## SOLASTALGIA, EXTINCTIONS, THE CHTHULUCENE AND THE SYMBIOSPHERE

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Understanding our emotions may help us respond to the scenarios of the Anthropocene. Reason alone is plainly inadequate. To this end, Glenn A Albrecht has generated a set of neologisms for what he calls the "earth emotions" that have emerged in the context of ecological loss. Of these, his "solastalgia" has entered the lexicon of the Anthropocene.<sup>1</sup> This article approaches these neologisms both with gratitude for some very useful words, and a caution about the anthropocentrism of Albrecht's wider project. This caution is informed by the post-structural thinking of such writers as Donna Haraway, whom he cites, and whose approaches offer a more complex, metaphysical and poetic model, while arguing for a diminution of human exceptionalism.

In the first years of this century, and as the term "Anthropocene" entered popular discourse, Albrecht, an Australian researcher in sustainability and emotion, coined "solastagia" from three words: solace, its antonym desolate, and algia (meaning pain), to refer to the grief experienced when the place one knew has been transformed forever in a destructive way.<sup>2</sup> My family knew the English/Australian wildlife artist Margaret Senior, whose images of Australian flora and fauna can still be found in museum and botanical centres. In the early 1960s, the Seniors moved from a flat and tree-less suburb to a small cottage set amongst trees. They looked down onto a lagoon, and lizards, snakes and spiders sunned themselves on the rocks around their house. Thirty years later I visited Margaret. There was no bush to be seen. She was surrounded by suburban homes, and could no longer draw, for physical reasons. But also, she was heartbroken. The place that was her home had changed beyond redemption. Today, that scenario has been multiplied exponentially, but the condition can be traced back throughout human history, from the earliest industrialization of agriculture. It is one of the primary emotions of the Anthropocene and may be experienced across species.

Donna Haraway is a different kind of thinker, whose alternative to the term Anthropocene is the Chthulucene,(kthu) named with reference to a spider that lives an upside-down, underworld life, in an appeal to the deep structures that unite all matter, organic or inorganic.<sup>3</sup> or Haraway, entanglements and tentacular forms best describe the new world, and "think we must", she urges, as our minds assist us in adjusting to an order in which plastic will not go away, and species do not align themselves according to our ideas of the peaceable kingdom. In 2015, drawing from work on the relations between humans and primates, and humans and dogs, she argued against the notion that subjectivities were contained within distinct species and distinct bodies. She argued that identarian and agential positions could occur within engagements across species, and even across the categories of the organic and the inorganic.<sup>4</sup>

Haraway draws on the development of ecological thought during the second half of the twentieth century within the interdisciplinary work of anthropologists, mathematicians, biochemists, and physicists. The systems thinking that grew from this research insists on connection and the operations of probability rather than certainty. Where many factors exist, possibilities become stochastic; that is, one can only be sure that one or more of a range of probable outcomes will occur. Increased interdisciplinary understandings have nuanced the notions of free will and human agency. Unexpected and unintended results occur from actions that have quite different intentions. James Lovelock argued, in the 1970s, that the planet operated according to a biodynamic logic that is indifferent to human

intention.<sup>5</sup> The larger causal factors are the biochemical constituents of the planetary system, which have diverse implications for life forms. Looking at the planet's histories, he pointed out that the primary gas was at times sulfuric acid, at times oxygen. Labelling his model as Gaia, he suggested, in an unforgettable moment of savage irony, that from that point of view, one might see the human as being most useful as a generator of methane.<sup>6</sup> I read that in 1980, selling the book from my emissions-emitting bright green Holden Torana, in Aotearoa's petro-chemical centre, Taranaki. Lovelock's characterization of the planet's systems as the self-managing organism, that he named after the Greek goddess Gaia, has been challenged because of its notion of agency: the planet does not "think", or "desire", the argument goes, but nonetheless, within the biochemical system, the increased presence of CO2 has enormous agency. While the concepts understood as necessary, in day-to-day engagements with the ongoing nature of our mode of existence, may have been ethical and economic, today they must include greater understanding of the processes of emergence, tendency, and complexity, and greater respect for the operations of science and the ways that it is used. Now familiar ecological models, such as those of Félix Guattari, describe these systems as engagements, in which agency is distributed across and breaks down the modernist divisions between species and between the organic and the inorganic.<sup>7</sup>

This means that we must pay attention to the impacts of all our activities, in particular those that we take for granted and have become invisible to us. Rachel Carson's *Silent Spring* (1963) that described the destructive power of DDT on previously robust ecologies, brought into the political arena, the wilful ignorance driving the "laissez-faire, let the market find its own level" approach to agriculture.<sup>8</sup> Carson's research was provoked by a solastalgic moment, when a friend wrote to her that DDT had killed all the biological life in her environment: no birds sang, and the spring was silent.

Accounts of sustainability use Venn diagrams to model relations between the econosphere, the biosphere, and the sociosphere. One of the first artworks to grapple with changing ecologies, climate change, and the role of the non-human sentient entity in the food chain, was the extensive exhibition The Lagoon Cycle (1974-84), produced by the artists Helen Mayer Harrison and Newton Harrison.<sup>9</sup> The project drew on the findings of an international report that, in suggesting the planet's resources would soon be unable to feed its fast-growing population, led to the increased industrialization of agriculture.<sup>10</sup> In a case study based on the exportation of the Forksal crab from Sri Lanka to California, the artists documented the failing Indigenous ecosystems that supported the farming of the Forksal crab in Sri Lanka, extensively imported to the United States, and explored the alternative of artificial farming systems in California. They observed the ways that such systems generated anomalies and unsustainable scenarios in a diminished ecosystem. The Harrisons' focus at that point was primarily anthropocentric, but their thesis was ecological. They recognized that climate change and rising sea levels would lead to extensive estuarine loss. The case of the Forksal crab was indicative of any estuarine food system, as here we would speak of kai moana. In this process, they discovered that, in the production of artificial farming tanks, the Forksal crabs began to look up at those who fed them. The sequence ends with the words "and will you feed me, when the waters rise?" These words, designed as a conversation between humans, now, in the context of extinctions, must include the other species who share the planet's struggling ecosystems.<sup>11</sup>

An account of solastalgia begins Albrecht's *Earth Emotions, New Words for a New Planet* (2019), but to this he has added, and continues to add, new terms for every major event or change in the developing Anthropocene.<sup>12</sup> His forensic approach to the subject of our emotions is determined by his history as a philosopher of ecology, a disillusioned lecturer in sustainability, and his experience living in the midst of Australia's greatest drought in living memory, where he watches ecosystems fail through the impacts of mining and urban development.<sup>13</sup> The term can be applied in post-war situations, after hurricanes and volcanic explosions, or during the "great acceleration" of urbanization in the latter twentieth century. Solastagia's etymological base in "desolate", also implies loneliness, an underlying theme throughout Albrecht's account. That subtext reflects the disconnection intrinsic to Eurocentric models of subjectivity, which underrates the potential of interdividual, transversal, emotional connections, between members of our own and other species, to over-ride the short-term goals that drive economic models. Interdividuality is a model offered in the discourses Albrecht's arguments do not consider, for instance those of

the post-structural ecologist Félix Guattari, whose genealogy in Marxism and in psychoanalytic theory, places the human within the context of the collective rather than the individual.<sup>14</sup> From this philosophical approach, Albrecht does cite Haraway, who, he writes, "has given generously of the creative imagination needed to take symbiosis out of bioscience obscurity and into the environmental humanities in the twenty-first century."<sup>15</sup> It is true that, in some ways, Albrecht's aspirations coincide with those of the less anthropocentric models. In response to the notion of the Anthropocene, he proposes the alternative "Symbiocene", defined in his "Glossary of Psychoterratic Terms" as "[t]he era in Earth History that comes after the Anthropocene. The Symbiocene will be in evidence when there is no discernible impact of human activity on the planet other than the temporary remains of their teeth and bones. Everything that humans do will be integrated within the support systems of all life and will leave no trace."<sup>16</sup> In that sense, he agrees with many others, such as T J Demos, that the term Anthropocene describes the bad present, while what is needed is a new way of being.<sup>17</sup>

Albrecht aligns connectedness and love in the term "ghedeist": a "secular feeling of intense affinity and sense of mutual empathy for other beings".<sup>18</sup> Of the Symbiocene, he writes:

"We now have a clear understanding that bacteria, trees and humans are not individuals existing as isolated atoms in a sea of competition. The foundational idea of life as consisting of autonomous entities, organisms in competition with one another, has been shown to be fundamentally mistaken. Life consists of commingling microbiomes within larger biomes, communities within communities at ever-increasing scales, otherwise known as "holobionts". This is more than an "entanglement" of different but independent beings; it is the sharing of a common property, called life."

Entanglement is the term used by Haraway to demonstrate the complexity of our current engagement with the organic and the inorganic, a sense of the status quo that we must work with ("think we must", Haraway repeats)<sup>19</sup>. Because Albrecht is resolutely humanist, anthropocentric, and ultimately modernist, he does not agree with the more blurred and intersecting languages of affect, nor with the analogies of entanglement and complexity so common in the newer ecological discourses. Instead, he characterizes emotions as concepts, and further, as propositions, to generate solutions. This is a political and rhetorical tactic, just as were the formations of the many terms to describe the current situation: the Necrocene, for extinctions; the Capitalocene, for causation; the Chthulucene, for the entanglement of organic and inorganic forms; the Plantationocene, for the racial exploitation of the beginnings of the industrial era; and others continuing to reflect different positions.<sup>20</sup>The pain such terms express requires a response, but so does their empirical entanglement in the intersections of systems.

We do need new ways of articulating the weirdness of today's environment: when an epidemic can lead to the kind of cessation of resource over-use that has been called for generations now, but only with the short-term goal of preserving existing human life and ensuring the consequent ongoing sustainability of the economies of the planet. Here one might consider the justice-based approach of Bruno Latour's *The Politics of Nature, How to bring the Sciences into Democracy*, where he argues for the redistribution of political agency amongst the other species and entities with which we share the planet.<sup>21</sup> Albrecht's approach may facilitate that, but it does not fully take the point made by the speculative materialists, that anthropocentric subjectivity is inadequate. All other entities, the biota facing extinction and the inorganic resources facing depletion, have a voice to which we seldom, in the Harrisons' term, "pay attention".

I spent the final months of my pregnancy a kilometre away from where I was myself a baby, amongst macrocarpas sloping quickly to a rocky beach. I woke to labour from an urgent dream of operating on a water-breathing mammal in pounding surf so that it could draw air into its lungs. At that point, I knew my phylogeny involved more than one species. But mostly, we forget our biodynamic nature, we forget our place in the ecologies of the planet. And in our urge toward homemaking, the *oikos* of ecology, we tidy. The daily lessons have to do with spiders, the upside-down, chthonic beings Haraway argues for. Every time I tidy, I disturb spiders, moths and other biota. If I shift old stacks of wood, I disturb spiders. If I shift stacks of old tin, I eradicate lizard habitat. If I clean, tidy, organize, edit the garden, their

habitat diminishes, and species disappear, such as the harvestmen I haven't seen for a few years (in fact, since we let our two hens free-range). Supermarket shelves groan with murderous bottles promising the delights of hygiene and proper living. Our responsibility for biodiversity starts at home. It can and must extend to the wider places of city, the region, the island, the continent, but it starts with the attention we pay to the areas in which we are implicated. We forget to think small. Biodiversity is intrinsically local and it is in the local that we both experience our own solastalgia and may mitigate further extinctions through our understanding that we are connected. Albrecht's analyses engage with the emphasis we put on our own emotional responses, even as we must also acknowledge their collectivity across our own and other species, and their irrelevance, in a sense, in what we must make happen. Albrecht's Symbiocene intersects with the other negative and positive terms for our current era, as it is described according to its refracted, infinitely complex, non-linear, and stochastic attributes. However, his hope that humans may at some point leave "no discernible impact on the planet other than the temporary remains of their teeth and bones" jars in comparison with Haraway's more realistic insistence that we come to terms with that impact in the here and now. <sup>22</sup> Albrecht's solastalgia belongs in our new lexicon, but in the wider collective, it must move across species and become entangled in our Chthulucenic understandings.

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- I Glenn A Albrecht, Earth Emotions, New Words for a New World (Ithaca and London: Cornell University Press, 2019).
- 2 Ibid, "Solastalgia, the homesickness you have at home" in Earth Emotions.
- 3 Donna Haraway, "Staying with the Trouble: Anthropocene, Capitalocene, Chthulucene," in Jason W Moore, Anthropocene or Capitalocene? Nature, History and the Crisis of Capitalism (Oakland, California: PM Press, 2016), 34–76.
- 4 Haraway cites Beth M Dempster and expands this list in her valuable and extensive endnotes. Beth M Dempster, A Selforganizing Systems Perspective on Planning for Sustainability (Msc thesis, University of Waterloo, 1998); D Haraway, "Staying with the trouble," 65, note 16.
- 5 James Lovelock, Gaia, A new look at life on Earth (Oxford: Oxford University Press, 1979).
- 6 Ibid, 131.
- 7 Félix Guattari, Three ecologies, (London and New Brunswick: The Athlone Press, 1989), 2000. Also see https://mediaecologies. wordpress.com/2008/10/07/the-three-ecologies-felix-guattari/
- 8 Rachel Carson, Silent Spring (New York: Houghton Mifflin, 1962).
- 9 The Lagooon Cycle, http://theharrisonstudio.net/the-lagoon-cycle-1974-1984-2
- 10 Donnella Meadows, The Limits to Growth A Report for the Club of Rome's Project on the Predicament of Man (New York: Universe books, 1972).
- 11 The debate around nomenclature is extensive. For the Necrocene see Justin McBrien, "Accumulating Extinction: Planetary Catastrophism in the Necrocene" in Jason W Moore, Anthropcene or Capitalocene? Nature, History, and the Crisis of Capitalism (Oakland, California: PM Press, 2016). Also see T J Demos, Against the Anthropocene, Visual Culture and Environment Today (Berlin: Sternberg Press, 2017).
- 12 G Albrecht, "The Psychoterratic and the Coronavirus (COVID-19)," *Psychoterratica*, 28 March 2020 https://glennaalbrecht. com/2020/03/28/the-psychoterratic-and-the-coronavirus-covid-19/
- 13 G Albrecht "A Sumbiography," in Earth Emotions, 13–25
- 14 Felix Guattari Three ecologies, London and New Brunswick: The Athlone Press, 2000 (1989). Also see https://mediaecologies. wordpress.com/2008/10/07/the-three-ecologies-felix-guattari/
- 15 G Albrecht, Earth Emotions 110.
- 16 Ibid, 201.
- 17 T J Demos, Against the Anthropocene, Visual Culture and Environment Today.
- 18 G Albrecht, "Gaia and the Ghedeist, secular spirituality" in *Earth Emotions*, 131–155.
- 19 Haraway, "Staying with the trouble," 39
- 20 Jason W Moore, Anthropcene or Capitalocene? Nature, History, and the Crisis of Capitalism.
- 21 Bruno Latour, The Politics of Nature, how to bring the sciences into democracy (Cambridge, Massachusetts: Harvard University Press, 1999).
- 22 G Albrecht, Earth Emotions 201.