the suburbs. While the suburbs are unbreachable to inner city dwellers, their bodies are entirely penetrable by suburbans. As Gayatri Chakravorty Spivak has discussed, the question of borderlessness must ask both for the borders of the body to be respected, and for the opening up of the barbed wire fences that separate people in danger from spaces of safety (2016: 47). Ti-Jeanne's grandmother falls victim to borders in both ways; Uttley's power and influence ultimately reaches through the outer city barricades and into Toronto's doughnut hole, where it snatches her heart while she is still breathing and transports it to the hospital where the Premier receives her transplant. But ultimately it is Gros-Jeanne that controls Uttley; at the end of the novel, Gros-Jeanne's heart rejects Uttley's body, allowing Gros-Jeanne's spirit to speak through the Premier and suggest to her advisor that the government could offer incentives to small businesses that have sprung up in the rubble. Her advisor replies with a counter-question: "What small enterprises? That place is a rat hole, complete with rats" (239-240). His emphasis on emptiness, both through the synecdoche of the "rat hole", the dehumanisation and shrinking of its populace into rodents, and the initial rhetorical question, denies that fruitful economic activity could exist in the inner city. His comment reveals that the privileged sphere of white politics cannot even begin to think the future of the remnants of the inner city; their technological and scientific imagination is unable to imagine beyond the border of the satellite towns to include those that were left behind in the chaos. Hopkinson's narrative both critiques the power politics behind sf's mantra that the future is for everyone, and the scientific literacies of the West that, while imagining face-detecting systems and self-driving trucks for some, cannot imagine beyond increasing global inequality and poverty that affect the many. In the process, we are driving the globe towards future apocalypse for all.

This is the setting within which Hopkinson directs science fiction towards other scientific literacies. While the latest in Canadian medicine is oriented towards saving Premier Uttley, it has no intentions for Ti-Jeanne. Her survival depends instead on how successful she is at rallying support between the human and spirit worlds-this will be the key to ensuring herself a place in Toronto's precarious future. Initially Ti-Jeanne is less than keen to learn the ins and outs of herb lore and spirituality, but her grandmother succeeds in convincing her otherwise:

"I don't want to know 'bout it, Mami!"

"Child, is not just me being selfish, trying to keep you with me. If you don't learn to use the gift, things going to go hard with you" (59).

Dillon has suggested that in cultivating a resurgence of indigenous scientific practice, Hopkinson's use of Afro-Caribbean spirituality, mythology, and herb lore evokes a Blochian hope for the future, claiming that: "In practice, her narratives maintain hope through the depiction of regeneration-specifically, of the younger generation's reawakening to cultural tradition, in-

cluding scientific literacies" (2017: 484). Dillon defines "indigenous scientific literacies" as the deployment "of the natural environment in order to improve existence in areas including medicine, agriculture, and sustainability" (2017: 471). Regeneration and sustainability are key to Ti-Jeanne's survival; where suburban politics is focused on leaving the past behind, both by spatially separating itself from the ruins of the inner city, and by fostering the development of brand-new technologies, Ti-Jeanne ultimately survives by working with past practices to revivify the community. In doing so, the narrative argues in favour of sf that explores alternative scientific literacies, and the real-life use of non-normative scientific practices to build a sustainable and hopeful future, for both the Caribbean-Canadian population and for the poor and destitute more generally.

Ti-Jeanne's gift as a "seer" must be complemented by a careful education in the method of soliciting the "the African powers"-the spirits (126). As she watches her grandmother performing a ritual to conjure the *orisha* Eshu, she marvels "at how quickly and neatly Mami created the filigreed designs" (81). The sophistication of Mami's method is not defined here according to Western anthropological standards of what is "coherent" or "empirically based" (420), as discussed above. Instead, her hands and eyes are her measuring units, and her goal is the waking of the spirits. Once Ti-Jeanne learns to call on the spirits herself, she gains a source of income, respect within her community, and protection from the spirit father, Eshu:

The day went by quickly as Ti-Jeanne and her mother dispensed medicine and tried to keep an eye on the cooking and on Baby. Ti-Jeanne heard herself mutter a Thank you to her dead grandmother for insisting that she learn how to treat the sick. At one point, pot spoon in one hand and medicine dropper in another, Ti-Jeanne walked wearily out to the front porch and sat on the railing…Harold the goat was tugging at the last few clumps of grass of the season. His grazing brought him close to the porch. Suddenly he looked up at Ti-Jeanne and sneezed, "Eshu!" Briefly Ti-Jeanne could see his bones through his flesh. Another vision, a joke from her spirit father. She laughed. "Legbara, is you sending me all these sick people to treat, ain't?" (244).

Holding both the "medicine dropper" and the "pot spoon", either for cooking or preparing herbal remedies, Ti-Jeanne's practice finds a comfortably agile position between past and present, human and spirit worlds, and Western medicinal practice and Caribbean scientific literacies. With business flourishing as a healer, an improved relationship with her estranged mother, and an even better one with the spirit father Legbara, who offers her eternal protection, the narrative maps Afro-Caribbean heritage onto the Toronto of the future. *Brown Girl in the Ring* thus suggests that solutions to global insecurity can only be imagined alongside indigenous knowledges. For when Ti-Jeanne refuses to "know 'bout it", Gros-Jeanne prophetically tells her that "things going to go hard with you" (59). When she is able to understand her visions, Ti-Jeanne becomes both the resurrector of an Afro-Caribbean futurism, and the saviour of the inner city.

These are the two final points I want to expand on this final section on *Pumzi*: the importance of black female science fiction heroines and of an increase in appreciation for non-Western sf narratives and their well-established oral tradition. *Pumzi*, a 2009 short film by Kenyan screenwriter and director Wanuri Kahiu and winner of the Award of the City of Venice at the 2010 Venice Film Festival and Best Short at the Cannes Film Festival, was awarded grants from the Changamoto arts fund, the Goethe Institut and Focus Features' Africa First short film program, which also agreed to distribute the work. The film takes place in post-apocalyptic Kenya, following a water drought which has wiped all flora and fauna off the face of the Earth. Only radioactive, desert-buried sources of water remain, and the futuristic, prison-like structures that humans must now call home. Asha, the film's heroine, played by Kudzani Moswela, lives in one such building, where she works as the curator of the Virtual Natural Museum. The space is powered by clean, kinetic energy created by human-operated exercise machines. Water use is acutely monitored, to the extent that toilet bowls purify the urine that passes through them, which is then collected by the user to refill their water bottle. Even sweat must be wiped clean with a special flannel and squeezed into the water purifier for drinking use. Asha's only companion-though they never speak-is the emaciated white woman who cleans the toilets. Asha offers her the most valuable of gifts: water from her water bottle. She spends her days collecting and storing remnants of the lost world, from an-

imal skulls to the prized mother seed, in jars that line the shelves of the minimalist museum room. She communicates with her superiors via a virtual reality device that speaks aloud what she types into the computer. Her immediate superior is a white woman, who reminds her to take "dream suppressors" for the waking dreams that often interrupt her day. When a soil sample with the longitude and latitude of its source arrives at Asha's desk from an anonymous sender, Asha is plunged again into an impossibly lucid dream of swimming in a large body of water. Like Ti-Jeanne's visions, Asha's dreams overpower her, submerging her both literally and metaphorically into the water that lingers on her every thought. The computer then informs her: "DREAM DETECTED. Take your dream suppressants" (01:17). Her supervisor asks her to dispose of the sample, but when Asha's tests reveal that the mysterious sample shows an "abnormally high" water content and zero radiation, Asha beings to hope that her dreams of a fresh water source might be true (05:05). When Asha consults the "council" of three black women that preside over her line manager, they chastise her for her disobedience and alert security, who destroy the museum, empty her precious water bottle, and force Asha to get to work on the exercise machines. Asha succeeds in hiding the mother seed and the soil sample in a trolley, which is wheeled away by her friend who cleans the toilets. Asha then escapes from the building through an overhead tunnel and sets out into the desert to find the location of the soil sample and plant the seed. When she finds the spot, she pours her last supply of water onto the seed and then shelters it with her body from the desert sun.

Problematically, following its screening at the Sundance film festival, it was lauded as "Kenya's first science fiction film" (Kermeliotis 2010), a statement which mistakenly implies that the genre is also new to Kenya. Kahiu has issued clear statements to the contrary, explaining that

The use of futurism and the use of speculative fiction [by Africans] may seem like it's becoming a trend, but I'm curious about that, because in every culture that I've heard of, there have always been people in all parts of Africa that have either looked to space or have had people who are seers, who could see into the future and who could disseminate the future and tell people what is going to happen, so we've always been able to draw from things that are outside of this world to make sense of what is inside of the world…Because we've used botany, we've used entomology, the idea of the study of animals to tell stories. Or the ideas of insects to tell stories or the idea of Natural Sciences and using trees: that's all science fiction (dowhen.org 2013).

Indeed, Pumzi melds together Western conceptions of what 'hard' science fiction should look like-images of innovative sources of renewable energy, clean-lined architecture and svelte characters in fashionable body suits–with an ironic emphasis on the extinction of botany and natural sciences, which, though rendered useless in a world exclusively inhabited by humans and machines, will ultimately allow Asha to grow plant life back again from scratch. It is, then, also a tale of silencing, from the anthropocentric eradication of non-human life from the face of the Earth, to the chemical suppression of Asha's latent dreams and the destruction of the animal and plant remains in the virtual museum. For humankind to maintain apocalypse-the ultimate achievement of the Anthropocene, when humanity becomes sole and autocratic occupier of the Earth-then human consciousness must be denied imagination, which might permit access to a temporality beyond doomsday. The text additionally parables science fiction's silencing of alternative conceptions of the future; Asha, as a black Kenyan woman, is not permitted her precognitions of an alternative futurity in a genre that has streamlined the not-yet into a uniformly Western science fictional future. The council, who can be read as the writers, influencers, critics and award-givers who make up the sf community, are quick to dismiss her dreams as too fantastical to cognitively estrange reality. Instead, they dismiss them as fantasy and order her to cast aside the mysterious sample, the point of departure for another possible reality that is too impossible to warrant a narrative pursuit. *Pumzi* validates that which deviates from the cookie-cutter model of science fiction, allowing Asha's alternative conceptions of the future to spill out through recurring lucid dreams. The film culminates in the ultimate realisation of her imaginative power to transform reality: a birds-eye view reveals a tree-shaped shadow expanding out of Asha's body (19: 50). Like Ti-Jeanne's waking-dream visitations from the spirits, these unexplained images are presented as the real

stuff of the future, validated through vivid and evocative cinematography and woven into the more readily identifiable tropes of Western science fiction.

Precognition is a talent possessed by many protagonists of Western science fiction, often by (white) female characters like the Oracle in the *Matrix*, Dr. Louise Banks in *Arrival*, Drusilla and Cordelia Chase in *Buffy* and, from the Marvel Comics, Destiny, Blindfold and Ms. Marvel-who from 2014 onwards has been refreshingly depicted by writer G. Willow Wilson as a young Muslim girl. Kahiu reminds the viewer that characters with a precognitive seventh sense are not exclusive to Western science fiction. She has explained in interviews that the "seer"-both fictitious and real-life-who "could disseminate the future and tell people what is going to happen" has always taken a celebrated role in the Kenyan oral tradition (dowhen.org 2013). Indeed, Kahiu's tale performs a reversal of a prophesy given by 19th century Kenyan seer and healer, Chege (Cege) wa Kibiru of the Gikuyu tribe, that white people would destroy the land, and by the time Kenya gained independence again, a giant fig tree in the town of Thika, twenty-six miles north of Nairobi, would die. In contrast, Asha prophecies a healthy tree emerging from the desert wasteland (01:07), which will ultimately grow where Asha's body lies, marking the power and potential of a Kenyan woman to build a better future. Indeed, women in Kenya, and indeed, in many other water-scarce nations, "play a key role in supplying their family with fresh water" (UN 2017). While Asha makes the perilous journey into the desert to grow the mother seed in the water-rich soil, women living in pastoral areas of Kenya make regular forays into the bush at night to fetch clean water (UN 2014). NGO's have long-identified the link between women and water, and the UN has held national training sessions in Nairobi since 1987 on "Women, Water Supply and Sanitation" to incorporate the important input of Kenyan women into finding solutions to the water crisis. Asha's final act of radical compassion-laying down her life to shelter the mother seed-mirrors the daily acts of courage undertaken by women in the global south to provide safe water for their families, and highlights the importance of Kenyan women's voices and experience in creating more efficient policies to prevent and mitigate water scarcity. As the black female prophet of the future, Asha points to the immediate importance of these women as agents of change, inhibitors of impending disaster and creators of a better world.

CONCLUSION

Brissett, Hopkinson and Kahiu's stories offer new kinds of superheroes grounded in female and non-Western subject positions: women who depend on ancient technology to escape their villages-turned-war zones while nine months pregnant, like Kamanti; or who call on the spirits to save their abandoned neighbourhood from mobsters and corrupt politicians, while also supporting a young infant, like Ti-Jeanne; or who rage against the machine of hypocritical 'green' high-tech to undo the apocalypse, like Asha. These women are agents of change, offering solutions to the social and ecological crises of the present. In doing so, they also relieve the pure association of Afro-Caribbean migrant communities and pastoral Kenyans with, in Kahiu's words "children with flies in their eyes or war or destruction or poverty or hunger or famine" (dowhen.org 2013). Where the current trend in Western science fiction looks towards a dystopic future markedly worse than what has come before, women writers of colour can look *back* to a history imbued with unimaginable violence and terror—an apocalypse they have already survived. As they draw on the past to uncover solutions to imminent global catastrophe, Brissett, Hopkinson and Kahiu recover herb lore, spiritualism and mythology: tools that afforded their ancestors power and persistence. Indigenous scientific literacies in sf therefore offer hope and possibility for another, more peaceful and more inclusive, time and space. Finally, this important temporal manoeuvre provides the genre with a much needed refreshment against the stagnancy of similarly-imagined, white futures.

NOTE

1 All citations from: Brissett JM 2016. Kamanti's child and interview. *Uncanny Magazine* (online). From http://uncannymagazine.com/article/interview-jennifer-marie-brissett/ (Retrieved on 30 July 2017).

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