

“Moments in Passing:” Maritime Futures of the Anthropocene

by Elizabeth DeLoughrey

The living ocean drives planetary chemistry, governs climate and weather, and otherwise provides the cornerstone of the life-support system for all creatures on our planet [...]If it dies, we die. Our future and the state of the oceans are one.

—Sylvia Earle

The Oceanic Turn

The rise of environmental scholarship in recent decades, including the fields of ecocriticism and the new ecological [or environmental] humanities has been simultaneous with an “oceanic turn.” Generally speaking, the former (terrestrial) fields have represented interdisciplinary engagements with the representations of territorially-based place and have more recently begun to theorize mobility and displacement across biotic, regional, national, and (post)colonial boundaries. In contradistinction, the field of what I call critical ocean studies has shifted from a long-term concern with mobility and fluidity across transoceanic surfaces to theorizing ways of embedding, animating, and submerging, rendering vast oceanic space into place. This recent turning to ontologies of the sea and their implications for temporality and aesthetics in the Anthropocene will be the focus of this paper.

The oceanic turn of the 20th century has arisen from a handful of developments in both geopolitics as well as disciplinary regroupings in the humanities and social sciences. These discourses are entangled with earlier colonial doctrines of terra nullius or nobody’s land, better defined here as aqua nullius.¹ Yet they are shifting in interesting ways towards a “hydro-materiality” and geophysicality (Steinberg, “Of Other Seas” 164). I trace the oceanic turn to the 1945 Truman Proclamation—the most significant --and yet largely unremarked—20th century remapping of the globe. The Truman Proclamation extended US sovereignty out to 200 nautical miles known as an Exclusive Economic Zone (EEZ), claiming the resources of the continental shelf, seabed, and coastal fisheries.² Due to Truman’s 1945 annexation of Micronesia, this new EEZ was enormous, tripling the territorial size of the United States. This in turn created a scramble for the oceans, catalyzing 200-mile EEZ declarations by nations all over the world and a UN Convention on the Law of the Sea that reterritorialized 70% of the planet. Although unnoticed by a new field termed “Blue Humanities,” Cold War geopolitics had a decisive influence in remapping our understanding of the terraqueous globe.

The second influence on the rise of critical ocean studies include the post-1970s “spatial turn” in geography, which led to the emergence of globalization and diaspora studies. Building on the work of LeFevre, Foucault and others, Marxist geography was integral to defining the post-Fordist era of global capitalism through the lens of what David Harvey has called “historical geographical materialism.” This loosening of nationally-bounded modes of thinking about capital and space, coupled with rise of migration and new formulations of ethnicity led to an unprecedented number of transoceanic studies of labor and race, notably the work of Marcus Rediker which helped inspire Paul Gilroy’s *The Black Atlantic*, a text that inaugurated a new generation of thinking about race in transoceanic ways. This in turn was adapted by scholars theorizing the Caribbean as well as the Pacific and Indian Oceans.³ While the scramble for the seas largely figured the ocean and its resources as subject to the exploitation of discrete national territories, a kind of aqua extractio, the work of geographers, historians, and cultural

studies scholars configured the ocean as a historical space of transnational capital, empire, slavery—based on an unmarked masculinity that we might term *aqua homo*.

Third, the spatial turn away from the nation state towards the seas also has been influenced by the post-independence melancholia of the 1990s, where disappointments with the postcolonial state as a structure for governing the human subject, imaginary (and futurity) led to a turn to the ocean as a site of “flows” and “fluidity,” seemingly outside the territorial and legislative of limitations of the state.⁴ Following Gilroy and others, the ethnically-exclusive and hierarchical model of national belonging might be imaginatively transcended by turning to those spaces of fluidity and creolization. As such, the ocean became a space for theorizing the materiality of history—as a dystopian slave ship or a utopian pirate (or slave) ship revolt—yet it rarely figured as a material in itself.⁵ With some exceptions, these narratives largely represent a transoceanic imaginary, positioning the sea as a stage for human history; a narrative of flat surfaces rather than immersions.

This essay examines three factors that have contributed to the rise of a new oceanic imaginary for the 21st century: the global sea level rise that is our visible sign of climate change; the emergence of the environmental humanities, especially scholarship in multispecies ethnographies; and finally the work of Caribbean writers and artists who have long theorized the ocean in terms of the violent convergence of environment and history.⁶ In the Caribbean the ocean has long been understood as a material entity; it is an ecology for “subtle and submarine” poetics in the words of Derek Walcott (“The Sea is History). To Barbadian poet Kamau Brathwaite the ocean signifies a “tidal dialectic” or “tidalectics” (“Interview” 57) and, for Martinican theorist Édouard Glissant, the sea signifies an abyss, a repository for the untold histories of the middle passage. These particular Caribbean writers have imagined a submarine temporality in which linear models of time are distorted and ruptured. This engagement with temporality is the product of the violence of transoceanic colonial history as well as immersion in the materiality of the ocean itself. This question of temporalizing the sea is vital because unlike terrestrial space—where one might memorialize and narrativize a space into place-- the perpetual circulation of ocean currents means that the sea dissolves phenomenological experience and defracts the accumulation of narrative. As we look towards an oceanic future caused by sea-level rise, these questions of temporality become vital to understanding the epoch termed the Anthropocene. The challenges about representing the more-than-human temporalities of the ocean, what I’m theorizing here as “sea ontologies,” are addressed by British artist Jason deCaires Taylor, whose submarine Caribbean sculptures he describes as “moments in passing” (The Underwater Museum 8), subject to the erosion and transformation by maritime currents as well through multispecies relations with fish, algae, sponges, hydrozoans, and coral.

Oceanic Futures

It is a tautology that the ocean drives our global climate, and that our planetary future is becoming more oceanic. Scientific discourse has positioned the ocean as evolutionary origin for life on earth and, given the imminent threat of sea level rising, our anticipated destiny. Sea level rise is perhaps our greatest sign of planetary change, connecting the activity of the earth’s poles with the rest of the terrestrial world, producing a new sense of planetary scale and interconnectedness through the rising of a world ocean. The emergence of the environmental humanities as a discipline at the start of this century is coterminous with the turn to the Anthropocene, a term some scientists are using to describe an epoch

in which the scale of anthropogenic carbon emissions positions humanity as a geological force.⁷ This new understanding of the human in relationship to a warming planet has catalyzed vital questions about positioning the subject in the discourse of species, history, environment, and politics. After decades of work that examined the historicism and difference of the human subject, particularly in postcolonial studies, we are seeing a discursive shift to figuring humanity on a planetary scale, as Dipesh Chakrabarty has argued.⁸ This essay builds on this work but troubles it by engaging the questions of visualizing climate change and interspecies ontologies in an era of sea level rise that is shaping new oceanic imaginaries.

Christopher Connery has argued that in western discourse, the sea “emerged as a kind of sublime and inassimilable other, not so much a power over humans, but an element outside and alien to the human, and outside time (“There Was No More Sea,” 502). Yet the Anthropocene has catalyzed a new oceanic imaginary in which, due to sea-level rise, the largest space on earth is suddenly not so external and “alien,” as Stefan Helmreich has demonstrated, to human experience. The increase in extreme weather events are correlated to the cinematic visuality of flooding and tsunamis, in which footage of a king tide in Tuvalu for instance comes to stand in for the world’s rising ocean. This new oceanic imaginary has inspired an increase in a body of literature, arts, film, and scholarship concerned with our watery futures. In popular U.S. culture, there are sensationalist accounts of an active, threatening ocean in films like Roland Emmerich’s 2012, or Darren Aronofsky’s Noah as well as in books like Brian Fagan’s *The Attacking Ocean*. The 21st century has also seen a sudden rise in documentaries that figure the ocean as a threatening agent such as *Rising Waters* (Torrice), *Paradise Drowned* (Tourell), and *Time and Tide* (Bayer and Salzman). There has been a body of work arguing for the importance of visualizing climate change through film and photography, bringing images of glacial melt, king tides, stranded polar bears, and catastrophic events at the poles and tropics to a global audience in order to encourage social and political change.⁹ This new visual economy of sea-level rise brings about different aesthetics and more-than-human entanglements, as I’ll explain.

There are geopolitical, biopolitical, environmental, and ontological dimensions to this oceanic turn. Some texts figure the ocean as a space for evolutionary, religious, and ontological origins and destiny. These tend to emphasize the radical interiority of the sea to the human species. For instance, Jacques Cousteau explains “our flesh is composed of myriads of cells, each one of which contains a miniature ocean...comprising all the salts of the sea, probably the built-in heritage of our distant ancestry, when some mutating fish turned into reptiles and invaded the virgin land” (“The Perils and Potentials of a Watery Planet,” 13). Elisabeth Mann Borgese, one of the founding members of the Club of Rome as well as the first Convention on the Sea (1970) writes that “every human[...] is a good bit of planet ocean: 71 per cent of his substance consists of salty water, just as 71 per cent of the earth is covered by the oceans” (*The Oceanic Circle*, 258). Others externalize the human to planetary scale, describing hydrologic cycles as the earth’s lungs, responsible for the “planetary respiratory rhythm;” marine biologist Sylvia Earle asserts that “every breath we take is linked to the sea” (*Sea Change* 14). Other narratives are less naturalizing, documenting a new era of empire and territorialism evident in the collapse of fisheries, the transnational corporate scramble for minerals and microbiota in the thermal vents of the Pacific Ocean, and the competing state territorialisms now visible in the Arctic as the ice begins to melt. Whether one considers the seabed, the creatures of the sea, or its surface, the ocean has become a new frontier for capital evident in the libertarian Seasteading Institute that seeks to

establish a free state on the high seas and, as their website claims, to “open humanity’s next frontier.”

¹⁰This simultaneous rendering of the sea as open frontier and endless natural resource Helmreich refers to as “blue-green capitalism” (Alien Ocean 26). The general lack of attention to these territorial developments might be attributed to the ocean’s figuring as “capital’s favored myth-element” (Connery, “The Oceanic Feeling” 289), creating a lacuna precisely where we should be able to trace the intersections of capital and empire, as well as their impacts on human and nonhuman sovereignty.

Whether it is figured as a figure for the salinity of human blood, a utopian space of biocapital, or the dystopian futurity of climate change, the ocean is represented in an “oscillation between [...] familiar and strange, as us and not us” (Helmreich, Alien Ocean, 403). It is this figuring of the ocean as the uncanny, the unheimlich, and borrowing from Gayatri Chakravorty Spivak, as a figure for “planetarity” that I explore in the remainder of this essay.

Sea Ontologies

Caribbean aesthetics articulate what I am calling “sea ontologies,” following Phil Steinberg and others who seek to “develop an epistemology that views the ocean as continually being reconstituted by a variety of elements: the non-human and the human, the biological and the geophysical, the historic and the contemporary” (“Of Other Seas,” 157). While Steinberg has argued persuasively for reading the ocean as a dynamic force rather than place, for “decentered ontologies of connection” (161), in the Caribbean the enormity of the 400-year long transoceanic history of slavery and indenture has created an aesthetics that imaginatively populate the sea in an act of regional historiography and ancestral memory. The Atlantic in this regard is understood as an unmarked grave site, and memorializing the enormity of loss for the millions who crossed its expanse has particular material challenges, given that first, the mobility of ocean currents means that we cannot localize its waters as a phenomenologically experienced place, and secondly because there are no accurate recordings of where exactly slaves leapt or were thrown overboard. As such, this is an oceanic archive that lacks the place-based narrative and rituals for memorialization. The earth-based sacralization of place is generally rendered by the ritualized placement of bodies, bones, and stone monuments. In order to localize an event that can never be truly historically localized (due to the materiality of both middle passage history and ocean currents), Caribbean writers have peopled the seabed with human bones, imaginatively figured in the limestone structures of coral reefs. Thus what would be archeology in a terrestrial context becomes submarine diving for an oceanic archive, for the remnants of imperial debris and ancestral origins. As the sailor of Walcott’s “The Schooner Flight” observes:

but this Caribbean so choke with the dead

that when I would melt in emerald water,

whose ceiling rippled like a silk tent,

I saw them corals: brain, fire, sea fans,

dead-men’s-fingers, and then, the dead men.

I saw that the powdery sand was their bones

ground white from Senegal to San Salvador (Collected Poems 349)

In contrast to the tropical tourist's narratives of transparent azure seas that are subject to the visitor's desires (aqua nullius), Walcott's seas are "choked" with the visible remnants of living history. This is a living graveyard in which one's interpellation of the submarine is interrupted by a rupture in narrative articulation, in breath. The process of anthropomorphizing the corals, from brain corals to dead men's fingers, leads to a visual poetics ("I saw them") of the submarine debris of human history. Thus it is by interpellating nonhuman life forms as human bones that enables the visibility or recognition of a submarine human history, that which resides outside (and below) the official archive.

This is a subtle but important difference from subjecting nonhuman animals like coral to the narratives of human history. Walcott's poem suggests that "subtle and submarine" human histories can only be understood in the active engagement—to "melt" and dissolve in spaces of nonhuman alterity. They render not an active recuperation of the ancestral human, but its constitutive remnants, "powdery sand" that is, like earthly soil, constitutive and grounding, yet also signifying more-than-human history. In engaging Walcott's poetry, Laura Ann Stoler has demonstrated that Walter Benjamin provides a compelling reading of monumental ruins as "petrified life," traces that mark the fragility of power and the forces of destruction. But ruins are also sites that condense alternative senses of history. Stoler focuses on artifacts and the "dead matter" of imperial history ("Imperial Debris" 196). Yet Walcott's poetics have long engaged living matter as a site for more-than-human history, depicting multispecies engagements with plants, fish, corals, and other creatures of the tropical coast as a means of posing an alternative narrative for history making. In a response to the western demand for a linear, monumentalized "History," his poetry has always troubled its place-making impetus. "You want to hear my history? Ask the sea" (Collected Poems 282) he has consistently responded, from his early poetry ("The Estranging Sea") to the epic *Omeros*. In response to the western demand for the visible archives of "monuments, [...] battles, martyrs" as the synecdoche for History, Walcott's narrator responds by insisting on submersion, a Virgilian guide to a submarine reliquary, not unlike the wreckage of Hardy's "Convergence of the Twain":

Bone soldered by coral to bone,
mosaics
mantled by the benediction of the shark's shadow,
[...]
but where is your Renaissance?
[...]
stop on these goggles, I'll guide you there myself.
It's all subtle and submarine,
through colonnades of coral,
past the gothic windows of sea-fans
to where the crusty grouper, onyx-eyed,
blinks, weighted by its jewels, like a bald queen;
and these groined caves with barnacles
pitted like stone
are our cathedrals (Collected Poems: "The Sea is History," 137-138)

Walcott's submerged narrator invokes "sea ontologies," I term I'm using to expand on Elizabeth A. Povinelli's theorization of "geontologies," a mutually constitutive relationship between biography/geology, drawn from indigenous contexts that destabilize western binaries between figures of life and nonlife.¹¹ Povinelli focuses on the deep time of indigenous knowledges in Australia, so the term "sea ontologies" might characterize the connection between ancestry, history, and non-western knowledge systems in submarine aesthetics. In a similar vein, Deborah Bird Rose uses the terms "generational time" and "synchronous encounter," a bi-temporal relation between diachronic and synchronic temporality, to describe these more-than-human encounters ("Multispecies Knots of Ethical Time," 129). While the focus has tended to be more anthropocentric, in Caribbean literature and cultural studies the ocean has been figured as evolutionary and cultural origin in the wake of the brutal loss of ancestral memory, a site of memorialization, excavation, mourning, the sacred, and history. This is why it was not surprising that when Jason deCaires Taylor began sinking life-sized human sculptures under the Caribbean Sea that the majority of viewers assumed this was an act of the memorialization of the lost lives of the middle passage. But interestingly, the sculptures' temporal and multispecies engagements are more complex, suggesting that the ocean as medium can symbolize the simultaneity or even the collapse of linear time, reflecting lost lives of the past and memorializing—as an act of anticipatory mourning-- the multispecies lives of the future.

[see <http://www.underwatersculpture.com/>]

Vicissitudes

In his imagination of the "earth after us," the future of the Anthropocene, Jan Zalasiewicz anticipates that "our drowned cities [...] would begin to be covered by sand, silt, and mud, and take the first steps towards becoming geology. The process of fossilization will begin" (*The Earth after Us*, 272). Yet these drowned cities are already in the making, turning the future subjunctive into present participle. With a series of eco-art cement sculptures sunken off the coasts of Mexico and Grenada entitled "Vicissitudes," "The Last Supper," "Time Bomb," "The Bankers," and "Anthropocene," deCaires Taylor has been levying a submarine critique of, to draw from one of his sculptures, the social and political "Inertia" in response to anthropogenic climate change. "The Bankers" (2011) show a group of men in suits, who literally have their heads in the sand.¹² [[url links are in the endnotes](#)] "The Last Supper" (2012) represents an unattended table set for two, a bowl of fruits including hand grenades, and a half-eaten, bony fish on one plate. Other sculptures also critique the capitalist consumption that led to the Anthropocene; the two-ton sculpture "Inertia" (2011) is of an overweight man, sitting on a couch in front of a television with a plate of fast-food (hamburger and fries) on his enormous lap, and a pile of plastic debris at his feet.¹³

The sculptures are largely allegorical and commentaries on the disorienting effects of temporality in the Anthropocene. As deCaires Taylor notes, "Over the last 20 years our generation has encountered rapid change both technologically, culturally and geographically. I feel this has left us with an underlying sense of loss. My work tries to record some of those moments."¹⁴ Reflecting a planetary "crisis of futurity" (Pratt, "Planetary Longings," 211) in which the telos of modernization, progress, and development are rejected produces an affect of mourning and, for this particular body of work, stillness amidst the tremendous pressure and mobility of seawater. Connery has written about how the technologies of globalization helped contribute to "the dematerialization" of the sea: "The oceanic [...] is rather the

space of pure distance, a meaningless materiality transcended by instantaneous information flow. Connectivity itself functions to dematerialize the connector, the space between” (“Oceanic Feeling,” 296). Notwithstanding the fact that those information flows are dependent on tens of thousands of miles of submarine cables, deCaires Taylor’s response to the globalizing “disembedding” from time and space (Giddens, *The Consequences of Modernity*, 188) is to rematerialize the ocean and, by life casting local people for submersion, enables sea ontologies, rendering uninhabitable space into anthropomorphized place.

There are two major submarine sites I want to examine here. The first, often called the “first underwater sculpture park” is in Moilinere Bay, Grenada, established in 2006 by the Grenadian government and tourist board including sixty-five sculptures that have been called by National Geographic as one of the “Wonders of the World.” The second, the Museo Subacuático de Arte (MUSA), in The National Marine Park of Cancun, Mexico (in Punta Nizuc and Machones Reef), was established in 2009. At both sites deCaires Taylor works with local artists, students, and ecologists, spends months making plaster and silicon casts of individuals in his studio, then renders them into a Ph-neutral, marine-grade cement that is twenty times stronger than its terrestrial counterpart. It is built to withstand the tremendous pressure of ocean currents and constructed of inert materials to encourage multispecies “colonization.” Because they are intended to become artificial reefs, the locations are shallow, tropical, chosen in consultation with marine biologists in order to both weaken the impact of hurricane-force currents on the shore, as well as to be strategically positioned for the ‘seeding’ of coral from one reef to another. As such, the sculptures are inordinately heavy, averaging one-to-two tons each, and are anchored to the seabed. Thus gravity and weight become constitutive elements in ensuring the futurity of multispecies sculptural ecologies. “Anthropocene,” a full-scale cast of a Volkswagen Beetle with a young, perhaps weeping boy curled against the windshield,¹⁵ is an eight-ton sculpture, designed specifically with holes and passageways to encourage the establishment of crustaceans; its size created challenging logistical issues about its transportation to the site and submergence, calling attention to the gap in technologies that gave rise to a carboniferous Anthropocene and the limited resources of the Mexican state park.¹⁶

These are permanent, “swim through” exhibits, viewed while floating above and through the installation; unlike an interior, terrestrial gallery, the experience of the visitor is variable and dependent on skills and resources in snorkeling or scuba diving, as well as weather and currents; impressions are informed by light, viscosity of the water, age of the sculptures, and presence of marine species. While the exhibits are “permanent,” the sculptures are not; they change every day based on their occupation by bacteria and algae, and eventually, coral. Environmental or earth art is known for its ephemerality, its locatedness, its participatory expectations, and its pedagogical intents. It also reflects an entanglement with nonhuman force and a commitment to ecological regeneration.¹⁷ While wind and rain may be the major elemental forces in transforming artworks on land, submarine aesthetics are subject to an alien environment, transformed by salt, currents, pressure, and the rapid occupation by multispecies ecologies.

The submarine and material aspects of deCaires Taylor’s eco-art are vital to its interpretation, particularly the ways in which water as a medium distorts time and alters knowledge production. After working for decades on the Law of the Sea, Elisabeth Mann Borgese observed:

the ocean is a medium different from the earth: so different, in fact, that it forces us to think differently. The medium itself, where everything flows and everything is interconnected, forces us to "unfocus," to shed our old concepts and paradigms, to "refocus" on a new paradigm. Fundamental concepts, evolved over the millennia on land, like sovereignty, geographic boundaries, or ownership, simply will not work in the ocean medium where new political, legal, and economic concepts are emerging (The Oceanic Circle, 258).

This sense of newness, a critical engagement with an extraterrestrial space, raises questions about disciplinarity, epistemology, and (sea) ontologies. Critical ocean studies reflects an interdisciplinary approach to theorizing the largest space on earth, but only recently has there been a discourse about how submersion (or melting, to Walcott) may produce alternative knowledges and ontologies. Having worked as a diving instructor at the Great Barrier Reef before turning to underwater sculpture, deCaires Taylor observes:

The experience of being underwater is vastly different from that of being on land. Objects appear twenty five percent larger underwater, and as a consequence they also appear closer. Colours alter as light is absorbed and reflected at different rates, with the depth of the water affecting this further. The light source in water is from the surface, this produces kaleidoscopic effects governed by water movement, currents and turbulence. Water is a malleable medium in which to travel enabling the viewer to become active in their engagement with the work. The large number of angles and perspectives from which the sculptures can be viewed increase dramatically the unique experience of encountering the works (qtd. in Patel).

deCaires Taylor observes that visitors to the sites describe their experiences of the sculptures as "creepy," "spooky," and awesome, a sense of the shock of seeing specific human forms in the depths of a space deemed outside of human experience and temporality (qtd. in Patel). Casting all of the sculptures in terms of human scale adds a sense of both their diminutive size in relation to the vast ocean, as well as their particularly and individuality. It's this uncanniness, the engagements with human forms that appear distorted, larger, closer, and essentially "matter out of place" to borrow from Mary Douglas, that lead to a phenomenological sense of their *unheimlich*, a feeling of that which is both familiar and radically defamiliarizing. Thus a large man on a couch watching television or a Volkswagen Beetle may be ordinary figures on land—their presence thirty meters under the sea is uncanny.

In Spivak's theorization of "planetarity" she seeks a different method of thought, like deCairesTaylor, in theorizing alternatives to the homogenizing and technocratic reaches of globalization. Building on Levinas, she argues, "To be human is to be intended toward the other. We provide for ourselves transcendental figurations of what we think is the origin of this animating gift: mother, nation, god, nature." (Death of a Discipline, 73) To that list of the transcendental *unheimlich* I would add the ocean, a figure of evolutionary origin, amniotic sac, and planetary future, suggesting a rupture in time as well as the unhomeliness of our experience of the planet. The ocean, like the "figure of woman-as-mother-as-vagina" (Death of a Discipline, 74) that Spivak reads in Freud's theory of the *unheimlich*, is also a figure for origins, an uncanny originary home. Of the vagina Freud writes, "This *unheimlich* place [...] is the entrance to the former Heim [home] of all human beings, to the place where each one of us lived once upon a time and in the beginning." (qtd in Death of a Discipline, 74). In a similar vein, deCaires Taylor has explained, "For many years I've had incredible dreams about being underwater. My first instructor

once told me how he'd go to these spectacular caves in Turkey. He would turn off his torch and feel his way out. He said it felt like being back in his mother's womb. I can relate. You have a much more detached consciousness underwater – like a form of meditation." (qtd. in Patel). Thus the ocean is often figured as "a species" of planetarity whether understood as the origins of earthly life, mer or mother, and more recently as a living "super organism," possibly supporting Lovelock's Gaia hypothesis of the earth as system.

The discourse of the Anthropocene positions humans as a geological force, yet the ocean seems to be our proxy. This raises questions as to the mutability between humans and the seas. While we have come to recognize an anthropogenic climate, new science is suggesting a rather anthropomorphic ocean—perhaps even a super organism. Water's mutability, measured in picoseconds, means that it changes its molecular structure around one trillion times a second and has been likened to a network. Unlike any other liquids, water molecules change in response to temperature and chemicals, blurring the distinction between chemistry and a living thing. Moreover the "bacterial networking" (Nielsen, "Electric Currents," 1074) of the ocean's microbial communities have raised new questions about whether the sea itself is ontological.

These questions about temporality, place, multispecies life, and sea ontologies are brought together in one of deCaires Taylor's first sculptures, "Vicissitudes" (2007), a circular structure of twenty-six children holding hands which invokes a cyclical model of time that will be transformed through multispecies occupations.¹⁸ From the Latin *vicis*, to turn or change, "Vicissitudes" reflects the engagement with an uncanny oceanic temporality and mutability. While the process of locating the sites, casting human forms, and submerging them into the sea takes months, deCaires Taylor points out that as soon as the sculptures are placed in the sea, time speeds up as they are rapidly covered with algae, one of the first steps in building a coral reef.¹⁹ Of "Vicissitudes," he has remarked that "The sculpture proposes growth, change, and natural transformation. It shows how time and environment impact on and shape the physical body."²⁰

In an image of the sculpture when it was first submerged,²¹ we see a ring of children facing outwards, holding hands, as they unite to face some kind of external force or event. As life casts, the details of the children's contemporary clothing (jeans, polo shirts) are precise, as are their facial features. Standing barefoot in the white sand, surrounded by blue waters, the boys and girls seem both at home in this environment, yet simultaneously "creepy," as if responding to some threat that the viewer has not realized. In that way they are outside of our viewing time, responding to something that positions our own temporality as belated. On closer look, their eyes are closed, suggesting some kind of group concentration and communication, positioning the viewer as someone interrupting an intimate moment or prayer. As they are generally viewed from slightly above, the ring shape is the predominant figure; approaching the statues one comes to realize that they are positioned alternately boy and girl; a closer look reveals that they are the same two children, an uncanny doubling. The girl is slightly taller than the boy, hair pulled back in a bun turned slightly right, the boy with close cropped hair, turned towards his companion to the left.

As soon as the photos of "Vicissitudes" were released, people immediately interpreted it as a monument to the lost lives of transatlantic slavery. In the often-quoted words of Édouard Glissant:

Whenever a fleet of ships gave chase to slave ships, it was easiest just to lighten the boat by throwing cargo overboard, weighing it down with balls and chains [...] These underwater signposts mark the course [across the Atlantic]. Navigating the green splendor of the sea [...] still brings to mind, coming to light like seaweed, these lowest depths, these deeps, with their punctuation of scarcely corroded balls and chains. [...] The abyss is a tautology: the entire ocean, the entire sea gently collapsing in the end into the pleasures of sand, makes one vast beginning, but a beginning whose time is marked by these balls and chains gone green (Poetics of Relation, 226).

An obsolete definition of “vicissitudes” is reciprocation and return. Given the circular structure of the sculpture, mirrored by the ring of reinforced cement behind the children’s hands that some have taken to be manacles, online speculation about its memorialization to slaves led the artist to deny any intentional connection to the middle passage, while later acknowledging that in working with the tourist board he was forced to make compromises (qtd. in Patel).

The Caribbean Sea has long been understood as a cultural and material space, a graveyard for the ancestors, a wound, an abyss or rupture in cultural continuity. While this shared experience, Glissant suggests, created an “original victim floating toward the sea’s abysses, an exception, it became something shared and made us, the descendants, one people among others. Peoples do not live on exception. Relation is not made up of things that are foreign but of shared knowledge. This experience of the abyss can now be said to be the best element of exchange” (Poetics of Relation, 226). It’s not merely the peopling of the sea here that invokes the losses of the middle passage, but rather the “shared knowledge” symbolized by the ring of children that suggests a suboceanic experience that cannot be shared by the terrestrial visitor, an experience of an ethereal otherworld of history, continuous with our own and yet simultaneously discontinuous. A submarine *unheimlich*, reflecting the mutually constitutive relationship between the ocean and the biography of the peoples of this place; foregrounding the ocean as uncanny medium which distorts our terrestrial-bound understanding of figures, time, and space.

I’d like to pick up here on Glissant’s theory of the oceanic abyss as both a tautology and as a “womb abyss,” (Poetics of Relation, 226) which brings us back to the larger framework of planetarity and the *unheimlich* that I am arguing constitutes this oceanic imaginary. Glissant argues that the traumatic experience of crossing the abyss produced a particular kind of “knowledge of the Whole, greater from having been at the abyss and freeing knowledge of Relation within the Whole” (226). Arguing specifically against ecological mysticism, territorialism, and filiation he proposes a poetics of Relation that is represented in the “aesthetics of rupture and connection [...] of a variable continuum, an invariant discontinuum,” constituted by interdependencies and entanglement (226). A transoceanic originary is vital to the recognition of the poetics of Relation: “the unconscious memory of the abyss served as the alluvium for these metamorphoses (226). Alluvium is sediment, a sand or soil from the Latin root “to wash against,” invoking the erosion and transformation of matter, a vital part of deCaires Taylor’s aesthetics.

Although Glissant’s work has been engaged in terms of Caribbean and postcolonial ecocriticism, it has not been theorized in terms of what Deborah Bird Rose calls “embodied knots of multispecies time (“Multispecies Knots of Ethical Time,” 132). When asked about the visceral response to his submarine sculptures, deCaires Taylor replied it has “something to do with the history of time and how we place ourselves in the evolutionary scale. Many of us can’t help but wonder why we are here.

Underwater you are dealing with a completely different notion of time and it's confusing but fascinating; even for me when I return after a month and the work looks completely different" (qtd. in Patel). As artificial reefs, these sculptures embody "growth, change, and natural transformation," vicissitudes, and that process is largely dependent on multispecies collaborations of the reef.

Relation: Reef Ecologies

One of the indicators for the Anthropocene is the crisis in coral reefs across the global tropics. Largely understood as figures for biodiversity, "rainforests under the sea," coral reefs occupy less than one percent of our oceans, yet are home to nearly 1/3 of known marine species. Coral is a eukaryotic multicellular animal. The reef is an ecology-- a zoophytalite (animal-plant-mineral) form that grows so large that some can be seen from space. The hard coral of the tropics consists of a polyp surrounded by a limestone "cup" that it secretes, like the shell of a turtle. Although there are cold water corals, the tropical hard corals are the most accessible (in shallow, light-filled water) and most heavily represented due to the symbiotic algae who give it such dramatic color. These zooxanthellae reside in the tissue of coral, help it secrete calcium carbonate and remove waste; they also provide most of the coral's energy through photosynthesis. Like humans, coral are multispecies creatures; besides the symbiotic zooxanthellae there is a bacterial community in coral mucus that surrounds and protects it, not to mention the fish, turtles, hydrozoans, sponges, sea urchins, star fish, algae, and bacteria that are essential to its survival.

In addition to its figuring as a multispecies assemblage, coral signifies deep time. Its limestone structure means it layers growth like bone. As a colony, tube worms, bacteria, and mollusks help build the infrastructure. It grows extremely slowly, some merely one centimeter a year, and its life span is undetermined. Some of the oldest (shallow water) tropical corals known are 500 years old (Ta'u, American Samoa), while some deep sea black coral is thought to be at least 4,000 years old. Recently scientists have speculated that the corals of the deep sea may be the ocean's oldest living organisms; due to their skeleton-secreting habits they form a living continuity with their ancestors and multispecies community.²²

Ocean warming and acidification are causing a crisis in the symbiotic relations of a coral colony; the breakdown of these relations (specifically the loss of zooxanthellae) cause coral bleaching. It is said that over fifty percent of Caribbean coral has been destroyed since the 1970s, due to ocean temperatures and acidification, sewage and agricultural runoff, overfishing, and tourism. Ironically, coral control how much carbon dioxide is in the ocean and take it out of the water to build calcium carbonate skeletons, yet the crisis in their survival has tended to accelerate the atmospheric distribution of carbon. Coral reefs have had a long history of anthropocentric representation. Helmreich has explained that early western naturalists initially found coral to be "an assemblage of flesh and stone that generated speculation about the boundaries of the living and nonliving" ("How Like a Reef"). "For today's environmentalists, biotechnologists, and would-be coral genomicists, coral are something to be read — for climate change, for potentially patentable genes, for representativeness." (Helmreich, "How Like a Reef"). Iain McCalman's recent *The Reef* also poses the interrelations between human and coral history, turning to how the reef has figured as a space of terror, nature, and wonder in the Pacific. While the story of coral reefs has been anthropomorphized, like the concept of the Anthropocene, it has not been told

with enough attention to the differentiation between the humans who contribute to environmental pollution. Threats to coral reefs are not evenly distributed—predatory practices of transnational corporations and neoliberal regimes put far more pressure on resource extraction from postcolonial states of the tropics (overfishing, deforestation, the capture of tropical fish for the aquarium market) than the Global North. Thus “reefs are not just climatic barometers but also serve as indicators of North-South inequality” (“How Like a Reef”)

This entanglement, as Glissant would have it, of the history of a submarine ecology like a coral reef with the human is brought to the foreground in deCaires Taylor’s “Vicissitudes,” where the two children whose features have been so precisely captured in sculpture are continually transformed into a more-than-human assemblage. Here is a series of photographs taken of one of the boy’s faces over the past seven years:



The very human component that renders the initial sculpture to speak to “sea ontologies,” the specificity of a “shared knowledge” of relation between the children, has been reconfigured. Their faces in particular, what function as the synecdoche for the human, are no longer recognizable; this visibility of the face ordinarily figures the human as a singular species, while creatures inhabiting the face, eyes, mouth or other facial features often signify a terrifying multispecies being akin to the futurity of the genre of science fiction. Now that his face is covered with algae, encrusting sponges, and hydrozoans, the boy seems less accessible to human viewers, an alien, although all the more accessible to the multispecies bacteria and other creatures of the sea that establish coral reef ecologies. In her work on “embodied knots of multispecies time,” Rose speaks of a “generational time” that necessarily encapsulates death; a death that enables the existence of a new generation. Thus generational time is not necessarily understood in terms of species progressions, but multispecies sequences. In the transformation of the children of “Vicissitudes,” we see this generational death, and to draw from Rose, “we discern not [the] ‘face,’ but ‘interface’” (132).

There are (at least) three co-existing temporal strands that make up this “knot” in deCaires Taylor’s submarine sculpture. One might read the “Vicissitudes” in terms of the living past: in the present participle, the middle passage lives at the bottom of the sea reflect “hauntological time consciousness” (Baucom, *Specters of the Atlantic*, 31), a “creepy” submarine visibility that signifies the historical abyss and “these balls and chains gone green.” We might also read the transformed children as a future

species, aqua homo of a visibly multispecies Anthropocene, having merged with the other residents of an increasingly oceanic and tropical planet. Finally, we might read this in terms of the present, of the representation of two children from Grenada facing an unspoken threat and a commentary on the contemporary environmental crisis in the Caribbean—one that is not anticipated (or even seen from outside the region) but currently experienced, and the necessity for multispecies alliances in navigating through this crisis in the present.

Importantly, to make this encounter possible, the visitor must submerge into an alien aquatic environment. Stacy Alaimo has argued that:

Submersing ourselves, descending rather than transcending, is essential lest our tendencies toward Human exceptionalism prevent us from recognizing that, like our hermaphroditic, aquatic evolutionary ancestor, we dwell within and as part of a dynamic, intra-active, emergent, material world that demands new forms of ethical thought and practice [...] thinking with sea creatures may also provoke surprising affinities” (“New Materialisms,” 283).

In “Vicissitudes,” thinking with, interacting with, viewing, touching, and perhaps being touched with what Eva Hayward terms “fingeryeyes” opens up new opportunities for multispecies, submarine ontologies. Yet that should not take us outside of the local context to read a universal planetary crisis alone. This is one that is equally embedded--or submerged-- in local, contemporary context. This is the difference between the globe on our computers, as Spivak remarks, and a sense of planetarity, a sense of simultaneous continuity and discontinuity with alterity, with the limits of knowing. This recognition or submersion brings about ethical and epistemological transformations. As Nigel Clark has argued “To be vulnerable to otherness, theorists of embodiment insist, is not just to be open to being unmade, but to being remade into something other than what we are [...] to being propelled in new and unforeseeable directions” (*Inhuman Nature*, 249). These transformations, for the children of “Vicissitudes,” are truly unforeseeable, as their very eyes have been reconfigured by algae and sponges into other kinds of sensing mechanisms.

These transformations required by these new sea ontologies are not to be confused with the type of multicultural liberalism championed by globalization discourse; planetarity is the recognition of uncomfortable mergers, violence, digestion and indigestion (Haraway, “Anthropocene, Capitalocene, Chthulucene”), radical displacement from places, figurative and otherwise, that we may call home. I believe this requires a rethinking of the Anthropocene itself as the only model for imagining our futures, which has been readily critiqued for its anthropocentric bias.²³ As Anna Lowenhaupt Tsing asks:

We become who we are through multispecies aggregations. [...]This makes an enormous difference for our theories of ‘human’ action in the world. How can humans act as an autonomous force if our ‘we’ includes other species that make us who we are? If we are not an autonomous force, what about freedom – and must we then be slaves of natural compulsion? What might it mean for a multispecies aggregate to act upon the world?” (“Strathern beyond the Human,” 230)

The question as to who we mean by “we” (what nations, classes, races, genders, ages, nations, regions, species?) when we speak of “our” ecological futures is one of the great challenges to the Anthropocene. In a recent talk, Donna Haraway suggested that we put into play (at least) three different terms for figuring planetary futures. The Anthropocene, which helps to identify the human as (multi)species, the Capitalocene, which helps to locate the era in political, colonial, and economic time,

and a final term that I align with Spivak's concept of planetarity: "the Chthulucene. This term, Haraway argues, is for the "chthonic ones, the not yet finished, ongoing abyssal and dreadful ones that are generative and destructive." These are the subaquatic, the subterranean, the otherworldly others, because "it matters to destabilize worlds of thinking with other worlds of thinking, it matters to be less parochial. If ever there was a time to need to be worldly, it is surely now. And I think all of us lack many of the skills" (Haraway).

I leave you with this last image of the children, one of whom looks towards us, perhaps expectantly, but as a "moment in passing," it's not clear from which world:



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1 The history discussed here is covered in DeLoughrey, *Routes and Roots*, 22-42.

2 Proclamation 2667, "Policy of the United States With Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf." Discussed in DeLoughrey *Routes*.

3 There was ample black Atlantic scholarship before Gilroy; his work brought forward the oceanic contours, even if the ocean for him was not a material place (like Braudel on the Mediterranean). For the Pacific and Indian Ocean contexts, see Epeli Hau'ofa's *We are the Ocean* and Gaurav Desai's *Commerce with the Universe: Africa, India, and the Afrasian Imagination* (2013). There's a large body of work from the Pacific and Indian Ocean that I do not have the space to engage here but is discussed "Island Writing, Creole Cultures." *Cambridge History of Postcolonial Literature*. Ed. Ato Quayson. Cambridge University Press, 2011. 802-832.

4 See for instance Antonio Benítez-Rojo's *The Repeating Island*.

⁵ See DeLoughrey, *Routes and Roots*: 22; Steinberg *The Social Construction of the Ocean*, 245

6 See for instance DeLoughrey, Gosson and Handley's collection *Caribbean Literature and the Environment* (2005).

7 Stoermer, Crutzen, Chakrabarty, Steffen et al., etc

8 Chakrabarty et al

9 Doyle, Yusoff, etc here

¹⁰ See <http://www.seasteading.org/>. For an excellent analysis see the article by Steinberg, Nyam, Caraccioli.

11 I've adapted "geontologies" for another suboceanic, multispecies focused paper, "Ordinary Futures: Interspecies Worldings in the Anthropocene" in *Global Ecologies and the Environmental Humanities; Postcolonial Approaches*.

12 <http://www.underwatersculpture.com/sculptures/banker/>

13 <http://www.underwatersculpture.com/sculptures/inertia/>

14 <http://www.wanderingeducators.com/artisans/lives-artists/jason-decaires-taylor-museo-subaquatico-de-arte-musa.html>

15 <http://www.underwatersculpture.com/sculptures/anthropocene/>

16 See installation of Anthropocene here <https://www.youtube.com/watch?v=cxMORPFO5eI> See also the 60-ton "Ocean Atlas" in the Bahamas.

17 http://greenmuseum.org/what_is_ea.php

18 <http://www.underwatersculpture.com/sculptures/vicissitudes/>

19 https://www.youtube.com/watch?v=xR_uqkafk&x-yt-cl=84503534#t=16

20 http://www.askmen.com/fine_living/travel/moilinere-bay-sculpture-park.html

21 http://www.artcollectorz.com/artworks/artwork-detail?artwork_id=3458&edition_id=4495

22 <https://www.llnl.gov/news/deep-sea-corals-may-be-oldest-living-marine-organism>

23 DeLoughrey "Ordinary Futures".