CHAPTER 3

What If

Planet Earth as an Actor

The goal of this chapter is to flesh out my first utopian constellation: the notion that our planet is alive, an actor in its own right, capable of mounting resistance against humanity's destructive inclinations. As outlined in Chapter 1, the plot line framing this type of utopia is the *What-If*, a meditation on the present and future that assumes the form of a thought experiment. Its purpose is to transform how we see the world, its narrative device is estrangement. In one way or another, all the writers discussed here, through their fascination with what are often far-fetched scenarios, embark on a *What-If* inquiry that throws new and surprising light on our world, here and now.

The aim of this speculative exercise is not escapism, even though this accusation has been frequently levelled against utopian projects. Rather, it is to estrange us *for*, not *from* the world. The idea is that we acquire a better sense of reality once we perceive its hegemonic articulations as what they are: constructs that have a history and are hence amenable to comprehensive change. In the case of climate change, this mechanism of first distancing us from the status quo, through imaginative theories and stories, before forcing us "back to Earth," is crucial for demonstrating that things could be otherwise. Such defamiliarization is sparked by what we have glossed before as "planet-centred," as opposed to human-centred thinking about the Anthropocene.

Like the other two cases, this utopian constellation meshes together eutopian and dystopian motifs. My interlocutors in this chapter brand unambiguously positive visions of the future as naive and misguided; at the same time, they refuse to endorse catastrophist perspectives on a climate-changed world. This ambiguity turns *What-If* inquiries into sites

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of vivid debate, but it also leaves them open to an objection about indeterminacy. What ought to follow in terms of practical action from these chronicles of estrangement is a question that requires careful unpacking.

I have already hinted at the internal structure the substantive chapters: my approach is to juxtapose theory building and storytelling in such a way as to allow for mutually illuminating insights. To achieve this goal, I will bring together one of today's most prolific social theorists (Bruno Latour) with a rising star of science fiction and fantasy writing (N. K. Jemisin).

3.1 EARTHBOUND UTOPIANISM: REVISITING THE GAIA HYPOTHESIS

> I have no utopia to propose, no critical denunciation to proffer, no revolution to hope for: the most ordinary common sense suffices for us to take hold, without a minute of apprenticeship, of all the tools that are right here at hand.[1]
>
> If, as the old maxim maintains, "politics is the art of the possible," there still need to be arts to multiply the possibles.[2]
>
> Do we continue to nourish dreams of escaping, or do we start seeking a territory that we and our children can inhabit?[3]

In this section, my objective is to reconstruct the so-called Gaia hypothesis as a distinctly utopian project, focusing in particular on its recent appropriation by Bruno Latour. The Gaia hypothesis is one of several ideas that foreground the connectedness, and indeed interpenetration, of human culture with the natural environment. This existential entanglement in which our species finds itself has been captured through different philosophical vocabularies and on the basis of various research agendas: from Donna Haraway's notions of "becoming-with" and "kin-making" in the Chthulucene[4] to Jane Bennett's study of thing-

[1] Latour, *Politics of Nature*, 163.
[2] Latour, *Facing Gaia*, para. 14.4.
[3] Latour, *Down to Earth*, 5.
[4] Haraway, *When Species Meet*; Haraway, *Staying with the Trouble*.

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power,[5] the current discussion is rife with positions that unsettle anthropocentric frameworks. The kind of critique that these approaches mobilize is also, I shall argue, the central driver behind the Gaia hypothesis. In order to vindicate this idea, I begin with an account of the origins of the hypothesis, which will then be followed by a reconstruction of Latour's interpretation. The section's final part is dedicated to explaining why it might be illuminating to signify Latour's Gaia as utopian in character.

Before I continue, a caveat: in some sense, it might seem curious to portray Latour's project in this manner: *Facing Gaia* and *Down to Earth*, as well as his earlier writings, contain merely a few scattered references to the idea of utopianism, and almost all of them appear to be dismissive. The resounding plea one can detect in all of Latour's writings is for more realism and more common sense, for us to finally get back "down to Earth," to stop hallucinating of escape, to once and for all jettison the quest for other worlds.

Despite this, my contention in the following is that Latour's *New Climate Regime* amounts to a utopian enterprise. This claim can be fleshed out with the support of the theoretical apparatus outlined in Chapter 2. I will thus read Latour against the grain, positing that his account of politics in the Anthropocene entails a commitment to educate our desire for being and living otherwise. Latour thus falls into the same trap as many anti-totalitarian critics when he assimilates social dreaming to wishful thinking.

3.1.1 The Gaia Hypothesis: Origins and Appropriations.

Before turning to Latour, we need to acquire a sense of the wider controversy into which his account intervenes. The Gaia hypothesis was first formulated in the late 1960s by the inventor and chemist James Lovelock.[6] Lovelock himself had been inspired by the writer William Golding – of *The Lord of the Flies* fame – to name his theory of planetary

[5] Bennett, *Vibrant Matter*.

[6] For a book-length treatment of the idea, see: Ruse, *The Gaia Hypothesis*. For a biography, see: Gribbin and Gribbin, *He Knew He Was Right*. Lovelock also wrote an autobiography: Lovelock, *Homage to Gaia*.

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self-regulation after a Greek goddess.[7] The hypothesis' intellectual background is thus entwined with Western images of humanity and nature.

In ancient mythology, Gaia embodies Earth as one of the four primal forces, together with Tartaros, Chaos and Eros.[8] Hesiod's *Theogony* tells the story of how Gaia gave birth to hills and the sea, and how, with Ouranus (Sky/Heaven), she conceived the Titans.[9] Since Zeus is the son of Kronos, Gaia's and Ouranus' youngest son, Gaia stands at the very beginning of the Olympian Gods' genealogy. Lovelock therefore tapped into a deep well of mythical imagery – a decision that would influence the scientific and public uptake of the hypothesis.

The Gaia hypothesis emerged from an intuition that first dawned on Lovelock when he was working at the NASA laboratory in Pasadena, studying whether there could be life on Mars. Lovelock turned this puzzle on its head and asked how a Martian would go about ascertaining whether Earth was full of life. The answer, for Lovelock, comes down to the observation that our planetary atmosphere remains in a permanent state of disequilibrium, which can only be explained by the continued existence of biological organisms. The physical detection of life on Mars would hence have to isolate a similar kind of chemical imbalance – which was simply not warranted by experimental observation of the planet's atmospheric composition.[10]

What, then, explains the fact that Earth's atmosphere is alive? Lovelock's thought, which he kept on elaborating in a career spanning more than fifty years, revolves around the "hypothesis that the entire

[7] Lovelock himself recalls the moment the Gaia figure was proposed to him: "It came about in the 1960s when the author William Golding, who subsequently won the Nobel and many other prizes, was a near neighbor and friend. We both lived in the village of Bowerchalke, twelve miles southwest of Salisbury in southern England. We would often talk on scientific topics on walks around the village or in the village pub, the Bell Inn. In 1968 or 1969, during a walk, I tried out my hypothesis on him; he was receptive because, unlike most literary figures, he had taken physics while at Oxford as an undergraduate and fully understood the science of my argument. He grew enthusiastic and said, 'If you are intending to come out with a large idea like that, I suggest that you give it a proper name: I propose "Gaia"' (Lovelock, *The Vanishing Face of Gaia*, 196).

[8] Hard, *The Routledge Handbook of Greek Mythology*, 24.

[9] Hesiod, *Theogony*, 27. The youngest titan, Kronos, then uses a sickle to castrate his own father, finalizing the separation of Earth and Sky/Heaven.

[10] Lovelock, "A Physical Basis for Life Detection Experiments."

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range of living matter on Earth, from whales to viruses, and from oaks to algae, could be regarded as constituting a single living entity, capable of manipulating the Earth's atmosphere to suit its overall needs and endowed with faculties and powers far beyond those of its constituent parts."[11] This view of our planet as composed of myriad organisms, which are entangled in feedback loops with their environment, has implications for our understanding of life itself. This is why Lovelock has ever since been so vehemently lambasted by rival biologists, especially by neo-Darwinians who object to the Gaia hypothesis on the grounds that the planet itself cannot figure as a unit for natural selection processes.[12]

If the Earth's organisms regulate their environment in such a way as to establish homeostatic conditions for making life possible, then we must conclude that our planet itself is, in some sense, alive. Gaia might thus be defined "as a complex entity involving the Earth's biosphere, atmosphere, oceans, and soil; the totality constituting a feedback or cybernetic system which seeks an optimal physical and chemical environment for life on this planet."[13]

This diagnosis of a living planet, encompassing feedback loops between organisms and their environment, has given rise to accusations of Lovelock being a neo-pagan mystic whose deep ecology would make a mockery of scientific methods.[14] Lovelock sought to respond to these allegations by constructing theoretical models, such as *Daisyworld*, to prove that planetary self-regulation through looping mechanisms between organisms was feasible in the absence of teleology.[15] Via simulations, he thus aimed to demonstrate why and how a planet's system of life – its biosphere – can establish long-term homeostasis through natural selection. In other words, no intentional design, no master plan, would

[11] Lovelock, *Gaia*, 9.

[12] This critique is prominently put forth by Richard Dawkins in: *The Extended Phenotype*, 234–36.

[13] Lovelock, *Gaia*, 10.

[14] Ruse, "Earth's Holy Fool?"

[15] Watson and Lovelock, "Biological Homeostasis of the Global Environment." For later reformulations, see: Lenton and Lovelock, "Daisyworld Is Darwinian"; Lenton and Lovelock, "Daisyworld Revisited." On the model's epistemological assumptions, see: Dutreuil, "What Good Are Abstract and What-If Models?"

be necessary for self-regulation on a planetary level to succeed, because biotic communities manage to adjust and regulate their environment's chemical processes.[16]

Lovelock went on to expand his framework by collaborating with the microbiologist Lynn Margulis.[17] Sharing Lovelock's aversion to the animist connotations of the name-giving mythological figure, Margulis tried in her own research to correct the impression that their shared project conceived of Earth as a single organism, preferring instead to capture Gaia in terms of "an emergent property of interaction among organisms, the spherical planet on which they reside, and an energy source, the sun."[18]

Before turning to Latour's engagement with the Gaia figure, a quick word on Lovelock's later reception. Throughout his career, Lovelock has been stressing his commitment to a "mechanistic, reductionistic tradition of Western science."[19] The invention Lovelock is still most famous for is a device for producing and capturing electrons, which he developed in the 1950s.[20] It allowed the detection of very small particles, including pesticides in the environment. In fact, Lovelock's *Electron Capture Detector* was instrumental in launching the early phase of modern environmentalism: Rachel Carson's book *Silent Spring* would not have had such a momentous impact, had it not been based on reliable data regarding the harmful chemical compounds used in industrial agriculture.[21] That data was collected with the help of Lovelock's device.

And yet, the scientific dispute around the plausibility of the Gaia hypothesis keeps on evolving.[22] Lovelock himself has done his bit to stoke controversy as well: in recent years, he attempted to update the original theory, predicting that humanity is facing a cataclysmic showdown with Gaia. Climate change, according to Lovelock, has already

[16] Downing and Zvirinsky, "The Simulated Evolution of Biochemical Guilds."
[17] Lovelock and Margulis, "Atmospheric Homeostasis by and for the Biosphere."
[18] Margulis, *The Symbiotic Planet*, 149.
[19] Ruse, *The Gaia Hypothesis*, 180.
[20] Lovelock, "A Sensitive Detector for Gas Chromatography"; Lovelock, "The Electron-Capture Detector."
[21] Sella, "Lovelock's Detector."
[22] For the latest invective, see: Tyrrell, *On Gaia*.

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reached a tipping point, making it all but inevitable that our planet will switch into a new geological phase, "one that could easily be described as Hell: so hot, so deadly that only a handful of the teeming billions now alive will survive."[23] Mankind is here portrayed as a deadly disease ravaging Gaia; a pathogen that our planet will defeat by eradicating its cause.

It is possible to observe a shift in the way Lovelock thought about Gaia throughout his long life: from a largely benign force that embodies the splendour of planetary self-regulation to a vengeful and vicious entity that fights for survival. In *The Vanishing Face of Gaia*, his final discussion of the Gaia motif (up until today), Lovelock strikes a similarly apocalyptic tone, prophesying that increasing temperatures will render the demise of vast swathes of the human population very likely. Given that "the hot Earth Gaia's metabolic needs can be met with a mere million or so humans, enough for the recycling of life's constituent elements,"[24] he forecasts that the majority of our species will not survive the imminent shock of accelerating climate disruptions.[25]

In his public statements since the 2000s, Lovelock has unfailingly taken issue with current designs for ecological sustainability, disputing, for example, the usefulness of established recycling schemes and praising the gains of nuclear energy.[26] Despite ongoing discussions around the Gaia hypothesis, there can be little doubt that Lovelock is more than merely an eccentric "maverick," as a major exhibition from 2015 in London's *Science Museum* suggested.[27] His ideas continue to inspire and provoke debate, including in fields of research for which the Gaia hypothesis was initially not intended.

[23] Lovelock, *The Revenge of Gaia*, 189.

[24] Lovelock, *The Vanishing Face of Gaia*, 249.

[25] Lovelock has in the meantime softened his stance. See: Harrabin, "Gaia Creator Rows Back on Climate."

[26] Aitkenhead, "James Lovelock"; Vaughan, "James Lovelock"; Lovelock, "We Need Nuclear Power, Says the Man Who Inspired the Greens." Lovelock also appears to be a supporter of Brexit and of some of its most dubitable advocates. See: Delingpole, "James Lovelock on Voting Brexit, 'Wicked' Renewables and Why He Changed His Mind on Climate Change."

[27] The exhibition was entitled "Unlocking Lovelock: Scientist, Inventor, Maverick." See: "Unlocking Lovelock."

3.1.2 Latour's New Climate Regime. The lasting productivity of Lovelock's reflections can be seen in Bruno Latour's interpretation of the Gaia hypothesis. Latour is one of the most original and provocative sociologists today. His oeuvre spans fifteen monographs that have been translated into close to thirty languages. As one of the founders of so-called Actor Network Theory (ANT), Latour is widely considered a stalwart of Science and Technology Studies.[28] Given the enormous breadth of Latour's interests, ranging from ethnographic studies of laboratory life[29] to methodological reflections on scientific inquiry,[30] the purpose of this section cannot be to exhaustively summarize all his works.[31] To complicate matters further, Latour can hardly be classified as a scholastic academic: over the past twenty years he has maintained close contact with the arts, curating three exhibitions in Karlsruhe's ZKM, for example.[32] My goal is therefore to clarify how Latour appropriated the Gaia hypothesis and what status it occupies in his theorizing about politics more generally.

We have already seen that Lovelock's basic intuition of a living planet is amenable to competing appropriations, some of which assimilate the Gaia hypothesis to New Age obscurantism, while others underscore its explanatory potential in terms of rigorous hypothesizing. Latour takes a very pronounced stance on these issues: for him, Lovelock must be recognized as our age's Galileo, a free-thinking revolutionary whose visionary insights have been unfairly ostracized by the scientific community.[33]

[28] For a paradigmatic statement of ANT see: Latour, "On Actor-Network Theory." On the historical evolution of STS see: Jasanoff, "Genealogies of STS"; Law, "STS as Method."

[29] Latour and Woolgar, *Laboratory Life*.

[30] Latour, *We Have Never Been Modern*.

[31] For an introduction to Latour's oeuvre that strikes a helpful balance between in-depth explanation and broad surveys, see: Gertenbach and Laux, *Zur Aktualität von Bruno Latour*. For an outline of Latour's political stance, see: Harman, *Bruno Latour*.

[32] For the exhibition catalogues see: Latour and Weibel, *Iconoclash*; Latour and Weibel, *Making Things Public*; Latour and Leclercq, *Reset Modernity!* Latour was also appointed to co-curate the 2020 Taipei Biennale: Durón, "Taipei Biennial Names Bruno Latour and Martin Guinard-Terrin Curators for 2020 Edition." For a recent interview around Latour's relevance in the era of COVID-19, see: Watts, "Bruno Latour."

[33] Latour, "Bruno Latour Tracks Down Gaia."

Why is Lovelock so misrecognized within academia, even though the Gaia hypothesis has had a steep career in the wider public? An answer to this question depends, Latour posits, on comprehending what is actually at stake in this debate – a wholly different way of seeing the planet, with far-reaching repercussions for how we should live our lives.

To explain this, one first has to understand that Latour's approach to the Gaia hypothesis grew out of a long-term interest in the politics of nature. A key motif in his sociological thinking concerns the distinction between culture and nature. Where and how we draw the border between (human) culture and (non-human) nature is foundational to what we call "modernity," whose current transformation is "taken as a chance to assemble 'parliaments of things.'"[34] Latour suggests that, once we acknowledge that a separation of culture and nature cannot be consistently sustained, novel forms of doing politics will become available to us.

This opportunity is especially palpable in the context of environmental politics. Against prevailing mantras, Latour maintains that "political ecology has nothing to do, or rather, *finally no longer* has anything to do with nature, still less with its conservation, protection, or defense."[35] Conserving, protecting and defending nature is elusive, Latour maintains, because nature simply does not exist anymore. There is no such thing as a natural sphere that could be observed in isolation from human interference.

As a romantic invention, the idea of pristine nature serves to stabilize and reify the opposing idea of human culture; it thus cannot supply a basis for humanity's reckoning with its environment. In repudiating the nature/culture dyad, Latour positions his project systematically "after nature."[36] A political ecology "after nature" demands that we stop viewing nature as valuable in itself.[37] As a consequence, deep ecology

[34] Latour, "Is Re-modernization Occurring – And If So, How to Prove It?," 44.

[35] Latour, *Politics of Nature*, 19, italics in original.

[36] The phrase "after nature" has become a mainstay in reflections around the Anthropocene. For early explorations of the idea see: Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature"; McKibben, *The End of Nature*.

[37] Jedediah Purdy expresses the underlying intuition succinctly: "The Anthropocene finds its most radical expression in our acknowledgment that the familiar divide between

amounts to a dead end for Latour because it remains committed to the untenable opposition between culture and nature.[38]

In order to re-politicize humanity's engagement with nature, a fundamental rethink is required. This is where the Gaia figure comes to the fore, as a thought experiment that advances what Latour labels the *New Climate Regime*. A first step in that direction can be found in Latour's proposal for a "parliament of things," in which the conventional institutions of politics are adapted to stage productive interactions between humans and non-humans.[39] Importantly, and despite the metaphor of a parliament, this plan goes beyond humans merely representing the interests of voiceless non-human beings, for the sake of safeguarding their welfare.[40] Latour wants to break with this caretaker model of proxy representation in a dramatic fashion, by foregrounding the integral agency of what would normally be considered the apolitical "natural sphere."

people and the natural world is no longer useful or accurate. Because we shape everything, from the upper atmosphere to the deep seas, there is no more nature that stands apart from human beings. There is no place or living thing that we haven't changed. Our mark is on the cycle of weather and seasons, the global map of bioregions, and the DNA that organizes matter into life. It makes no sense now to honor and preserve a nature that is defined by being not human, that is purest in wilderness, rain forests, and the ocean. Instead, in a world we can't help shaping, the question is what we will shape" (*After Nature*, para. 6.6).

[38] In response to Latour's diatribe against more traditional ecological models, one could point to forms of protecting and defending nature that are not premised on the idealization of nature at the expense of culture. Indeed, it seems possible to establish a commitment to conserving "wild nature" that remains thoroughly political: as an environmentalist strategy for resisting the logic of mastering the planet. Latour believes that such a strategy would be inescapably tarnished by the contradictions of modernity. But this need not be the case. For a recent vindication of this perspective, which critiques the proposal of collapsing the nature/culture dichotomy, see: Maris, *La part sauvage du monde*. For a similar argument in defence of "naturalness" see: Hettinger, "Naturalness, Wild-Animal Suffering, and Palmer on Laissez-Faire."

[39] On this issue, see: Simons, "The Parliament of Things and the Anthropocene."

[40] For a defence of such "proxy representation" for animals, see: Donaldson and Kymlicka, *Zoopolis*. For the wider debate see: Cochrane, *An Introduction to Animals and Political Theory*; Cochrane, *Sentientist Politics*; Wissenburg and Schlosberg, *Political Animals and Animal Politics*; Tănăsescu, *Environment, Political Representation, and the Challenge of Rights*.

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Lovelock's ideas enabled Latour to take further steps towards a wholesale "redefinition of the political."[41] The 2013 Gifford Lectures at the University of Edinburgh provided a welcome opportunity to subject the Gaia hypothesis to closer scrutiny, deepening his engagement with questions of political ecology. *Facing Gaia*, published four years after the talks, contains a systematic analysis of Lovelock's oeuvre. Right from the start, Latour gives short shrift to the misinterpretation of Gaia as a harmonious figure, reasoning that there is "nothing maternal about her – or else we have to revise completely what we mean by 'Mother'! If she needed rituals, these were surely not the nice New Age dances invented later to celebrate the postmodern Gaia."[42]

In dispensing with the caring image of Gaia, Latour unearths a tension within Lovelock's reflections on planetary self-regulation. Putting a name on the complex web of feedback loops between organisms and their environment makes it appear as if the planet were constituted as a whole, standing above the tangled connections beneath it. However, this rendering of Gaia is based on a misunderstanding, as Latour points out:

> The whole originality . . . of Lovelock's enterprise is that he plunges head first into an impossible question: how to obtain effects of connection among agencies without relying on an untenable conception of the whole. He sensed that extending the metaphor of organism to the Earth was senseless, and that micro-organisms were nevertheless indeed conspiring by sustaining the long-term existence of this critical zone within which all living entities are combined. If he contradicts himself, it is because he is fighting with all his might to avoid the two pitfalls while trying to trace the connections without taking the Totality route.[43]

Dismantling the notion of Gaia as a totality becomes possible because Lovelock extends the ability of shaping their environment to not only non-human animals, but also to "trees, mushrooms, algae, bacteria, and

[41] Latour, *Politics of Nature*, 6.
[42] Latour, *Facing Gaia*, para. 9.18.
[43] Latour, para. 9.64.

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viruses."[44] Latour argues that "the capacity of humans to rearrange everything around themselves is a *general property of living things*. On this Earth, no one is passive."[45]

Agency is, in other words, much more broadly distributed than either evolutionary biologists or social scientists, philosophical ethicists and political theorists would normally assume.[46] Such a comprehensive dispersal of the ability to act also affects the notion of subjectivity: "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. It is because we are now confronted with those subjects – or rather quasi-subjects – that we have to shift away from dreams of mastery as well as from the threat of being fully naturalized."[47]

What is so puzzling about this view of globally dispersed agency is that it immediately arouses accusations of animism: the Gaia figure, with its mythological origins, spurs these allegations, even though Latour attempts to hold them at bay. Boiled down to a succinct formula, the essence of Latour's understanding of Gaia can hence be summarized as "*connectivity without holism*."[48]

Letting go of "dreams of mastery" does not only affect the modern notion of nature, but also demolishes the metaphor of Gaia as a well-oiled machine, which remains operative in cybernetic accounts of the Earth system:

> Understanding the entanglements of the contradictory and conflictual connections is not a job that can be accomplished by leaping up to a higher "global" level to see them act like a single whole; one can only make their potential paths cross with as many instruments as possible in order to have a chance to detect the ways in which these agencies are connected among themselves.[49]

[44] Latour, para. 9.70.

[45] Latour, para. 9.70, italics in original.

[46] Despite diverging from Latour's account in various respects, Jane Bennett develops a similar account of the "agency of assemblages." See: Bennett, *Vibrant Matter*.

[47] Latour, "Agency at the Time of the Anthropocene," 5.

[48] Latour, "Why Gaia Is Not a God of Totality," 75, italics in original. Indeed, this slogan could even stand in for all of ANT. See: Gertenbach and Laux, *Zur Aktualität von Bruno Latour*, 248.

[49] Latour, *Facing Gaia*, para. 10.90.

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This perspective allows Latour to shed new light on the concept of the Anthropocene. As remarked in Chapter 1, our climate-changed world can be interpreted in radically divergent ways: either in terms of a triumphalist proclamation of humanity's control over nature, or as mankind's humbling absorption into the realm of nature. Both of these readings fall short, according to Latour, because they remain indebted to the modern understanding of nature as the polar opposite of human culture.

Importantly, Latour rejects the thought that there is such a thing as a unified humanity, which should be held jointly responsible for climate change: humans are much too unequally endowed with the power to harm the ecosphere to be treated as a collective agent with equal liability.[50] Latour is especially scathing in his critique of those who trust that Gaia can be subdued, for instance through geoengineering projects. We will encounter these proposals in more detail in Chapter 4, which discusses eutopian dreams of mastering a climate-changed world. An "optimistic version of the Anthropocene"[51] is delusional, for it elevates humanity to a position of absolute dominion over nature. This project is doomed to failure. Since Gaia is no machine, it cannot be manipulated or optimized. Realizing this has important consequences:

> Facing the Anthropocene, once the temptation to see it simply as a new avatar of the schema "Man facing Nature" has been set aside, there is probably no better solution than to work at disaggregating the customary characterizations until we arrive at a new distribution of the agents of geohistory – new peoples for whom the term human is not necessarily

[50] "Speaking of the 'anthropic origin' of global warming is meaningless, in fact, if by 'anthropic' we mean something like 'the human species.' Who can claim to speak for the human in general without arousing a thousand protests at once? Indignant voices will be raised to say that they do not hold themselves responsible in any way for these actions on the geological scale – and they will be right! The Indian nations deep in the Amazonian forest have nothing to do with the 'anthropic origin' of climate change – at least so long as politicians running for election haven't given them chain saws. The same can be said of the poor residents in Bombay's shantytowns, who can only dream of having a carbon footprint more significant than the one left by the soot from their makeshift stoves" (Latour, para. 11.31).

[51] Davis and Latour, "Diplomacy in the Face of Gaia," 49.

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> meaningful and whose scale, form, territory, and cosmology all have to be redrawn. To live in the epoch of the Anthropocene is to force oneself to redefine the political task par excellence: what people are you forming, with what cosmology, and on what territory?[52]

The Anthropocene, duly understood, thus heralds the beginning of a *New Climate Regime*, shaping social identities and humans' relations to one another and to the non-human world. This novel kind of ecology is political in the sense that it acknowledges the conflictual encounters between humanity and its environment.[53] In the *New Climate Regime*, our species may suddenly find itself in an asymmetrical confrontation with Gaia, in a war "that we can only lose: if we win, we lose; if we lose, we still lose."[54]

Towards the end of *Facing Gaia*, Latour paints a multifaceted picture of Gaia that stresses humanity's responsibility to react to planetary changes with care and consideration. At this stage, he also introduces a distinction between two kinds of actors engaging with the environment: humans and Earthbound.

> Every conception of the new geopolitics has to take into account the fact that the way the Earthbound are attached to Gaia is totally different from the way humans were attached to Nature. Gaia is no longer *indifferent* to our actions. Unlike the Humans in Nature, the Earthbound know that they are contending with Gaia. They can neither treat it as an inert and mute object nor as supreme judge and final arbiter. It is in this sense that they no longer enter into an infantile mother–child relation with Gaia. The Earthbound and the Earth have grown up. Both parties share the same fragility, the same cruelty, the same uncertainty about their fate. They are powers that cannot be dominated and cannot dominate. As Gaia is neither external nor indisputable, it cannot remain indifferent to politics. Gaia can treat us as enemies. We can respond in kind.[55]

[52] Latour, *Facing Gaia*, para. 11.98.

[53] This fact also explains Latour's turn to Carl Schmitt. On Latour's fascination with Schmitt, which predates his interest in the Gaia hypothesis, see: Harman, *Bruno Latour*, chap. 6: "An Interesting Reactionary": Latour's Right Flank.

[54] Latour, *An Inquiry into Modes of Existence*, 485. For a discussion, see: Danowski and Castro, *The Ends of the World*, chap. 7: Humans and Terrans in the Gaia War.

[55] Latour, *Facing Gaia*, para. 14.60.

A shift from the old to the *New Climate Regime* entails, for Latour, relinquishing fantasies of mastering Gaia. In Donna Haraway's terminology, being bound to and by Earth is a condition shared by all species, human as well as non-human.[56] Latour further expands on this thought in his latest book, *Down to Earth*. Where *Facing Gaia* analyzes how a political ecology after nature might look like, *Down to Earth* resembles a manifesto whose objective is narrower: to replace the Gaia figure with a new concept, the *terrestrial*, which for Latour represents a "new *political actor*."[57] *Down to Earth* thus spells out some of the lessons that the Gaia hypothesis has in store.[58]

The concept of the *terrestrial* helps Latour make sense of a cleavage that runs through contemporary politics: between the local and the global. The local and the global are the two main "attractors" of the current moment, pulling our societies in opposing directions. While the global encapsulates modernity in its expansionist drive, the local is the site wherein pushbacks against globalization occur. Latour explains the rise of populist movements, for example, as the result of transformations within the *New Climate Regime*. A return to the local, to the soil, is the promise that nativist populists offer their constituencies, yearning for a retreat into an imaginary, nostalgic realm that would shield them from the unwanted intrusions of globalization.

The *terrestrial* represents for Latour an idea that shows a way out of the impasse between the global and the local, by combining the most attractive dimensions of both: "The soil allows us to attach ourselves; the world allows detachment. Attachment allows us to get away from the illusion of a Great Outside; detachment allows us to escape the illusion of borders. Such is the balancing act to be refined."[59] So, simultaneously paying heed to soil as well as the world creates the basis for a responsible politics in the Anthropocene; one that accepts the entanglement of humans – or, more accurately, the Earthbound – with their environment.

[56] Haraway, *Staying with the Trouble*, 55.
[57] Latour, *Down to Earth*, para. 18.6, italics in original.
[58] On this point, see: Delbourgo, "No More EasyJet."
[59] Latour, *Down to Earth*, para. 28.11.

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Latour also speaks of a fourth attractor in the present moment, the *Out-of-This-World*, the "horizon of people who no longer belong to the realities of an Earth that would react to their actions."[60] Climate change denial is a clear symptom of this condition, where the physical make-up of the real world is simply wished away. Latour considers both the global, the local and the *Out-of-This-World* as utopias, "places with no *topos*, without earth and without land."[61] Only by becoming terrestrial, by recognizing Gaia's immense clout over us, will we be able to establish more constructive relationships with the planet.

Although *Down to Earth* does not answer all the questions left open by Latour's appropriation of the Gaia hypothesis, it clearly demonstrates how not to proceed: neither the comforting return to the soil nor a speeding up of de-territorialized globalization will do.

So, what should we make of Latour's preferred alternative? In the following, I shall claim that, *pace* Latour's own pronouncements, the terrestrial, as well as its earlier incarnation, Gaia, are distinctly utopian visions. Interpreting Latour's reflections in this way uncovers a chief preoccupation of his entire project: the production of estrangement.

3.1.3 Re-terrestrialize This! Earthbound Life as a Utopian Project. In my reading of Latour's oeuvre, I will foreground three components: first, his peculiar anti-utopian utopianism; second, the centrality of estrangement for the Gaia figure; and third, the intermingling of hope and fear in Latour's modelling of an uncertain and risky future. Together, these features bring out two insights: they let us rectify a widespread error in the application of the label "utopia" and envisage Gaia and the terrestrial as utopian maps for the Anthropocene.

The first point to emphasize is that Latour's account echoes some of the anti-totalitarian objections we encountered in Chapter 2. The very terminology of being Earthbound is supposed to signal that the rival "attractors" of the global and the local are lacking an appropriate connection with a place that anchors sustainable relations between humans and their environment. In line with this conceptualization, the idea of

[60] Latour, para. 17.5.
[61] Latour, para. 20.21.

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utopia possesses, throughout Latour's work, predominantly negative connotations.

Evidence for this sceptical appraisal is easy to find. In *Politics of Nature*, for example, he exhorts the virtues of common sense and contrasts the conjuring of other worlds with his own allegedly reconstructive effort to convene a "parliament of things." "Far from designing a world to come," Latour notes, "I have only made up for lost time by putting words to alliances, congregations, synergies that already exist everywhere and that only the ancient prejudices kept us from seeing."[62]

Put differently, the world right now is already governed by the sort of agents that his version of ANT seeks to explain; all that is needed is a coherent framework that makes those agents more amenable to scientific inquiry and political intervention. The revisited Gaia hypothesis, together with the notion of the terrestrial, supplies such a framework.

Facing Gaia and *Down to Earth* are therefore simultaneously premised on disenchanting fantasies of fleeing from planet Earth and on resisting the temptation of a homecoming to Mother Nature. Tellingly, the Earthbounds' motto should be *plus intra* (further inside), rather than the progressive and modern *plus ultra* (further ahead).[63] What transpires, then, is a plea for an interpretative model that politicizes ecological thinking and acting. "We shall try to rematerialize our existence," Latour pleads, "which means first of all reterritorializing it or, better, though the word does not exist, reterrestrializing it."[64] This proposal is meant as an alternative to social dreaming: "Gaia is the great figure opposed to utopia and uchronia."[65]

Given the evidence of Latour's aversion to utopianism, why would it still make sense to portray Gaia as a utopian figure, to conceive of

[62] Latour, *Politics of Nature*, 163.

[63] Latour, "Telling Friends from Foes in the Time of the Anthropocene."

[64] Latour, *Facing Gaia*, para. 14.60.

[65] Latour, para. 14.79. See also Latour's interpretation of being grounded on Earth: "Paradoxically, in view of determining their limits, the Earthbound have to pull themselves away from the limits of what they used to consider space: the narrow countryside they were so eager to leave behind, as well as the utopia of indefinite space they were so eager to reach. Geohistory requires a change in the very definition of what it means to have, hold, or occupy a space, of what it means to be appropriated by an Earth" (Latour, para. 14.83).

Earthbound life as a utopian experience? As I remarked in Chapter 2, it is a dominant trope of the anti-utopian canon to identify utopias with either daydreaming or social engineering. Latour seems to waver between these two positions, but he certainly does not take seriously the proposition that utopias could be conceptualized differently, for example along the lines of an education of the desire for other ways of being and living.

If we subscribe to this broader understanding of social dreaming, however, we manage to flesh out what exactly is distinctive about this "anti-utopian utopia."[66] For Latour clearly wants his engagement with Gaia to deliver more than just a factual report on the planetary condition. Any reflection on the Anthropocene will be sustained by evaluative judgements about what *should* be done about the ecological crisis. This is fully acknowledged by Latour himself:

> It is very, very difficult now to maintain the old idea of a division between statement of fact and statement of value when you say that "there is now 440 parts per million of CO2 in the atmosphere." Even if you say it as coldly as possible, it sends a message that you should do something. So, the division between fact and value, which is the traditional way of handling these questions, is weakened.[67]

Once we accept that the Gaia figure, as a framework for envisaging our climate-changed world, aims to educate the desire for being and living otherwise, we can explore the mechanisms whereby Latour hopes to achieve this goal. This brings us to the second aspect: that Gaia should be interpreted as a speculative exercise whose main purpose lies in disrupting conventional representations of the planet and our place within it. The crux of revisiting Lovelock is to alter how humans perceive themselves and their bonds with the environment.

Latour suggests that viewing Earth as deeply entangled gives rise to an entirely new kind of politics. Hence, he poses a typical *What-If* question, summoning us to imagine planet Earth as possessing agential powers:

[66] I borrow this idea from Lisa Garforth, who applies it to another of Latour's books. See: Garforth, "Book Review Symposium," 140–41.

[67] Davis and Latour, "Diplomacy in the Face of Gaia," 44.

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how would we have to redescribe ourselves, as members of the human species, if we realized that the planetary ecosphere is more than just a resource to be consumed and destroyed?[68]

The Gaia hypothesis thus furnishes us with the means to dismantle deeply entrenched ideas about the world we share with others. The very thought of a living planet extends an invitation to change course in the most radical way possible. Through the stress on universal connectivity, human agency becomes constrained and encumbered in webs of intersecting feedback loops. Since Latour maintains that on this planet "no one is passive," our species must reckon with its own limitations.

Such a reorientation also denounces the hubris of techno-optimists. The Gaia figure serves as a bulwark against the ebullience of the ecomodernist proposals we will be analyzing in more detail in Chapter 4. This is why, throughout his oeuvre, Latour refrains from painting life under the *New Climate Regime* in rosy colours. In that sense, his vision of a political ecology "after nature" also confronts the hope that our planet might swiftly return to a state of comfortable inhabitability, once humans have reined in their environmentally destructive tendencies and developed cutting-edge technologies to mitigate and adapt to a climate-changed world.

Estrangement is therefore put to use with a very specific aim in mind: to thwart a conception of the Anthropocene that assigns humans a unique position that would be unattainable for other planetary actors. That is why Latour insists on Lovelock's insight into the self-regulatory capacity of life on Earth being as revolutionary for us today as Galileo's geocentric model was for astronomy in the seventeenth century.[69] Since we are locked into Gaia's "critical zone,"[70] everything we do – from the most mundane routines of everyday life to the higher strata of geopolitics – will have to be modified in light of our Earthbound existence. Visualizing the planet as a network of universal connections ignites a cognitive and affective spark to refashion our lifeworld's solid frames.

[68] I take the notion of "redescription" from: Vries, *Bruno Latour*, 199–200.
[69] Watts, "Bruno Latour."
[70] See: Latour and Lenton, "Extending the Domain of Freedom, or Why Gaia Is So Hard to Understand."

The disconcerting vista of an Earth where nobody and nothing is passive makes it imperative to think again what agency might mean for us humans. The utopia embedded in this account is thus profoundly relational. This is the practical upshot of Latour's defamiliarization strategy.

My third point concerns the intermingling of hope and fear in this portrayal of a living planet. As Latour's reflections on Gaia's vengeful side demonstrate, politics in the Anthropocene will continue to be conflictual and even deadly for some. Far from cementing a harmonious unity amongst all peoples, climate change has already exacerbated divisions within humanity, exposing fractures and liabilities in geopolitics. This is why Latour puts so much emphasis on diplomacy as the vehicle for fostering Earthbound relations.[71]

Given the prevalence of antagonism in Latour's account of Gaia, would it perhaps be more appropriate to label his project dystopian in character? Should we fear Gaia, as Lovelock counsels, rather than invest hope in the promise of a living planet? Both *Facing Gaia* and *Down to Earth* riff on dystopian themes, but Latour seems reticent to join those who see nothing but environmental apocalypse, civilizational breakdown and species extinction on the Anthropocene's horizon. Although the idea of a living planet punctures delusions of human exceptionalism, Latour also insists on its immense potentials: the notion of the Earthbound can provide orientation in this uncanny landscape, by unlocking a new space, somewhere between the local and the global, that satisfies our longing for an eco-social grounding.

We can sense in Latour's writings a leitmotif that will surface again at several points throughout this book. In many utopian projects, hope and fear are enmeshed with each other in ways that cannot be adequately captured if we conceive of them exclusively as either eutopias or dystopias. Gaia appears to be a figure on whom both inflationary and deflationary desires can be projected, weaving together prospects of great hope with fearful outlooks that are designed to admonish us about impending perils.

Drawing on Levitas' theorization of utopianism as a method, we can conclude that Latour primarily deploys an archaeological, rather than an

[71] Latour, "Why Gaia Is Not a God of Totality," chap. 5.

architectural, mode of exploring alternatives to the status quo, excavating what is already out there, albeit hidden from sight. The estrangement effect is central to the Gaia hypothesis: as a particular kind of imagining our climate-changed world, Gaia seeks to defamiliarize us from how we experience, both cognitively and affectively, our planetary existence. The upshot of this speculative exercise is a non-perfectionist recasting of humanity's place within the Anthropocene. The benefit of Latour's *What-If* plot line is that it renders unfamiliar what often appears to entirely natural and normal. When it comes to figuring out life in a climate-changed world, such a systemic interrogation of the status quo – such an anti-utopian utopianism – is urgently required.

The political implications of this process are uncertain, however. One of the downsides of utopias centred around estrangement (rather than galvanizing and cautioning) is that they are prone to indeterminacy; a tendency that affects the transformational aspect of utopianism. In other words, what exactly should be done once habitual patterns of seeing the planet have been undone, cannot be easily determined. This lack of concreteness is not incidental. Rather, it constitutes a structural feature that inheres in this particular constellation. As such, it cannot be avoided, only mediated through different theoretical and narrative moves, many of which are on full display in Latour's reflections.

Latour's thinking with and through Gaia symptomatically discloses the difficulties that *What-If* plot lines have to overcome. The indeterminacy of defamiliarization as a utopian mechanism, oscillating between estrangement *for* and estrangement *from* the world, manifests itself in Latour's stance vis-à-vis normativity and critique. Some commentators read Latour's diatribe against Critical Theory as emblematic of a general attitude of anti-normativity and anti-critique.[72] To be sure, there is plenty of fodder for their cannons.[73] As I have already remarked, Latour

[72] See, for example: Mills, "What Has Become of Critique?"; Noys, "The Discreet Charm of Bruno Latour."

[73] Such as when Latour provocatively notes that "[i]t might be time to put Marx's famous quote back on its feet: 'Social scientists have *transformed* the world in various ways; the point, however, is to *interpret* it'" (Latour, *Reassembling the Social*, 45). For the most comprehensive rebuttal of a critically oriented sociology, see: Latour, "Why Has Critique Run out of Steam?"

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himself appears quite comfortable with his work on science and technology being categorized as "reconstructive," instead of "critical."[74] Others have answered that Latour's theory building needs to be evaluated in light of its unique normative and critical credentials.[75]

If my interpretation of the Gaia figure as utopian is accurate, then Latour's defenders are broadly on the right track: the panorama of a world in which agency is dispersed demands humanity to change direction. The questioning of the present that the Gaia figure instigates differs from the visions of the future we will be analyzing in the coming chapters. Neither galvanizing nor cautioning preoccupy Latour's project – even though both hope and fear do play roles in the development of another kind of political ecology. Rather, the thought experiment of a living planet is a speculative exercise that seeks to magnify our sense of the possible. It demonstrates why estrangement is so instrumental in educating the desire for being and living otherwise.

3.2 "BUILT ON A FAULT LINE OF PAIN, HELD UP BY NIGHTMARES": N. K. JEMISIN'S CHRONICLES OF ESTRANGEMENT

> When a comm builds atop a fault line, do you blame its walls when they inevitably crush the people inside? No; you blame whoever was stupid enough to think they could defy the laws of nature forever. Well, some worlds are built on a fault line of pain, held up by nightmares. Don't lament when those worlds fall. Rage that they were built doomed in the first place.[76]
>
> There's the idea that dystopia makes no sense when you're talking to people from certain marginalized groups. Because the society we live in is a dystopia to those people. To my ancestors who struggled to survive in a country that actively sabotaged them again and again and again and again and is still doing so, a country that claims to have gotten rid of slavery and yet snuck in a little clause in the Thirteenth Amendment to make it "teehee, still

[74] Katti, "Mediating Political 'Things,' and the Forked Tongue of Modern Culture," 98.
[75] See: McGee, *Bruno Latour*.
[76] Jemisin, *The Stone Sky*, para. 60.1.

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> possible," I mean, this society is and remains a dystopia. Dystopia is in the eye of the beholder.[77]
>
> We have always had more than enough resources for everyone and we're capable of thinking up ways to come up with more. People who write science fiction do tend to be utopian thinkers. We do tend to think that we can achieve great things as a species. We just have to be willing to acknowledge what needs to be done to get there and sometimes the things that need to be done to get there are terrifying or can be terrifying to those in a position of privilege.[78]

How have science fiction and fantasy writers dealt with the utopian constellation of Earth as a living planet? Has climate fiction, broadly construed, come up with ideas and proposals that resonate with those we have come across in the Gaia hypothesis? To what extent, if at all, can utopian literature expand our understanding of the real world?

In this section, I shall approach these questions via a close reading of N. K. Jemisin's *Broken Earth* trilogy. To contextualize this reading, I begin with a discussion of fantasy literature and its relation to science fiction in general. This will be followed by a summary of the three books under scrutiny here. In my interpretation of Jemisin's novels, I home in on what I consider their central narrative object: not exactly Gaia, but something rather similar – an image of our planet as hostile and vindictive, yet also responsive to humanity's cautious negotiations and diplomatic efforts at reconciliation. Jemisin's fiction, I will show, can be seen as filling some of the gaps left open in Latour's theorizing. Conversely, the Gaia hypothesis can help us make sense of the *Broken Earth* trilogy. Thus, I contend that these two utopian visions of a climate-changed world can illuminate each other.

3.2.1 Should the Science Fiction/Fantasy Distinction Be Abolished?

Before delving into the text, let us take a step back and look at the genre of fantasy fiction. This will allow us to elucidate the storytelling-pole of this utopian constellation. N. K. Jemisin's *Broken Earth*

[77] Hurley and Jemisin, "An Apocalypse Is a Relative Thing," 471.
[78] Bereola, "A True Utopia."

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trilogy is usually classified as a work of fantasy. Does such a classification matter? In some sense, it might seem irrelevant how we pigeonhole these award-winning books. What counts, from the point of view of an interdisciplinary investigation like this one, are their narrative and formal qualities as well as their ability to move the readers in specific directions.

But debates around genre boundaries are never only about scholarly labels. They also touch upon artistic sensibilities that are the result of power relations. So, it does matter how we categorize various narratives taking place on a far- or near-future Earth, for all such taxonomies shed light on what values we attach to specific kinds of storytelling.

In the following, I interrogate some of the existing genre conventions and ask whether we might want to abolish the science fiction/fantasy distinction altogether. My conclusion is ultimately that the distinction is much less stable than commonly assumed – which is not the same as saying that that it should not exist at all.

Fantasy, as a genre, possesses boundaries that are fuzzy. While common tropes and rhetorical techniques undoubtedly exist, they vary significantly across texts.[79] One definition of fantasy approximates it to both science fiction and utopia: "A fantasy text is a self-coherent narrative. When set in this world, it tells a story which is impossible in the world as we perceive it; when set in an otherworld, that otherworld will be impossible, though stories set there may be possible in its terms."[80]

A text's self-coherence can be established in different ways. A potential strategy for examining various types of fantasy would accordingly distinguish between "full fantasy" on the one hand, and stories that deploy fantastical elements in a more limited fashion, on the other hand. Full fantasy covers "stories of profound, all-transforming change."[81] As the archetypal example of such fantasy – J. R. R. Tolkien's *Lord of the Rings* – demonstrates, change always happens against the backdrop of an abundant fantasy land, an "otherworld" drawn with intricate details and immense depth.[82] What we typically find in full fantasy is an effort at

[79] On the porous borders around the fantasy genre, see: Attebery, *Strategies of Fantasy*, 10.
[80] Clute and Grant, "Fantasy," 338.
[81] Clute and Grant, "Fantasyland," 341.
[82] James, "Tolkien, Lewis and the Explosion of Genre Fantasy."

comprehensively building another world wherein the actual plot unfolds. When fantastical tropes are introduced in a more restricted manner, all-encompassing worldbuilding is usually absent. In such stories, elements of fantasy are presented in ways that do not depend on the existence of an elaborate fantasy land in the background.

In order to better comprehend what is distinctive about fantasy writing, let us return to a debate touched upon in Chapter 2. Recall how Darko Suvin parses science fiction from fantasy, despite granting that both occupy the realm of estrangement literature: the cognitive dimension integral to science fiction is missing in other sub-genres. Whereas science fiction generates knowledge and thus contributes to emancipatory efforts (from a Marxist point of view), fantasy lacks – for Suvin and his followers – the vital ingredients of believability and validation, which are necessary for social change in the real world. Fantasy narratives are, on this account, so detached from reality that the readers cannot gain useful insights into how they might transform their own lifeworlds. Science fiction's cognitive element, by contrast, serves as a catalyst for progressive action – the *novum*'s alterity throws mundane experiences into a new light, precisely because its strangeness raises awareness of socially and politically relevant issues.

As a consequence, a hierarchy of respectability haunts the relationship between science fiction and fantasy. Although Suvin has slightly softened his position vis-à-vis fantasy over time,[83] his views on science fiction's superior status are broadly shared. Both Fredric Jameson and Carl Freedman, two of Suvin's followers, express a similar disdain for fantasy, calling it "technically reactionary"[84] and "irrationalist, theoretically illegitimate."[85]

Given this antipathy, might it be possible to conceive of fantasy in a more affirmative manner? China Miéville, himself a highly prolific author,[86] has come up with an interesting response to this question. His main point is that focusing on "cognition" (in Suvin's terminology)

[83] Suvin, "Considering the Sense of 'Fantasy' or 'Fantastic Fiction.'"
[84] Jameson, *Archaeologies of the Future*, 60.
[85] Freedman, *Critical Theory and Science Fiction*, 17.
[86] For a representative list of some of his novels, see: Miéville, *King Rat*; *Perdido Street Station*; *Iron Council*; *The City & the City*; *Embassytown*.

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as the criterion for identifying science fiction is much less helpful than initially anticipated. This is the case because there is no intrinsic component of science fiction texts that would once and for all establish their cognitive credentials. Who is to tell, after all, whether a specific rendering of ultra-fast travel, for example, corresponds to a representation of future technologies that could be scientifically validated? At best, in the sub-genre of so-called hard science fiction, authors aspire to operate with conjectures and inferences that are technologically informed, through extrapolations from current research.[87]

Miéville reasons that science fiction presupposes a playful encounter between author and reader, in which the reader provisionally assents – through the suspension of disbelief – to the claims to cognition advanced by the author:

> The cognition effect is a persuasion. Whatever tools are used for that persuasion (which may or may not include actually cognitively-logical claims), the effect, by the testimony of SF writers for generations and by the logic of the very theorists for whom cognition is key, is a function of (textual) charismatic authority. The reader surrenders to the cognition effect to the extent that he or she surrenders to the authority of the text and its author function.[88]

Despite Suvin's Marxist background, Miéville suspects that the wish to keep science fiction apart from fantasy betrays an "uncomfortably patrician and antidemocratic class politics."[89] It would be much more productive to accept that, while there are good reasons for distinguishing science fiction from fantasy – focusing on the use of magic, for instance – no unbridgeable gap separates them. Both fiction and fantasy deal with alterity and unreality, albeit to varying degrees that readers are sensitive and responsive to.[90]

If Miéville is right to cast doubt on the hierarchy between science fiction and fantasy, then utopianism's mechanisms of estranging,

[87] On "hard science fiction," see: Pierce, "The Literary Experience of Hard Science Fiction"; Samuelson, "Modes of Extrapolation"; Westfahl, "The Closely Reasoned Technological Story."

[88] Miéville, "Cognition as Ideology," 238.

[89] Miéville, 240.

[90] The label that comes closest to properly characterizing Miéville's own writing is "weird fiction." See: Miéville, "Weird Fiction."

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galvanizing and cautioning might be exercised in fantasy novels as much as in science fiction and other genres of speculative writing.[91] The same argument that Jameson makes about utopia's dialectical nature – caught between the yearning for radical otherness and the impossibility of enacting an absolute break with the status quo – also applies to fantasy. Fantasy writing, just like any other cultural artefact, is rooted in concrete historical circumstances that shape its form and content.[92]

That said, fantasy texts are never merely reflections of the material and ideological structures within which they are produced and consumed; their alterity and unreality also provide opportunities for interrogating the way we experience the world's solid frames. This makes it imperative to pay attention to "the conditions of their production, to the particular constraints against which the fantasy protests and from which it is generated, for fantasy characteristically attempts to compensate for a lack resulting from cultural constraints: it is a literature of desire, which seeks that which is experienced as absence and loss."[93] Absence and loss are key markers of the novels I discuss in the next section. As we will observe, the desire behind that absence and loss is an eminently political one – to come to terms with a situation that keeps on devastating the lives of marginalized and oppressed populations.

3.2.2 Contending with Father Earth: The *Broken Earth* Trilogy. My aim in this section is to provide a compressed summary of N. K. Jemisin's books, which will then, in a further step, permit me to draw out major motifs running through the entire trilogy. The *Broken Earth* series consists of three novels published in quick succession: *The Fifth Season* (2015), *The Obelisk Gate* (2016) and *The Stone Sky* (2017). Its author, N. K. Jemisin, was the first to win the Hugo Award – the most prestigious prize for science fiction and fantasy writing – three times in a row.[94]

[91] For an illustration of this more ecumenical approach, see: Paik, *From Utopia to Apocalypse*.
[92] Bould and Vint, "Political Readings."
[93] Jackson, *Fantasy*, 2.
[94] Schaub, "N. K. Jemisin Makes History at the Hugo Awards with Third Win in a Row for Best Novel"; Barnett, "Hugo Awards." Jemisin was recently also awarded a MacArthur

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Since the laureate is selected on the basis of readers' votes, Jemisin's success represented a powerful rebuke to right-wing insurgents within the science fiction and fantasy community, who had attempted to sabotage the diversification of the genre by manipulating the selection procedure.[95] As an African American woman, Jemisin has been consistently outspoken about the motivations behind her writing, denouncing racist and sexist practices both within the artistic field to which she belongs and within the wider US context.[96] Following in the footsteps of authors such as Octavia Butler and Samuel R. Delany, Jemisin's fiction aims to reinvent both the vocabulary and the grammar with which utopian texts are drafted.[97]

The world of the *Broken Earth* trilogy is set in a far-away future torn asunder by geological and meteorological turmoil: Stillness, the fantasy land where the story unfolds, is frequently ravaged by intense climate catastrophes that demolish the Earth's surface for long periods of time. These cataclysms are named Seasons, and they come and go in unexpected waves. The surviving humans are organized in so-called Comms, scattered around the Stillness amidst the ruins of disappeared civilizations.

Besides humans, other beings roam this strange world as well: there is a small number of people who possess extraordinary magical power to placate the geological fluctuations and eruptions during a Season. The gift of these "Orogenes" (named after their ability to create mountains) is extremely dangerous when left unchecked. Rather than quelling environmental mayhem, their magic can also instigate utter devastation and ruin. Due to their ability to annihilate everything around them,

grant, one of the highest American accolades across science and culture. See: Flood, "N. K. Jemisin Leads 2020 Round of MacArthur 'Genius Grants.'"

[95] Romano, "The Hugo Awards Just Made History – and Defied Alt-Right Extremists in the Process." On the origins of this movement, see: Flood, "Hugo Award Nominees Withdraw amid 'Puppygate' Storm." On how Jemisin's fiction has evolved, see: Flood, "N. K. Jemisin."

[96] Rivera, "N. K. Jemisin Is Trying to Keep the World From Ending."

[97] The *Broken Earth Trilogy* is not her first attempt at writing such genre-bending stories. For prior works, see especially the *Inheritance Trilogy*: Jemisin, *The Hundred Thousand Kingdoms*; *The Broken Kingdoms*; *The Kingdom of Gods*. For a collection of short stories that deals with political issues as well, see: Jemisin, *How Long 'til Black Future Month?*

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Orogenes are feared and hated by humans. Lynching them has become a common practice.

To train young Orogenes in the proper use of their powers, they are snatched away from their parents and transported to the Fulcrum, where they are schooled by a caste of Guardians. These Guardians are in possession of superhuman strength and apply brutal means to subdue their disciples. In the event of an impending climate catastrophe, Orogenes must draw energy from the Earth's crust and mollify its fluctuations and eruptions. Apart from these human actors with far-reaching powers, the Stillness is also inhabited by Stone Eaters, mysterious figures who look like sculptures, but can ostensibly move through Earth itself.

The first book in the trilogy, *The Fifth Season*, tells the story of three women with magical abilities: Essun, an Orogene who lives amongst humans, disguised as a schoolteacher; Damaya, a child whose gift for magic has only just been discovered; and Syenite, a fully trained Orogene embarking on a mission to rescue a coastal Comm from ruin. After a short prologue, the saga starts with the outbreak of a new Season, triggered by a massive energy burst that splits the whole continent in two.

At the beginning of the trilogy, we witness the end of the world, or rather, *an* end of *a* world. Essun finds the body of her son, killed by her husband Jija, an ordinary human with no magical powers. Eventually, she has to flee from her home as well and sets off in search of her remaining daughter, Nassun, who has been kidnapped by Jija. On her trek through the Stillness, Essun is accompanied by a shadowy Stone Eater named Hoa. After being rejected by her family, Damaya, the protagonist of the second storyline, is being trained at the Fulcrum to become an industrious and docile Orogene. Her teacher is a Guardian by the name of Schaffa. Finally, Syenite, the third storyline's lead character, is ordered by the Fulcrum to conceive a child with Alabaster, the most powerful Orogene across the Stillness. As they are asked to clean up the harbour of a small fishing village, Syenite realizes that it is not a reef that is blocking the entrance to it, but rather a massive ancient relic, an obelisk lying on the bed of the sea. When Syenite connects to the obelisk in the same way she normally harnesses the Earth's energy, Guardians are sent to murder both Alabaster and her.

Through a lucky escape, both eventually arrive on an island inhabited by Orogenes, who live freely beyond the reach of the Fulcrum. On this island, Syenite gives birth to a boy. The Guardians notice their hideout, attack the community and obliterate the island. Syenite is confronted by her old teacher, Schaffa, who wants to abduct her child to enter the Fulcrum. Rather than permitting Schaffa to inflict on her boy what had been done to herself, Syenite suffocates her own child and mobilizes her magic to destroy everything around her.

While the three plots proceed in isolation from one another, it slowly dawns on the reader that Essun, Damaya and Syenite are in fact the same person. We hence acquire a sense of why and how Essun became who she is.

Accordingly, the trilogy's second part changes tack. *The Obelisk Gate* traces just two plots running in parallel, one focused on Essun and the other on Nassun, her daughter. Essun's quest for her child brings her to an underground Comm, where Orogenes and humans live in relative harmony. To her great surprise, Essun is there reunited with Alabaster, her ex-lover, who she thought had been killed when Guardians assailed the island.

It is then revealed that Alabaster was in fact the force behind the inception of the Fifth Season. His motive for causing the continental rift have to do with an astronomical anomaly: the moon cannot any longer be seen from Earth, its orbit having been dislocated more than 1,000 years ago. In an attempt to restore the cosmic balance and to correct the moon's elliptical trajectory, Alabaster sought to harness the planet's geological energy, thereby inaugurating the Fifth Season. After some time together, they are once again lambasted by a rival Comm. During the prolonged siege, tensions between Orogenes and humans flare up and Alabaster finally passes away. But Essun ultimately manages to save the members of her new Comm. Her opening of the title-giving Obelisk Gate emits uncontrollable energy and leads to Essun almost dying.

Apart from Essun's storyline, we also follow her daughter, Nassun. Nassun was abducted by her father, upon realizing that his offspring possessed potentially lethal powers. Travelling together through a landscape riven by Alabaster's triggering of a Fifth Season, the two finally arrive at a settlement that promises respite: Found Moon, a town under

the control of a group of Guardians who have relinquished the Fulcrum. These Guardians pretend to offer a cure to orogeny, but in reality, they set up an alternative school for children with a talent for magic. The leader of that town is Schaffa, whom we last encountered as the erstwhile teacher of Damaya/Syenite/Essun. Schaffa, sensing in her the same power as in her mother, takes Nassun under his wing. *The Obelisk Gate* thus follows both mother and daughter on their respective paths.

The fusion of these separate narratives occurs in the third volume, *The Stone Sky*. Essun's tale continues with her being severely injured by the opening of the Obelisk Gate. Her daughter, Nassun, wants to open the Obelisk Gate as well, but for entirely different reasons: to make the moon crash into Earth. These destructive urges are caused by the recognition that life on this planet has become unbearable, both due the climatic cataclysms and due to the oppression that Orogenes experience in human societies. There is but one place on Earth where Essun and Nassun can grasp for the moon: a city called Corepoint that in earlier days served as a scientific hub of sorts. Essun travels there with the help of a Stone Eater, Hoa, who manages to carry her through the Earth's crust.

Hoa's story is central to the entire saga, for it contains within it the background to the geological turmoil befalling Earth. Originally, thousands of years ago, Hoa belonged to a genetically modified species whose sole purpose was to operate the obelisks. The aim of this operation would have been the generation of limitless energy, by tapping directly into the Earth's core. Yet, when Hoa became aware that his species' sole raison d'être amounted to powering the Obelisk Gate, he decided to disobey the orders of his human masters. This immediately set in motion a chain reaction whereby the obelisks started the Seasons. In the aftermath of this series of cataclysmic events, Hoa and the other tuners were turned into Stone Eaters – nearly immortal creatures that wander the world in search for redemption.

During Essun's and Hoa's voyage through the planet's core, Earth's true nature is disclosed, as a living being that harbours anger and resentment at humanity for trying to tame it and for stealing its "child," the moon. Once both Essun and Nassun arrive at Corepoint, the trilogy approaches its grand finale. While Essun is trying to utilize her magic to restore the moon's trajectory, Nassun fights back and thwarts her

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mother's plans. Towards the end, Essun lets go and releases her grip on the obelisks. This immediately kills her, turning her to stone. Upon witnessing her mother's death, Nassun changes her mind and fulfils Essun's lasting dream: uniting Earth and moon once again. The saga ends with an outlook on life after the Seasons, when the planet's inhabitants can begin anew to build viable and thriving civilizations.

As my summary surely demonstrates, the story told by Jemisin is of epic proportions – a typical feature of fantasy fiction.[98] What I want to do now is to draw out some key motifs that run through the meandering narrative: first, the notion of Earth as a living being; second, the role of cyclical violence in human and multispecies relations; and third, the place of altruism and solidarity in apocalyptic moments. In a further step, I shall delineate how these motifs coalesce around a utopian vision, one that thoroughly unravels models of the future centred around white male power.

3.2.3 A Living Planet, Cyclical Violence and Solidary Relations. To begin with our first theme, the image of our planet as a living, raging being looms large in Jemisin's story. Earth is depicted not as an inert fantasy land through which the plot meanders, but rather plays a part in the narrative itself. One way of making sense of its representation would be in terms of "planetary weirding," a mode of thinking through the Anthropocene that underscores "its persistent imagining of geological confrontations, unsettlings, and hauntings."[99] Far from postulating the harmonious unity of our species in this climate-changed world, planetary weirding highlights deep-seated conflicts both within humanity and between humans and the environment.

On a basic level, this aspect becomes palpable in how Earth's inhabitants designate their home planet, addressing it consistently as "Father Earth." Jemisin's use of the paternal epithet signals a departure from allegories of Earth as a caring, nurturing figure.[100] Whereas Mother

[98] Attebery, "Introduction."

[99] Ingwersen, "Geological Insurrections," 74.

[100] Evidently, this spiritual image also bears resemblance to the Gaia figure, but not in the sense endorsed by Latour. On the metaphor of "Mother Earth," which is both gendered and spiritually loaded, see: Swanson, "A Feminist Ethic That Binds Us to Mother Earth";

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Earth can be relied upon for guaranteeing the peaceful coexistence of all the species on the planet, Father Earth has a much more antagonistic role: to defend itself against the intrusions of humanity.

This view echoes Latour's insight that "Earth has become . . . an active, local, limited, sensitive, fragile, quaking, and easily tickled envelope."[101] The charging of Earth with agentic powers also brings with it a shift in how humans perceive themselves, as Jemisin observes: "But human beings, too, are ephemeral things in the planetary scale. The number of things that they do not notice are literally astronomical."[102]

In explaining how the Earth's vengeful character was formed, Jemisin supplies a background narrative that assigns responsibility for the ongoing Seasons to only some human beings and their insatiable longing for control and supremacy.[103] Two passages from the trilogy's first volume summarize the origins of this clash between humanity and Father Earth:

> There was an age before the Seasons, when life and Earth, its father, thrived alike . . . Earth our father knew He would need clever life, so He used the Seasons to shape us out of animals: clever hands for making things and clever minds for solving problems and clever tongues for working together and clever sessapinae to warn us of danger. The people became what Father Earth needed, and then more than He needed. Then we turned on Him, and He has burned with hatred for us ever since.[104]
>
> In fact . . . once upon a time Earth did everything he could to facilitate the strange emergence of life on his surface. He crafted even, predictable seasons; kept changes of wind and wave and temperature slow enough that every living being could adapt, evolve; summoned waters that purified themselves, skies that always cleared after a storm. He did not create life – that was happenstance – but he was pleased and fascinated by it, and

Gaard, "Ecofeminism Revisited." On the intersections between religion and environmentalism more widely, see: Taylor, "Earth and Nature-Based Spirituality (Part I)"; Taylor, "Earth and Nature-Based Spirituality (Part II)"; Tomalin, *Biodivinity and Biodiversity*.

[101] Latour, "Agency at the Time of the Anthropocene," 3.

[102] Jemisin, *The Fifth Season*, para. 14.2.

[103] See: Iles, "Repairing the Broken Earth."

[104] Jemisin, *The Fifth Season*, para. 12.69.

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> proud to nurture such strange wild beauty upon his surface. Then people began to do horrible things to Father Earth. They poisoned waters beyond even his ability to cleanse, and killed much of the other life that lived on his surface. They drilled through the crust of his skin, past the blood of his mantle, to get at the sweet marrow of his bones. And at the height of human hubris and might, it was the orogenes who did something that even Earth could not forgive: They destroyed his only child.[105]

By inflicting environmental damage and ejecting the moon from its trajectory, humans have thus aroused the planet's ire and provoked it into becoming a formidable opponent. Father Earth's fury is reactive, rather than aggressive. Kick-starting the age of recurring Seasons signals the end of historical time as we know it. The apocalypse, in the *Broken Earth* trilogy, is not a one-off event, but rather keeps on happening again and again. Rolling climate catastrophes are embedded in a wider panorama of cataclysms that span from the breakdown caused by the opening of the Obelisk Gate to recurring smaller disasters that are the new normal. Nassun's intention to destroy the planet once and for all would have produced the definitive calamity from which Father Earth could not have recovered. The fact that her plan eventually falters is vital for my claim that Jemisin's novels ought to be read as utopian texts.

What counts as truly devastating amongst those different apocalyptic scenarios is a matter of perspective. "An apocalypse," Jemisin writes in *The Stone Sky*, "is a relative thing, isn't it? When the earth shatters, it is a disaster to the life that depends on it – but nothing much to Father Earth … When we say that 'the world has ended,' remember – it is usually a lie. The planet is just fine."[106]

The very idea of deep time, so central to the entire series, stresses that climatic catastrophes do not carry the same weight for human beings as they do for other species or indeed the planet itself. Geological and historical timescales are of entirely different magnitudes, as we have already remarked in Chapter 1. By assigning Father Earth a stance of equal importance to humanity, Jemisin unsettles the human-centred

[105] Jemisin, paras. 27.104–27.105.
[106] Jemisin, *The Stone Sky*, paras. 59.1, 40.1.

cosmology underpinning mainstream approaches to our climate-changed world.[107] Her planet-centred thinking sets into motion a defamiliarization strategy whose purpose is to make us envisage ourselves and our place in this world from a new and surprising angle. In these greatly deranged times, such re-visioning amounts to "an act of survival"[108] because the Anthropocene aggravates divisions between differently positioned members of our species as well as between human and non-human beings.

How is Earth imagined in the novels, then? This is such a difficult question because Jemisin refrains from personalizing the planet's qualities. In fact, just like the image of Gaia, the *Broken Earth* trilogy deploys various metaphors, such as that of a paternal figure, to adumbrate how connectivity without holism might be represented. In a passage reminiscent of Latour's thoughts on the self-regulatory functioning of planet Earth, Jemisin draws on the metaphor of an open network, rather than a closed system of command and control:

> The stuff underneath orogeny, which is made by things that live or once lived. This silver deep within Father Earth wends between the mountainous fragments of his substance in exactly the same way that they twine among the cells of a living, breathing thing. And that is because *a planet* is a living, breathing thing; she knows this now with the certainty of instinct. All the stories about Father Earth being alive are real.[109]

Turning now to our second motif, to understand the rupture leading to the "fifth season" we need to situate it in the wider context of cyclical violence. The lust for domination over Father Earth is related to oppression amongst humans and other species. Recall the reason why the disasters ravaging the planet have started in the first place. Father Earth resolves to retaliate only because an experiment goes fatally wrong: humans' attempt to genetically engineer and subjugate a breed of technologically enhanced beings (the latter Stone Eaters) kicks off a series of

[107] For an analysis of the importance of deep time to the idea of the Anthropocene, see: Heringman, "Deep Time at the Dawn of the Anthropocene."
[108] Rich, "When We Dead Awaken," 18.
[109] Jemisin, *The Stone Sky*, para. 1333.1.

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disastrous events that later on cannot be halted anymore. The rebellion of the Stone Eaters, which seems justified given the servitude and imprisonment that humans had in store for them, stands at the inception of a chain of suffering across the planet.

This point has relevance for how the Anthropocene is usually perceived. As we observed in Chapter 1, one of the chief objections to simplistic understandings of the Anthropocene is that the universal category of humankind is problematic, due to the different levels of vulnerability to which populations and societies across the globe are exposed. Kathryn Yusoff homes in on this point when she remarks:

> If the Anthropocene proclaims a sudden concern with the exposures of environmental harm to white liberal communities, it does so in the wake of histories in which these harms have been knowingly exported to black and brown communities under the rubric of civilization, progress, modernization, and capitalism. The Anthropocene might seem to offer a dystopic future that laments the end of the world, but imperialism and ongoing (settler) colonialisms have been ending worlds for as long as they have been in existence.[110]

Echoing this observation, Jemisin's trilogy traces the many ways in which worlds can be undone and remade – through human intervention and through planetary upheaval. Capitalism and colonialism have produced a system of violent dispossession and exploitation from which marginalized people around the world have not yet broken free.[111] And yet, the story's protagonists, from Damaya/Syenite/Essun to her daughter Nassun and teacher Alabaster, are all embroiled in revolts against oppressive institutions and structures. The de facto enslavement of Orogenes represents only the most blatant type of subjugation in the novels, but we can also detect other kinds of domination that disfigure the enduring communities. The planet itself seems to be driven by a

[110] Yusoff, *A Billion Black Anthropocenes or None*, 11.

[111] For a discussion of the ways in which the vexed history of capitalism and colonialism provides the background to the *Broken Earth* trilogy's representation of the natural world, see: Bastiaansen, "The Entanglement of Climate Change, Capitalism and Oppression in The Broken Earth Trilogy by N. K. Jemisin."

desire for revenge, fired up by its defencelessness at the hands of humanity.

The universe of the *Broken Earth* trilogy is tarnished by violence, leaving its inhabitants with the heavy legacy of making peace for and with themselves. While searching for justice is one motivating factor in that quest, mere survival is another one:

> For some crimes, there is no fitting justice – only reparation. So for every iota of life siphoned from beneath the Earth's skin, the Earth has dragged a million human remnants into its heart. Bodies rot in soil, after all – and soil sits upon tectonic plates, plates eventually subduct into the fire under the Earth's crust, which convect endlessly through the mantle … and there within itself, the Earth eats everything they were. This is only fair, it reasons – coldly, with an anger that still shudders up from the depths to crack the world's skin and touch off Season after Season. It is only right. The Earth did not start this cycle of hostilities, it did not steal the Moon, it did not burrow into anyone else's skin and snatch bits of its still-living flesh to keep as trophies and tools, it did not plot to enslave humans in an unending nightmare.[112]

The dynamic interplay between domination and rebellion forms the crucible wherein the trilogy's various narrative strands are forged together. Attested by her fascination with the Haitian Revolution, Jemisin does not believe violence per se can have redemptive effects, even when it is directed at institutions and structures that are oppressive.[113]

The ways in which subjugated people liberate themselves are always fraught with risk and imperilled by backlash from their adversaries. This becomes particularly salient in the novels' focus on the unintended consequences of revolutionary uprisings. One of the key insights of the *Broken Earth* trilogy is that social change brings with it costs that the oppressed are rarely aware of in their legitimate resistance against domination.

[112] Jemisin, *The Stone Sky*, para. 1364.1.
[113] Jemisin, "The Effluent Machine."

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Indeed, amongst the principles upholding collective life in the Stillness is one that stipulates: "necessity is the only law."[114] This twist on the Roman proverb *necessitas non habet legem* ("necessity knows no law") evinces that declaring a state of exception, which is only supposed to be temporary and reversible, becomes obsolete in the Fifth Season. When the planet is in turmoil, positive transformation will require extreme measures, shaking up what is taken to be immutable. A return to a mode of cooperative existence calls for more than slow reformism. As Jemisin notes in an interview, insurgent action always needs to be assessed in light of the suffering it will cause, often as a side effect of good intentions:

> There are those who believe in incremental change as the only safe way to make the world a better place. I don't believe in that. Incremental change means a lot of people suffering for a very long time, mostly so that the people in the status quo can be comfortable longer. The people pushing incremental change aren't the ones who are suffering. And sometimes a revolution is necessary; sometimes you do have to burn it all down. I wanted to depict realistically what that'd be like. If you burn it all down, a whole lot of people get hurt. If you're going to advocate for burning it all down, I'm going to show you what burning it all down looks like.[115]

While the series culminates without the total destruction of the planet, it is far from assured that the future on the Stillness will remain devoid of violence. The novels' open ending underlines that reconstruction in the aftermath of long-term and systemic oppression will not necessarily be straightforward. Reaching for a *New Jerusalem* is as useless a goal for this utopian project as is the hope that we could ever turn *Arcadia* into reality.

This issue brings us to the third thread running through the trilogy: the importance of altruism and solidarity in the face of adversity. It is commonplace in science fiction and fantasy writing to portray the surviving of the apocalypse as a lonely business, typically attained by a White heroic loner.[116] Jemisin deconstructs this gendered and racialized

[114] Jemisin, *The Fifth Season*, para. 24.56; Jemisin, *The Stone Sky*, para. 383.1.

[115] Hurley and Jemisin, "An Apocalypse Is a Relative Thing," 473.

[116] For the most notorious example of openly racist and misogynistic speculative fiction, see: Heinlein, *Farnham's Freehold*. On the centrality of race and ethnicity in science fiction narratives, see: Leonard, "Race and Ethnicity in Science Fiction"; James, "Yellow,

stereotype, not only by selecting a Black middle–aged woman as her protagonist, but also by overturning the "controlling image"[117] of the solitary hero who overcomes all the hardship by himself. While Essun's life is characterized by terrible sacrifices, including the tragic killing of her own child, she is also nurtured, cared for and sustained by a group of friends. "In real situations of disaster," Jemisin observes, "it's people who cooperate who survive. It's people who look out for each other. Altruism and community are what help you get through, not being Mad Max."[118]

This statement is supported by research into the aftermath of real-world catastrophes. Rebecca Solnit has shown that responses to disasters are typically driven by both self-preservation and by a concern for the welfare of others. Examining events such as hurricane Katrina, 9/11 or the 2004 tsunami in the Indian Ocean, she holds that "most people are altruistic, urgently engaged in caring for themselves and those around them, strangers and neighbors as well as friends and loved ones. The image of the selfish, panicky, or regressively savage human being in times of disaster has little truth to it."[119]

Solnit describes the emergent solidarity in the wake of calamities under the banner of "disaster utopias." Disaster utopias are usually short-lived, surfacing when the ashes of an old order are still in the air and fading away once a more regular course of life – a new normal – has been restored. Such utopias do not involve grand schemes for social engineering or amount to full-fledged expressions of social dreaming, but rather spring up almost automatically:

Black, Metal, and Tentacled." On the ways in which African American artists have sought to dismantle this politics of race, see: Carrington, *Speculative Blackness*.

[117] I take the notion of a "controlling image," which describes how some ideas "make racism, sexism, poverty, and other forms of social injustice appear to be natural, normal, and inevitable parts of everyday life," from Patricia Hill Collins. See: *Black Feminist Thought*, 69.

[118] Hurley and Jemisin, "An Apocalypse Is a Relative Thing," 470.

[119] Solnit, *A Paradise Built in Hell*, para. 1.63. For an illuminating reading of Solnit's thesis in the context of climate change debates, see: Fiskio, "Apocalypse and Ecotopia." Solnit has also extended her thesis to the COVID-19 pandemic. See: Solnit, "The Way We Get Through This Is Together."

> [D]isaster throws us into the temporary utopia of a transformed human nature and society, one that is bolder, freer, less attached and divided than in ordinary times, not blank, but not tied down … You don't have to subscribe to a political ideology, move to a commune, or join the guerrillas in the mountains; you wake up in a society suddenly transformed, and chances are good you will be part of that transformation in what you do, in whom you connect to, in how you feel.[120]

This inquiry into disaster utopias dovetails with Jemisin's account of how group improvisation can aid those who grapple with the catastrophic consequences of the Fifth Season. Their patterns of empathy and collaboration could also be glossed as "disaster communism."[121] A complementary explanation of the ways in which altruism and solidarity materialize in extreme situations would be via decolonial scholarship around the links between survival and resistance.[122] Faced with the wholesale destruction of their cultures, Indigenous writers have long emphasized the centrality of storytelling for individual and collective flourishing. The practical objective of stories, then, is to repair and reinforce the social fabric holding together past, present and future generations. Besides, their narratives also affirm how human thriving is always tied up with caring about and for Earth.[123]

What Vanessa Watts calls "Place-Thought" captures the non-anthropocentric cosmology behind Jemisin's fantasy land, where care extends not only to interpersonal and multispecies relations, but to the planetary ecosphere more generally: "Place-Thought is based upon the premise that land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts."[124] As

[120] Solnit, *A Paradise Built in Hell*, paras. 1.105, 1.108.

[121] Out of the Woods, "The Uses of Disaster." Along the same lines, Andreas Malm suggests recovering the concept of "war communism," which signifies a specific period of the Bolsheviks' reign during the Russian Civil War. See: Malm, *Corona, Climate, Chronic Emergency*.

[122] On this point, see: Ingwersen, "Geological Insurrections," 84–6. I also take the next reference to "Place-Thought" from this text.

[123] See: Sium and Ritskes, "Speaking Truth to Power"; Whiteduck, "But It's Our Story. Read It."

[124] Watts, "Indigenous Place-Thought & Agency amongst Humans and Non-humans (First Woman and Sky Woman Go on a European World Tour!)," 21.

we have seen, the ability of the Orogenes to marshal their powers stems from their existential entanglement with the Earth's infrastructure. Orogenes are quite literally "Earth-makers," whose gift of geoengineering turns out to be an extremely hazardous one: used diligently, it expediates pacific relations between humans and planet Earth; used inconsiderately, it exerts a devastating impact on both humanity and the environment.

The ambivalent magic of the Orogenes thus facilitates a deeper appreciation of the links that bind humans to the more-than-human world. As a consequence, the kind of disaster communism we find at work in the *Broken Earth* trilogy goes beyond the human sphere, inaugurating instead new types of human–planet relations. This process depends on novel forms of altruism and solidarity, both between humans of different backgrounds and between humans and the more-than-human world.[125]

Taken together, these three motifs – Earth as a living being, the role of cyclical violence and the centrality of altruism and solidarity – inform a comprehensive rebuttal of speculative fiction structured around White male power. In sharp contrast to gendered and racialized controlling images of heroic masculinity, Jemisin demonstrates that individual rebellion is likely to falter and that violent upheaval will not automatically lead to liberation. On this level, the trilogy's utopian dimension is fairly easy to discern – as the celebration of alternative avenues for survival and resistance that do not rest on the ruinous assurances of White male power.

Are there other ways in which the text could be read as politically generative? What should we make of the unsettling image of Father Earth as an agent in its own right? In order to answer these questions, we may be guided by two hermeneutical strategies: either pursuing a *strong* allegorical reading that interprets the world of the *Broken Earth* trilogy principally as a defamiliarizing critique of White male power; or employing a *weak* allegorical reading that embeds the trilogy's planetary weirding within broader debates about environmental degradation and

[125] On the importance of providing a physical infrastructure for such solidarity, see: Kearse, "The Worldmaking of N. K. Jemisin."

human hubris in the Anthropocene. Let us unpack each of these and weigh their respective virtues.

The strong allegorical interpretation submits that the calamities of the *Broken Earth* trilogy should be read as symbolizing the painful experiences of oppressed people when their struggles for emancipation are repeatedly thwarted. On this reading, Father Earth's irascible outbursts are mere ciphers for what happens when the just order of things – one in which the good life is accessible to everyone and in equal measure – has been severely disturbed.

An advantage of this interpretation is that we can with relative ease identify real-world equivalents of the novels' oppressive institutions and structures: the Guardians may hence be understood as the repressive police apparatus, while the violence exerted by the Orogenes may correspond to brutal clashes amongst subjugated groups, etc.[126] This appears to be the hermeneutical strategy favoured by the author herself, as the following passage shows:

> So it wasn't that I was trying to write an apocalyptic story, it was that I was trying to depict a society that had the emotional impact of the society that I live in now where there have been, not Fifth Seasons, but where there have been the equivalent of pogroms and holocausts and all of these disasters happening to a people again and again and again. And I wasn't specifically depicting just the African-American experience; I was drawing a lot of material from a number of different experiences of oppression, like being closeted from queerness, or drawing from the Holocaust, which you see a lot in the third book. When you look at human history, it's full of Fifth Seasons, full of apocalypses, quiet ones in many cases, but just as devastating to its people. I wanted to draw a world that felt realistic.[127]

What is distinctive about the *Broken Earth* trilogy is the extent to which the planet in its entirety is depicted as marred and constituted by violence. This is how our actual world looks when viewed from the vantage point of the oppressed, Jemisin reminds us, confirming once again that in utopian projects estrangement and realism are enmeshed with each

[126] Hepplewhite, "The Stone Sky by N. K. Jemisin."
[127] Hurley and Jemisin, "An Apocalypse Is a Relative Thing," 472.

other.[128] Her main sources of inspiration during the drafting process were movements, such as *Black Lives Matter*, that channel their anger at systemic domination via solidary self-empowerment, but also findings into the deprivations of Indigenous children, who were forcibly removed from their families to expunge their native culture in so-called residential schools.[129]

Following this line of thought, the Stillness effectively embodies a defamiliarized version of the brutal, unequal world we inhabit right now, a world where "breathing doesn't always mean living."[130] The destructive Seasons can be interpreted as embodying what Christina Sharpe calls the "weather that produces a pervasive climate of anti-blackness."[131] Tellingly, the verb "weathering" is also used in medical discourse to capture the pervasive effects that racism has on health inequalities, independent of variations in socio-economic status.[132] On this account, extreme meteorological events stand for the totality of social relations scarred by enslavement and its aftermath. As a parable, the image of a living planet highlights, in an Afropessimist vein, that fighting White supremacy means nothing less than completely obliterating the oppressive institutions and structures that uphold White supremacy.[133]

[128] Before publishing the *Broken Earth* trilogy, Jemisin elaborated on this point on her personal blog: "That's the whole point of speculative fiction for me, really – playing the 'what-if' game. What if, all other things being equal and people being people, the apocalypse happened every few hundred years? What if, all other things being equal and people being people, gods lived among us, and were sometimes real assholes? Those what-ifs don't work without the *people being* people part. Which means I need to understand people, in the real world, in all their glory and grotesquerie" (Jemisin, "Why I Talk So Damn Much about Non-writing Stuff").

[129] "Black Lives Matter Inspired This Chilling Fantasy Novel."

[130] Jemisin, *The Stone Sky*, para. 1004.1.

[131] Sharpe, *In the Wake*, para. 11.16.

[132] On "weathering" and health inequalities, see: Geronimus et al., "'Weathering' and Age Patterns of Allostatic Load Scores among Blacks and Whites in the United States"; Phelan and Link, "Is Racism a Fundamental Cause of Inequalities in Health?"; Williams, Lawrence, and Davis, "Racism and Health."

[133] This picture reverberates with the thought that the "afterlife of slavery" generates a permanent state of "social death," which cannot be overcome through practices of emancipation alone. See: Hartman, *Lose Your Mother*; Patterson, *Slavery and Social Death*. The idea that the continuous experience of social death renders any form of optimism

While this approach strikes me as intuitively persuasive and confirmed by Jemisin's own explanations, it has one downside: it relegates the figure of Father Earth to the secondary status of a mere cipher, symbolically standing in for real-world violence and oppression. If we read Jemisin's oeuvre in this way, we risk losing sight of the trilogy's troubling of the contested distinction between culture and nature, which strikes me as vital for the novel's political implications.

Let us hence pursue a different hermeneutical strategy that accentuates the text's environmental facets. While this weak allegorical interpretation would still accept the estranged character of the fantastical story, it refrains from treating Father Earth as a metaphor for the just order of things. On this alternative reading, Jemisin promotes a "radical Black ecology," vigorously debunking the notion that "capitalism, the state, heteropatriarchy, and the domination of more-than-human nature are the means and ends of justice and freedom."[134]

We have already observed that the image of our planet as a living, raging being evokes how Latour conceives of the Gaia figure. Just like Latour's *New Climate Regime*, Jemisin's universe, too, is premised on the existence of irradicable and ongoing conflicts between various parties that have a stake in a planetary existence. Even Earth itself is caught up in these altercations. The antagonisms of the *Broken Earth* trilogy force a rethink of the modern idea of nature as a neutral background against which human culture evolves. Latour captures this thought in his discussion of how wars will unfold in the future:

> We have reached the point when we should make no mistake about the role of Gaia in the return to the situation of war. Gaia no longer occupies in any sense the position of arbiter that Nature occupied during the modern period. Such is the tipping point between unified, indifferent, impartial, global "nature" whose laws are determined in advance by the principle of causality, and Gaia, which is not unified, whose feedback loops have to be discovered one by one, and which can no longer be said to be

frivolous plays a paramount, if contested, role in the current debate around Afropessimism. See: Gordon et al., "Afro Pessimism"; Sexton, "Afro-Pessimism"; Wilderson, *Red, White & Black*.

[134] Opperman, "We Need Histories of Radical Black Ecology Now."

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> *neutral toward our actions*, now that we are obliged to define the Anthropocene as the multiform reaction of the Earth to our enterprises. Gaia is no longer "unconcerned" by what we do. Far from being "disinterested" with respect to our actions, it now has *interests* in ours.[135]

This theoretical framework allows us to approximate Jemisin's representation of a living planet bent on warfare to Latour's conception of a political ecology that disavows romantic conceptions of pristine nature. Conserving, protecting and defending nature is not an option for the inhabitants of the Stillness, because Father Earth does not require tutelage of any kind. Rather, what the *Broken Earth* trilogy narrates is the process whereby the planet and its occupants negotiate a mutually agreeable settlement in the wake of an ecological crisis. Interestingly, this settlement does not result from the shared interests of a unified humanity. On the contrary, Jemisin's fantasy land shows us a fractured universe in which different human as we all more-than-human communities contend with one another.

A major objection to the idea of a "human planet" involves, as already stated, that it exaggerates the degree to which humanity amounts to a unified actor when it comes to assessing the impact our species has on the planetary ecosphere. Jemisin's narrative takes full account of this fact, notably through her portrayal of humanity as internally split: between ordinary human beings and their magical counterparts. In fact, the origins of Father Earth's vengeful attitude can be tracked down to intense divisions amongst humans. This perspective allows us to more clearly identify who bears primary responsibility for environmental damage and pollution – a question that is inseparable from the issue of how violence ripples through human and multispecies communities.

Both the dystopian vision of recurrent catastrophes and the eutopian promise of disaster-proof communities are part of the same stubborn struggle for a world beyond oppressive institutions and structures. Without attending to the planet's direct participation in these struggles, we could not comprehend the full ramifications of Jemisin's fantastical yet this-worldly utopia.

[135] Latour, *Facing Gaia*, para. 13.52.

3.3 ESTRANGEMENT AND ITS DISCONTENTS

As discussed in Chapter 1, the utopian education of desire is so urgently needed right now because we find ourselves in the midst of a crisis of the imagination. The champions of the Gaia hypothesis and N. K. Jemisin are proponents of a particular type of mapping our climate-changed world that disabuses its readers of outdated ways of experiencing the world. Their visions of the future remain pervaded, however, by a fundamental tension between the two modes of defamiliarization just identified: estrangement *from* and estrangement *for* the world. Reading together the theory-building and the storytelling pole of this utopian constellation reveals how difficult it is to gain distance to reality in the right manner.

Raising a *What-If* question is integral to all kinds of social dreaming: to once again invoke Fredric Jameson, utopias strive to "dissolve" and "neutralize" the status quo, prompting us to let go of, or at least provisionally bracket, deeply held convictions about the real world. One such conviction, I have suggested, pertains to the view that our planet merely provides the passive background against which humanity's sovereign actions play out. The utopian vision of our planetary habitat as an actor in its own right assaults this anthropocentric view, by formulating a theory of universal connectedness and by foregrounding the conflicts between an internally divided mankind and "Father Earth."

At the end of this chapter, it is time to take stock and ask which features cut across this first constellation. Juxtaposing the champions of the Gaia hypothesis with N. K. Jemisin's narrative lays bare a number of overlapping preoccupations that can help us identify what is distinctive about the utopian vision of a living planet. The first of these is the refutation of Earth as a caring, nurturing figure. There simply is no place for such a benevolent character in a world ravaged by climatic disruptions.

The second idea shared by proponents of this constellation has to do with the antagonistic dimension of both human and multispecies relations. The emphasis on persistent enmity can be explained as an endeavour to re-politicize ecology in a comprehensive manner: not as the "slow,

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strong drilling through hard boards,"[136] in Max Weber's words, but as the simple, yet consequential fact of being exposed to constant dangers that need careful mediating and negotiating.

This affects our understanding of what it means to be human on a living planet, demonstrating that questions of what Levitas calls the "ontological" mode of utopianism are central to this constellation: how we may thrive, as members of a rapacious and hubristic species, cannot be divorced from the ways in which we inhabit a climate-changed world. Since conflicts result from this diagnosis of *Homo sapiens* as destructive, the proponents of this *What-If* plot line experiment with new ways of processing and experiencing our place in the world.

A third point concerns what should happen next, once the notion of a planet on which nobody and nothing is passive has been established. Neither the champions of the Gaia hypothesis nor Jemisin are fatalistic about the future. Although they do not offer a detailed escape route out of the current impasse, they supply us with a sense of how oppositional agency may gather traction, especially through the solidary bonds that the *Broken Earth* trilogy discovers in resistance movements.

Given these disparate characteristics, why might it still be useful to call their visions utopian? An initial observation is that the idea of planet Earth as a living being does not in any meaningful sense translate into a perfect plan for how a climate-changed world should evolve in the near or even the far future. Neither Latour nor Jemisin deliver blueprints for what needs to be done to improve the relationships between humans and the environment. But they convey imaginative constructs that defamiliarize the reader from the way Earth and its inhabitants are conventionally viewed, and that is an important part of the critique that this planet-centred utopianism exercises.

What clearly emerges is that both Latour's *New Climate Regime* and Jemisin's *Broken Earth* trilogy seek to educate a desire for other ways of being and living. This desire springs from the acknowledgement that the current state of affairs is deeply problematic, locking our species into a trajectory towards likely destruction: in Latour's case, the origins of the ecological crisis are traced back to a modern misconception of our

[136] Weber, "The Profession and Vocation of Politics," 369.

planetary habitat itself. The Gaia hypothesis constructs a lens for envisioning the interface between nature and culture – not as diametrically opposed spheres of interaction between humans and non-humans, but as a critical zone, a shifting borderland, where various types of agency collide with each other.

Jemisin's conjuring of the Stillness serves a comparable purpose: to summon the reader to see the real world anew. Her narrative opens a strange perspective through which anthropocentric worldviews become unsettled. Differently positioned humans, in this world full of magic, are but marginal players who have to struggle to preserve their place within a landscape occupied by a variety of hostile actors.

This clash of standpoints demonstrates that utopian storytelling can address similar issues as theory building. The *Broken Earth* trilogy never fully personalizes Father Earth, but it does invite the reader to imagine what it would be like to inhabit an irascible planet whose geology turns out to be not as amenable to *Homo sapiens* as Earth's Goldilocks zone. Jemisin's description of a period in time when our species has completely lost control over the "human planet" provides us with a useful variation on the Gaia hypothesis. Investigating the deep time of fantasy adds experiential texture and depth to the claim of universal connectedness. In that sense, the *Broken Earth* trilogy does more than simply illustrate the approach adopted by Lovelock, Latour and others. It explores how our planetary existence might be altered if the Gaia hypothesis were to become reality.

Naturally, this shift from the realm of social and political theory to the domain of speculative fiction brings with it a departure from scientific inquiry as we know it. Due to its explicit embrace of magic, Jemisin's fantasy land is much more disengaged from present epistemological practices than the other narratives discussed in this book. But this renders her work more, rather than less, instructive from the point of view of the education of desire. Attending to the complex manners of what life might feel like in a post-Anthropocene world sheds light on our greatly deranged times.

As I have already stated, both Latour and Jemisin refrain from specifying in detail how we could counteract the perils of the present. A shortcoming of their defamiliarizing utopianism might hence be that

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the estrangement technique ends up eclipsing reflections about what should be done concretely, here and now. I have dubbed this the fault line of indeterminacy: the tendency of all adherents to a *What-If* frame to prioritize estrangement over concreteness. This is a development that our next constellation aspires to avoid at all costs, through its singling out of viable pathways out of the ecological crisis.

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