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AUTHOR Faeze Rezaii

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5 Extreme climate and the anthropocentric conception of agency in cinematic ocean planets

Faeze Rezaii

This chapter discusses the representation of climate-related extreme events in two science fiction films, reading them as multifaceted explorations of agency in the Anthropocene. A great number of scholarly writings have addressed cinematic water imaginaries on Earth, but much remains unsaid about filmic imaginaries connected to other planets and their real-world implications. Scientific findings have constantly influenced these imaginaries. For instance, in a recent article on planetary geology, William Rapin et al. discuss climate change on Mars and examine its salt lakes that dried up '3.5 billion years ago' (2019: 889). These kinds of discoveries affect fic- tion and trigger the imagination of filmmakers in creating imaginary geo- graphical spaces where climate change beyond Earth, albeit not induced by humans, is a determining factor in the narrative.

Star Wars: *Episode II – Attack of the Clones* (Lucas, 2002) and *Interstellar* (Nolan, 2014), two science fiction films that mainly take place outside Earth, are cases in point. Planet Kamino in *Attack of the Clones* and planet Miller in *Interstellar* are exemplary of the two kinds of aquatic planets that recur in cinematic climate science fiction. I have used three different terms for the taxonomy of aquatic planets: water planets, ocean planets, and wet planets. The terms 'ocean planet' and 'water planet' are used almost interchangeably in *Star Wars* books and fandom. However, in this chapter, I differentiate water planets as having both terrestrial and aquatic spaces on their surface, just as does Earth, from ocean planets which have only oceans on their surface and no dry shores. My essay focuses on two ocean planets, Kamino and Miller, but as I will argue, the latter is an instance of a wet planet that resists the binary categorisation of water and ocean planets too.

In line with the logic of projection and extrapolation that governs much speculative fiction, climate imaginaries set in the future have strong ties to how we currently perceive our place as agents in the natural world. This chapter focuses on extreme climate events and the conception of agency in the representation of these two cinematic ocean planets. The

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representation of Kamino in *Attack of the Clones* unsettles human agency with the planet's extreme climate and shows an anthropocentric understanding of agency with the imprisoned humans of the clone army. In the *Star Wars* world, the governance of the Galactic Republic along with the Jedi knights (central protagonists holding the light side of the force) secures peace in the universe. *Attack of the Clones* begins as the separatist movement orchestrated by the Siths (the antagonists holding the dark side of the force) attempts to overthrow the Republic. A senator named Padmé Amidala (Natalie Portman) wishes to vote for creating an army to resist the separatist movement, but a bounty hunter named Jango Fett is assigned to assassinate her. Jedi Master Obi-Wan Kenobi (Ewan McGregor) thwarts the attempt and the Jedi council demands that he find the bounty hunter. After investigating, Obi-Wan realises that the hunter lives on an ocean planet named Kamino, which is inhabited by a sentient species named Kaminoans; it is the birthplace of the notorious army of human clones disguised in white armour. Kaminoans have secretly created the clone army by the order of a human Jedi but without the permission and knowledge of the Republic. The bounty hunter, Jango Fett, is the clone template of the army.

In the storyline of *Interstellar*, Earth is becoming uninhabitable in the year 2067 due to heavy dust storms, and NASA is working in secret since space exploration is deemed to exhaust resources. NASA sends a crew of astronauts to find a habitable planet. Cooper (Matthew McConaughey) and a crew of astronauts go on a mission to find a new home for humans. As they voyage through another galaxy, they come across planet Miller (named after the astronaut Dr Miller), which neighbours a supermassive black hole. Having received signals from their colleague Dr Miller, who docked on this planet before, they consider it promising. Not knowing that the planet is devoid of shores, the characters disembark the spacecraft while the planet's ocean is in the middle of a swell. On both Kamino and Miller, the anthropocentric conception of agency dominates the ocean planets.

This chapter suggests that analysing the representation of ocean planets in science fiction can help us untangle the fundamental questions about the relationship between human and non-human agencies now that the human species functions as a climate agent. While both films represent worlds beyond our planet, they still recount stories in which humans and the ideologies of the Anthropocene are central; they extend environmental issues on Earth to alien worlds. On Earth, the equation of climate change has two sides: natural occurrences along with anthropogenic activities. The environmental writer Renee Cho suggests that 'there have always been extreme weather events caused by numerous natural factors, but climate change is increasing the number and strength of these events' (2021).

In the two selected films, the representations of the oceanic worlds obscure the human ecological impact on a planet. The films' portrayals of ocean worlds undermine human agency, staging humans as weak agents. In this sense, these representations are in line with an anthropocentric conception of agency. This understanding of agency suggests that the environmental crisis on Earth is now beyond human control (Clark 2015: 6). According to Timothy Clark, 'the irony of the Anthropocene' is that even though this epoch is within the 'planet's natural history,' a time when humans become a definitive 'geological and climatological force,' it exposes itself to us as a process through and within 'the domain of natural becoming,' a procedure out of our hands, most noticeable for us in extreme weather phenomena or the destruction and downfall of ecosystems (2015: 6). Kamino and Miller reproduce the same conception of anthropocentric agency. On both planets, nature in the form of water as the main actant deprives humans of agency. Rather than bringing the human and the non-human together in an interdependent relationship, this type of agency separates 'Nature, a substance "over there"' from the human 'subjects over here' (Morton, 2016: 56, 29). These imaginaries of ocean planets revolve around human involvement with extreme weather events and natural crises like floods and tsunamis. The films' depictions of Kamino and Miller thereby largely avoid the human impact on the environment while retaining the extreme weather events and climate change. I suggest that discarding human agency from the equation while retaining its effects performs the ideological work of maintaining the status quo on Earth. Such representation of agency in these cinematic productions operates to naturalise ecocatastrophes and avoid human responsibility. This is very different from future imaginaries of places impacted by climate catastrophe in *De hemlösas stad* (2011) [*The City of the Homeless*], analysed in Chapter 4, where Katarina Leppänen discusses the transformative capacities of Annika Luther's novel in encouraging environmental responsibility in the readership.

In examining the Anthropocene and agency in the extreme climate imaginaries connected to the planets, I draw upon two optical phenomena that are best understood in and with water: reflection and diffraction. We can understand reflection, for instance, in the replication of our bodies on the surface of water. Reflection acts like a copy imitating an original. As I will argue, both films work with an aesthetics of reflection, echoing endless images of humans stuck in the Anthropocene as well as diffraction. Diffrac- tion can be observed in water when 'waves . . . overlap and extend into one another' (Geerts and Tuin, 2016). This happens when waves face an obsta- cle and their patterns change from linear lines to circular ones. Conceived in aesthetic and figurative terms, diffraction can create new and different forms of agency for both the bodies of water and humans. I argue that even

though *Attack of the Clones* and *Interstellar* represent extreme climate as a natural phenomenon independent of human involvement, they still render an anthropocentric conception of agency that is reflective. This type of agency serves to normalise ecocatastrophes and gloss over the accountability of humans. At the same time, however, these reflective images are ruptured by non-Anthropocentric or diffracted representations of the agency of a human in *Attack of the Clones* and the ocean in *Interstellar*.

Inundated lands: the ocean planet Kamino and the clone army

The habitability and appropriability of the planets determine the setting in both films, especially in *Attack of the Clones*, as its ocean planet Kamino is the location of the settlements for the human clone army. As Gerry Canavan points out, despite the ecological limits imposed on humans,

> late capitalism remains a mode of production that insists (culturally) and depends (structurally) on limitless expansion and permanent growth without end: into the former colonial periphery, into the peasant countryside, through oil derricks into the deepest crevices of the earth, and then, in futurological imaginings, to orbital space stations, lunar cities, Martian settlements, asteroid belt mining colonies, sleeper ships to Alpha Centauri, and on and on.
>
> (2014: 5)

This colonial capitalist outlook has consistently generated an expansive body of material in a sci-fi context. Borrowing from the title of Robert A. Heinlein's most famous novel, *Stranger in a Strange Land*, Jessica Langer suggests that one of the genre's enduring 'myths' is the figure of the faraway planet which is 'ripe for colonization' or the 'Strange Land' (2011: 3). The colonisation of space is an important context for both films, despite the differences in the story worlds of *Star Wars* and *Interstellar*. The genre of the former is science fiction mixed with fantasy, replete with various alien creatures, many of which have human qualities; the hard science fiction of the latter attempts to present a plausible universe that at times reminds the audience of space documentaries, where there is no evidence of other life forms beyond Earth.[1] Yet in both films, the oceanic agency complicates the prospect of colonisation: Kamino and Miller both unsettle human agency with extreme climate in the narratives of the films. Fur- thermore, both of these ocean planets are positioned as ambiguous and mysterious. While Kamino has been erased from the archive maps, planet Miller is situated near a mysterious black hole named Gargantua. The spa- tial positioning of the planets adds to the vague and impenetrable design of these fluid places.

In the case of Kamino, both its history of climate change and the clone army distinguish it from the rest of the planets featured in the film. I argue that Kamino represents a futuristic image of the parts of Earth tragically affected by global warming and sea-level rise. A case in point is the Marshall Islands in the Pacific Ocean, where sea-level rise caused by climate change intensifies the effects of 'extra-high tides' and 'flooding'. Therefore, it is expected that this chain of islands 'will be submerged' to some extent by 2035 (Bordner and Ferguson, 2020). Visualisations of a future Earth transformed by global warming are everywhere in contemporary media. To mention just one representative example, the maps in a 2013 *National Geographic* article entitled 'What the World Would Look Like if All the Ice Melted' project a world where many islands and coastlines have partly or entirely vanished (2013). Kamino thus exhibits thematic similarities to the way Earth is imagined as a changing planet. However, climate change on Kamino is envisioned as a natural process not caused by human activ- ity. As the sourcebook for the roleplaying game *Star Wars: Rise of the Separatists* points out, Kamino was initially a 'terrestrial world' that tran- sitioned from a long-lasting 'ice age' when all the mountains and fields were submerged by floods caused by the melting ice. This process made the humanoid species, Kaminoans (as they are called in this book and also by the other species in the film – for example, Dexter Jettster, an inhabitant of planet Coruscant), adapt their life to the new oceanic world. 'They con- tinually moved to higher ground until there was little land left' and created enclosed domed towers on 'stilts' planted on the ocean floor in the city of Tipoca (Navara, 2019: 111).

Kamino's history of global warming and climate change is thereby evocative of climate change on Earth in the Anthropocene. The scenes that mostly take place indoors in the settlements built above Kamino's oceans mitigate the planet's extreme climate. The frequency of the sequences shot inside the settlements makes the profound effect of global warming less visible in the film. Kamino is represented as a place containing two contrasting modes of climate: extreme weather outdoors and clement weather inside its cities. This is evident, for instance, in the confrontation and battle between Obi- Wan Kenobi and the sought-out bounty hunter, Jango Fett. The sequence takes place in the open air and clashes with the artificially calm atmosphere within the settlement both visually and auditorily. The blindingly bright and silent interior, where the clone army of humans is engineered, contrasts with and thereby conceals the physical environment of the planet and its harsh climate with its combination of incessant rain and thunderstorms, acoustically foregrounded through sound alongside the visual presence of a dark-grey sky and clouds. The blue-hued shots (Figure 5.1) that display hundreds of clone foetuses submerged in the placid blue waters of artificial crystal wombs create a similar effect: interspersed with shots of the waters

Figure 5.1 The cloning technology of Kamino in the city of Tipoca City in *Star Wars: Episode II – Attack of the Clones* (George Lucas, US, 2002). The blue hue of the shot emphasises the water in which the clone embryos thrive.

of the violent dark floods on the surface of the planet, they create a sense of balance and order.

The clone army embodies an anthropocentric system. It is created by the order of a human Jedi character so that it fights for the Galactic Republic. The army is the result of the genetic engineering of humans in a prison-like setting. Mass production of only one species has disturbed the ecological balance of the planet. In the following episodes of the film series,

the viewer will witness how this disrupts the entire universe of Star Wars when the Siths use the clone army against the Republic in never-ending wars that bring about all kinds of calamities like the slaughtering of all the Jedis. Since Kaminoans have genetically modified the soldiers to follow the orders they have been given, little to no agency is imagined for them. In the scene where Lama Su, the prime minister of Kamino, takes Obi-Wan Kenobi on a tour of the army, he introduces the clone troopers as such: 'You'll find they are totally obedient, taking any order without question. We modified their genetic structure to make them less independent than the original host.' Humans have designed a system of power from which they have removed the agency of their kind.

The representation of the clone army very much corresponds with Timothy Clark's conception of the Anthropocene. Clark describes the Anthropocene as an epoch in which 'humanity having become a geological force has implications beyond the fact of human violence against the Earth and other species' (Clark, 2015: 16). He maintains that little agency remains for 'individual rights' and for 'human decisions' due to the human-induced climate change that was generated collectively. It is a time when the environmental collapse caused by human geological agency appears to be too vast to control. The Anthropocene creates 'the demand made upon a species consciously to consider its impact as a totality upon the whole planet, the advent of a kind of new reflexivity as a species' (Clark, 2015: 16). For him, all the personal and collective human actions should be conceived at the 'level of self-reflection.' In other words, humans experience 'shared self-recognition' as the human species (Clark, 2015: 16–17). Thus, in the Anthropocene, humans become conscious of their impact as a species; they return to and examine the actions that have caused their impact on the environment.

Drawing upon Clark's conception of the Anthropocene, I regard the reflective quality of human clones in *Attack of the Clones* as a thematic and figurative representation of the Anthropocene epoch and the human species. I argue that the imagery of reflection in the form of identical human beings is a filmic representation of humans imprisoned in the age of the Anthropocene, on an imaginary, faraway planet, unable to act autonomously and freely. Reflection here means a ceaseless return to the actions of the humans and to their effects in a given space. The scenes that present the army in the film show a multitude of humans of different ages. Two actors are involved in portraying the whole army; a teenage actor plays the part of young clones, and an adult actor portrays them as they are matured. Characters in each age group are mirror images of each other. The *mise-en-scène* thereby highlights the identical and reflective features of the clones. The sequence first shows them in their teenage years wearing uniforms, then cuts to a shot of a disgruntled grown-up clone. Finally, the

whole army is marching while wearing full white costumes and helmets that cover their faces, implying their dehumanisation. The scene creates a collective human image, a vision of a homogenous society that is weakened and is therefore unable to insert new possibilities and change the status quo. Regulated by the anthropocentric system, the human clone soldiers have agency, but only a diminished and limited one.

The clone army with its diminished agency is a mirror image of humanity conveying the sense that things have gotten out of control due to human sovereignty. The film nonetheless affords the possibility of disturbing and breaching this anthropocentric conception of agency by introducing a dif- fractive element. The conversation between Obi-Wan and Lama Su marks this difference:

Obi-Wan: And who was the original host?
Lama Su: A bounty hunter called Jango Fett. ..... Fett demanded only one thing. An unaltered Clone for himself. .....Pure genetic replication. No tampering with the structure to make it more docile. And no growth acceleration.

The bounty hunter, the original human in the army, is a person of his own will, and even though the army has been constructed with the use of his genes, he is similar to them only physically since he is a free man. In this sense, the whole army is a reflected image of an original character, even though they all look like a 'mirror image' of him (Barad, 2007: 89), except his son, Boba Fett, whom I consider a different and diffracted depiction within the army. According to Donna Haraway, 'Diffraction pat- terns record the history of interaction, interference, . . . difference. Dif- fraction is about heterogeneous history, not about originals' (2018: 273). Haraway writes that 'Science fiction is generically concerned with the inter- pretation of boundaries between problematic selves and unexpected oth- ers' most visible 'in a context structured by transnational technoscience.' She proposes that the subjects that emerge as a result are 'subjects called "inappropriate/d others"' that live in SF worlds (2020: 466). In Haraway's theory, this other might be something 'other than the image of the same, something inappropriate, unfitting, and so, maybe, inappropriated' (2020: 466). Jango Fett's (the template) son, Boba Fett, is represented as this other, when a rotated shot shows him taking the helm of the spacecraft to shoot Obi-Wan in his father's defence. Boba Fett breaks the boundary of homoge- neity in the clone army by acting instinctively to protect his father without any hesitation because he might have an emotional attachment towards him. He breaks the shared and collective image of the Anthropocene that only creates sameness in the army. Among all the clones that have biochips inside their heads to make them less aggressive, he is the only one who

has no implanted chip and therefore is not a cyborg. His appearance is marked by his rather long and dishevelled hair, which contrasts with the helmets uniformly worn by the other clones in the same age, highlighting his difference from the rest. Among the clones that lack spontaneity, Boba Fett represents a different pattern. His mode of agency is an instance of diffraction that acts as a breach in the reflected army. On Kamino with its extreme weather climate, a diffracted instance of human agency breaks the oppressive image of the Anthropocene.

The wet planet Miller: tsunami waves and a diffracted conception of place

The ocean planet Miller of *Interstellar* is itself a diffracted planet. The film depicts the fluid agency as a misleading and manipulative force that decentres and undermines the human species and shows human perception to be limited and insufficient. Extreme climate on the planet takes the form of enormous waves that resemble tsunamis. In 'What Causes a Tsunami?,' the website of the Pacific Tsunami Museum states that tsunamis are caused mainly by natural factors like 'Plate Tectonics' and 'Volcanic Eruptions' (The Pacific Tsunami Museum). But, as the website of the International Tsunami Information Centre explains, tsunamis can also be generated by non-natural forces like 'large nuclear explosions' (Tsunami Information Centre). However, floods are different since they can be triggered more sig- nificantly by anthropogenic climate change and global warming in addition to natural factors (Hirabayashi et al., 2013: 816). On Miller, tsunami-like waves are the workings of the tidal currents, and the extreme climate exists independently of any human agency.

The oceanic agency disrupts the human agency of the astronauts on Miller. During the mission assigned to the astronauts to find a habitable planet, the crew land on Miller, from where they received signals that suggest the possibility of life. Seeing the aquatic world, Dr Laura Miller deemed the planet promising and sent a signal to NASA to indicate it, disappearing mysteriously before the arrival of the crew of the spacecraft *Endurance*. Judging by the scenes that show the wreckage of Dr Miller's spacecraft, she must have been crushed by the waves. Upon entering the atmosphere of Miller, the crew see huge masses of water that could sustain life. The astronauts calculate the shallowest waters and land on them. They walk through the waters looking for the wreckage of Miller's spacecraft in order to retrieve her data recorder and to investigate the events that took place before their arrival. A bird's-eye view shot (Figure 5.2) shows the spacecraft after it has successfully landed in shallow waters while some of the crew have just got out of it and started to walk. Then, the camera focuses on the walking astronauts in extreme long shots followed by Dr Brand's

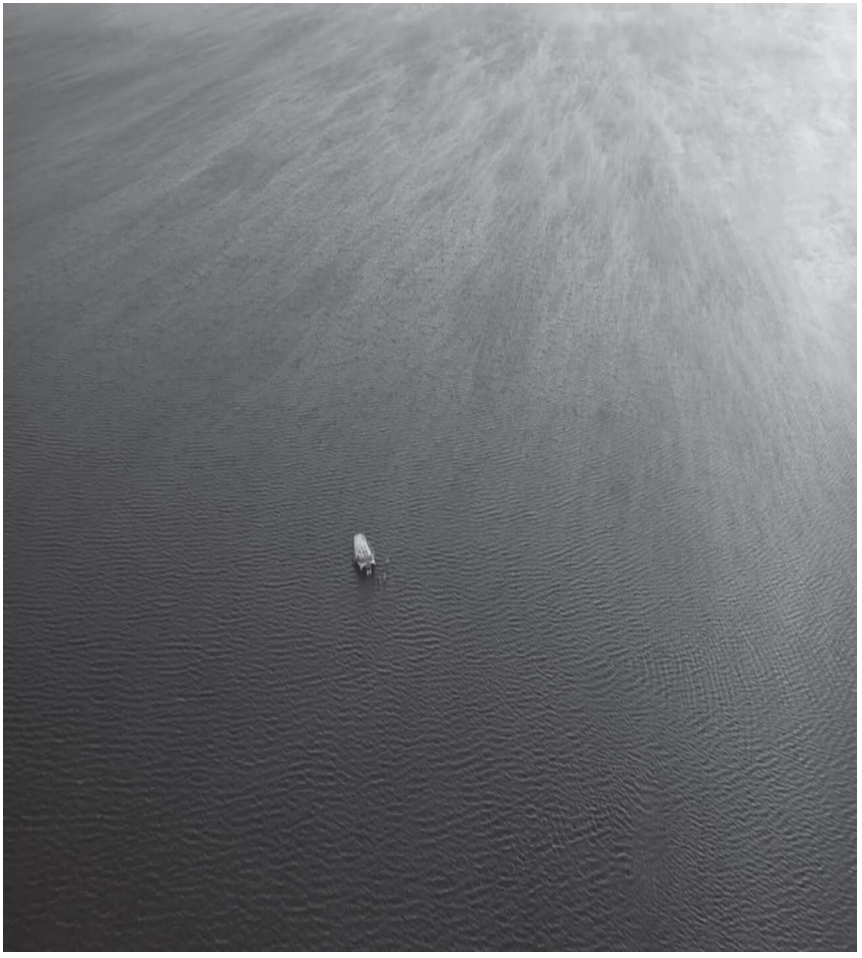

Figure 5.2 A bird's-eye view shot presenting the aircraft on Miller in *Interstellar* (Christopher Nolan, US, 2014).

(Anne Hathaway) point-of-view shots (Figure 5.3) which reveal what seem to be tall pale-blue mountains on the horizon, making the planet appear even more Earth-like.

However, we soon realise along with the astronauts that these are not mountains, but waves. As Brand is searching for Dr Miller's spacecraft to access the data Miller might have collected on the planet, she notices the wreckage of the spacecraft along with a data recorder. She wades through the thigh-deep waters to seize the recorder and bring it to the crew but, as

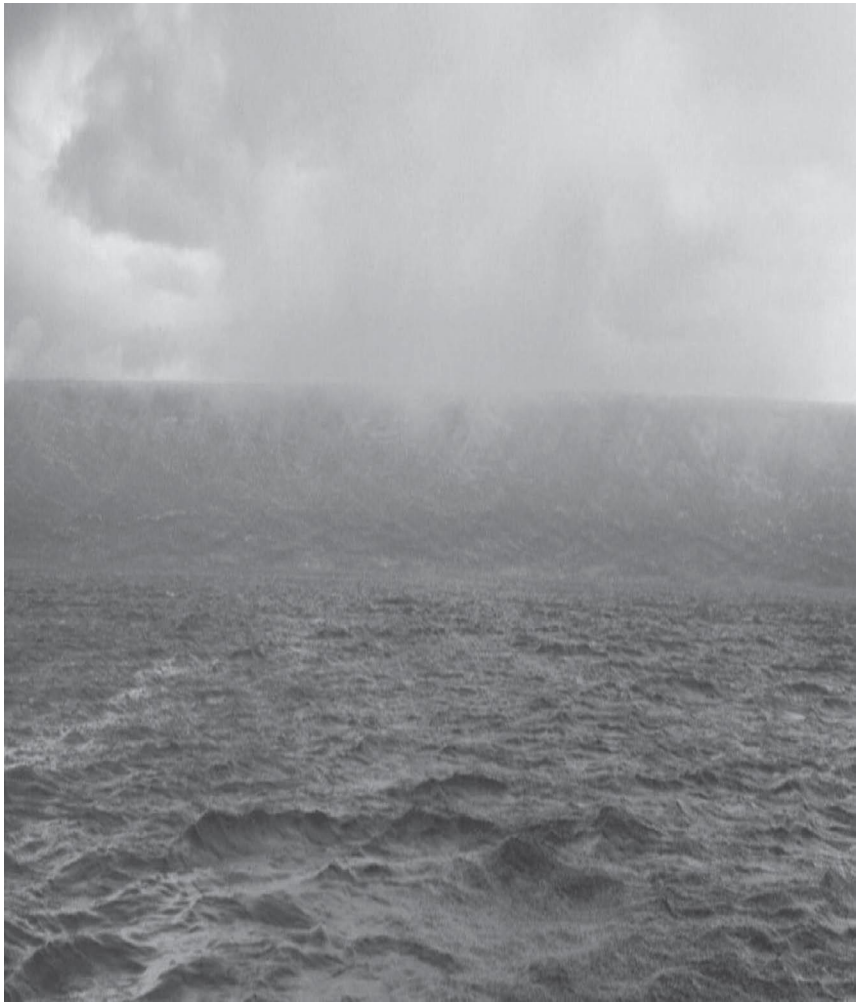

Figure 5.3 Brand's (Anne Hathaway) point-of-view shot in *Interstellar* (Christopher Nolan, US, 2014) revealing their foreground of supposedly pale-blue tall mountains.

she struggles to move the recorder, she slips and accidently gets stuck under it. The camera shows Brand being pinned under the wreckage looking at the rising waves, but those waves are moving away from the astronauts who are about to be heavily hit by a gigantic wave approaching them from the rear. Cooper's lines capture the moment of understanding: 'Those aren't mountains. They're waves. That one's moving away from us.' Then he goes

to the back of the Ranger to check the rear view and sees an extremely high wave approaching: 'Brand, Doyle, back to the Ranger, now! The second wave is coming, we are in the middle of a swell.' The land covered with shallow water through which the astronauts could wade transforms into an ocean within a few seconds as the camera tilts upward, apparently in Brand's point of view, to reveal the rising wave. Human perception is limited on this planet, even though the horizon is shown to be clear. 'Water is . . . an agent in our perception. And so are our eyes' (DeLoughrey and Flores, 2020: 162). Water imposes its agency by obscuring and dimming the characters' vision. The astronauts are directly looking at the gigantic waves the whole time, yet they cannot recognise them as such. We normally associate limited human perception with underwater spaces, but here both the initial bird's-eye view and the astronauts' points of view as they are walking on the planet's surface offer erroneous perceptions of the environment.

Agency on Miller is imagined as belonging only to the ocean; it is one-sided and unshared, embodied by the oceanic waves. In the discussion of material and nonhuman agency, Carl Knappett and Lambros Malafouris argue against the idea that agency should be understood as mere 'intentionality' and formed by human 'consciousness' (2008: ix). Furthermore, Veronica Strang addresses the relationship between water and agency and suggests that the idea of a 'flux' for agency resonates 'with Bruno Latour's view that agency emerges neither from people nor things but from their combination' (2014: 138–139). Such an understanding of agency is in sharp contrast to the conception of agency on Miller, where the ocean possesses all the power and humans are frail and disempowered creatures at its mercy. Latour affirms that an agent earns subject status due to being 'subjected' to 'another agent.' For him, 'to be a subject is not to act autonomously in front of an objective background, but to *share agency with other subjects that have also lost their autonomy*'(emphasis in original); subjects are all co-dependent actants (Latour, 2014: 5). Neither the subject nor the object possesses absolute 'mastery' or 'de-animation' (Latour, 2014: 11). The characters from whose perspective the film tells its story hope to colonise the planet and gain mastery over it, but instead, in less than a few minutes, their subject role is seized by the ocean which is going to devour them. In both the initial scenes that show the crew landing and the following scenes showing the giant waves, subjectivity seems to be equated with autonomy and mastery of one subject over the other.

The ocean exerts its power over humans through its deceptive nature and manipulation of human perception, which lead to a potentially fatal submersion. As the astronauts are waiting for the engines to drain so that they can leave the planet, their robot, Case, retrieves Dr Miller's data and states: 'The data Doyle received was just the initial status echoing endlessly.' It is now known that no subsequent signal ever existed and that the initial one was in fact based on misperception and a reverberating echo. We realise

that humans will be stuck here endlessly, their condition/entrapment being amplified by the dilation of time on the planet; a single hour on Miller equals seven years back on Earth. The initial message of hope they received that implied they might have found a habitable water planet is nothing but a deceptive report. The planet has taken the life of Dr Miller before the arrival of the *Endurance* crew and it sweeps away Doyle, another member of the crew, upon their departure. The final scene shot on the planet shows Doyle lying face down in the water. A new wave is coming and Doyle's body will float, diffracting endlessly.

Although humans have no agency on Miller, the representation of the planet in the film paradoxically stages an anthropocentric worldview where agency can belong to only one actant; here, the human actant is simply replaced by the ocean. In this sense, this is an inverse representation of anthropocentric agency. According to Whitney Stark, agency should be understood not as a built-in characteristic of humans to be performed but as a 'dynamism of forces in which all designated "things" are constantly exchanging and diffracting, influencing and working insep- arably' (2016). The anthropocentric standpoint manifests itself in the creation of a sterile ocean world devoid of life forms and their potential agencies. The planet is the flip side of the anthropocentric Earth, where humans have become the central geological force. The depiction of this planet comments on the anthropocentric understanding of agency where the only subject is human. Here it is the reverse; the only subject of power is water. Ultimately, it is important to keep in mind that this is a human- made vision of an oceanic world made mostly with the help of computer- generated imagery. Like Kamino, the planet Miller can be understood as the projection of the human fear and anxiety about the consequences of global warming in a solely oceanic planet where the oceans are the main agents. In contrast to Kamino, where diffraction patterns that break the anthropocentric agency are limited to the human body, Miller locates dif- fraction in the oceanic bodies and the fluid identity of the ocean itself. The ocean as the largest body of water is the best place to observe diffraction.

In *Interstellar*, Miller is presented as a diffracted entity since it is both an ocean planet and a water planet. Miller is constantly transforming from a planet that offers land with shallow waters to walk through into an ocean planet of enormous waves. It is the incarnation of both without any abso- lute distinction between the two. For Karen Barad, diffraction is non-binary and non-dualistic; it is what 'queers binaries' and points to a redefinition of the concepts of 'identity and difference' (2014: 171). Working with meta- phors of light and darkness, Barad argues that diffraction does not lead to the production of one thing as opposed to the other (2014: 171). Miller does not have a fixed essence or an original identity. In this place, a water planet and an ocean planet are not two separate individual entities, and Miller is represented as having the potential to transform into both.

The categorisation of water and ocean planets as each other's counter-images is rooted in the theoretical opposition of land and water. This dichotomous logic reveals the colonial mindset in pursuit of fixed settlements on dry grounds that shapes these sci-fi narratives. The human geographer Kuntala Lahiri-Dutt proposes a hybrid reading of wet lands like floodplains, haors, and silts, that is of spaces 'where land and water are . . . inseparable,' producing a 'fluid environment.' She draws upon 'wet theory; a theory that can accommodate messiness and contextual variations' in order to go beyond the binary of water and land in geography (Lahiri-Dutt, 2014: 507). She uses examples of wet lands in order to break away from a rigid separation of land and water. In her discussion of the Bengal Delta, she notes that this 'aqueous land' is the result of 'fluvial action' and 'colonial interventions' (Lahiri-Dutt, 2014: 508). On a larger scale, Miller is also a hybrid and wet place that does not adhere to the binary of water and ocean planets, and thus resists categorisations. This hybridity on Miller corresponds to the entanglements of science fiction with both the 'fantasies of empire' and the 'resistant' narratives of 'decolonisation' (Canavan, 2012: 494). On Miller, the colonial pursuit of the astronauts clashes with the resistant nature of the planet. Ultimately, the astronauts have found a planet with water, a place that might be colonised, but their hopes are shattered by the planet's wet and hybrid identity. The hybrid matter is both the 'foreign' and the 'familiar' entity (Langer, 2011: 107) embodied in the oceans. The initial shots expose Miller as an Earth-like planet, another blue marble familiar to the characters, but then it transforms into a devouring ocean they have not encountered before. In this vein, Miller is the epitome of hybridity, a world that looks so much like our ocean world Earth but has too much water, a wet planet that resists any unwavering explication.

The planet Miller resists fixed figurations and categorisations, and oscillates between two modes; the ocean planet merges and overlaps with the water planet. Miller makes 'difference pattern'; it is always in the process of 'differential becoming' (Barad, 2007: 89). It does not make its different self (water planet) into its separate other, but it is the embodiment of the entanglement of two different beings that are not separate at all. There is no definite boundary between what the planet is in one moment and what it becomes in the next. Miller is the embodiment of in-betweenness, fluidity, and difference. The astronauts of the film cannot be blamed for mistakenly taking the imminent waves for solid mountains as the planet is constantly moving, rising, falling, and diffracting. Miller is constantly reshaping and redefining itself and its other. This oceanic world is a frag- mented, diffracted, and fractured being that resists the dichotomy of land and ocean, as well as that of water and ocean planets.

Conclusion

We are living in times faced with anthropogenic climate change that generates extreme weather phenomena on Earth and affects the lives of many. Science fiction representations of planets with water expose much about our conception of agency. In this chapter, I have categorised planets with water as either water planets that have both land and aquatic spaces on the surface or ocean planets that are devoid of shores. I examined two ocean planets; Kamino in *Attack of the Clones* and Miller in *Interstellar*. The emphasis in *Attack of the Clones* and *Interstellar* on possibly appropriable places that have an extreme climate, which, however, is not the work of humans, disregards half of the equation of our current environmental crisis. Such a representation of the two planets works to obscure human agency and responsibility and presents nature as the sole agent producing extreme climate. I have argued that an anthropocentric conception of agency prevails in both films, but my analysis has pointed out ruptures of diffracted and resistant modes of agency as well. Kamino is a dark futuristic vision of our Earth troubled by climate change, and the settlements constructed on it conceal its actual harsh climate. The planet is a space of self-reflective anthropocentric imaginaries embodied in the clone army. The imaginaries of Kamino's clone army restate the theories of the Anthropocene through the representation of identical human clones imprisoned in a system that deprives them of agency. At the same time, there is room for divergence and diffraction in this army in the form of an unaltered human clone.

The representation of Miller's extreme climate more radically unsettles human agency. Miller lacks lands for settlement and constantly produces different oceanic patterns, evading the formation of a fixed identity; in cinematic terms, too, the images it produces are diffracted, multiplied, and differentiated. As an ocean planet, Miller resists boundaries and can transform into a water planet. Miller is a wet planet that resists the binary of water planet and ocean planets. Yet the representation of agency in Miller also reproduces a very human way of conceiving agency by simply replacing humans with the ocean as the single agent. As such, *Interstellar* holds up an inverse mirror to anthropocentric agency. In both films, ruptures of diffracted and differentiated agency surface, but finally fold back into an anthropocentric understanding of agency.

Note

1 In hard science fiction, writers attempt to restrict themselves to 'what can be extrapolated directly from known science' (Samuelson, 1993: 201).

Bibliography

Barad, Karen (2007), *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (London: Duke University Press).

Barad, Karen (2014), 'Diffracting Diffraction: Cutting Together-Apart', *Parallax*, 20:3, 168–187, https://doi.org/10.1080/13534645.2014.927623

Bordner, Autumn and Caroline E. Ferguson (2020), 'Marshall Islands Could Be Wiped Out by Climate Change – and Their Colonial History Limits Their Ability to Save Themselves', *The Conversation*, 11 December, [Online], [Accessed 29 October 2022], available from: https://theconversation.com/marshall-islands-could-be-wiped-out-by-climate-change-and-their-colonial-history-limits-their-ability-to-save-themselves-145994#:~:text=By%202035%2C%20the%20U.S.%20Geological,migrate%20away%20from%20their%20homelands

'Can Asteroids, Meteorites or Man-Made Explosions Cause Tsunamis?', *Tsunami InformationCenter*,[Online],[Accessed17October2022],availablefrom:http://itic.ioc-unesco.org/index.php?option=com_content&view=article&id=1161:can-asteroids-meteorites-or-man-made-explosions-cause-tsunamis&catid=1340&Itemid=2057

Canavan, Gerry (2012), 'Decolonizing the Future: Review of Jessica Langer's *Postcolonialism and Science Fiction* and Ericka Hoagland and Reema Sarwal's *Science Fiction, Imperialism and the Third World*', *Science Fiction Studies*, 39:3, 494–499, https://doi.org/10.5621/sciefictstud.39.3.0494

Canavan, Gerry (2014), 'Introduction: If This Goes On', in Gerry Canavan and Kim Stanley Robinson (eds.), *Green Planets: Ecology and Science Fiction* (Middletown: Wesleyan University Press), 1–21.

Cho, Renee (2021), 'Attribution Science: Linking Climate Change to Extreme Weather', *State of the Planet Columbia Climate School*, 4 October, [Online], [Accessed 18 October 202], available from: https://news.climate.columbia.edu/2021/10/04/attribution-science-linking-climate-change-to-extreme-weather/

Clark, Timothy (2015), *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept* (New York: Bloomsbury).

DeLoughrey, Elizabeth and Tatiana Flores (2020), 'Submerged Bodies: The Tidalectics of Representability and the Sea in Caribbean Art', *Environmental Humanities*, 12:1, 132–166, https://doi.org/10.1215/22011919-8142242

Geerts, Evelien and Iris van der Tuin (2016), 'Diffraction and Reading Diffractively', *New Materialism*, 27 July, [Online], [Accessed 17 October 202], available from: https://newmaterialism.eu/almanac/d/difraction.html

Haraway, Donna J. (2018), *Modest_Witness@Second_Millennium.FemaleMan©_Meets_OncoMouseTM:Feminism and Technoscience* (New York: Routledge).

Haraway, Donna J. (2020), 'The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others', in Geffrey Andrew Weinstock (ed.), *The Monster Theory Reader* (Minneapolis: University of Minnesota Press), 459–521.

Hirabayashi, Yukiko, Roobavannan Mahendran, Sujan Koirala, et al. (2013), 'Global Flood Risk Under Climate Change', *Nature Climate Change*, 3 September, 816–821.

Knappett, Carl and Malafouris, Lambros (2008), 'Material and Nonhuman Agency: An Introduction', in Carl Knappett and Lambros Malafouris (eds.), *Material Agency: Towards a Non-Anthropocentric Approach* (New York: Springer), ix–xix.

Lahiri-Dutt, Kuntala (2014), 'Beyond the Water-land Binary in Geography: Water/Lands of Bengal Re-visioning Hybridity', *ACME: An International Journal for Critical Geographies*, 13:3, 505–529.

Langer, Jessica (2011), *Postcolonialism and Science Fiction* (Basingstoke: Palgrave Macmillan).
Latour, Bruno (2014), 'Agency at the Time of the Anthropocene', *New Literary History*, 45, 1–18, https://doi.org/10.1353/nlh.2014.0003
Lucas, George (2002), *Star Wars: Episode II – Attack of the Clones* (California, Los Angeles: 20th Century Fox).
Luther, Annika (2011), *De hemlösas stad* (Helsingfors: Söderströms).
Morton, Timothy (2016), *Dark Ecology: For a Logic of Future Coexistence* (New York: Columbia University Press).
Navara, Andrew (2019), *Star Wars: Rise of the Separatists* (Roseville: Fantasy Flight Games).
Nolan, Christopher (2014), *Interstellar* (California, Los Angeles: Paramount Pictures).
Rapin, William, Bethany L. Ehlmann, Gilles Dromart, et al. (2019), 'An Interval of High Salinity in Ancient Gale Crater Lake on Mars', *Nature Geoscience*, 12, 889–895, https://doi.org/10.1038/s41561-019-0458-8
Samuelson, David N. (1993), 'Modes of Extrapolation: The Formulas of Hard SF', *Science Fiction Studies*, 20:2, 191–232.
Stark, Whitney (2016), 'Intra-action', *New Materialism*, 15 August, [Online], [Accessed 18 October 202], available from: https://newmaterialism.eu/almanac/i/intra-action.html
Strang, Veronica (2014), 'Fluid Consistencies: Meaning and Materiality in Human Engagements with Water', *Archaeological Dialogues*, 21:2, 133–150, https://doi.org/10.1017/S1380203814000130
'What Causes a Tsunami?', *The Pacific Tsunami Museum*, [Online], [Accessed 17 October 2022], available from: http://tsunami.org/what-causes-a-tsunami/
'What the World Would Look Like if All the Ice Melted', *National Geographic*, [Online], [Accessed 17 October 2022], available from: https://.nationalgeographic.com/magazine/article/rising-seas-ice-melt-new-shoreline-maps