

# Scorched Earth: Discourses of Multiplanetarity, Climate Change, and Martian Terraforming in *Finch* and *Once Upon a Time I Lived on Mars*.

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**Abstract** This contribution discusses the current surge of Mars colonization narratives both in science and culture, and the ways these narratives are received and circulated in current ecocritical debates on a multiplanetary future of humanity. This analysis in this contribution takes its cue from the representation of the California wildfires of 2020 as an anthropogenic spectacle that is foreboding of a post-apocalyptic future in which Earth becomes Mars-like, and discusses how this discourse is reproduced in the Hollywood movie *Finch* and Kate Greene’s popular science memoir *Once Upon A Time I Lived on Mars*. As texts of quasi-science communication, they produce a contact zone between Earth/Mars which serves to legitimize technoliberal fantasies of terraforming Mars into Earth as a solution to climate change. With all paths to all possible futures of human habitation – utopian or dystopian – allegedly leading right through the Red Planet, there is an urgency to critically engage with the idea of planetarity being overwritten by a discourse of multiplanetarity that veils the continuity of extractivist capitalism/colonialism in a narrative of futurity and progress.

**Keywords** Climate Change · Multiplanetarity · Martian Terraforming · Technoliberalism · Speculative Fiction

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## Verbrannte Erde: Diskurse der Multiplanetarität, des Klimawandels und Mars Terraforming in *Finch* und *Once Upon a Time I Lived on Mars*.

**Zusammenfassung** Dieser Beitrag diskutiert das steigende Interesse an Narrativen der Marskolonisation in Wissenschaft und Kultur, sowie die Art und Weise wie diese Narrative innerhalb ökokritischer Debatten um eine multiplanetare Zukunft der Menschheit diskutiert werden. Die Analyse des Beitrags nimmt dabei die Repräsentation der zerstörerischen Waldfeuer 2020 in Kalifornien zum Anlass, die dieses anthropozentrische Spektakel als Vorgeschmack auf eine terrestrische Zukunft verstehen, in der die Erde immer Mars-ähnlicher wird. Der Beitrag diskutiert, wie dieser Diskurs in den Hollywood Filmen *Finch* und in Kate Greenes populärwissenschaftlichen Memoiren *Once Upon A Time I Lived on Mars* reproduziert werden. Als Formen der Wissenschaftskommunikation produzieren die beiden Texte gemeinsam eine Kontaktszene zwischen Erde/Mars, welche dazu dient, technoliberaler Fantasien zu legitimieren, die das Terraforming des Mars als Lösung der Klimakrise auf der Erde verstehen. Der Beitrag postuliert, dass die Art und Weise wie alle Wege in die menschliche Zukunft offenbar nur durch den Mars führen, eine tiefere kritische Auseinandersetzung mit dem Diskurs der Multiplanetarität verlangt, und wie dieser extraktivistisch-kapitalistische und koloniale Kontinuität durch Narrative von Zukünftigkeit und Fortschritt verschleiert.

**Schlüsselwörter** Klimawandel · Multiplanetarität · Terraforming · Technoliberalismus · Spekulative Fiktion

### 1 Introduction: A Discourse of Multiplanetarity

In the summer of 2020, the US state of California was ravaged by yet another unprecedented wildfire season. Fueled by climate change induced high temperature spikes and a resulting drought, the individual fires and fire complexes across the state burned millions of acres of land and left most of California covered in thick clouds of smoke, while coloring the sky in orange hues. The otherworldly aesthetics inspired multiple YouTube videos, in which an orange-colored San Francisco scenery was set to music from the motion picture *Blade Runner 2049* (»San Francisco Fires/ Blade Runner 2049« [2020]). As the ethereal music subtly builds to a threatening climax, accompanied by a camera that continues to slowly meander over the orange landscape, the imaginary of the post-apocalyptic dystopian future of the movie is projected onto a no-less dystopian present, and the audience can't help but wonder if the climate apocalypse that we still hope to avoid is not already here. In *The Climate of History in a Planetary Age*, Dipesh Chakrabarty describes how his encounter with the bushfires in Australian Capital Territory, similar to those witnessed in California in 2020, served as a moment of epiphany that forced the reality of anthropogenic climate change into the »humanocentric thought world« he inhabited (Chakrabarty 2021, pp. 2–3). To mark this shift, Chakrabarty proposes the use of the concept of planetarity, which, unlike the global, decenters the human while highlighting the



Anthropocene as a »matter of broad and deep human concern alongside our familiar apprehensions about capitalism, injustice, and inequality« (Chakrabarty 2021, p. 1). With this, Chakrabarty's work ties in with previous discussions of the concept of planetarity, by scholars like Gayatri Spivak and Ursula Heise, which at its core highlights what Amy J. Elias and Christian Moraru have described as the »incessantly thickening, historically unprecedented web of relations among people, cultures, and locales« that can only be grasped by an awareness of the relationality embedded in the planetary (Elias/Moraru 2015, p. xi).

The videos highlight that the awareness of the planetary scale of the multitude of anthropogenic crises remains uneven across the globe – both in temporality and geography – with its effects disproportionately impacting communities in the global south while having (for now) afforded the global north the luxury of fantasies of quick technological fixes for a disaster imagined to be still beyond the horizon (cf. Chakrabarty 2021, p. 1; Nixon 2011). The reaction to the hypervisibility of climate change in a place like San Francisco – a space emblematically representing US-America's and specifically Silicon Valley's faith in technoliberal progress, wealth, and well-being – is a case in point.

While having the potential to foster a similar planetary moment as described by Chakrabarty, the events instead gave rise to an act of refusal to acknowledge the relationality of our anthropogenic planetary crisis embedded in what I would term a discourse of *multiplanetarity*: matching the abovementioned video's apocalyptic tone, Andy Weir, author of the popular science-fiction novel *The Martian*, tweeted a similar image of the orange sky of the San Francisco Bay Area, which compares the aesthetics produced by the wildfires specifically to the topography and atmosphere of the planet Mars (Weir 2020). In that same tweet, Weir repurposes the opening line uttered by the protagonist of his novel – who is stranded on Mars and struggles to survive the wastelands of the Red Planet all by himself – as a caption for the image of dystopian San Francisco, to imply that Mars and Earth have traded places right under Weir's and all of humanity's feet.<sup>1</sup> The specificity with which Weir evokes the climate change induced post-apocalyptic future of humanity as ›Earth becoming Mars,‹ highlights not only what Chris Pak has described as the increasing importance of speculative imaginaries of terraforming »amidst contemporary heightened anxieties about environmental change« (Pak 2016, p. 3). It also resonates specifically with technoliberal fantasies of space-racing billionaires like Elon Musk, who proclaim the future and salvation, even immortality, of humanity as only attainable by turning Mars into a second Earth – a project that replaces the shift towards planetary thinking to battle climate change with the simple formula of extraplanetary expansion to allow for continuous capitalist growth (cf. Crawford 2021, p. 234). In a sense, this imaginary of an eventual exodus of humanity from a barren Earth operates along the lines of what Anna Lowenhaupt Tsing has described as capitalist alienation, yet on a planetary scale (cf. Tsing 2015, p. 5): all of Earth here is reduced from complex and entangled life worlds to a modified landscape whose only asset is supporting

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<sup>1</sup> In an article for the German newspaper *Die Zeit*, Berit Glanz describes how, in a similar vein, the internet brought forth augmented movie posters for Weir's film *The Martian*, which still show the protagonist stranded in Martian wastelands, but are alternatively titled *The Californian* (cf. Glanz 2020).



human life (cf. Tsing 2015, p. 6). Once Earth can no longer produce this asset, it can be abandoned for the sake of new modified landscape – like Mars. In this logic, the scorched earth of California, Australia, Siberia or elsewhere is a sign that it is high time to move on (cf. Crawford 2021, p. 234).

Between climate change turning Earth into Mars, and Mars being terraformed into Earth, multiplanetary emerges here as a reactionary technoliberal discourse in defiance of planetarity and its attempt to make room for imagining the end of a world in anthropogenic crisis, brought about by the perpetuation of modern and colonial regimes (cf. Tsing, 2015, p. 4). In *Planetary Longings*, Mary Louise Pratt argues that the Anthropocene comes with a »crisis of futurity,« which demands of us to accept that simply »repairing what has been damaged« by the inferno that humanity has constructed on Earth can no longer define the »world-making project,« and that the choice is no longer between »what is and what was, but between what is and what will be« (Pratt 2022, pp. 10–11). Pratt's emphatic »there is no going back« as the rallying cry for world-making otherwise, which emphasizes what Elias and Moraru have called the relational strength of the »multitude of the planet« (Elias/Moraru 2015, pp. xvii–xviii), is thwarted by the multiplanetary discourse of a multitude of planets (!), in which Martian (or any project of extraterrestrial) colonization is veiled in narratives of renewal and futurity, but serves as but a detour on the road back to capitalist logics of infinite growth (cf. Temmen, 2021, p. 206; cf. Crawford 2021, pp. 231, 232–233).

In *Death of a Discipline*, Gayatri Spivak famously proposed that the planetary should overwrite the globe (Spivak 2005, pp. 72–73) to, among other things, »deflect the rational imperative of capitalist globalization« (Spivak 2011, p. 348). My contribution will take a closer look at how the discourse of multiplanetary, propelled by the recent (re)invigoration of space exploration in a technoliberal mode, in turn seeks to overwrite the planetary, by relying on complementary narratives of terraforming Mars into Earth, and narratives of climate change induced post-apocalyptic future of humanity as »Earth-becoming-Mars«. To this end this contribution offers an analysis of the 2021 Hollywood movie *Finch* (2021) and Kate Greene's 2020 memoir *Once Upon a Time I Lived on Mars*, through the lens of what Robert Haynes has called »ecopoeisis«, or the discursive terraforming of an »otherwise uninhabitable environment into a place fit for life to evolve naturally« (Haynes qtd. in Lovelock 1995, pp. 174–175). As cultural texts engaging in what famous science communicator Carl Sagan has called a delicate dance between science and fiction, they need to be read as a product of what Matthew Schneider-Mayerson and Brent Ryan Bellamy have described as a collective (and individual) struggle to adequately communicate, represent, understand, and to respond, emotionally and politically, to the advent of the Anthropocene (cf. Schneider-Mayerson/Bellamy 2019, pp. 1–2). In this search for adequate forms of science communication that »stir the passions« (Schneider-Mayerson/Bellamy 2019, p. 3), Schneider-Mayerson and Bellamy argue, statistical facts about our anthropogenic crisis – many of which have become common knowledge – can only be the first step (Schneider-Mayerson/Bellamy 2019, pp. 2, 3). What is needed instead, are speculative fictions that function as »literary time machines,« transporting us to distant futures rather than recycling familiar apocalyptic tropes of »diminished, destroyed, and denatured worlds« (Schneider-Mayerson/

Bellamy 2019, pp. 3–4). Read together, *Finch*, a science-fiction movie set in a post-apocalyptic terrestrial wasteland, and Kate Greene's *Once Upon a Time I Lived on Mars*, a memoir-cum-popular-science-report on the author's time as part of a simulated Mars habitation mission, present us with a warped version of this premise. Together, both texts create a contact zone between Mars and Earth to reframe the apocalyptic future of anthropogenic climate change as a double terraforming (Earth into Mars and Mars into Earth) that ultimately allows for multiplanetary »alienation« (cf. Tsing 2015, p. 6; Pratt 2007, p. 33). This fresh start within a multiplanetary framework runs counter to Chakrabarty's conception of the planetary, by reframing the Anthropocene as an inevitable opportunity to transform humanity via a deeply colonial »rediscovery« of Earth post-climate change. The beginning of this elaborate route leading back to what was before – to evoke Pratt again – lies in the ambiguous scorched wastelands of post-climate change Earth/Mars.

## 2 Scorched Earth and Martian Grasslands

In the 2021 Hollywood movie *Finch*, the eponymous protagonist of the story lives a reclusive life in a repurposed powerplant on a future Earth turned into a quasi-Martian wasteland by a gamma flare from the sun. The audience, however, only learns of the setting and the pre-movie plot in the course of the film. The opening scenes are more ambiguous: the firestorm and reddish wasteland which the protagonist scales in what can only be described as a makeshift spacesuit, leans heavily on the aesthetics of Mars colonization established by movies such as *The Martian*, *Total Recall*, or the mockumentary *Mars* (among others). These aesthetic devices are supported by the plot, which suggests that Finch, much like many of his Martian counterparts, might be the only human on this ambiguous planet (cf. Temmen 2022). In this Robinson-Crusoe-like framework, human-technology/robotic relations serve to affirm the planetary ambiguity that lingers in the subtext of the story. Apart from his flesh-and-blood dog Goodyear, Finch, a robotics engineer by training, relies on a four-wheeled pet robot called Dewey, to assist him in his daily routines. Dewey is clearly modeled after the different Mars rovers that currently roam the Martian surface, and that connection is made explicit when Jeff, the anthropomorphic robot that Finch builds to take care of the dog once Finch passes away, asks to be called Rover at first – a request that is denied by Finch, because rover is »a dog's name« (cf. *Finch*, 00:43:13). The movie implies an evolutionary relationship between the different robots, with Dewey as the quasi-Mars pet rover, and Jeff as an anthropomorphized robot who is designed to take Finch's place in taking care of the dog Goodyear at some point. This framework is directly tied to the current NASA Mars rover missions, which, as I have argued elsewhere, are presented as an essential evolutionary link in humanity's effort to spread human life across the cosmos (Temmen 2021, pp. 209–210). The movie follows the same evolutionary logic by implying that the dying Finch relies on the robot Jeff to carry on what makes humanity human – embodied in Finch's care for the dog Goodyear – after his death. The story subtly references this connection of human technomorphism and space exploration,



when Finch quotes Neil Armstrong's famous first words on the Lunar surface, as he activates Jeff for the first time (cf. *Finch*, 00:43:13; cf. Vertesi 2015, p. 171).

The multiplanetary ambiguity at the center of the plot for *Finch* reproduces a similar discourse at the heart of simulated Mars habitation experiments. These simulations serve space agencies as sites to test equipment, dry runs of potential mission scenarios, or as sociological and psychological experiments for future missions in space (cf. Greene 2020, p. 5; cf. Temmen 2022). In Kate Greene's life writing text *Once Upon a Time I Lived on Mars*, the author relates her time as part of the »HI-SEAS« analog simulated habitation project on Mauna Loa mountain, Hawai'i. As the title already implies, Greene's memoir-cum-science report narrativizes the experiment's underlying discourse of creating a piece of Mars on Earth: »We lived in a large, white geodesic dome off an access road at 8,000 feet on the Hawaiian volcano of Mauna Loa. The scene was very red, very rocky. Very Mars« (Greene 2020, p. 6). Similarly to the movie *Finch*, Greene's text also continues to maintain the ambiguity of the planet it is set on:

»On the event of April 15, 2013, a Tuesday, after a long and winding drive up to an old quarry site on the Hawaiian volcano of Mauna Loa, the six chosen to kick off the HI-SEAS project stepped out of the van. Bags in tow, our boots crunched the lava rock like broken plates underfoot to the door or our home for the next four months, a sparsely furnished, newly constructed two-story geodesic dome. The smell of it – off-gassing vinyl from the skin that stretched across the metal frame – was striking and intoxicating, alien and familiar at once, like driving a new spaceship home, straight of the lot« (Greene 2020, pp. 22–23).

The visuality and textuality of this scene bears a striking similarity to the opening scenes of the movie *Finch*. But the similarities are not only on a visual level: the way that the text frames the dome and the habitation simulation as curiously situated in a contact zone between the alien and the familiar, between Mars and Earth, clearly resembles how *Finch* keeps its audience in the dark about the location of its planetary setting. In the case of the simulated habitat, this ambiguous location relies much on a discursive exoticization of the habitats' location on Earth. Most simulated habitation projects are spread in seemingly random patterns across the globe in places like Iceland, the Arctic and Antarctic, the deserts of Arizona and Utah, the Australian Outback, Siberia or the Hawaiian Islands. The locations for these habitats are neither random nor based on any specific likeness to the red planet, but rather connected in their shared and externally ascribed identity as »isolated« islands, »uncivilized« and »uninhabitable« territories from the perspective of western settler colonial discourse (cf. Temmen 2022, pp. 2–3). This exoticization of Earth via colonial discourses again harks back to Anna Lowenhaupt Tsing's conception of alienation: within settler-colonialism, marking territories as isolated, uncivilized and uninhabitable expresses the lack of value these spaces have for agriculture, settlement or resource extraction – all the ways that settler-colonialism considers apt to claim a space and make it productive (cf. van der Marel 2014, p. 15). Green's text generally reflects on the question of whether the colonization of outer space falls into the tradition of terrestrial colonization, but ultimately subscribes to the

capitalist logic of a »plan-B Planet« that would ensure a continuity of colonial resource extraction (cf. van der Marel, pp. 11, 12).

Within this framework of colonial exoticism, the ambiguous location of the habitat as both Earth and Mars is reflected also in the multitude of textual genres that Greene relies on to convey her positionally within this ambiguous space. Greene describes the mission as a »writing retreat« (Greene 2020, p. 118) and the essays born of her experience both as an examination of the science involved in helping humanity to become an interplanetary species, as much as a reflection of the self and of humanity as »creatures on this Earth and in space, posed on the edge, ready for launch« (Greene 2020, p. 13). This notion of the habitat simulation as the condensed experience of humanity in a liminal space between Earth and outer space, between the terrestrial and the interplanetary, reads in the book as a mix of different textual genres: historical excursions, among other things, are interlaced with journalistic essays on the science of simulated habitation, and a memoir thread in which Greene reflects on her personal life and how it is impacted by her experience as part of the experiment (cf. Greene 2020, p. 10, 18-19). With this, Greene's book shifts back and forth between introspection of her positionally within the Earth/Mars space that is the habitat – »Mars changed me« (Greene 2020, p. 8) – and the exploration of how this space of Earth/Mars interacts with the planet Earth on which it is located. In the course of the text, these two positionalities seem to collapse into one, and the ambiguous space of the habitat expands to engulf the entire planet: »Somehow the research questions on an imagined Mars mission began to sprawl beyond their intended bounds. I could see how they were about everything and all of us« (Greene 2020, p. 9).

By collapsing both Earth and Mars into a single, ambiguous space, both *Finch* and *Once Upon a Time* engage in what Robert Haynes has called »ecopoeisis« (Haynes qtd. in Lovelock 1995, pp. 174–175), or the discursive terraforming that allows to turn the desert wastelands found on alien planets into lush gardens ripe for human colonization (Pak 2016, p. 3). One could argue now that both the movie and the book have turned this idea on its head: the ambiguous planet of Earth/Mars that both *Finch* and *Once Upon a Time* imagine is after all clearly not a lush garden, but rather a scorched wasteland, thus, tends toward Mars-imaginaries rather than those of the Blue/Green Planet. However, both in the movie and the book ecopoeisis simply includes the additional step of imagining the terraforming of lush gardens into Martian wastelands, before these wastelands can become lush gardens again. Kate Greene frames using Mars as a stepping stone towards a healed Earth as a potentially necessary and maybe even redemptive detour:

»I wonder about the arguments against going to Mars that claim we need to first focus on fixing problems here at home. Might going to Mars be a way to help us see our planet and ourselves anew? Couldn't a human expedition to Mars be good for those on Earth too« (Greene 2020, p. 162)?

Similarly, the protagonist in *Finch* implies that the quasi-terraforming of the Earth into Mars-like wastelands is not the real disaster, but rather humanity's inability to preserve what makes it human – which the film posits vaguely as »caring for others« – in face of an existential crisis (cf. *Finch*, 01:19:41). This particular twist is reinforced



by the way that human life is an unseen threatening presence in the film, not unlike in popular alien movies, making Finch, who deeply cares for his dog Goodyear, the only actual human on the planet (cf. *Finch*, 01:19:41). It is clearly beyond cynical to center human care for non-human life as the essential characteristic of what makes us human, given that much of our anthropogenic crisis is founded on a disregard for non-human (and dehumanized human) life. It does make sense however, when considering *Finch* through the lens of what Anna Lowenhaupt Tsing has called a »handrail story,« which offers humanity, troubled by the precarity of Earth in constant anthropogenic crisis, a perspective beyond the impending climate apocalypse (cf. Tsing 2015, pp. 2–3, 6). Yet while Tsing’s concept is not designed to deny or soften the blow of climate change, *Finch* allows the audience to leave behind the moral complexities of humanity’s hand in our planet’s destruction, by almost offhandedly replacing anthropogenic climate change with a gamma flare from the sun that burned the Earth’s ozone layer – in other words, a cosmic and natural disaster that humanity is not to fault for (cf. *Finch*, 01:19:41). As a result, humanity is freed from responsibility for the paralyzing and terrifying impending destruction of planet Earth, and can instead focus on possible routes into a (multiplanetary) future.

In *Terraforming: Ecpolitical Transformations and Environmentalism in Science Fiction*, Chris Pak argues that speculative narratives of human colonization of other planets (both in science and fiction) often rely on a combined strategy of terraforming as well as pantropy, or the bioengineering or cyborgization of human bodies to adapt to other planets (Pak 2016, p. 3). In the case of the technoliberal vision of *Finch*, the anthropomorphized robot Jeff embodies the notion that technology is the only and best way to preserve humanity and allow it to turn the ambiguous and »alien« planet of Earth/Mars into home again. As Finch and Jeff, along with Goodyear the dog, travel from Missouri to the coast of California to escape a raging firestorm, Jeff’s increasing humanization – expressed through caring for both Finch and the dog Goodyear – is accompanied by a landscape gradually terraformed from desert wasteland to a mild grassy prairie (cf. *Finch*, 01:32:53).

In *Once Upon A Time*, Kate Greene might not be chased by scorching firestorms, yet her journey on Earth/Mars follows a similar trajectory of restoration:

»For me, my most Mars experience did in fact happen on a space-suited hike [...] Inhaling deeply, I took in the landscape. Here I was, I thought, just arrived on the planet next door after an unprecedented eight-month journey. Even though the people of Earth were wishing us the best and, I imagined, hanging on our every correspondence, our home planet was just a fleck of blue light in the night sky, more than a hundred million miles away. And with that thought, a vision, vivid and unexpected, appeared before me. Technically, I was staring at a barren and rusty Utahan landscape – rocks and dirt all the way to the horizon – but what I saw were grassy hills, a small stream, and trees with shimmering leaves. How? I held on to it for as long as I could, but the mirage quickly vanished. Still, it was exhilarating. [...] It seemed that when I finally convinced myself that I was farthest from home, all I could see and feel was a lush and verdant Earth« (Greene 2020, pp. 161–162).



In this passage, Greene takes on a heavily technology-mediated perspective. Clad in a spacesuit to simulate her stay on Mars, Greene describes an imagined gaze on the entirety of Earth as a mere fleck of blue light – a perspective first made possible by the Apollo Lunar missions and popularized as the »Blue Marble« photographs (cf. Nitzke/Pethes 2017, pp. 7–8). The »Apollonian gaze« that the images imply serve to empower the individual perspective, signifying its physical and moral ascent from the terrestrial sphere, while simultaneously advocating responsibility for the care of a vulnerable Earth (cf. Nitzke/Pethes 2017, p. 11; cf. Cosgrove 2001). From this position of caring superiority, the barren landscape of Earth/Mars terraforms into lush grassy Earth. Greene’s quote emphasizes that the detour via the rusty Martian landscape was essential to afford her the view that allowed for this transforming and hopeful vision of a restored Earth (cf. Greene 2020, p. 9, 160). In *Finch*, the trek of the protagonists from wastelands to grassy hills ends on a similarly hopeful note. As Jeff the robot and Goodyear the dog both make it to the Golden Gate Bridge – Finch, their human companion, had passed away earlier in the film due to untreated cancer – they discover photographs and notes of potential survivors of the gamma flare looking for family members (cf. *Finch*, 01:46:44). As discussed above, the film had early on established care for others as the ultimate mark of humanity, and thus underscores, very bluntly, Jeff’s successful discovery of his humanity, as he adds a postcard with a drawing of him, Finch and Goodyear to the family photos on the bridge (cf. *Finch*, 01:46:44). With the final image of Jeff and Goodyear, who have bonded over their shared journey, crossing the Golden Gate Bridge searching for the survivors, the film unwittingly connects to the representation of California wildfires and their impact on the San Francisco area discussed in the beginning of this contribution, offering a hopeful sequel to that moment in 2020 in which the California skies turned orange. Instead of providing a moment of epiphany that makes us aware of the scope and depth of our anthropogenic crisis – to evoke Chakrabarty again – and that urges us, in the spirit of Pratt, to think beyond the simple continuation of the path that brought us to this planetary moment, the imagery creates a multiplanetary moment by gesturing to a path out of the wastelands of a scorched Earth/Mars and towards a rediscovery of a replenished Earth.

### 3 Conclusions: *Terra Nullius* In Space

In a 2021 article for *The Atlantic*, science journalist Shannon Stirone offers the blunt reminder to her readership that Mars is in fact »a hellhole« (Stirone 2021). Anyone who has spent even only a few minutes googling the environmental conditions on Mars will agree that her statement is as true as it is expletive: Mars is in fact as hostile for human life as one can imagine. Stirone’s choice of words highlight her incredulosity over the fact that these facts notwithstanding, increasing credibility is given to plans by space billionaires like Elon Musk, to settle the red planet as a remedy for climate disaster on Earth (cf. Stirone 2021). There is no doubt that it is essential to fully acknowledge the destructive impact of a morally (over)loaded (private) space industry that claims to deliver humanity, but which actually cements a deepening anthropocentric crisis by framing climate change on Earth as unavoid-



able, and terraforming on Mars as an easy technological fix. While much of the criticism for this is aimed at Elon Musk himself – and rightly so, given the public attention he receives and financial power he wields – this criticism tends to overlook that Musk did certainly not come up with this story alone, but that his narrative of Martian colonization is enmeshed in a rich tapestry of scientific and cultural discourses that have been (re)produced in context of exploration, colonization and settlement for centuries. A criticism of Musk and Mars colonization in the Anthropocene also always needs to offer a thorough investigation of the cultural discourses that permeate narratives of imposing rockets and heroic exploration.

My reading of *Finch* and *Once Upon A Time*, for example, highlights how within the discourse of multiplanetary, terrestrial human-made climate change is offset by Martian terraforming. This discourse ignores, however, that, as Chris Pak argues, climate change and terraforming are at their core both instances of geoengineering that include the alteration of greenhouse effects, atmospheric composition, insolation, impact flux – meaning that climate change is, essentially, humanity's first attempt at terraforming (cf. Pak 2016, p. 2). While this fact alone, one should think, is discouraging enough to discredit any plans for Martian colonization, the reason why the narrative remains powerful especially in the context of climate change, is that it gives rise to the capitalist logic of infinite growth and resource extraction which dominates societal structures. Simply put, it argues that we can just fabricate a new Earth somewhere else once the old one has run dry.

My analysis of *Finch* and *Once Upon A Time* has also highlighted that even though terraforming of Mars as a discourse is surrounded by a progressive air of technology and science, it is, at its core, about imagining a rediscovery of a terrestrial *terra nullius* post-climate change. David Shorter argues in »On the Frontier of Redefining ›Intelligent Life‹ in Settler Science« that space colonization's insistence on being divorced from terrestrial colonial traditions, because it is not removing people, disregards that settler-colonialism never was about people anyway, but about access to land (cf. Shorter 2021, p. 21). It is no coincidence, then, that both *Finch* and *Once Upon A Time* convey to us an image of a terraformed Earth that is lush green fields devoid of human life. In other words, the notions of outer space as *terra nullius* and Mars as a barren wasteland that can be terraformed into a paradise are clearly colonial, and need to be replaced with, as Chris Pak argues, considerations of land agency, relationality, and with an eye on the repercussions of the relationship between human life and the Earth as we shift our attention to the colonization of outer space (Pak 2016, p. 12; cf. Crawford 2021, p. 231). If we do not, space colonization will not provide the much desired fresh start for humanity, as we will, as Dan McArthur argues, »take our human moral environment with us to other worlds along with our pith helmets« (McArthur qtd. in Pak 2016, p. 13).

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