

Candidate Number: 2912

Spring 2021

Word count: 5570

We Should All Be Planetary Citizens: An Analysis of Kurt Vonnegut's Environmentalism in *Galápagos*

In *Galápagos*, Kurt Vonnegut seems to be concerned about humanity's lack of a planetary perspective and the environmental consequences it inevitably causes. In the novel, Vonnegut presents a thought experiment which allows him to explore the environmental consequences he thinks is a consequence of humanity's missing planetary perspective. The novel is structured around what he suggests to be the root of the problem, the human brain, and further on goes into the damages this causes, as well as exploring changes that need to happen to save planet Earth, which in the plot involves a million years of evolution of the human species.

Galápagos by Kurt Vonnegut centres around the random set of events that leads a diverse group of character to sign up for a tour of the Galápagos Island on a ship called Bahía de Darwin, also referred to as 'the Nature cruise of the Century'. Originally the cruise was supposed to accommodate a variety of famous people, however, a financial crisis makes them all, except a small group of unknown people, to cancel. Among the people who are signed up for the cruise ship are: James Wait, an American swindler; Mary Hepburn, an American teacher; Zenji Hiroguchi, a Japanese computer genius; Hisako Hiroguchi, Zenji's pregnant wife; Andrew MacIntosh, an American rich businessman; Selena MacIntosh, Andrew's blind daughter; and Adolf von Kleist, the captain of the ship. Another set of random events results in a few deaths, and the rest flee to the cruise ship and head off to sea without a map, compass, or food. They end up shipwrecked on the fictional Galápagos Island of Santa Rosalina, while the rest of the world unknowingly gets exposed to a virus which leaves women infertile. The ghost narrator telling the story looks back at these events happening in 1986 from a million years in the future. He explains how humanity ended up on the islands and how humanity came to reproduce and evolved on the islands over the span of a million years into furry seal like creatures.

In this paper I will uncover Kurt Vonnegut's environmental concerns expressed in *Galápagos*. I will be looking at Ursula K. Heise's concept of sense of planet and eco-cosmopolitanism. In addition to Leonard Mustazza's analysis of the evolution humanity goes

through in the novel. As well as looking at what other literary critics have said about the novel's plot and themes. I argue that Kurt Vonnegut can be regarded as an environmental writer who in *Galápagos* tries to bring light to the importance of having a planetary perspective and the environmental consequences of not being good planetary citizens.

The plot of *Galápagos* prompts the readers to think about the environment in a different way. The plot centres around a group of tourists on their way to a cruise to have a guided tour of the Galápagos islands, however, after accidentally getting shipwrecked on one of the islands it turns out that they are not tourists anymore. It takes them a few years to realise that no one is rescuing them and that the island is now their home. The reason why no one is rescuing them is unclear, it might simply be that no one has realised that this group of unknown people are shipwrecked, the rest of society has enough dealing with the financial crisis and a possible third world war to check up on the small group of people who did not cancel their tour, or they might be assumed dead. The realisation that they are stranded for good means that the islanders now have to find a way to live sustainably on the island, because up until that point they have lived as if they are to be rescued at any point. If they do not live sustainably it will have a direct consequence on how long they are able to survive on the island, they therefore have to make sure they are not ruining the natural ecosystem of their new home. The plot of the novel could be a metaphor for the way humanity is living on Earth, meaning that humanity is living like tourists, as if someone is rescuing us at any time. However, the planet is our only home as a species, and we need to realise that we are permanent residents here. This way of looking at the environment and the planet adds a new urgency to living sustainably and not destroying our own home.

Through the plot and characters, Vonnegut seems to be suggesting that it is absurd that most people treat the environment as if this is not their permanent home. Andrew, a well-educated rich businessman, talks about the damages unsupervised people have done to the Galápagos islands when going ashore, information he got from a magazine, and Leon trout, the omniscient first-person narrator, further explains that:

The magazine's point was that Ecuador would require a navy the size of the combined fleets of the world to keep persons from going ashore on the islands and doing as they pleased, so that the fragile habitats could be preserved only if individuals were educated to exercise self-restraint. 'No good citizen of the planet' said the article, 'should ever go ashore unless escorted by a well-trained guide.'

When Mary Hepburn and the Captain and Hisako Hiroguchi and Selena MacIntosh and the rest of them were marooned on Santa Rosalina, they would not have a trained guide along. And, for their first few years there, they would raise perfect hell with the fragile habitat.

Just in the nick of time they realized that it was their own habitat they were wrecking – that they weren't merely visitors. (85)

The narrator is saying that it would require a large navy to forcefully stop people from doing damages to the fragile Galápagos islands, and that the only way to really stop people from harming the habitat is to make sure all individuals are “educated to exercise self-restraint.” Meaning that there is nothing governments can do to forcefully stop people from doing harm, individuals have to be the ones changing their behaviour. The narrator exemplifies this information from the magazine by telling the reader what the islanders first did when they arrived at the island of Santa Rosalina. They were just like the ignorant people going ashore on the islands without a guide, they did as they pleased and as a result, they “[raised] perfect hell with the fragile habitat” for the first few years. However, unlike the people the magazine is referencing, it turns out that the islanders were not tourists, there was no boat to take them back home, meaning that they were destroying their own habitat. Luckily, before they did too much permanent damage “they realized that it was their own habitat they were wrecking – that they weren't merely visitors.” When it is said in such a way, that they are wrecking their own habitat, destroying their own home, it makes it sound absurd that they were treating their habitat so badly. If the islanders on Santa Rosalina is a metaphor for humanity on Earth, Vonnegut makes it sound absurd that humanity is wrecking their own habitat, because like the islanders, we are not merely visitors on the planet.

The plot of *Galápagos*, which takes place in a small area but still has planet wide consequences, captures Ursula K. Heise's idea of having a sense of planet. Leon Trout, the narrator, notes that the events happening in the past is “taking place in a small space on the planet in a very short time” and ends up having an impact on the planet a million years later (112), which relates to Heise's argument of why we need to move from having a sense of place to also having a sense of planet. Heise argues, in *Sense of Place and Sense of Planet*, that though “the environmentalist emphasis on restoring individuals' sense of place” could in some contexts be useful, environmentalism needs to “foster an understanding of how a wide variety of both natural and cultural places and processes are connected and shape each other around the world, and how human impact affects and change this connectedness” (21). She

refers to this bigger planetary perspective as having a “sense of planet” (21). In other words, it might be useful to have a sense of place, meaning being aware of ecosystems immediately around you (28), however it would be better to also have further knowledge on how all these places are connected and how human activity have an impact on these places. Heise finds it important to “reorient current U.S environmentalism discourse, ecocriticism included, toward a more nuanced understanding of how local cultural and ecological systems are imbricated in global ones” (59). In other words, she thinks that environmentalism should have a sense of planet, knowing how the local is part of the global and how these interact, will give more depth to the environmental discourse. Leon Trout’s observation about the plot captures this idea.

Leon Trout is standing a million years in the future and has the knowledge of a million years behind him, and he observes that the events of the story he is telling end up having planet wide consequences. The novel mostly take place in the area in and around the hotel in Ecuador, in addition to the island Santa Rosalina, nevertheless everything that happens affect the whole planet a million years in the future. Peru’s bombing of Ecuador might have triggered a third world war. The bombing is also the reason the novel’s surviving main characters seek safety on the ship, which accidently gets them shipwrecked on Santa Rosalina, where the virus that makes women infertile does not reach, resulting in Santa Rosalina becoming the starting point for the new human race. The people shipwrecked on the island learn to live sustainably because no one is rescuing them, which is a lesson the rest of humanity had yet to learn. The narrator, therefore, has a sense of planet. He understands how individual events impacts the rest of the planet and he sees how these events in the past still has an impact a million years later. If it were not for the events that led them stranded on the island, humanity might never have learned to live sustainably.

Heise follows the idea of having a sense of planet with introducing an eco-cosmopolitan point of view, where we can all be part of planetary imagined communities. The idea of having a larger focus on a sense of planet, Heise argues, should help to focus the discourse in “a thorough cultural and scientific understanding of the global – that is, an environmentally oriented cosmopolitanism or ‘world environmental citizenship,’ as Patrick Hayden calls it” (59). The cosmopolitan idea refers to a view that “allows individuals to think beyond the boundaries of their own culture, ethnicities, or nations to a range of other sociocultural frameworks” (60). In other words, looking beyond humanmade groupings of people, like land borders or cultural groupings. Further on, the idea of eco-cosmopolitanism

Heise introduces is “an attempt to envision individuals and groups as part of planetary ‘imagined communities’ of both human and nonhuman kinds” (61). In other words, Heise suggests an idea where all living things are part of a global community, eco-cosmopolitanism includes more than just humans in the global community, it also considers other nonhuman things such as animals and plants.

Vonnegut seem to be introducing a similar idea of having world environmental citizens and eco-cosmopolitanism in *Galápagos*. Leon Trout’s father Kilgore Trout is a bad writer with good ideas, and as the narrator is reflecting on how the main characters are experiments by natural selection he says:

I am reminded of one of my father’s novels, *The Era of Hopeful Monsters*. It was about a planet where the humanoids ignored their most serious survival problems until the last possible moment. And then, with all the forests being killed and all the lakes being poisoned by acid rain, and all the groundwater made unportable by industrial wastes and so on, the humanoids found themselves the parents of children with wings or antlers or fins, with a hundred eyes, with no eyes, with huge brains, with no brains, and so on. These were Nature’s experiments with creatures which might, as a matter of luck, be better planetary citizens than the humanoids. Most dies, or had to be shot, or whatever, but a few were really quite promising, and they intermarried and had young like themselves. (71)

Leon Trout remembers his father’s novel, which sounds hauntingly familiar in terms of the human made damages done to the planet, in addition to calling for people to become better world environmental citizens, or planetary citizens, as Vonnegut refers to it. This is a story written by Kilgore Trout, a recurring character in Vonnegut’s writing, William Rodney Allen argues in *Understanding Kurt Vonnegut* that Kilgore Trout “is sort of an alter ego for Vonnegut” and that Trout “possesses a genuine insight into ‘what is really going on’- a constant refrain in Vonnegut’s fiction” (13). By including many of Trout’s plots form his books Vonnegut is “able to make thematic points about the limitations of the anthropomorphic point of view” (13). Meaning that Vonnegut can discuss how the human centred point of view falls short. By adding Kilgore Trout stories Vonnegut can express personal and genuine concerns about the issue at hand regarding humanity. Kilgore Trout’s novel talks about humanoids, clearly a reference to humans, and all the problems this race has ignored, such as dying forests and poisoned lakes, which are events all too familiar. Kilgore Trout seem to see a problem with how humans are ignoring problems they themselves have

created and he therefore creates a new species with a random set of animal features, in hopes that these creatures will be “better planetary citizens than the humanoids.” Trout uses the term “planetary citizen,” which would work as a combination of Patrick Hayden’s term “world environmental citizenship” and Heise’s planetary imagined communities. Trout’s call for better planetary citizens seem to refer to a species that could be able to take better care of the planet together with an eco-cosmopolitan point of view and not poison it the way the humanoids have done, in similar fashion to how humanity have poisoned Earth. This definition if extended further could be a simpler way to describe Heise’s sense of planet and her call for an eco-cosmopolitan view. They all have in common a call for the human species to start caring for the planet together, because we are all part of the Earth’s ecosystem and humanity’s current behaviour is not making us good planetary citizens.

Kurt Vonnegut’s concern about why humanity is not being good planetary citizens lies in his perception of what the human brain has made humanity capable of. Throughout the novel he refers to humanity’s actions by also mentioning our brains. The size of the brain is mentioned throughout the novel, and the narrator names the period of modern humanity the Era of Big Brains. The size of the human brain is not directly Vonnegut’s concern, but rather what this big brain has evolved into and become capable of. The human brain might not always have been capable of destroying the planet’s ecosystem and it might not have been so environmentally destructive in the distant past. However, Vonnegut suggests, during an interview about *Galápagos* in *Conversations with Kurt Vonnegut*, that this higher cerebral function was something that worked in the past but is no longer serving humanity any good (292). In other words, the brain makes us able to do and understand so much, which further leads to innovation and creation, however today these abilities have consequences beyond ourselves, which will hurt humanity’s survival on the planet in the long run. David Farrier, in “Deep Time’s Uncanny Future is Full of Ghostly Human Traces” discussing the human impact on the planet, explains that “the planet’s carbon and nitrogen cycles, ocean chemistry and biodiversity – each one the product of millions of years of slow evolution – have been radically and permanently disrupted by human activity” (*Aeon*). In other words, human activity has quickly changed what the planet spent millions of years developing and perfecting. Observing what the human brain is capable of destroying, Vonnegut thought out an experiment to see what it would take to make humanity unable to cause any more planet wide damage. So, Vonnegut imagined that Natural Selection would, if given the opportunity, remove all the parts of the human brain that was capable of such destructive thought and

action, which eventually resulted in a smaller brain for the remaining colony of humanity on the Galápagos islands.

In the novel it seems as if Kurt Vonnegut suggests that humanity is a destructive species and he playfully blames the evolution of humanity's big brains. This continuous reference to the big brained humanity is a metaphor for what the brain is capable of, not the brain itself. The problem is not the size, but rather what evolution has made our brains capable of, for example being responsible for killing forests and poisoning lakes which Vonnegut points out in Kilgore Trout's story mentioned earlier. Leonard Mustazza in "A Darwinian Eden: Science and Myth in Kurt Vonnegut's 'Galápagos'" argues that Galápagos is suggesting that humanity's proudest evolutionary accomplishment which is our "great big brains," is actually "a monstrous evolutionary error" (55). In other words, our state-of-the-art thinking machines are the result of an evolutionary mistake and the human brain is no longer supposed to function as it is today, because today we are not being good planetary citizens. Mustazza argues that Galápagos is essentially about Nature "going about the business of correcting its errors" (55). In other words, as a result of the novel's evolutionary perspective, meaning the perspective the narrator has on the bigger picture and the evolutionary process the human species goes through, the story reads as a tale of what is wrong with the current human species and how natural selection try to fix the problems. An example of the work natural selection has been doing is in book 1 chapter 16 when Leon talks about how natural selection was not able to fix the durability of human teeth and therefore cut the human lifespan down to thirty years, so that they could have good teeth their whole life (70). The evolutionary perspective here makes this feel like a reasonable solution, and the narrator's tone makes it all feel like a casual explanation of what Nature was and was not able to fix. Through natural selection Nature can make the most essential changes to humanity to ensure their survival and quality of life in the long term. The environment on the planet might be rich and full of life, humanity has responded by creating built environments to ensure themselves a great quality of life in the short term, it is short term because human activity is damaging and ruining the planet's ecosystem in the long term which cuts down on humanity's ability to survive on the planet. Mustazza writes that by evolving the brain into something new, humanity's "priorities [change] into line with those of the rest of the animal kingdom" (55). In other words, the rest of the animal kingdom has learned to live sustainably in balance with nature, and now thanks to Natural Selection, so can humans.

Leon Trout, with a million years of observation, looks back at humanity's treatment of the planet with a calm and detached tone as he points out what violence people in the past were capable of. He can compare the past humanity with the evolved, and in his opinion, better future humanity, as he notes:

This financial crisis, which could never happen today, was simply the latest in a series of murderous twentieth-century catastrophes which had originated entirely in human brains. From the violence people were doing to themselves and each other, and to all other living things, for that matter, a visitor from another planet might have assumed that the environment had gone haywire, and that the people were in such a frenzy because Nature was about to kill them all.

But the planet a million years ago was as moist and nourishing as it is today – and unique, in the respect, in the entire Milky Way. All that had changed was people's opinion of the place. (28)

Leon Trout expresses observations on what the past humanity is capable of doing towards the nourishing planet due to their advanced brains. The first sentence reveals that the financial crisis the world is dealing with in the novel is only the latest of many human made catastrophes, all of which could have been avoided because they all “originated entirely in human brains.” People should not starve just because people have changed opinions on the value of paper money, humanity is the root of the problem, Leon points out that “there was still plenty of food... for all the human being on the planet” (27), however the problem is humanity's failure to distribute it around the world. Leon goes on to observe that people are not only violent towards themselves, but also to all other living things. He starts off by saying that they are violent towards other people and realise midsentence that that people are actually violent towards all living things. He goes on to put the violent behaviour in perspective by asking the reader to imagine someone visiting from another planet and what such a visitor might observe on their visit. He imagines that this visitor would have thought that the planet was a hostile place to be because of our actions towards it and everything that lives here. Then he goes on to say that our actions do not correlate with the environment we live in, Leon explains that the planet was “as moist and nourishing” as it is in his present time. In other words, the problem is not the planet, because it has all the species needs to survive, however, the problem is the violence the human brain makes humanity capable of doing. Vonnegut's environmental concern seems to be that humanity is not taking advantage of the nourishing environment that we live in, not sharing food around the planet because of human made

obstacles and not treating the planet like a resource. Humanity is being bad planetary citizens, thinking too locally, not acting as if we are all part of a planetary community.

In the novel Vonnegut seem to be trying out an experiment of how to make humanity better planetary citizens. The experiment ends with a humanity with a smaller brain, no longer capable of doing violence against all living things. Leonard Mustazza argues that Vonnegut treats “the most complex of human organs” as a part useless part of the human body (58). Mustazza explains that Vonnegut seems to suggest that the human brain is what Darwin would call an “organ of little importance” (58). Meaning that the brain might once have served a purpose which benefited the species, however, considering the damage our brain is making humanity capable of, in its current state it has lost its use with regards to our survival, because harming the environment essentially means harming ourselves. Therefore, Mustazza argues, the novel shows the process of Natural Selection eliminating the human brain as we know it today (58). In other words, the novel shows the long process of evolving humanity into something that is no longer capable of such destruction, and as a result is no longer a danger to the survival of the planet’s ecosystem. Robert T. Tally argues that Vonnegut’s million-year long experiment creates “a form of humankind best adapted to life on the planet” (142). In other words, the humans living now is not very adapted to life on the planet because they adapt the planet to their needs, instead of adapting to the environment it originally had. Vonnegut’s environmental concern is therefore that humans are not adapting to the environment, instead we kill forests and poison lakes for our own benefit.

Both Jerome Klinkowitz and William Rodney Allen suggests that the changes happening to humanity and the human brain in the span of a million years is devolution, however, I argue that it is just evolution. Devolution, or de-evolution, suggests going backwards in the evolutionary process and turning humanity into some form of what we have been before. Having humanity go through devolution would change the overall tone of the book, because the evolution that got humanity to its current self-destructive state is a result of past evolution and it would serve us no good to go backwards to what got us into this mess. Klinkowitz in *Kurt Vonnegut’s America* argues that in *Galápagos* nature is the protagonist and that it is “directing a devolution of humanity into a species less dangerous to the world and itself” (86). In other words, Klinkowitz argues that Nature as the protagonist is moving humanity backwards. This implies that Vonnegut is of the opinion that one of our previous evolutionary states of being is preferable to the current one, however, previous evolutionary changes got us into this violent way of being. Though I do agree that humanity turns into

something less dangerous, but they evolve into something new, not devolve. When discussing the direction humanity is going in an interview about *Galápagos* with Allen, Vonnegut express a lack of sympathy for removing current human abilities and explains “Well, having seen where we’re headed, I don’t want to go that way anymore” (292). Meaning that the way human invention and actions are taking us now is not a future Vonnegut wants to see. He does not express a desire to become what we have already been, but rather a change in another direction. When Allen uses the word de-evolution, Vonnegut replies that “I consider it evolution. It’s simply change” (291). *Galápagos*, therefore, is just a change of direction, it is not suggesting devolving humans into something we have been before, however it suggests another direction to the one we are going now, as well as evolving humanity into something new.

Vonnegut wants people to be better planetary citizens, the novel sets out to explore possible ways in which this problem could be solved. In *Galápagos*, Vonnegut seems to ask what natural selection might do to make people better planetary citizens. He imagines that natural selection would respond to the scenario in the plot by slowly evolving humanity to something that can adapt to the planet’s ecosystem. However, a million years of evolution is not enough time to complete such a transformation to perfection, Leon Trout observes that:

There is another human defect which the Law of Natural Selection has yet to remedy: When people of today have full bellies, they are exactly like their ancestors of a million years ago: very slow to acknowledge any awful troubles they may be in. Then is when they forget to keep a sharp lookout for sharks and whales.

This was a particularly tragic flaw a million years ago, since the people who were best informed about the state of the planet, like *Andrew MacIntosh, for example, and rich and powerful enough to slow down all the waste and destruction going on, were by definition well fed.

So everything was always just fine as far as they were concerned. (106)

Leon observes that natural selection has yet to complete all changes necessary for humanity to ensure their survival on the planet, but it found a solution, nonetheless. After all this time, people still make the mistake of getting too comfortable after filling up their stomachs, which makes them slow to see, or unaware of, any dangers. The consequences of this flaw seem to be an environmental concern for Vonnegut. Because in our time, this flaw leads to much more devastating consequences than it does in the narrator’s present time. He points out that the

people who might have a well-educated planetary perspective on environmental issues are the people who “were by definition well fed”, which leads to people like Andrew, the rich business man, not to take action to stop “all the waste and destruction going on”, because he is comfortable and do not feel like these things are pressing problems. These people who might have a planetary perspective are not being good planetary citizens, he is personally comfortable and is not feeling or seeing the consequences of the waste and destruction and therefore chooses to not act on the information he has. However, in the future when people get too comfortable, they get eaten by a shark, it only has consequences for the individual. Natural selection therefore fixed the worst consequences of this flaw, instead of the flaw itself. In our time, this flaw could have big consequences worldwide, however in the future, the mistake of getting too comfortable only leads to the death of the person who has the flaw and eventually natural selection might weed out everyone with this flaw.

Waiting a million years for natural selection to fix the flaws that make us bad planetary citizens might not be a good solution for the problems we are facing now. If we were to try to create implement Heise’s idea of having planetary imagined communities, we might face some challenges. *Galápagos* explores how the current human race are bad planetary citizens, and these are the qualities that would also make it hard to try to establish an idea of a larger community not based on human made borders. One of the biggest challenges are that there are lots of people similar to Andrew, people who themselves have enough food and do not feel the urgency to change their current behaviour, even though they might be educated enough to understand the problems the planet is facing and some are rich enough to do something about it. For Heise’s planetary imagined communities to work humanity would need to collectively act as a part of a larger community, not just consisting of humans but animals and plants as well. In the novel, the islanders end up becoming better planetary citizens because they collectively realise that they have to live sustainably if they are going to survive for a long time on the island. The islanders have the advantage of being able to raise children with these values and when their population grows, it is filled with people who have grown up with sustainability in mind. However, this might be hard for most of humanity to do, and even if they do there will always be those, like Andrew, who’s actions have big consequences, but feel there is no urgency to change.

To sum up, Kurt Vonnegut expresses environmental ideas and concerns in *Galápagos*. The novel emphasises the importance of having a planetary perspective and becoming better planetary citizens, meaning that we need to start looking at ourselves as citizens of the earth,

looking beyond human made borders, adapting to an eco-cosmopolitan view where we include nonhuman things in our global communities. In addition, the novel explores the evolutionary perspective on the human race, looking at us like any other part of the ecosystem, and pointing out that humanity is wrecking their own habitat and acting against the environment instead of working with it. Further on, the novel is observing how big consequences our actions, or lack thereof, can have on the environment. In other words, people with resources and ability to have an impact are comfortable and well fed and therefore choose not to act, which have consequences for many other people not just themselves. Lastly, the novel gives a new perspective on the importance of working with nature, because humanity is not getting rescued from this planet, this is our home, and we need to start treating it as such. Which is why I would argue that Kurt Vonnegut is an environmental writer, he observes and explores environmental ideas and concerns through his fiction, putting it into a new perspective allowing the reader to share his concerns, as well as further reflect on his ideas, like I have done here.

To conclude I would argue that *Galápagos* could and should be read and studied alongside other environmental fiction or nonfiction texts. Kurt Vonnegut in this novel appears to be a very environmentally aware writer. By this I mean, he observes and explores much of humanity's behaviour towards the planet through a planetary perspective, he has a sense of planet, and is calling for humanity to become better planetary citizens. The narrative of the novel allows him to zoom out and look at the planet as a whole, discovering that the planet is nourishing and giving and that the problem is humanity's mindset of creating a better quality of life in the present, not thinking about the long term consequences for our actions. In addition, the novel introduces a new perspective on why we should be better planetary citizens. Humanity is not a tourist on this planet, no one is rescuing us, and we need to make a sustainable home for ourselves before it is too late. I think this novel adds to the discussion on environmentalism and the importance living sustainably and thinking long-term, so that we, like the islanders, will still be here a million years in the future.

Works cited:

- Allen, William Rodney. *Understanding Kurt Vonnegut*. University of South Carolina Press, 1991.
- Farrier, David. “Deep Time’s Uncanny Future is Full of Ghostly Human Traces” *Aeon*, edited by Sally Davis, Oct. 2016, <https://aeon.co/ideas/deep-time-s-uncanny-future-is-full-of-ghostly-human-traces>. Accessed: 5 May 2021.
- Heise, Ursula K., “From the Blue Planet to Google Earth.” *Sense of Place and Sense of Planet: the Environmental Imagination of the Global*. Oxford University Press, 2008, pp. 17-67.
- Mustazza, Leonard. “A Darwinian Eden: Science and Myth in Kurt Vonnegut's ‘Galápagos.’” *Journal of the Fantastic in the Arts*, vol. 3, no. 2 (10), 1991, pp. 55–65. JSTOR, www.jstor.org/stable/43308091. Accessed 20 Apr. 2021.
- Tally, Robert T., Jr. “Apocalypse in the Optative Mood: Galápagos.” *Kurt Vonnegut and the American Novel*. Bloomsbury Publishing Plc, 2013, pp. 131-147.
- Vonnegut, Kurt, and William Rodney Allen. *Conversations with Kurt Vonnegut*. University Press of Mississippi, 1988.
- Vonnegut, Kurt. *Galápagos*. 1985. 4th Estate, 2019.