Without Water: Valuing the Wasteland

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Abstract: Speculative fiction has long evoked a variety of fantastic landscapes, but in the era of climate change, seems to have settled into two main camps; nature as terror, the unconquerable oncoming tide that will destroy humanity for its sins; or nature as a partner to humanity, whose disagreements over extractive capitalism will be resolved in a hopeful solarpunk future. The middle path is seldom trod in climate fiction. In the short story "Water: A History", KJ Kabza chooses to take that middle path, describing an environment which is neither totally hostile, nor totally benign. In this essay, I will analyse the aesthetics of Kabza's story and landscape, close-reading descriptions of the story's landscape and the main character's relationship to that landscape. In the Anthropocene, humans exist in a relationship with nature wherein we depend on nature but kill it with our actions. In "Water: A History", this structure is reversed — the narrator depends on nature, but it slowly kills her. She is aware of this, but the natural world matters to her enough that she is willing to suffer those consequences, and even introduce a young person to the dangerous landscape. This differs from many depictions of humanity's reactions to hostile non-Earth landscapes, which often comprise technological and bioengineering adaptation, or struggles of subsistence-level survival. "Water: A History" showcases a different mode of interacting with nature, one where nature is prized even when dangerous to humans, where humans willingly sacrifice their health for a chance to be surrounded by the natural world.

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A hostile landscape is one in which humans are ill-adapted to survive, and within which humans would be in mortal danger without extreme precaution. There are such hostile landscapes on our planet right now; Antarctica is one, as is the center of the Gobi Desert, alongside others — their very climatic hostility is why so few people live in those locations. But what if human habitations were situated only in hostile landscapes, perhaps because there were no hospitable ones available? KJ Kabza extrapolates one such potential scenario in the short story "Water: A History," portraying habitation not in terms of an adversarial relationship with a hostile entity, but instead via a refusal to conflate principles of survival with principles of human enjoyment and care. The story therefore refutes the ethos of utilitarianism that pervades contemporary climate and environmental coverage, arguing for the inherent value of the natural world without foregrounding human needs or desires.

It correspondingly demonstrates a different way of relating to the natural world, through storytelling and emotional entanglement, regardless of whether the landscape in question is abundant in resources, or a wasteland.

In the Anthropocene, hegemonic capitalist cultures create a structure wherein most humans exist in a malignant relationship with nature, wherein we depend on nature, but kill it with our actions. Various alternative terms have been suggested — such as the Plantationocene, the Capitalocene, or the Cthulucene — which highlight in different ways how our negative impact on the earth is not a necessary byproduct of being human, but rather the result of specific systems and cultures which are unevenly practiced by different groups of people. However, I choose to use the term Anthropocene in this paper for two reasons. The first is that in far future speculative fiction, humanity is often treated as a singular culture or force — this is, of course, a drastic simplification, but one that allows thought experiments to play out with higher order categories such as "humanity" rather than "White North Americans living at the poverty line" or similarly specific groups. Secondly, the Anthropocene has been caused by and affects the vast majority of human beings, albeit at different levels and severities. It has attained broad usage across disciplines, and while I believe that alternate terms also do important work, Anthropocene is the most legible and speaks to the global impact climate change has on all humans, regardless of income, location, or ancestry.

In "Water: A History," the Anthropocenic relational structure is reversed — the narrator depends on nature, but it slowly kills her. She is aware of her impending mortality, but the natural world matters to her enough that she is willing to suffer those consequences. Kabza thereby portrays an alternate form of interaction with the environment, wherein humans are not able to completely dominate landscapes, nor are they able to be in complete harmony with them, but rather must negotiate a difficult and nuanced compromise with their host environments. The text's planetary landscape is inimical to human health, but that does not make it evil, psychologically threatening, or deserving of destruction. Instead, its inhospitability serves as a blunt reminder of the physical limitations of human beings, and of the necessity of co-existing with nature even when such a means of relation is not sustaining or pleasant. Marie, the focalised protagonist, understands that not every two-way relationship is a symbiotic one, practicing a form of environmental relationality that extends beyond calls to respect and cherish nature as life-giver, towards instead respecting the environment regardless of its benefits for humankind.

Marie is the only person in her settlement to remember Earth, and her terrestrial recollections affect the manner in which she inhabits the hostile landscape of her new home. The story takes place on the arid world of Quányuán, settled only because erroneous survey data promised abundant water below the surface. Instead, settlers found a world "arid to the point of being uninhabitable" (Kabza, 2019: online), where humans can survive only five minutes outside without special gear, and even those five minutes require water packs and careful preparation. When a young resident, Lian, asks Marie about Earth, she describes it through aqueous imagery: "'The whole planet was wet. The oceans tasted like tears, and standing under a waterfall wasn't like taking a shower. It felt like rocks getting dumped on your head.'" Water, the substance most necessary to human survival, is a rare commodity to Lian, and stories of abundant rain and oceans are

fantastical. And yet, Marie's stories of water do not enchant Lian.

At the teenage Lian's request, Marie accompanies her on short trips outside the settlement of Isla, in order to witness the natural wilderness of Quányuán. These journeys echo trips that Marie recalls taking with her father. She tells Lian, "I lived on the edge of a forest, and my father and I would go walking there, every Sunday morning. He'd tell me all about Earth and all about the stars. It's part of the same universe, he liked to say." Just as Marie learned to appreciate the environment as a girl in Earth's life-providing forests, she has "been going outside" three to four times a week "ever since the *Rex* touched down — before we knew the surveyor probe had made a terrible mistake, and before we realized what this parched atmosphere would do to us. And I kept going outside even after we did know." For Marie, the differences between Earth and Quányuán should be appreciated, not rejected, because in her father's words, everything in the universe "is beautiful and worth knowing about." By this logic, world(s) are appreciated for their existence in the universe we all share, rather than purely in relation to their utility, their appearance, or any other external value.

Marie and her father's orientation toward nature shares a common positive affect with, but a distinctly different logic from, the academy's typical conceptualization of the relationship between human and nonhuman in our Anthropocene era. In their article on wicked problems in the Anthropocene (namely, those problems that are particularly complicated, ingrained, and difficult to solve), Arto Salonen and Jyrki Konkka proclaim that, the "basis of our well-being is ecological, or if you want, biological. What is good for plants and (non-human) animals surely is good for human beings" (2015: 22-23). Human well-being consequently entails taking care of the environment, because we depend on it for our own lives. Regrettably, humans have failed to act in accordance with this knowledge, and yet, if "people properly reflected on their values, especially what is ultimately good for those they care about, most of the wicked problems would be resolved" (Salonen & Konkka, 2015: 19). The solution is therefore caretaking our planet as a natural outgrowth of our self-interest and interest in loved ones. Their phraseological naïvety notwithstanding, Salonen and Konkka's underlying ethos is manifest throughout Anthropocene studies and its related fields. Salonen and Konkka, alongside many other writers, neglect to address the underlying tension that those whom they identify adversarially represent a specific group of humans that have both been culturally educated to see the Earth as pure resource, and have the power to treat it thus. That notwithstanding, the intended lesson of Salonen, Konkka, and similar writers is that humans, animals, plants, and the rest of the world are all connected; it is human folly and the evils of capitalism which have led us to forget this fact.

The most problematic element of this central ethos of Anthropocene studies is not its valuable emphasis upon the interconnectedness of all things (despite its lack of recognition of this theme in existing human cultures), but rather the structure and unstated assumptions of its argument. I fully believe that humans are indeed intimately involved with the greater natural and nonhuman worlds. However, the structure of such arguments asks us to believe that the importance of the nonhuman world lies in human dependence upon that world. Ecological thought is fundamentally self-interested: motivated by our fear that we cannot survive the ecological depredations of the Anthropocene. In an article on the meaning

of liberty in such times, Christopher Orr and Peter Brown write that there is "a deeply unsettling mismatch between the human systems that modern societies have constructed and the natural processes that enable and sustain those societies" and hence, that in the "Anthropocene, with the carbon sink full, every action has impacts on humans and non-humans alike" (Orr & Brown, 2019: 256-257). We might largely agree with this statement. And yet, one notes that the climatic impact upon humans is in prime focus — the Anthropocenic consequences listed include "rapidly rising sea levels, large-scale forced immigration of humans and other species, desertification, and increasing frequency and severity of extreme weather events" (2019: 256). It is not my intention to minimize the human suffering these events cause. However, it seems problematic that, in an effort to appeal to our selfish natures, writers of the Anthropocene instrumentalize the natural world, fixating upon how human beings will be negatively affected by its degradation, rather than understanding that same degradation to be the principal problem. Orr and Brown address this very problem:

> The Anthropocene demands not only compassionate retreat, but also a regrounded relationship between humans and nature. We cannot only retreat and leave space for nature because simply withdrawing relies on the same thinking and relationship of separation from nature that epitomizes the Anthropocene. Moving beyond human–nature dualisms, mere human presence is not inherently bad or unnatural; rather, transformation of nature into artefacts through instrumentalization, and human imposition lead to increasing abstraction and domination. The implication is that, more than simply leaving space for nature, a truly ecological civilization would be in constant conversation and relation with the non-human world. (2019: 258)

Their dual principles of constant conversation and relation are indeed key, but engaging in a relational conversation from a basis of self-centered utility retains the same instrumentalization and abstraction that Orr and Brown identify as problematic. The article proceeds to promote Thomas Berry's idea of an Ecozoic epoch wherein we see "a mutually enhancing human-Earth relationship [...] in which humans contribute to the flourishing and regeneration of the Earth" (2019: 261). This is certainly a positive goal, and yet, it is a somewhat inferior means of ecological vision than that which Kabza epitomises in "Water: A History."

The environment of Quányuán does not sustain human life, and neither do humans meaningfully contribute to the planet's life systems, but Marie and Lian exist in a relationship of appreciation and even love with the nonhuman world of Quányuán nonetheless. Orr and Brown promote a "relationship of resonance" between humans and nonhumans, in which "human actions leave space for non-human nature, its ways of being, and the creative patterns of the universe" (2019: 261), which they propose will allow humans to exist in responsive harmony with the nonhuman. However, it is impossible to exist in comfortable harmony with Quányuán. There is no amount of eco-friendly building, farming, or water management techniques that will change the fundamental fact of Quányuán's lethality to humans. There are no life-sustaining properties of Quányuán to steward. In fact, there does not seem to be any indigenous life at all. There are no natural resources—vegetative, animal, or otherwise—for humans to use on Quányuán.

Kabza implies that very few humans actively interact with Quányuán at all; this is partially due to the danger of its dry air, but also because some variety of radioactive contamination occurs whenever humans venture outside their settlements. Marie's doctor tells her that she should by all rights have died already, and Marie's wife Sadie indeed died years ago. Marie understands the cost: "Someone like me, who goes outside three or four times a week, ought to have died from cancer by age thirty-five." During the course of the story, Marie does in fact get diagnosed with cancer, and the narrative concludes with her death. Kabza could not make it any clearer that Quányuán is a hostile landscape with absolutely no practical use, and abundant dangers.

And yet, Marie enjoys spending time with Quányuán nonetheless, illustrating that even a hostile landscape has intrinsic value. It raises the question: what does living in harmony with nature mean? When people value environments, what are they valuing? What do they hope to receive from a reciprocal relationship, even as opposed to an extractive one? These questions are critical to the base logic of environmental policy and efforts. Not questioning our basic valuation of the natural world as a resource can lead to the unintentional replication of damaging relationships. Examples of this can be found in accounting and conservation research, such as Thomas Cuckston's article "Accounting and Conservation." Cuckston remarks, "Humanity, it seems, aspires to live in harmony with nature. The difficult question is: how can such harmony be achieved?" (2021: 1). This question is fair. The answer Cuckston proposes, however, is that harmony is achieved by further inserting human actions and decision-making into the working of the natural world. He writes, "Nature is socio-ecological systems. Nature conservation can be understood to be the work of organising socio-ecological systems so as to protect and sustain ecological processes and biological diversity. Broadly, there are two aspects to this work of what is, ultimately, organizing nature" (2021: 2). Living in harmony with nature means, to Cuckston, that humans must "organize" the natural world into protected and unprotected areas, evaluate which species should be protected, and decide which types of human activities should be permitted and which would not "sustain" ecological processes (2021: 3). This proposal wildly presumes that we have the knowledge necessary to fully understand ecological processes and the possible impacts that humans have on them.

Cuckston's idea also promotes separation and partition of the natural world from the human, something Orr and Brown warn against, since it "relies on the same thinking and relationship of separation from nature that epitomizes the Anthropocene" (2019: 258). Yet, as is illustrated by the mistaken survey data about Quányuán's water resources, humans do not always understand as much as they think they do about nature. Responses to climate change that rely on categorising certain things as either 'necessary to protect' or 'not necessary to protect,' or which assume the possibility of harmless human intervention in natural processes, invoke the idea of harmony between humans and nature while maintaining a fundamentally *dominating* mode of thinking, a categorical system of thought that engages in false dualisms.

For example, Earth's melting glaciers and ice caps are typically portrayed as a negative occurrence because they will cause sea levels to rise, not because we are losing glaciers and ice caps *per se*. Glaciers that are thousands and thousands of years old, whose slow movement has shaped the American Midwest — where

I write from — as well as many other places, are seen as so many tons of water, and little else. Rising sea levels are problematic, yes. But is it not also worthy of grief that a planet once capped by ice will no longer have its ice caps? That the thing known as a glacier will become extinct as surely as the passenger pigeon? Marie's father exhorts her to appreciate the other (non-human) things in the universe because they exist, not because they are alive or because they are useful. We see Marie and Lian on their trips outside:

> I show her around. The Four Brothers (rock formation), Little Mountain (big rock formation), the Dais (rock formation you can climb on). There isn't much "around" to show, really, without an exosuit. You can only walk so far in five minutes.
> Mostly we sit and look, sipping water between occasional sentences. Lian plays in the dust like a toddler, and sometimes, I join her. We roll pebbles across the Dais. We stack up rocks in the Graveyard, where many walkers, including my past selves, have made rock towers. I point out the ones that Sadie made. Quányuán has no storms to topple them.

Nothing in Quányuán's landscape sounds particularly interesting. It is just rocks and dust, without even stormy weather to lend some drama. Nonetheless, Marie, her late wife Sadie, and Lian all choose to risk themselves in order to commune with this lifeless place. Their orientation toward the natural world is fundamentally different from the logic of domination or even harmony. They understand the natural world to have *a priori* value.

A similar tension, between environment as resource and environment as intrinsically valuable, was at work in the early days of the American conservation movement. John Muir,[1] known as the "father" of American conservation, argued with Gifford Pinchot in the public sphere about the direction of the environmental movement — should the US promote conservation of resources, or preservation of wilderness? In Pinchot's own words, "There are just two things on this material earth — people and natural resources" (1998: 235). In Pinchot's view, the whole environment was composed of natural resources, and their importance derived from the necessity of fueling human lives with said resources. If they ran out, humans would not survive; thus, natural resources must be *conserved*, carefully stewarded, and used in the most efficient manner. Muir argued, on the other hand, that nature should be preserved in its wildness, because it has an "improving" and moral effect on the human spirit. J. Baird Callicott, in writing about conservation ethics, points out that both rationales are essentially anthropocentric (1990: 17). He posits, however, that Muir's private writings show that he "seems to have been the first American conservationist privately to ponder the proposition that nature itself possessed intrinsic value" (1990: 17). Muir employed a theological logic that allowed him to argue, "that people are just a part of nature on a par with other creatures and that all creatures (including ourselves) are valued equally by God, for the contribution we and they make to the whole of His creation — whether we can understand that contribution or not" (Callicott, 1990: 17). Callicott has also written

[1] Muir also had many notable flaws, including his racist beliefs and policies. Nonetheless, he is part of the history of conservation in America, and has relevant views on the environment, despite my rejection of his social politics. The two are not unrelated, but that is a topic for another essay.

on the land ethic concepts of Aldo Leopold, which ask humans to consider the importance of the biotic whole, the biological community of which we are part. This form of conservation ethics asks human actors to consider the needs and experiences of nonhuman living things as equally important to their own (Callicott: 1999). This is a similar conclusion to the one reached by Marie's father in Kabza's story, though without the theological content. Muir restricts his conclusion to 'creatures', following the Bible's phrasings, and Leopold and Callicott consider living things only, but Marie and her father expand it to all of creation, namely both organisms and non-organisms. However, 'preservation' is not precisely the word I would use to describe Marie's attitude toward the land of Quányuán. She has, instead, an ethic of 'contamination'.

Marie's ethic of contamination arises from the encounter between different entities, and the awareness that in that moment of encounter, there is exchange between the two; they are contaminated. They now carry bits of each other within themselves. This is a term borrowed from Anna Tsing, who has argued against the Pinchot school of nature-as-asset, writing that "Investors' attempts to reduce all other beings to assets have engendered the terrifying ecologies I have called Anthropocene proliferations" (2017: 61), that is, monocultural growth and spreading disease, fragile ecosystems, and rapid contagion. However, contamination is not itself an outgrowth of Anthropocene proliferations. Tsing writes:

> In popular American fantasies, survival is all about saving oneself by fighting off others. The "survival" featured in U.S. television shows or alien-planet stories is a synonym for conquest and expansion. I will not use the term that way. Please open yourself to another usage. This book argues that staying alive — for every species — requires livable collaborations. Collaboration means working across difference, which leads to contamination. (2021: 28)

Survival at a species level requires contamination because it is an inevitable result of the meeting of unlike entities. Marie experiences this viscerally. At the level of the body, she is contaminated by Quányuán's radioactivity and dust, which causes growth inside her — a growth that is cancerous, and will kill her, but one which is nonetheless a type of physical influence and exchange with the planet. Sadie is implied to have likewise died as a result of cancer caused by Quányuán exposure, having gradually become contaminated like Marie is. After her death, Sadie also becomes a contaminant herself. When she dies, "her remains [are] integrated into the community food supply," until "even that pompous asshole Gilberto has part of her inside of him in some way." Through this circuitous route, Quányuán shares Sadie with the rest of the human population. But neither is Quányuán immune to contamination. Marie desired to cremate Sadie in order to spread her ashes outside, but was not allowed to "waste" the biomass, and so instead, "after her remains became thoroughly intermingled with my own chemical compounds, I peed on a rock. Now some of Sadie's chloride will remain in the wilds of Quányuán, even if her ashes won't. Unauthorized atmospheric release of water. They gave me a big fine for that one." Marie is determined to contaminate Quányuán in return, not as a means of revenge — as the negative connotation of the word perhaps suggests — but as a way to ensure that Quányuán is part-Sadie, just as Sadie was part-Quányuán. The act underscores the reciprocal bond between the two relational entities.

Contamination is a challenging word for reciprocal influence, because of its unequivocally negative typical connotations. Tsing nevertheless argues that it is the appropriate word to use for the result of true collaboration, wherein both entities allow themselves to be changed. Contamination is, she implies, the necessary outcome of survival defined in opposition to the imperialistic conquest of the land, a hegemonic trope across American media. Collaboration may come with some costs; Sadie and Marie both get cancer, but Marie believes the cost is worth it, choosing to continue to venture outside nonetheless, choosing even to die outside rather than prolonging her life. She also commits the aforementioned "Unauthorized atmospheric release of water", which results in a fine — presumably because the community cannot waste water.[2] She gives that water up, a not-insignificant cost for her community, in order to leave Quányuán with some part of herself and Sadie. This action also foregrounds that Marie engages with Quányuán on a mutual basis, not purely on an aesthetic level. It would certainly be possible to simply enjoy the natural scenery of Quányuán, to take it in as Muir imagined the American population taking in its wild areas; for artistic and spiritual appreciation. That particular perspective portrays the natural world as an object, the human as a subject. Yet, Marie's perspective is oriented toward mutual subjecthood, an encounter between entities who both change as a result, and who are not necessarily "useful" or "aesthetically pleasing" to each other, but nevertheless form some other kind of bond, one that acknowledges the value of both.

Marie therefore cannot inhabit either Pinchot or Muir's orientations in her inhabitation of Quányuán, because its natural world is neither useful nor traditionally aesthetically-pleasing. This is apparent when she shows Quányuán to her young protégé Lian, and when she earlier describes the same landscape as a "ferocious desolation"; she loves it, but not because it resembles a garden or a picturesque vista. Kabza emphasises that Quányuán is not traditionally beautiful, preventing Marie's motivations from being easily likened to either hedonism or art appreciation. It has no flowers or waterfalls to appreciate. Instead, "Lian plays in the dust like a toddler, and sometimes, I join her. We roll pebbles across the Dais. We stack up rocks in the Graveyard, where many walkers, including my past selves, have made rock towers." Despite Quányuán's "desolation" and hostility to human life, Marie and Lian engage in play with the landscape, interacting with the planet itself in the absence of other forms of life. Frequently, environmentalists focus on respecting nonhuman life. Here, however, Kabza removes the possibility of focusing on alien life, in order to more clearly make the point that it is the very environment itself, regardless of life, that deserves respect, that engages in a contaminating, collaborative relationship. Marie and Lian are enacting what Orr and Brown describe when they write that "a truly ecological civilization would be in constant conversation and relation with the non-human world" (2019: 258). This conversation and relation includes storytelling and sharing space, alongside more material actions. Moving rocks around might be discouraged in many Earth nature preserves, but there are no living ecosystems to disturb on Quányuán. In terms of life, the planet is a wasteland, but it is not a valueless one.

[2] As with the stillsuits worn by the Fremen (and their planet's colonial invaders) in Frank Herbert's novel *Dune* (1965), any water extant in human bodies is intended for recycling and future use.

The concept of a wasteland, or worthless land, is in itself an ethically suspect category. For Phil Henderson, the grief of the Anthropocene also includes a presumptive consignment of certain places to the trash heap; "The implication [is] that as the Holocene passes so too will all life worthy of signification *as life*" (2019: 6). This paternalistic attitude echoes the same settler logics that caused environmental destruction of indigenous lands long before the supposed beginning of the Anthropocene. In particular, Henderson argues that "ecological destruction has long been endemic to processes of colonization. [...] The Anthropocene and settler colonialism are deeply interwoven," with one result of this interweaving being "imperial ruination, or wastelanding" (2019: 8-9). As settlers cause environmental damage, they not only kill extant life, but also change the perspectival outlook on the land, such that it is re-coded as a wasteland. Later settlers may grieve for a lost past of abundance and greenery, but do not question that in the wake of imperial interference, the area has psychically become a wasteland. A wasteland is therefore not just a place where the environment has been damaged, but as Henderson writes, quoting Voyles, a place in which cultural productions "facilitate an active denial of the fact that these wastelands 'could be sacred, could be claimed, could have a history, or could be thought of as home' at all, by anyone, *ever*" (Henderson, 2019: 13; Voyles, 2015: 26).

This is the crux of the ethically suspect aspect of wastelanding — the erasure of past, present, and future in landscapes which have been deemed wastelands, regardless of whether or not they are still inhabited. This enacts a concealment that landscapes now designated wastelands were and are the home territories of many people and nonhuman lives. Erica Violet Lee, a Nēhiyaw writer, explains that whilst indigenous people care for their lands that have been wastelanded, in making "a home in lands and bodies considered wastelands, we attest that these places are worthy of healing and that we are worthy of life beyond survival" (Lee, 2016). Between Henderson, Voyles, and Lee's writings, it becomes apparent that while the destruction of land and habitat in the Anthropocene is invariably a violence which must be curtailed, writing off landscapes as no longer valuable subtly feeds into unethical settler logics by envisioning humans, nonhuman organisms, and land as assets that can be depleted. In instances where land and nonhumans are discarded once they are no longer useful, human people are often also subject to the same processes, left to fend for themselves in wastelanded areas, particularly if they are non-white, poor, or otherwise marginalized.

Quányuán is clearly such a wasteland under settler logic, but not in Marie, Sadie, and Lian's perspectives. Quányuán was settled on the basis of faulty data — "before we knew the surveyor probe had made a terrible mistake, and before we realized what this parched atmosphere would do to us." Its settlers continued to look for water, but soon found that the probe was simply incorrect, and that there was none. Ironically, the settlers of this particular planet landed in a place that had been wastelanded before they could wrest any resources from it. Accordingly, few of the humans in the Isla settlement go outside at all. Marie is aware that her perambulatory activities are unusual, but she also has no regrets, telling Lian, "I got to have plenty of wind and sunshine, and I've seen sunrises and I've watched the stars come out, and most people in Isla can't say that. It's been a good life." Stars and sunrises are not fungible assets or resources, but Marie values them, and specifically values that they took place in the wilderness of Quányuán. As Lee describes,

inhabiting wastelands is an act that affirms the value of those lands as potentially sacred, as potentially sustaining. Marie certainly regards some places as sacred in some sense of the word — she points out a rock tower that Sadie made when she was alive to Lian, and later says, "I do regret that I can't have a spectacular death outside by Sadie's Tower." There are no doubt also other places she shared with Sadie, such as their house, but the rock tower acts as a monument to both Sadie and their shared love for the wilderness of Quányuán. When she is later given the opportunity by Lian to get her wish and die outside, she takes the opportunity to spend her last moments by Sadie's Tower, an act that speaks to its deep importance and value to her.

Marie also conveys the value of Quányuán's landscape through metaphor and storytelling, a uniquely human way of instilling a place with meaning. When she and Lian first pass the rock towers, Marie points them out: "'This is a game from Earth,' I say, from around my water tube. 'I used to make these with my father.'" This passage reinforces that Marie's father was responsible for cultivating her love of wilderness, and that she cares deeply about him. Despite her distance from Earth and the locations of her childhood, she re-characterises parts of Quányuán as analogous to her childhood haunts, weaving Quányuán into her personal story. When spending time in the "Graveyard" — the location with the rock towers — she muses, "The rock towers glow, shadowless, from the everywhere-illumination of Quányuán's night sky. I'm reminded of sitting at the bottom of my cousins' swimming pool, our legs crossed as we faced each other in pairs, miming sipping from teacups with our pinkies extended." This memory is particularly remarkable for its quality of being submerged in water, the very absence of which substance makes Quányuán a hostile landscape. To many human residents, the idea of anywhere on Quányuán being like a swimming pool might be ludicrous wishful thinking. However, the bottom of a swimming pool is a hostile landscape in its own way, albeit more easily escaped. Hence, both the Graveyard and her cousins' pool are places that are valuable to Marie not because of their utility, but because of the meaning, emotion, and relationship history embedded in them. They speak to Marie of her father, her cousins, Sadie, and her past selves.

At the very end of the story, and of her life, Marie collapses the distance between the "nourishing" wet landscape of Earth, and the hostile landscape of Quányuán, wherein Kabza implicitly argues for their equal value. Sitting amongst the rock towers, she is granted her last wish by Lian, who plans to trick the settlement's surveillance systems so that Marie is able to die outside by Sadie's Tower, as she desires. The story's closing lines are "Alone in my forest, under Sadie's tree, I remove the water pack from my back. There's still about one third left. I hold it above my head with one hand, then I yank out the drinking tube with the other. I tip my face up to the rain." Marie is of course aware that she is not really in a forest, biologically speaking. But in another important sense she is — she is in a place where she learned to connect to nature and to respect it as a being with equal worth, just as she did in the forest with her father as a child. The metaphorical forest is here. She pours the water on her face, experiencing the wetness of Earth, the rain that she remembers and which Lian does not, without commenting on the falseness of the imitation, or the lack of water on Quányuán, or drawing any other derogatory comparison. Instead she combines her experiences of place, collapsing Quányuán and Earth into one beloved landscape, for one crucial moment. Plainly, she loves Quányuán,

and also invests it with her memories of other things she loves, such as the home she left on Earth, her family, and her wife.

Marie's loneliness after her wife's death is alleviated by connecting with Quányuán, and by sharing Quányuán with Lian. This comprises an ecosocially healthy way of interacting with the environment, as opposed to the other residents of the Isla settlement, who remain indoors at all times — unless required to move outside for work. As far as we know, the other residents maintain a life completely separate from Quányuán, to the best of their ability. Their reluctance to experience contamination resembles what Henderson identifies as the settler relationship with nature, which is "primarily aesthetic. That is, his view of nature is as pristine, beautiful, and consecrated in its externality to human life" (2019: 24). Accordingly, people with settler logics may experience melancholy, even fatalism, when confronted with landscapes that resemble wastelands, as opposed to pristine natural vistas. This is the same process that causes settlers to "reify and idealize into fixed and objective positions what is in fact relational and processual" (Henderson, 2019: 24). In short, settler logics cannot adjust to a hostile wasteland environment, because nature in those logics is deified as pristine, abundant, and full of life-sustaining resources, whilst interaction is framed as a one-way relationship, from human to nature. There can be no possibility of contamination admitted. However, this logic leads to grief in the Anthropocene, wherein we can now clearly see that nature is changing, becoming harder to keep at arm's length, becoming less "consecrated." Ecocritical scholar Timothy Clark connects this to another sort of contamination:

> Environmental violence, however latent, is thus being read as inhabiting more and more of what earlier may have naively seemed at least ecologically indifferent, and such forms of awareness enter culture more broadly. For an intellectual or an activist these insights can be illuminating and helpful, for others it may seem like contamination, or inducing a kind of ethical claustrophobia. (2020: 69)

In settler logics, nature is relatively inert. It is for looking *at* or doing *to*, so the encroachment of nature upon the lives and thoughts of humans feels like contamination. The interconnection that comes naturally to Marie and her family is therefore communally interpreted as a threat, the claustrophobic threat of ethical obligation. The other residents of the settlement look strangely at Marie, and sometimes ask her intrusive questions about Earth, as she is their avatar of both the natural world of Earth, which has been lost to them, and the dangerous landscape of Quányuán. No one, other than Lian, goes outside with Marie — it is as though they can only handle interacting with Quányuán through Marie as its interpreter.

Here on our own planet in the early twenty-first century, many people struggle to adequately process knowledge of the changing climate, especially as it becomes more visible to us in shifting temperatures, increased disaster frequency, and species loss. Authors Ross Westoby, Karen E. McNamara, and Rachel Clissold explore how climate grief can be processed, and how healing can start. As they conclude, a vital part of this process is storytelling, since "narrativity is critical for hope and re-envisioning futures" (2022: 69). Within the story, Marie enacts such a technique by embedding her personal narrative into the landscape of Quányuán, reframing the planet as a nourishing and sustaining part of her emotional life, even though it cannot be nourishing to her

biology. As Westoby, McNamara, and Clissold discuss, in an Australian study researchers found that for disaster victims, "healing arose from relationships with their 'chosen place' – the local built and natural environment encompassing bushland and ocean" and that "Regaining a sense of place is intrinsically healing" (2022: 69). The landscape of Quányuán, and more specifically the Graveyard and Sadie's Tower, are chosen places for Marie, with which she builds relationships by passing time in them, introducing them to Lian, and telling stories about them. Emotionally connecting to a natural landscape thereby rejects the settler logic of wastelanding, demonstrating the landscape's value through a relationship, rather than through use.

Whilst Marie is not specifically mourning anthropogenic climate change, Kabza is writing for an audience that by and large is, and the story thereby draws an alternate route to relating to the environment in these times. Quányuán does not support human life as easily as Earth does, and it is not easy to extract resources from. Accordingly, the other settlers withdraw from it, as it provides neither commodities nor the comforting fantasy of an uncontaminatory natural aesthetic. According to settler wasteland logic, if a landscape provides neither of those things, it provides nothing; it is not a suitable land for humans. Yet Marie (and accordingly Kabza) makes a compelling argument that the value of a natural landscape goes far beyond those two axes, into an emotional and spiritual relationship that does not depend on any notion of usefulness. Ultimately, Marie and Lian interact with Quányuán because they want to be in a relationship with another entity that is their neighbour. They want to appreciate the world that is there — not because it is useful, but because it has inherent value as another entity in the universe. Marie tells stories about it, and weaves the important portions of her life into it, because that is how humans demonstrate care and attention. She has lost her home on Earth, and her wife, but she has not lost Quányuán, and thus she is able to survive.

Environmental appeals that still rely on capitalist logics will not succeed — instead, "Water: A History" shows us how to engage and be in relationships with the natural world, a logic that is far more enduring. It is true at a basic level that we rely on the natural world of Earth to survive. However, pleas to stop polluting or overextracting on the basis of this fact have proven unsuccessful, as people overwhelmingly elect to prioritise survival and wealth in the *now*, rather than becoming motivated to address potential ecological collapse in the future. In response to resource shortages, companies and researchers simply find different ways to extract the same resource — for instance fracking to extract fossil fuels. It seems that humans struggle to imagine an Earth that does not have use-value. By portraying Quányuán as a planet with absolutely no resources to exploit in a capitalist system, Kabza allows the reader to consider on what other basis someone might relate to the natural world. By acknowledging the inherent value of nature as an entity which one can have an emotional relationship with, an entity which deserves respect and consideration, we can avoid reproducing the capitalist and settler logics that have brought about the Anthropocene and anthropogenic climate change in the first place.

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