Low and Slow

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Abstract:

Low and Slow investigates how video and performance can cultivate alternative modes of ocean-based education and advocacy. Working across four interconnected modalities, the dissertation considers how research creation in visual art can shift human–ocean relations by reorienting attention, sensation, and storytelling.

The first chapter examines the psychological, cultural, and capitalist implications of remaining on the ocean's surface. Using the 2019 Wish Whale performance as a point of departure, it analyzes three forms of surface encounter: the ocean's visible threshold; the living or deceased bodies of marine mammals; and Ron Broglio's theorization of surface phenomenology as a site of interspecies meeting.

Chapter two moves just below the surface through transitional and boundary objects as catalysts for oceanic research. Through interviews with artists and scholars, the chapter develops a set of video vignettes and interviews shaped around a series of to-scale ceramic whale eyes exchanged for collaborative responses.

The third chapter dives further, exploring states of being lost and resurfacing—both materially and metaphorically—through six letters addressed to a humpback whale named "Ursula." Interwoven autobiographical narratives and oceanic disappearance stories draw on Astrida Neimanis' Bodies of Water to frame a feminist posthuman hydrocommons.

The final chapter turns inward, tracing the physiological and sensorial transformations of freediving. Designed as a meditative performance script, the chapter reflects on bodily change, Eva Hayward's concept of "fingeryeyes," and the regenerative capacities of starfish in relation to trans embodiment.

All practical components are housed within a virtual ocean environment, enabling viewers to navigate texts, videos, performances, and sculptures. This evolving space serves as a platform for future artworks and collaborations oriented toward oceanic care and conservation.

Website: https://lowandslow.cargo.site/

Keywords: Research-Creation, Marine education, Video Art, Performance, Post-Humanism, Queer Ecologies, Marine Mammals

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Introduction

This dissertation is not built upon one set of linear arguments, or a single artistic strategy related to marine mammals. Instead, I have experimented with four different modalities that I propose as potential ways forward for the role of video and performance in ocean education and conservation. Through four different propositions in practice-based research, my goal throughout has been to take critical work in performance studies, human-animal studies, feminist posthumanism, naturalist writing, the blue humanities, and queer studies and experiment with new forms that could help us submerge this research in new conversations and artistic practices. The first modality I look at is that of surfaces and the psychological, cultural, capitalist implications related to remaining on the surface. Thinking about initial encounters with the ocean and with marine mammals assisted in establishing some predominant themes that have led to this critical moment with the ocean, where the harmful and pervasive commercial and military practices embedded in western policies have done irreparable damage. My attempt to do this starts with the performance and script for "Wish Whale." Performed originally in 2019, the Wish Whale performance and documentation act as a starting point for this dissertation. In this multi-media whale tour set in 2030, I look at three different types of surfaces. Namely, the surface of the ocean itself; the surface of the flesh of marine mammals, which we witness when they are live in the ocean and come up for air or deceased on the shore; and Ron Broglio's work in Surface Encounters where he argues for an animal phenomenology through our surface interactions with animals. Through examining the cultural and political ramifications of a speculative video-based whale watch taking place in the near future, I can begin to explore what may change in terms of perception and behavior toward the ocean when we venture away from land-based perceptions from the surface, and toward a water-situated perspective.

My projected date for the tour, 2030, is not very far away. My hope was that the development of a performance in the near future, one as dystopic as it was misguided, would create the sense of urgency necessary for the immediate and dramatic changes in behaviour that are necessary for the survival of many species. Further, the “wish whales” in the speculative tour represent whales that have already passed away, but that the tour guides sense in the water, and tell their stories. It serves both to remember the whales that have passed, and as a sign that with fewer live whales to show, the tour guides have had to get creative in terms of what and how they conduct their tour - essentially acting as a ghost tour and a whale watching expedition simultaneously. By switching the script from “we will lose this” to “what happens when we have already lost it," I am hoping to place the audience in a position where they speculate about what five or ten years from now could look like for the ocean, and thus for the world, if we continue to hold these surface beliefs that are intrinsically linked to late capitalism. Further, I see this performance tool of creating speculative tours from the near future as a method I would like to continue to use in my own work, and also develop as part of a larger performance-based pedagogy for ocean conservation. The modality used for the second chapter involves transitional/boundary objects and how they can enable other forms of oceanic knowing, marine kinships, affective knowing, "subscendence" and social practice. It attempts to go beyond the surface through a series of interviews with artists and scholars. This chapter creates small vignettes of practice-based research from many perspectives. Initially, I made a series of to-scale ceramic whale eyes which I gave to artists and scholars in Toronto. I asked them, in exchange for the eye, to collaborate with me in choosing a text related to their respective whale, and to make a short accompanying art project. Thus, the second chapter focuses on loose associations to different species of whales, seals and dolphins from multiple perspectives. Perceiving this as just below the surface, as each participant found a

point of interest with a select marine mammal, I interviewed them on this connection and we developed a short creative project related to these concepts together. Tiffany Schofeld, who was given the ceramic eye of a sperm whale, researched and made an accompanying video on the potential relationship between the sperm whale's clicking for echolocation and ASMR. Véronique Sunatori was given the eye of a blue whale and focussed on their ear wax plugs and what they can tell us about their lives and stress levels, as well as their lives as solitary creatures, whose mating calls have been getting deeper over time. Shalon Webber-Heffernan, when given the eye of an Orca, focused on maternal grief. For the practical component, she chose to create a children's workshop based loosely on the children's book *The Spirit of Springer.* Rodrigo Marti took a different approach, using the Bowhead whale eye as a prompt, learning about them through researching images to draw and speaking about his automatic drawing approach; and lastly, Andrew Bateman decided to take his Weddel Seal eye freediving and focused on Timothy Morton's idea of subscendence. When completing this dissertation, and with a prior vested interest in the subject, it has been challenging to step back and gain perspective on how others may come into thinking about a particular species. This chapter is an attempt to do this.

For me, this led to different avenues of research that would not have emerged without the interests of others, whether it be earwax or maternal grief. The practice-based component of this chapter is two-fold, firstly by creating sculptural boundary objects through the ceramic marine mammal eyes. and secondly by inviting those selected to conduct a small experiment attached to their research around the chosen whale, seal or dolphin. This chapter serves as my way of going deeper into the practice-based aspects of this project. Coming from an education in social practice, writing this dissertation was in some ways counterintuitive in terms of the solitary nature of the work, which was compounded by COVID-19. *Boundary Objects,* particularly

thinking through them in relation to Natalie Loveless' book on practice-based research, *How to make art at the end of the world,* allowed me to forge necessary connections between practice-based research and social practice. In the accompanying website attached to this thesis, this chapter is given the most space, as each participant has a separate video. Making connections between the clicking and communication of Sperm Whales and ASMR, or the concept of subscendence in relation to the Weddel Seal assisted me in not only learning about how others may come into creating a deeper connection with marine mammals, but also exciting avenues for me to explore in further work past this dissertation. It was important for me to think through new ways of inviting people into research. At heart, I feel strongest as a collaborator, and a lot of my interest in art has been built off a foundation of collaborations with others. This chapter was crucial not only for further research, but also to maintain a collective energy in what can be an isolating process. Before beginning the PhD, so much of my arts practice was fuelled by collective energy. At the same time as I was attempting to do this with this thesis, I was doing this with the fertility process. At its core, I believe that challenging individualist western practices of how any type of "baby," whether it be a dissertation or a child, should come into this world, is crucial for my wellbeing and, at the risk of sounding dramatic, my survival.

If you dived into the ocean, and were at a depth where you were just starting to feel the pressure, and were planning to dive much deeper, what do you need in this moment? What does this look like in terms of research? Or artwork? In a way, the surface and the depth were easier solutions, but it was this middle point, where the pressure starts to build, that was the hardest to conceptualize. My answer to this chapter was to go both intergenerational and metaphysical. Chapter three, *Dear Ursula, you go to a place where I cannot reach you,* felt like the most personal chapter. Within this chapter, I focus on disappearance and loss and focus on further

desedimenting human perspective through states of attunement or deconcentration, the inhumanity of the Zong, becoming comfortable with the "unknowable" and the unrealizable, as well as looking to art to provide "proxy stories."

This chapter attempts to dive even further down to examine some of the metaphysical, mysterious, and hidden parts of the ocean and its relation to a specific humpback whale named Ursula. Ursula resurfaced after many years of not being seen this past summer in the Bay of Fundy. Based initially on a story told while conducting research in San Pancho, Mexico, this chapter focuses on ways that we become lost and resurface in relation to the ocean – both literally and metaphorically. Set up as a series of letters to Ursula, the chapter explores my family history with the concept of being lost at sea, as well as a series of related stories about disappearing in the ocean. Woven through the letters are the theories espoused in Astrida Niemanis' book *Bodies of Water* where she crafts an argument for a feminist post-humanist conception of connecting our watery bodies to a larger hydrocommons in the hopes that it can lead us to a broader understanding of self, and a deeper connection and consideration of the bodies of water that we make and that make us.

This chapter is accompanied by a video work entitled *Wicked Game.* For the month of February 2020, I worked with marine-based organizations in San Pancho, Mexico while attending the Lilha ecological residency. When there, I was interested in learning the identities and patterns of the pacific humpback whale population during the breeding season as well as exploring new ways of creating stories with marine mammals. The interviews pose alternatives to seeking whales out in the ocean and describe experiences where the whales have travelled to the interviewees, both actually and spiritually. The accompanying video work layers small segments from the San Pancho interviews with Katie Kim's cover of the song *Wicked Game* and clips from

whales in mainstream movies, advertisements and cartoons. In this video, I moved away from a direct translation or scripting of the written and practice-based components of this chapter, and developed a loosely related video project that explores an esoteric process of envisioning and dreaming with animals.

More than the previous chapters, this chapter felt like a necessary purge and a grief laden series of connections. Through Astrida Niemanis' explorations of a hydrocommons, I was able to extend these big feelings in space and time outside of my body, and into a larger watery existence exploring my connection to bodies of water, as well as a series of stories about being lost at sea that are personally linked to my thinking about the ocean and its inhabitants.
My last chapter addresses embodied, physiological transformation and forms of knowing via freediving. It is an exploration intended to force a disorientation of the senses (fingeryeyes as the main image) and a search for "sensory solidarities" (metaplasm as a reworking of sensory boundaries), while allowing for an expanded understanding of trans* as a process which humans are also engaged in; with the ocean as "trajectory" rather than territory or telos. It includes instructions, through a performative meditation on how freediving can act as a creative modality. In this chapter, I focus on the physiological changes that happen to the body when freediving. Constructed as a meditative performance that goes through the process of a dive, I constructed a separate dialogue beneath the surface to think about the dive in the context of bodily transformation and Eva Hayward's concept of "fingeryeyes" as a way to orient to our sensorium differently within water, and the regenerative qualities of a starfish as related to the trans female experience.

Perhaps like the process of freediving, *Low and Slow* was developed as a destination before I had all of the pieces in place for how to get there. My ears never allowed me to dive as deep into the ocean as I was hoping, and holding my breath for two minutes at a time was incompatible with fertility treatments. The release and transformation I had wanted through learning how to freedive for this chapter never really delivered as I had hoped. Instead, what emerged was frustrated and ultimately generative thinking around how these physiological changes in the water and on land were part of their own process that I couldn't simply theorize and execute. Integrating Eva Hayward's texts *More Lessons from a Starfish, Fingeryeyes, Tranimailities,* and her interview from TBA21's *Ocean Wants,* felt like it extended this chapter, and the idea of physiological changes into awkward and necessary places. It developed beyond my initial idea that as our bodies adapt to the ocean through freediving, a physiological connection is made with marine mammals, toward deeper understandings of transformation and our sensoria in relation to harmful colonial practices of categorization and ordering. The process of learning how to freedive, and this chapter, were not the release or destination I had originally hoped for and instead felt much more like Hayward's furthering of Haraway's concept of staying with the trouble to going into the trouble. Perhaps at this point in the dive, you are not turning around and gradually releasing the pressure and eventually exhaling, but staying down.

Throughout this dissertation, I wanted to celebrate and keep very close Alexis Pauline Gumbs' book *Undrowned.* In many ways, I feel like this thesis borrows from, and celebrates this book as something that successfully, beautifully, and deeply achieved much of what I had set out to do, with the necessary work of thinking through the pervasive effects of the middle passage not originally present in my dissertation proposal. I was deeply inspired by the way Gumbs

connected marine mammals to the history of the trans-atlantic slave trade and because this is not an experience I embody, felt that keeping her work at the fore honoured this history.

The practical works attached to this dissertation will be housed in a 3D virtual ocean space that will be constructed from 360-degree panorama photographs taken from a freedive at Fralick Cove in Brooklyn, Nova Scotia. The writing, scripts, videos and sculptural documentation will also work from the surface to the depths, aligning with the chapters from the surface with *Wish Whale*, to the depth with *Low and Slow.* The virtual exhibition is intended to place the viewer at the center of the ocean space. By clicking on different points within the journey, the viewer can experience the text, video and performance works from this dissertation floating at different points in the water. Over time, the virtual space allows for a structure that can host different artworks and artists, performances, and collaborations to promote ocean conservation.

Chapter One: The Surface through Wish Whale

Figure 1 (Wish Whale screenshot 1)

Good afternoon, everyone…

Before we head out, I am just going to take a few minutes to introduce myself and the cruise. My name is Ella Tetrault, and I am a Ph.D. student and whale enthusiast. I first came here as an artist and researcher 11 years ago, in 2019 and I am very excited to be leading my very first whale watching tour with you here today![1]

[1] The first chapter of my dissertation is an attempt to start on the surface of the water, which for me begins on Brier Island, Nova Scotia where my childhood encounters with humpback whales in the Bay of Fundy created a lifelong fascination. Using the screenshots of a digital recording from my performance *Wish Whale*, performed in 2019, the script, screenshots, and footnotes are an attempt to re-think my experience from five years ago before I had begun to dive further into this project and the water.
There are three interlocking perceptions of the surface I will explore to lay the groundwork for diving into the depths. The first surface is the surface of the ocean and its social construction as both a flat surface for commercial transportation of goods and military battleground (Steinburg); the second is the surfacing of marine mammals both living in the water and beached on the shore, and our access to the scarred surfaces of their bodies; the last is Ron

Our captain is Linda, she has over 50 years' experience navigating the bay, and she goes lobster fishing in the wintertime on this-here boat. Yes, this boat does go lobster fishing from the end of November until the end of May. All of these screens have to come out, that table comes out (points), this monitor comes out (points) and that stern board also lifts off of there (point to back) so the lobster traps can be sent from the back. So, it does look different, it smells different, Linda smells different (pause, wink).

Figure 2 (Wish Whale Screenshot 2)

Broglio's work in *Surface Encounters* on carving out an animal phenomenology by accepting the surface as a site where our encounters with animals take place and the role of art in articulating the "friction and gliding between human and animal worlding" (Broglio, xxiv).

Just a little bit of history about ourselves… we started as a research organization back in 1980, and the reason why we started was because of a group that is down in Bar Harbour called Kindred Whale; they have been studying humpback whales since 1970. [2] *If you're familiar with the history of humpback whale research, you'll know that when a whale brings up its tail on the underside, there is a black and white pattern unique for every whale. It's just like our fingerprints; there's no two the same. So, what they did was they photographed the whales, went back home, and compared those whales with the catalogue they did and what do you know? The whales that came up here were actually the whales that had left their area. They had found their whales!*

[2] Although the names of the organizations have been fictionalized, the history of humpback whale research follows this trajectory very closely. The actual organization, Allied Whale, began their humpback whale research in 1972 ("Allied Whale"). The discovery of many marine mammals can be identified by unique markings; with humpback whales being identified by the unique patterns on their flukes, and right whales being identified by the skin on their head, also called callosities. Small whales can also be identified by their dorsal fins. The North Atlantic right whale was thought to be extinct until sightings were documented in the 1950s, essentially leading to the rediscovery of the species. It is a tedious and collaborative model, which involves, "Meticulously recording the whale and dolphin observations that are made during vessel-based surveys" ("Handbook") while encountering the animals as they come up for air which can determine which species are present at any particular time of year. This, in turn, can determine where to go whale watching, where marine protected areas must exist, and where fishing policies and environmental impact assessments need to take marine species into account. This is often done through photo documentation and, in a place like Brier Island, where a small population of humpbacks return year after year to the same feeding grounds and teach their calves to do the same, some individuals have been monitored for over 40 years, in the Gulf of Maine, whale-watching data has contributed to over "75 peer-reviewed scientific papers on humpback whales and other species" ("Handbook"). Through this monitoring, a host of important information can be gleaned about their growth, life, history, migratory pattern, and populations ("Handbook"). Increasingly, as platforms like whale map, whale alert, ocean seeker and Flickr, among others, pop up, this photo documentation and recording can be done by citizen scientists, fishermen, and tourists.

Back in the 70's, the fine people of Kindred Whale wanted to know if the whales were going to be coming back to the same area year after year, so they came back the following year and they did the same thing. At this time, people caught wind of the whales in the Bay, and they wanted to see them too. Whales are fascinating! We all want to see whales! I mean, what are you doing here? (pause). You all want to see some whales. So, Linda thought about it, and she thought this would be a good way to fund the research. It also would be a good way to educate the public about some of these whales, most of whom are critically endangered today. [3]

[3] When I travelled to Brier Island in 2019, the North Atlantic humpback was considered a species of special concern. I also happened to be there in a year where not a single calf was spotted by the Brier Island research team. Further, the observation was often made that the humpback whales looked skinny, and perhaps were not getting enough krill to eat. The North Atlantic right whale at the time of my visit was critically endangered and was estimated to be extinct by 2040 ("Right Whale"). I chose 2030 as a date for this tour because not all the numbers of different whale species are critical, yet I see the plight of the right whale as a very possible fate for most marine mammals.

Figure 3 (Wish Whale Screenshot 3)

Now, as we have seen in the media, today, the ocean has changed, and there are fewer krill on the bottom, unlike in 1974, or even when I started in 2019, we rarely see whales go down for a deep-dive.[4] *As a result, it has been more and more challenging to identify them by their tails. However, if you know the whales well, which we do, you can also identify the whales by the shape of their dorsal fins. In humans, this would be like the difference between identifying someone by their fingerprint, or by the shape of their nose. Also, 80% of the remaining whales will become entangled in their lifetime. Although upsetting, it has allowed us to switch our data*

[4] If not on a screen, we first encounter marine mammals as they come up for air or wash up on the shore. With this chapter, I hope that through exploring key aspects of our terrestrial obsession with the strong and finite surface of things, we can *unmoor* (Ron Broglio's term) (xx) ourselves from surface-based thinking and begin to see ocean worlds and their inhabitants from a submerged perspective. From here it is up to us terrestrial dependents to become as Alexis Pauline Gumbs says in *Undrowned*, "depth mammals" (176).

collection from the unique patterns on their flukes, to the unique scarification often present on their dorsal fins.[5] *You are all holding models of the dorsal fin of one of the whales that have come through here over the years. Feel free to hold it and keep it with you for the tour.*[6]

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[5] At the beginning of *The Social Construction of the Ocean,* Philip Steinberg tells the story of 2.5 million worth of Nike footwear lost at sea on the Hansa shipping carrier. Through this example, Steinberg is trying to illustrate the overlapping ways we have socially constructed the Ocean; as a flat transportation surface by Nike and the insurance company; a resource provider by those who collected the footwear as it washed ashore in the preceding years; and a "discrete set of locations" to monitor ocean currents by oceanographers (2). Although the ocean as a resource provider has everything to do with the plight of whales and whaling, for this chapter, I am interested in the surface of the water as seen from a commercial history perspective, still of the utmost importance in relation to the plight of whales. In 1996, 95% of world trade by weight, and ⅔ by value were still carried by ship (14).
Seeing the ocean as a flat transportation surface, in some societies, although not universally, also lent itself to the ocean as a site for transporting not just goods, but troops, and as a battlefield between territories. Constructing this space for commercial and military purposes, Steinberg argues, is not a formless void, but a "specially constructed space within society" (23), with the overall trajectory of capitalism progressing with the hierarchal creation and organization of places such as the ocean serving very particular commercial and military functions.
The construction of ocean space is, in some ways, the opposite of the social construction of territory in the sense that it has been conceived as a "non-territory" and one resistant to filling and development. Steinberg goes on to describe the representation of the Ocean in the mercantilist era as a wild space, filled with untameable elements. He gives the example of the opening scene of Shakespeare's *Tempest* as a space constructed beyond civil law to illustrate his point. Moving into industrial capitalism, he argues the sea became blank once again, "Rather, the sea was constructed, like money or markets, as without social "roots" beyond society, politics or the other 'artificial" social constructs that could interfere with the "natural" free flow of capital" (114). As seen through the role of the harpoonists in Herman Melville's 1851 novel *Moby Dick,* the people who know the marine world best are depicted as "savages," outside society and "terrestrial places of progress" (114). The drawing of the ocean on maps, in turn, diverted from being colorful and teeming with monsters and fish to a "blue, formless expanse" (114).
Steinberg argues that sea power from nation-states, dominated by Britain until the late 19th century, sought to maintain this industrial capitalist power by "projecting this power to distant lands" (151) arguing that even the German use of the U-boat during the First World War was intended to attack free commerce and the "global economic vision of free trade" (154). Arriving at postmodern capitalism, Steinberg asserts that it is still a space of flexibility and speed, with corporate imagery perpetuating the Ocean as empty space (165).

[6] This projection begins to glitch when whales are seen entangled in the water or on the shore. In Jen Neale's 2015 magical realist novel *Land Mammals and Sea Creatures*, the protagonist Jennifer Bird and her father Marty are out to sea in a small boat, when they suddenly brace themselves as a blue whale speed by and beaches itself on a nearby shore:

The whale, with a last push, reached the shallows. It emerged from the water past… Its eyes and slide along the sand until finally, as its last motion, it rolled sixty degrees, onto its right side, its tail still curled into deeper water. A freight train derailing, it folded in on itself, crumpled by its own mass and speed. Waves lapped around the whale's bottom fin. Its length took up half the shoreline and blocked the view of the orange tent and the spruce. Out of water, its form flattened against the sand. A deflated inner tube (24).

Figure 4 (Wish Whale Screenshot 4)

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Even in this description, the whale is described via transportation vessels as if the fate of the whale is so intertwined with trade routes and transportation it even resembles a freight train when it beaches and an inner tube when it dies. When we see dead marine mammals on the shore or floating in the water, we are confronted with the implicit knowledge that the "unknowability" of the Ocean depths also renders us helpless to reverse our actions. The devastation to the oceans from a variety of human activities guarantees that "countless species of marine animal plants and organisms will be rendered extinct before they are even discovered by science" (Chaudhuri, 2017, 204). Encountering a marine mammal on the shore is a reminder of, in Chaudhuri's words, "the fraught context," (2017, 204) we exist in with the ocean. As the false sense of knowable surfaces begins to degrade, and the material evidence of international trading routes remains in the ocean and on the shores, ocean worlds disappear.
Having just moved back to Bush Island, Nova Scotia, I am once again in the land of marine mammals washing to shore. Last week, while walking on Cherry Hill beach, we came across a harbor seal washed ashore. It hadn't been there very long, but already had a hole in its side from what I guess was another animal. I had never seen their sweet, webbed feet before. Closer to the shore, we found what we thought to be a piece of the spine and I decided to take it home. Upon further inspection and some deep google searches, I discovered that it was too big to be from the seal, and likely belonged to a much bigger marine mammal, maybe even a piece of the Blue Whale that had washed up on the shore of Sambro, Nova Scotia in September 2021. Whether venturing out to Sea on a whale watching tour, or stumbling across bones on the beach, these encounters act as an invitation to move beyond the surface of the water, and the surface of their skin and bones toward a deeper understanding and kinship.

7 A friend once told me that she stopped making pottery because she was disturbed that ceramics never completely disappear. This reminded me of a trip I once took to Lamu, Kenya. When there, I would walk along the

Figure 5 (Wish Whale Screenshot 5)

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beaches and pick up very old pieces of porcelain on the shore. Lamu, a small island on the former Chinese - African trade route, has a wealth of ceramics that were once traded as one of China's first goods for Maritime trade. For an earlier video project *When Whales Wash Ashore,* I addressed the demise of the North Atlantic right whale in the Gulf of Maine in 2019 by filming myself constructing a whale fin out of clay, cutting into the fleshy surface of it, building a relic of a whale, one that could always be found on the shores past the extinction of the live whales in the Ocean. The construction of the humpback whale fins for *Wish Whale* is an extension of my material exploration in thinking through how to represent the whales that I have seen out here on the bay. Although humpbacks are identified through their tails, for those who know them well, they can be identified by their dorsal fins. The whale's white scars have become important evidence of their struggles with human-made encounters in the ocean, rendering their dorsal fins even more unique and recognizable.

8 The dorsal fin represented above is from Sockeye, one of eight humpbacks spotted in the Bay of Fundy during my time there. Based on my filmed footage and images from Flikr accounts, I constructed the dorsal fins of eight whales spotted in the summer of 2019 in the Bay of Fundy with special attention to the white scars on their dorsal fins, sculpted with clay, a material that I find lends to the imperfections of flesh well.

So here we are today. Although the seascape has changed, research is still a very important component of what we do, we still do it on a daily basis on every cruise, and guess who's still paying for it? You are. So, thank you for coming out with us, we really appreciate it, give yourselves a round of applause (pause).[9]

Figure 6 (Wish Whale Screenshot 6)

[9]A large part of my time on Brier Island and the creation of *Wish Whale* was an attempt to create a space where marine mammal research and disentanglement efforts could be highlighted through virtual and performance-based tours where an audience could develop a kinship to marine mammals, as I had done on live tours as a child, without setting out to Sea. This is based on the assumption that video and performance have the power to create an effect different and stranger than what is available in documentary films, natural history museums, and other forms of media about the Ocean. As Melody Jue described in her book *Wild Blue Media: Thinking Through Seawater,* the ways we speak adhere to a "surface-specific" view of the world, which are filtered down through milieu-specific and surface-specific language. She advocates for a submerged perspective to begin to conceptually displace the normative (terrestrial) environment through "dislocating terrestrial nurtured thought" (7). This dislocation can take place through physical immersion, technically mediated immersion, as well as through literature and the arts.

Underneath the Bay of Fundy, there are many steep drop-offs and when you have the rushing tide hitting those ledges it is just like hitting a brick wall, the water has nowhere to go but upward. So, there's constant upwelling out there, and that is driving nutrients right up to the surface.

So, ledge areas are great places to start looking for whales, but they are not designated whale spots. They are not just out there waiting for us, we didn't tie them up yesterday when we left them, and they are not in cages like the salmon. We can't whistle and call them in (pause). They are wild animals and we do have to look for them.[10]

How do we do that? Just as they did in the whaling days, we are just looking for spouts, splashes, a clear footprint on the surface of the water, an exhale.[11] *But, also, there are other*

[10] In 2009, Google Earth mapped the bathymetry of the ocean with the data available at the time. It was the first time the bottom of the ocean was available to see on digital devices; there are areas of the Ocean that are less mapped than the far side of the moon. This became a hot topic of conversation in 2014 with the complete disappearance of the Malaysia Airlines Passenger Plane in the South Indian Ocean, stirring up a panicked media frenzy about the inability to locate it with current GPS systems (Earle).
In *Interspecies Diplomacy in Anthroprocentric Waters,* performance scholar Una Chaudhuri also sources the Malaysia Airlines flight 370 to write about the Ocean's "essential unknowability" (202). The ocean entertainment industry, alongside GPS systems and Google Earth, she argues, has created "some serious cognitive damage" (207) by wrongfully convincing us that we can locate everything. The public incredulity attached to the disappearance of the flight brought to the surface our false sense of entitlement to the earth's waters and the creatures in it. She cites Susan Davis' analysis of an early Seaworld slogan, "touch the magic," to explore the false and damaging attitude that we are able, with our hard-earned dollars, to freely access any and all aspects of the ocean (200). She points out that even our naming of the deepest layers of the ocean, namely, the Abyssal zone, which is linked to the concept of bottomlessness, and the Hadal zone, named after the Greek underworld of everlasting darkness, reflects the anxiety we have about what is still unrevealed to us, despite our technologies. I dive into this concept more in Chapter 3.

[11]In artist Hito Steyerl's essay "In Free Fall: A Thought Experiment on Vertical Perspective," she describes the current moment (2011) as in a state of groundlessness, which she partially attributes to the loss of a stable horizon and thus, a stable "paradigm of orientation" constructed from the perspective of an objective observer from the ground, a shoreline, or a boat. The false construction of a "one-eyed and immobile spectator" ("In Free Fall") of the horizon line helped men orient at sea and thus enabled capitalism and western dominance. Because linear

whale watching boats out there, and we are in communication with them. So, if they see something we will have a good idea where they are… but if we happen to find something first, we'll just keep it to ourselves! Just kidding, we'll share after a bit (pause).

We have been having some really good trips. We have had evidence of some humpback whales in the last few days. Every trip is different. You never know what you are going to see. We could see a splash, we could see two, we could see twelve. We could see something right away, sometimes it takes a little bit of time. So, we're going to do the best we can and try and show you as much as we can as well.[12]

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perspective is "calculable, navigable, and predictable" ("In Free Fall") it goes beyond enabling orientation and also introduces notions of linear time, and linear progress through the assumption that we are standing on stable "ground" looking toward a vanishing point.
Steyerl argues that this perspective simultaneously empowers the viewer by placing them at the center, and disempowers the viewer by taking away from the viewer's individual, subjective perspective through creating a false objective law of representation. Through this universal claim, linear perspective is instrumental in its own downfall. Steyerl gives the example of the J.M.V Turner painting *The Slave Ship* (1840), a painting based on the tragedies of the *Zong,* a real event where the captain ordered all dying and sick slaves to be thrown overboard for insurance purposes. The painting depicts the instance when the slaves begin to go under the water. In it, the horizon line is not stable. Linear perspective and thus, the position of mastery and control is abandoned by the horrors of the murderous sight, "Space dissolves into mayhem on the unstable and treacherous surface of an unpredictable sea" ("In Free Fall").
During the twentieth century, Steyerl argues, linear perspective became less and less certain, guided by new techniques in entertainment and military ventures through cinema, montage, different perspectives and abstractions in painting, quantum physics, and aviation. With increasing access and interest in generating a "gods view," many aerial perspectives (like google maps) create a new, dominant perspective with an "imaginary floating observer and an imaginary stable ground" ("In Free Fall") that turns into a disembodied, intrusive proxy view. Steyerl concludes her essay by suggesting that this perspective can also shatter the horizon and launch us into a state of free fall where we, "no longer know whether we are objects or subjects" ("In Free Fall"). She argues that if we accept the multiplication of horizons, as in free fall - something that has become more and more popular in cinematic space and 3D animation, this can lead to a "new representational freedom" and dismantle the assumption that we need to "ground" at all "(it)sparks the sudden shock of the open: a freedom that is terrifying, utterly deterritorializing, and always already unknown" ("In Free Fall").

[12]Although less of a guarantee, and not as exploitative as Seaworld, participants of the whale cruises are hoping for the most surface-time with a whale as possible. It is very hard not to fall into what I have deemed "ocean entertainment mode." The obscured and amateur editing of the video on the original performance is an attempt at

Is there anyone that is interested in the wish whales today? Ok…. for the rest of you, we're showing you anyway. For those of you who have not heard of the term, a wish whale is a deceased whale that we believe there is still evidence of in the harbour. This doesn't mean you are seeing a dead whale… but we do like to point them out because you are only going to see them by going out there on a boat. Although it can be sad, we will do our best to make this as well-rounded as possible. So, I am going to point out everything - evidence of a whale, or a wish-whale. I am going to tell you everything I know about the whales and their stories. But if you have any questions, please feel free to ask, because we want to make this as educational as we can.

What else? Garbage cans are right here at the front. Please use them, please don't throw any garbage overboard, there's enough trash out there, we don't need to add to that.
Speaking of overboard, lifejackets! We have one! (pause) Just kidding, we have seventy. They are all underneath these three benches here at the front. The wheelhouse is out of bounds, but if you have a question for Linda, you can just ask through the doorway. Please don't block the doorway because we need to go in and out of there all the time to write down our data.

As I mentioned, I am very excited to be leading the tour for the first time. Aside from being a whale enthusiast and life-long Ph.D. student (pause, look at supervisors), I moonlight as a self-described DJ. I am pleased to announce that for the very first time in the history of this whale

disorientation wherein showing participants as much as I can also involves frustrating the horizon line through video editing techniques and shaky cinematography.

watch, I have curated a special playlist to accompany us on this journey. It is new, I am completely open to feedback and suggestions, it is my hope that it makes your experience more enjoyable, and of course, as always, it is my hope that the whales and wish-whales like it too. [13]

One more thing, and it's not really a subject that I like to bring up, so to speak (pause). If you are not feeling well. The worst thing to do is to go into the washroom, it will feel like you are in a washing machine. Stay out, focus on the horizon or something still. Take deep breaths of that fresh sea air. If you're up top do us all a favour, please come down, that never ends well for either deck. And if all else fails, just make yourself over to the railing - people will give you plenty of room and lean over and have a good look at our remaining fish.

Alright Linda, let's get going! I hope everybody enjoys the cruise (cue "Everywhere" by Fleetwood Mac).
"Can you hear me calling out your name? You know that I'm falling and I don't know what to say. I'll speak a little louder, I'll even shout. You know that I'm proud and I can't get the words out. Oh, I…I want to be with you everywhere. Oh, I…I want to be with you everywhere (Wanna be with you everywhere (Fleetwood Mac, 0:36) [14]

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[13]Although not the practice on Brier Island, with the introduction of pop songs for the tour, I am invoking a large part of animal tours around the world where watching whales is part of a larger booze-cruise or entertainment program where tour guides will blast music to set a jovial tone for a tour. With this "curated" playlist, I am taking love-based sentiments from pop culture namely: desires (and entitlements) to be with something everywhere and all the time; holding onto the memory of something despite its disappearance; the notion that whales have died in large numbers for our existence; that many whales are in a state of constant struggle to stay alive and lastly; that it's maybe too late to say sorry. The effect of this is intended to mimic entertainment-based animal tours, as well as to redescribe these love songs to the whales and our (my) relationship with them, instead of humans. It is meant to feel a bit manic, like a mood is being superimposed on the tour-goers that is a bit off given the state of the Ocean.

[14]This song is intended to loop back to notions of entitlement to the Ocean and its inhabitants. Speaking to a larger trend to travel to charismatic mega-fauna, the song is being redirected toward the need for us to visit and view the

Figure 7 (Wish Whale Screenshot 7)

whole animal in its “natural” habitat accompanied by edited Ocean footage, with split screens, repetitive shots, and screens within screens to speak to the unreality of the digital interface and to trouble the stability of the horizon, ala Hito Steyerl.

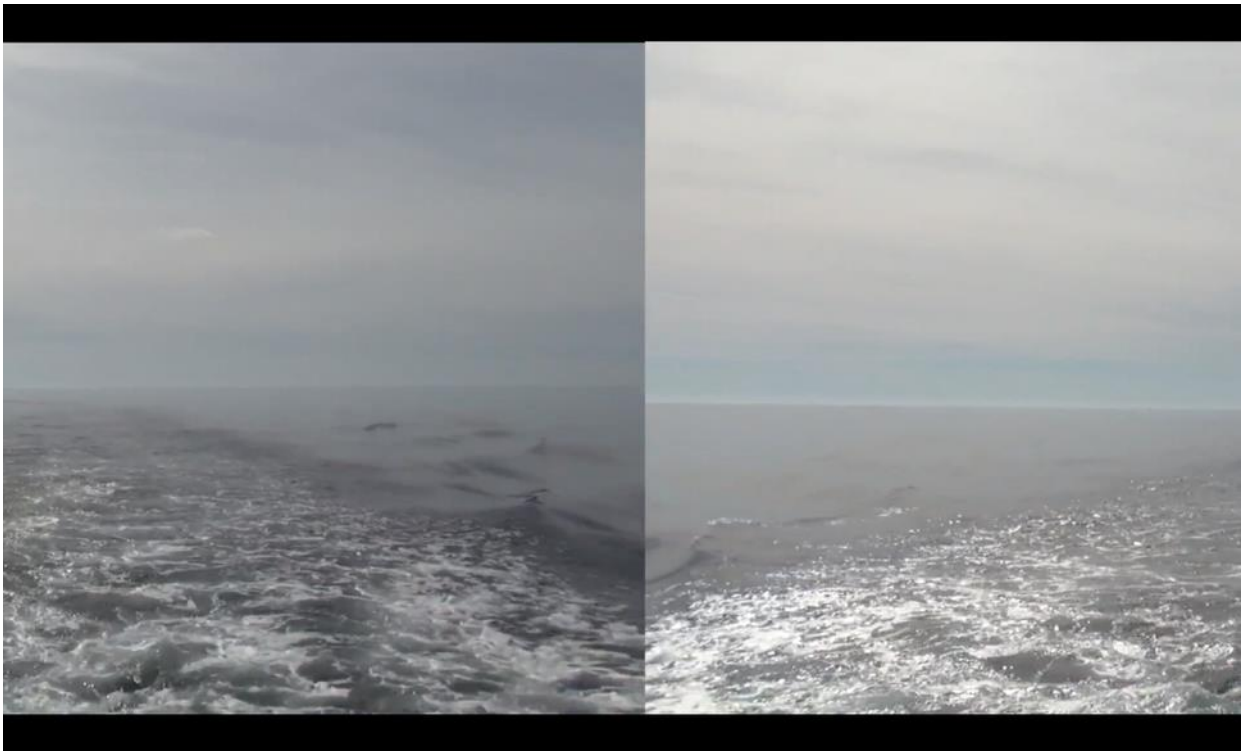

Figure 8 (Wish Whale Screenshot 8)

Figure 9 (Wish Whale Screenshot 9)

Figure 10 (Wish Whale Screenshot 10)

(Interrupt with whale exhalation)

Figure 11 (Wish Whale Screenshot 11)

Ok, we are very lucky today - we have run into a wish whale before we have even left the harbor! What I think we are seeing and hearing here is Peajack. Peajack is probably the most famous whale up here. She was first sighted in the Bay in 1995 and returned in the following years. She could often be seen off of Peajack Cove on the Island and eventually, the town decided to officially name her Peajack. Peajack returned every year and in 2012, she brought her first calf back with her, and her second in 2016. Unfortunately, in 2017, as the island looked forward to her return, we found her floating in the harbor. Her death appeared to be from entanglement. There were several ropes wrapped around her peduncle and tail, with a trap hanging just below. Although they had planned to bring Peajack to shore for a full necropsy, the incoming weather

from hurricane Florence posed too many challenges. We believe that is why we can still hear her and see her in the harbor. [15]

[15]In *What Would Animals Say If We Asked the Right Questions?* Philosopher Vinciane Despret echoes Donna Haraway's notion that it is necessary to find a way that has not been invented yet to honour the lives of animals who die so that humans can live (Haraway in Despret, 85). Despret cites Jocelyne Porcher in her suggestion to look at "meat" not as something abstracted from the animal, but as a decedent (Porcher in Despret, 86). She goes further to explore Cary Wolfe's extension of Judith Butler's post-911 writing, where she asks, "whose lives count as lives?" and "what makes a grievable life?" (86). Despret sees Wolfe's question not as a reminder of the banality of experience, but central to his point that works toward a responsible relation; "it is through the grief that one undergoes that life comes to matter, it is by accepting this grief that it counts" (85). Perhaps, she says, the commandment should change from "thou shalt not kill" to "thou shalt not make killable" (85). Despret agrees with Haraway that one way to make a life "grievable" is to make stories with animals. Despret suggests creating grief stories. She offers the example of farmers who have pictures of deceased cows on their walls, and name them knowing they will have to grieve them eventually. When arriving on Brier Island, it became clear to me that these grief stories from the small population of North Atlantic humpbacks that travel there every year already existed for many of the residents of the Island. As ocean conditions become less and less hospitable for whales of all kinds, the stories people in coastal regions like Brier Island have created with humpbacks as kin become increasingly important in understanding, not just the whales who live in the water, but the lives and deaths of individuals who have visited the Bay of Fundy and brought their children year after year.
When speaking about grief stories, Peajack, who had passed away the summer prior, was a great place to start as she had been named after Peajack cove and had been seen year after year near Brier Island for the past twenty-three years since she was a juvenile in 1995. Included in the performance is audio from two residents of Brier Island. I also interviewed the chief naturalist with the Brier Island Whale and Seabird Cruise, Shelley Lonergan, about Peajack, who said; "Peajack first arrived in 1995 as a juvenile. Humpbacks reach physical maturity by the age of usually 10-15 years of age. So, she was just a young whale, and even from that point, she was approaching the boat. She was very curious, as most juveniles are. She continued with that behavior throughout her life. We didn't really know Peajack was female until 2012 when she brought back her first calf, and then she brought another calf in 2016 and then, unfortunately, we lost her last year and it was due to an entanglement. It was a very, very sad event. Very emotional. As part of our research, that's something that we have to look at as well, and we need to know the identifications of these whales as part of monitoring that population. So, when we found the carcass, we explained to our passengers that this is something we need to do. We need to go and get some photographs of the whale for further investigation. We need to find out who it is. So, we did that… we approached and we saw the dorsal fin. She has… she had a really large speckled dorsal fin that was unique for her… so we identified her, and once we left, I went up on the top on the Wheelhouse and I was very teary-eyed."

Figure 12 (Wish Whale Screenshot 12)

As you know, we are a research and education vessel. Increasingly, it is important that we show not just the remaining whales, but also tell the stories of the whales that have been lost to us. [16]

[16]In *Creaturely Poetics: Animality and Vulnerability in Literature and Film*, philosopher Anat Pick argues that we are linked to animals through our vulnerability: "like all living beings, animals are temporal and finite: they are born, they live, and they die. This fact is mundane" (410, 2011). However, that animals are made especially vulnerable by a host of human activities, be it agricultural, medical, symbolic, and emotional seems crystal clear when thinking about Peajack's slow death at the surface of the water. The vulnerability we share with non-human animals is "universal but unequally distributed" (411). The footage of Peajack's entangled tail just beneath the water skin serves as a direct example of a vulnerability that simultaneously brings us closer to animals, and sets us apart. Although we share in their reality as beings who live and die, moments like this serve as a confrontation "with the purposeful and targeted aspects of their vulnerability" (411). When constructing the speculative whale tour and dorsal fins, the scars from my recordings of the whales and (in Peajack's case) their pictures on Flikr and videos from Youtube took on significant importance as I thought about their wounds from man-made behavior, which in Peajack's case, had a direct relationship with the lobster fishing industry of Brier Island.
Pick's use of Lori Gruen's concept of "entangled empathy" seems especially ironic when applied to Peajack (410). Entanglement with fishing gear is the primary cause of death for most whales. 80% of the world's remaining right whales have been snared at least once in their lifetime and by 2015, 85% of North Atlantic right whale deaths were caused by bycatch (Fisheries, 2022). To tell a story of a whale's entanglement is not just to tell a story of their death, but their suffering. Entanglement is a slow and brutal death, where a whale can die slowly over a period of months, which "put the seconds to minutes it took for harpoons to kill fin whales in Iceland in a new perspective" (Moore, 109) according to disentanglement specialist and activist Michael J. Moore, who wrote his book *We Are All Whalers :The Plight of Whales and Our Responsibility* to systematically describe not only their endangerment, but

We have compiled some audio from the island and I would like to play this memory of Peajack for you now as we look out at her final resting place. I will start that for you in just a minute… (cue audio interviews).

Brittany:

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their suffering at the hands of commercial fishing gear. As whales drag around the ropes, spin and panic, the lines are driven deeper and deeper into their skin over days, months or years. This can lead to infection through the exposed wounds, starvation as swimming to food sources becomes too difficult, or the rope gets caught in their baleen, limiting their ability to feed. Grue's concept of entangled empathy comes from a tradition of care ethics and thus strays from the approach of empathy in abstract principles with an "ethical rule." It focuses instead on cultivating a "caring perception." (413) Applying the ethics of care involves recognizing vulnerability as a "moral experience" where "empathetic attunement" is a circumstantial situation directed toward the well-being of another, and "empathy acknowledges the dependence and fragility of others, and by extension, our own." (413)
Pick also employs Simone Weil's concept of creatureliness to open up a dialogue for different ways of thinking about the human framing of animals. Pick describes Weil's creatureliness as an "iteration" of vulnerability as "a mark of existence." (413) When a species is vulnerable, it becomes void of social and even species classification, which in turn creates "zones of indistinction" between species identities (413). This vulnerability does not require an extension of humanity to other creatures, but a "contraction" of humanity, a dehumanizing which can include all life forms, both plants and animals. For Pick, the most interesting artworks are able to describe an encounter in which humans exercise and understand dominance while, by the same token, also come to understand their own "afflicted animality" (420). Thus, vulnerability is not an act of humanist empathy but a "tug of reality," which recognizes the "difficulty of staying tuned in… toward flesh and blood" (422). With the introduction of Peajack as *Wish Whale,* I am turning to understand the vulnerability of whales and our shared fate as mortal beings through her entanglement on the surface, and the encounter with the very real, fleshy evidence of her suffering.

Through Levinas and Butler, pick isolates vulnerability and violence as being co-present. She asks, "might intimately linking vulnerability and violence itself betray a patriarchal worldview that overemphasizes aggression and domination and ignores the realities of empathy and cooperation?" (413) Through Levinas, Butler argues that this presence is not out of fear or self-preservation when encountering the "Other," but a tautological desire in human beings toward violence. Vulnerability functions, then, as a "provocation" as well as an "invitation" for violence. She asks, "for where else would violence turn if not toward vulnerability?" (416). As Butler describes in *Precarious Life* and her subsequent book *Frames of War*, the editorializing that occurs with death and violence allows some lives to go unmourned. Pick, as well as animal studies theorists such as Cary Wolfe, apply this to animals through the abstraction of animal flesh, where animal violence is made invisible. Again, we are confronted with the need for grievable lives (416). In Peajack's case, by bearing witness to what she has already lost. Whales like Peajack do not become abstractly entangled, they are right here in front of us, forever changed by our activity.

So. my best experience with Peajack… so um, we are on the lodge boat and Roy was the captain and she kidnapped us let's say... her and I can't remember the other whale. And she stayed with us for two hours. We shut the boat off and she wasn't letting us leave and she was belly up under the boat with her head. She was looking like she just stayed...circled the bow, under the bow, rocked the bow, spy hopped at the boat, like for a good almost two hours one day. And that would have been about five years ago. And it is really…. yeah, she was touching. She's very personal. I think she touched a lot of people around here. And I know…. she showed that these are individuals… there is always that "well how do you know they recognize you?" It's like your dog recognizes you. They're mammals. I think they do recognize us… I don't know if it's voices…. I'm not I'm not sure what it is. But I think maybe it's an energy, maybe they see energy. Maybe they recognize the energy of somebody like Peajack. She really touched a lot of people around here and of course named after our own Peajack Cove. But she's friendly. She's very social. With not just...you know… with every boat. So, a whale is not going to be that social with a boat that's been hurt by a boat. So, she was lucky I think up until her death probably to have good experiences with human beings.

Amy:

"Peajack was found floating on the surface. We had to sail out that day and people could see her floating there. We had to explain what was going on, it was very hard for those couple of days when she was just there. This is a bit of a stretch but I live right here on the passage - and whales do come through the passage sometimes. I can hear them from my window. When a whale breathes, because I am a whale watcher, I am attuned to that sound. But they were making some awful sounds. Sounds we have never heard before. My husband was like there is something

wrong - they are doing something out there. We have video and audio of it and the next day Peajack was found. I know it is a stretch, but in my heart, I just feel like those audio sounds, those trumpets…. Because I work with whales every day through the summer and I have never heard sounds like that. I know there was nothing I could have done. It was the middle of the night, it's pitch black, you can't say 'let's take a bunch of people out in the middle of the night and see what we can see...' but I often wondered - could I have? This is a reflection from years later. That was a pretty emotional night and then finding out what I did. In my heart, I think, what if I did? What if I did knock on the Fundy East Whale Watch door and say, there's something wrong. They probably would have said, 'OK Amy, you are going whale watching tomorrow - you can wait a few more hours to go see...' but, yeah. I believe it was either other whales calling for help… something…. they were trying to communicate with us that night. Every now and then I feel like I let them down."

Sound of water…

Let's just stay here for a moment with Peajack….

I think that is enough here today with our first wish whale. Peajack, this song's for you…. Let's get going Linda.

(cue "Always be my Baby" by Mariah Carey).
Do do doop dum, do do doop do doop da dum. Do do doop dum, do do doop do doop da dum. Do do doop do do do, do do doop do doop da dum. Do do doop dum, do do doop do doop da

dum. We were as one, babe, for a moment in time, and it seemed everlasting that you would always be mine. Now you want to be free… so I'm lettin' you fly, 'cause I know in my heart babe our love will never die. No, you'll always be a part of me, I'm part of you indefinitely... (music trails off) (Mariah Carey, 0:29) [17]

Figure 13 (Wish Whale Screenshot 13)

(underwater camera sounds)

[17] A risk that I feel Wish Whale runs with using songs like Mariah Carey's *Always be my Baby* is a lack of earnestness when describing the death of a whale such as Peajack. Throughout this performance, I do intend to appear as a misguided tour guide, who isn't fully grasping how to honor the wish whales and live whales. At the same time, I feel these shallow and perhaps pedantic love songs very earnestly when I think about whales like Peajack, professing they will, in some way, always be a part of me, and the deep connection and profound influence their life and death have had on residents of Brier Island, and myself.

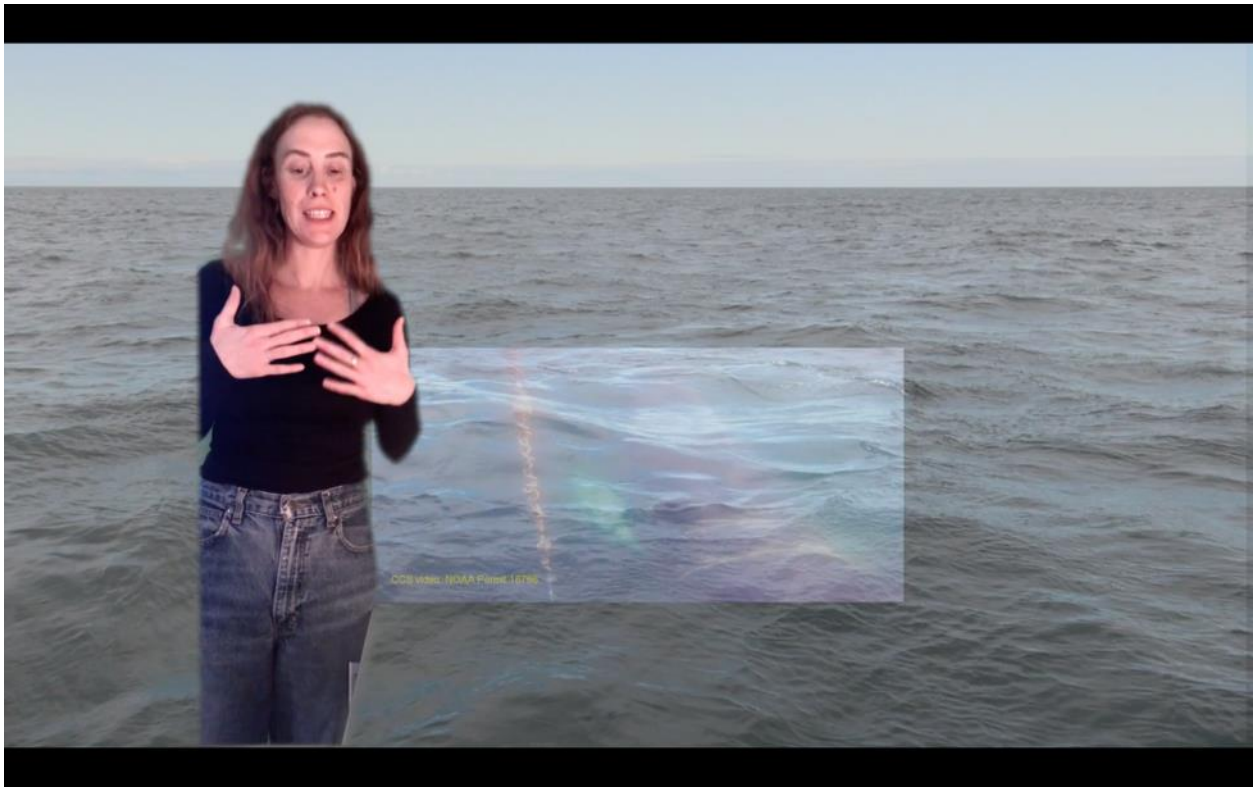

Figure 14 (Wish Whale Screenshot 14)

It looks like we have been joined by another wish whale. So, if you look into the horizon here, you will likely something just below the horizon line…it is widely believed that this is Foggy. We believe that Foggy is also a wish whale. Foggy is well known here in the Bay, she first came in 1987, with her mother, Bermuda. She was successfully disentangled by the Whale Rescue Team in 2013 and partially disentangled in 2016. In 2016, when she was 29, a team of rescuers worked for nine hours to help free her. She had a rope embedded seven and a half centimeters deep into her body, the team believed removing that portion of her entanglement would likely have been immediately lethal.

Until this year, she had been last sighted on August 1, 2016, with a single wrap of rope around her. We believe what we see below the surface on the horizon could be Foggy as a wish whale, but we have seen her beneath the water, never fully coming up for air.

This seems like a good time to talk about the process of disentanglement.

Today, as you know, marine life disentanglement has become one of the leading burgeoning fields, and is available in many universities, including here across the Bay at the Center for Coastal Studies that offers both a five-year certification in practical disentanglement as well as theoretical and cultural reflections on ocean studies and entangled empathy. [18]

I always find the notion of entangled empathy taught in many of these programs to be especially relevant to our time out here with the whales. We all live and die… However, these whales are made especially vulnerable by a host of human activities, be it fishing etc. The vulnerability we share with Foggy is not equally distributed. Her entangled body serves as a direct example of a vulnerability that simultaneously brings us closer to her, and sets us apart. The approach of entangled empathy would acknowledge the interdependency of our vulnerability and hers. And, although Foggy's story, as many are, is a sad story, it was an important one in terms of the development of some of these programs, and, I do have some good news for you, the 2003 calf of Motley was seen with her own calf in 2017 and we have reason to believe this calf has survived.

Let's spend a little time with Foggy and then let's be on our way…

(cue Prince "I Would Die for You")

[18] Here, I am posing a speculative pedagogical solution to address entanglement in terms of interdisciplinary research-creation. Today, almost all of the people who are more qualified to run a disentanglement mission are fishermen because they have the skills to do it, this fictional "program" imagines a world where whale disentanglement would be seen as so critical to survival, that it would be taught not only theoretically, but also as trade with practical training. This would serve as a way to merge theoretical perspectives and lived experience, the beginning of a proposal that will take shape in later chapters in the form of workshops.

"I'm not your lover, I'm not your friend, I am something that you'll never comprehend. No need to worry, no need to cry, I'm your Messiah and you're the reason why...'Cos you, I would die 4 you, yeah. Darlin', if you want me to…you, I would die 4 you…" (Prince, 0:44)[19]

[19] In Broglio's analysis of Matthew Barney's Drawing Restraint 9, Barney tells the tale of a Japanese Whaling Ship, Nisshin Maru. The two-hour and thirty-minute video follows a whaling ship in which two foreign guests (Barney and Björk) board the ship. After a ritual eating of whale emblems, the crew above board begin to carve a whale-shape made out of petroleum. Below deck, the guests begin to engage in a sexualized and strange cutting ritual. As the slaughter of the whale continues above deck, the guests below begin cutting away at each other, transforming themselves by peeling off layers of flesh to reveal blow holes, fins and other whale anatomy. Eventually, the legs of the guests are cut off completely. As Barney and Bjork "become" the whale down below, the petroleum whale is consumed above deck. By performing a ritual slaughter on humans and symbolic whales alike, the vulnerabilities of humans and whales become entangled and fluid, leading to increased awareness of, "the capacity of bodies to affect and be affected by other surfaces and materials" (128). For the crew of the Nisshin Maru, the attempt to keep the flesh of the whale at bay fails, and the guests end up caught between land and sea, "between the lives of humans and the life and death of whales." In Drawing Restraint 9, Barney leaves us out at sea, afloat and caught between forms of being. I like this example not only to describe the transformation of both whale and whaler on the surface, but also the correlation between this worlding, and the history of capitalist domination and petrocultures. I chose the Prince song *I Would Die for You*, to describe this interspecies entanglement.

Figure 15 (Wish Whale Screenshot 15)

Over there on the left, I think we might have Sedge

Figure 16 (Wish Whale Screenshot 16)

Run over to his dorsal and pass it around

Sedge has a very unique dorsal fin, almost the shape of a lobster claw - although we can't know for sure, it is likely due to a previous entanglement with a boat that left his dorsal fin broken open. If you look over here, we have a bust of the shape of his fin - to record him in the water. Although he has kept his distance in past years, we do believe that Sedge is still alive. I will pass this around, so you can get a sense of the unique shape of Sedge's dorsal fin.[20]

[20]Broglio also employs Bryndís Snæbjörnsdóttir and Mark Wilson's taxidermized Polar Bear project *nanoq: flat out and bluesome* to explain the vulnerable surface relationship we have with animals. In the project, they surveyed and collected all the taxidermized polar bears existing in the UK between 2001 and 2006, either on display, in restoration, or in storage. They collected photographs of each bear they found, and researched, wherever possible, the history and place of death. At Spike Island in Bristol, UK, they exhibited ten collected polar bears alongside a video work of their transit to the exhibition. They also produced a supplemental archive and book which has toured

Figure 17 (Wish Whale Screenshot 17)

Wait…. I am sorry folks; I think that is a seal! Well, since we have seen one, I think I will share a bit of audio from resident Virginia on how you can communicate with seals if you so choose during your stay on the island. I will just roll that in a second….

(cue Virginia's Seal Audio).[21]

to over twenty institutions in the UK and beyond. As Broglio describes of Snæbjörnsdóttir and Wilson's work, "the scars of the event by which they enter into our cultural life—their entry into a human world—become unseemly reminders that they occupied a space and a worlding outside of human culture." In both cases, the visible signs of an animal's vulnerability in the form of man-made scars and wounds are emphasized, and in both works, there is a sense of belonging to another world, and entering our cultural life through the encounter. Through Sedge's lobster-like ceramic dorsal fin, these wounds are once again emphasized. According to Broglio, Snæbjörnsdóttir and Wilson's work exposes how the animals, "risk and are at risk" (80) to the ways humans live among them.

[21]I wanted to include this primarily because I love the story, but also as an example of how residents of Brier Island were already using art forms to relate to and encounter marine mammals on the island as well as to set the tone of

"One of my boys used to disappear every day after school… he was about eight or nine. After a few days of this, we were really curious as to where he was going and so I pressed him harder for a couple of days and then he finally told me that he was singing to the seals. Every day when he came home from school he would sit on the rocks and sing, and they would come in really close and interact with him. And so, the next day I went with him… and he was right. If you *sing to them, they come in really close…. Curious. If you have a dog with you also… an active dog…. a dog running around on the rocks…. they're really curious. They will come right in and look at them… they are quite a curious animal" (Virginia, 2019).*

Ok, keep trucking Linda (cue Bee Gees "Staying Alive")

really showing and making a "tour" out of whatever is left in the Ocean - becoming desperate to "show" an audience something, and pulling out all of the entertainment "stops" to do so.

Figure 18 (Wish Whale Screenshot 18)

"And now it's alright, it's okay. And you may look the other way, We can try to understand, The New York Times' effect on man, Whether you're a brother or whether you're a mother, You're stayin' alive, stayin' alive, Feel the city breakin' and everybody shakin', And we're stayin' alive, stayin' alive, Ah, ha, ha, ha, stayin' alive, stayin' alive. Ah, ha, ha, ha, stayin' alive" (Bee Gees, 4:09)

Figure 19 (Wish Whale Screenshot 19)

Figure 20 (Wish Whale Screenshot 20)

Over on the left-hand side of the boat I think I just might have seen a real-live-whale breach!!!

(show breach splash)

Figure 21 (Wish Whale Screenshot 21)

Figure 22 (Wish Whale Screenshot 22)

Did you see the splash? Well, that is just very exciting folks. Although we can't be sure that is what it was, that is the closest we have come all season to seeing that rare, rare live breach … second time is a charm…[22]

[22] A quick google search of "whales breaching" yields 1,040,000 results. We likely don't need any more images of whales breaching. Expecting a whale to leap out of the water for my entertainment and footage contributes to the toxic relationship we exist in with the ocean. Beginning with a previous project, *Bird of Prey,* I began to think about what it means to obscure, and frustrate these picture-perfect moments with mega-fauna in the wild. Namely, to get us thinking about our encounters with them differently.

In *the Animated Bestiary,* Paul Wells cites David Hickey when explaining the particular relationship children have with anthropomorphized Disney animals:

> Today it's clear to me that I grew up in a generation of children whose first experience of adult responsibility involved the care of animals—dogs, cats, horses, parakeets—all of whom, we soon learned, were breathlessly vulnerable, if we didn't take care. Even if we did take care, we learned these creatures, whom we loved, might, in a moment, decline into inarticulate suffering and die—be gone forever. And we could do nothing about it. So, the spectacle of ebullient, articulate, indestructible animals—of Donald Duck venting his grievances and Tom surviving the lawnmower—provided us a way of simultaneously acknowledging and alleviating this anxiety (Hickey in Wells, 30).

I see the narratives around majestic whales leaping out of the Ocean as serving the same function for me as a child. As much as I read about the precarity of their species, this was not my experience. As a child and again today, the whales are right there, allowing me to desperately project resilience onto them. In this "tour" state, they do not appear vulnerable, even when at risk of imminent extinction in the case of the right whale, or painful disentanglement and starvation, in the case of all whales. My goal here with this obfuscation is to hide us from this view and to instead try and focus on the comfort we should take, and the privilege of just knowing they still exist.

Figure 23 (Wish Whale Screenshot 23)

Wow! Hopefully, everybody caught that. I think that is an excellent time to turn back in toward shore.

Hit it, Linda! (cue Justin Bieber "Sorry")

Figure 24 (Wish Whale Screenshot 24)

I know you know that I made those mistakes maybe once or twice. By once or twice I mean maybe a couple a hundred times. So let me, oh let me redeem, oh redeem, oh myself tonight… cause I just need one more shot at second chances. Yeah, is it too late now to say sorry? Cause I'm missing more than just your body. Is it too late now to say sorry? Yeah, I know that I let you down. Is it too late to say I'm sorry now? (Justin Bieber, 0:40)

Figure 25 (Wish Whale Screenshot 25)

Passengers, thank you very much for coming with us today. If you have enjoyed your time here on the boat, please tell your friends and give us a positive review. As I am sure you can imagine - as there are fewer and fewer whales to watch, our job gets harder and harder. But it is something we think is really important. Seeing not just the whales themselves but also our wish whales, and hearing their previous stories. So please, tell your friends and I hope to see you back in the 2031 season.

Also, I have a complimentary CD of the playlist from today. Please enjoy, and once again - I am totally open to feedback.

Figure 26 (Wish Whale Screenshot 26)

Chapter two: Boundary Objects

Boundary Objects Interview Summary:

This chapter focuses on a collaborative, multimodal research-creation approach as defined by Natalie Loveless in *How to Make Art at the End of the World*. To begin, I made five ceramic marine-mammal eyes loosely to scale and gave them to five artists, theorists and practitioners, namely: a sperm whale for Tiffany Schofield; a weddell seal for Andrew Bateman; a bowhead whale for Rodrigo Marti; an orca for Shalon; and a blue whale for Veronique Sunatori. When giving people the eyes, I also wrote a brief letter outlining some characteristics about the species. The intention was to conduct an interview where we would relate a concept, video or text to the respective eyes, as well as produce a short video work. Together, these would act as a short series of vignettes about different topics relating to Marine mammals. For this chapter, I have included both the original letter, as well as the interview from the five explorations.

In Eight Clicks - Sperm Whales and ASMR, Tiffany Schofield focussed on how the Sperm Whale, as a toothed whale, can use echolocation to bounce vibrations off of its surroundings for both hunting prey and to communicate. This form of communication is potentially much more sophisticated than our own. Of particular interest for both of us was relating this to ASMR, where ASMR creates an embodied, tactile experience in which participants explored deeper, non-verbal communication, similar to that of the sperm whale. This led us to questions about research strategies as they relate to the ocean and to ASMR, and the benefits of leaving something under-researched. We also spoke about ASMR as an appealing medium for video art, and as an entry point into a less cerebral, more direct strategy for making video art than Tiffany has done in the past. We addressed the history of humpback whale song in relation to conservation efforts, compared to the violent clicking of the sperm whale and

speculated that instead of making demands on marine mammals to employ the use of human language, perhaps ASMR acts as a way to understand communication methods of a different species. Lastly, we explored how both ASMR and the experience of being in water allows us to be more conscious of our material surroundings.

In “Diving in the Quarry - Weddell Seals and Timothy Morton’s subscendence with Andrew Bateman,” Bateman focuses on his experience as a freediver diving into an industrial quarry in Ontario. He compares his own scale of diving with that of a Weddell seal and focuses on this experience to speak about Timothy Morton’s concept of subscendence, where Morton argues that the parts of something are greater than the whole. Bateman finds this concept most useful when thinking about extinction. Specifically, the harmful practice of focussing on the whole instead of its parts creates a culture where if a species dies it matters less or not at all, because the whole survives. The ocean is a good example of this, as its parts must be greater than the whole to think through meaningful conservation efforts. We cannot maintain an attitude where, if the Weddell seal goes extinct for example, it doesn’t matter because the ocean as a whole still exists. With this, the whole, whether it be a forest, an ocean, or a human, is ontologically smaller than we think it is. We also spoke about Morton’s notion of hyperobject, which relates to phenomena temporally and spatially much larger or smaller than we can think through, for example Styrofoam, which has a lifespan of 10,000 years. When we think of it, we spiral into many directions at once. Bateman speaks about these concepts through his experience as a freediver, as well as his own writing and research related to conservation efforts in the Arctic and beyond.

“Simple forms with Rodrigo Marti” is a much different type of interview, where our focus was on the Bowhead whale as a drawing prompt and the step-by-step process involved in Marti’s

work. Specifically, Marti was interested in finding relation points to the forms of the Bowhead whale's bones, which continue growing throughout their long life. We spoke about our shared history of social practice in relation to this project, and the danger of overthinking politically or conceptually while trying to stay in something process oriented. In Marti's case, coming into researching the bowhead whale through a drawing practice made him aware of how far away he was from the subject, which, although different from the previous interviews, served as a valuable realization in relation to the Bowhead whale and to the ocean in general.

In "The spirit of Springer - Exploring grief with children with Shalon Webber-Heffernan," Heffernan was interested in speaking about the maternal grief of the Orca in relation to her own experience with grief and trauma with the birth of her daughter. Heffernan also conducted a story and arts-based children's workshop that used the story *The Spirit of Springer* to speak about grief in relation to the Orca. We started off by talking about Michelle Pearson Clarke's TED talk and the reference to the Tahlequah, an Orca who had carried her dead calf for 17 days in the Salish Sea in the summer of 2018. As Heffernan has already done the workshop with three- and four-year-olds, we spent some time speaking about the children's reactions to the story, specifically, their focus on the return of Springer to the family of Orcas, and their process of making ocean-based collages after reading the story. We spoke about how animal death is, for many children, their first encounter with grief, and the story of Tahlequah in relation to "easier" stories that help to ease notions of ecological grief for children and adults alike, namely cartoons like Looney Toons, where the animals always recover, or the orca White Gladis, who, through sinking yachts, acted as a revenge story. This forayed into a larger conversation about both of our personal experiences with grief in relation to motherhood, and some of the societal expectations around

the grieving process in Western society. Specifically, how grief can sabotage capitalist modes of production by existing in its own existential and temporal zone.

Lastly, “Blue whales, earwax and loneliness with Veronique Sunatori” began with us thinking about whale byproducts. We started off by listening to a podcast by 99% Invisible entitled “A whale oiled machine” with the intention of focussing on whale oil as a lubricant used during the whaling days. From here, we began speaking about whale earwax, which turned out to be a much more fruitful topic for both of us. With the earwax of blue whales, like the rings of a tree, a darker and lighter layer comprise one year of a blue whale’s life and represent the yearly migration patterns of the whale. The earwax can also determine stress through cortisol levels in the wax itself and may determine many other things. Although blue whales are quite mysterious, and often considered lonely, the earwax provides great insight into their personal lives. We spoke about the potential correlation to the findings in their earwax to the current trends in their whale song, where frequencies have been getting increasingly lower by the year. Specifically, we spoke about some of the anthropomorphic projections surrounding 52 Blue. Namely, a pop song and a documentary about “the loneliest whale in the world.” 52 blue has been recorded singing at a potentially undetectable frequency of 52 hertz. We spoke about how these insights into the lives and trends of the blue whale helped us think about them as individuals, and as a community, as opposed to a species. Lastly, we spoke about Sunatori’s plan to make a blue whale mix that will lead her into thinking about how to measure the valleys and peaks of her own life in relation to the earwax.

Throughout the interviews, there is a sense of soggy connections, swimming through our own lives and interests to find relation points, which sometimes come easier than originally thought, and sometimes seem forced until they don’t. Regardless, they offer unique ways of thinking

about marine mammal species, and generative conversations and project ideas that help us to forge watery connections.

Eight Clicks - Sperm Whales and ASMR with Tiffany Schofield

Figure 27 (Sperm Whale)

Tiffany,

I chose the sperm whale for you.

With Moby Dick, sperm whales became the most literary whale, or as Alexis Pauline Gumbs in Undrowned so eloquently explains,

“Named backwards after the biblical sea monster and Herman Melville, this ancestor was known for its sharp teeth and massive size. In fact, paleontologists claim they had the largest teeth of any animal ever (excluding tusks)—at over a foot long. Debates are happening on the Internet right now about who would win in a battle between this whale and the ancient Megalodon shark

that lived at the same time. They call this whale "raptorial" (look at the root of the word: rape), monstrous, inherently violent."[23]

As the premise of Moby Dick goes, sperm whales were valuable whales to hunt because of the spermaceti (a waxy substance) located in their head that was used for making candles, and in cosmetics and ointments. The fact that the fluid in this large organ attached to their heads was mistaken for sperm speaks to how the patriarchy was going at the time. In fact, this once valuable substance (which is not sperm) is what helps them dive so deep.

As is also dramatized in great detail by Melville, the sperm whale is a toothed whale. It uses its teeth to hunt its prey through echolocation by sending out (very loud) high frequency clicks that bounce off of other objects in the Ocean. Because they rely on these very powerful sounds, they don't need light to hunt, and can echolocate deep-sea prey, and potentially even debilitate them with the noise.

Sperm whales were also one of the main stars of journalist James Nestor's freediving book *Deep*. In an interview, Nestor explains his work with the Cetacean Echolocation Translation Initiative (CETI) alongside David Gruber and Jean Koster. Instead of researching their underwater noises with the Hydrophone, as is the custom in safer, more sane marine research, they dive in the water with them to communicate. Nestor and Gruber believe that they communicate in a much more sophisticated way than humans: "we have a video showing that something magical happens

[23]Gumbs, Alexis Pauline, and adrienne maree brown. *Undrowned: Black Feminist Lessons from Marine Mammals*. Chico: AK Press, 2020, 127

when you approach them in peace face-to-face. They want to sit there and interact with you. It's those interactions that we think are going to provide the best data."[24]

Despite what you think of this research, I think it's safe to say sperm whales have come a long way since their story as a hunted leviathan with sperm in their heads. As the most literary whale, it also seems fitting that they are the subject of the first machine-learning attempt at interspecies communication with the whale.

Love,

Ella

Tiffany: It's interesting that despite that history, they are still quite an under-researched species compared to others.

Ella: When we were listening to James Nestor's talk,[25] he was saying that their clicks, which are used for both hunting and communication, are so powerful that they can paralyze you or kill you. On top of that, it was mentioned that to do research close to them, it has to be through freediving because Scuba is too loud, and it scares them. There isn't any other method that really works to observe them. So, it's this highly specific way of having to research this animal.

[24] Bioneers. "What the Cetacean Says: James Nestor's CETI Project to Research Sperm Whale Clicks." *Bioneers* (blog), February 24, 2020. https://bioneers.org/what-the-cetacean-says-james-nestors-ceti-project-to-research-sperm-whale-clicks/.

[25] *Sperm Whales Clicking You Inside Out — James Nestor at The Interval*, 2017. https://www.youtube.com/watch?v=zsDwFGz0Okg.

Tiffany: Even in the clip that I was just watching[26] when they were using this newly designed hydrophone, they initially went down with a rebreather, which I'm not 100% sure what that is, but I imagine it's somewhere between freediving and scuba. [27] But they said even that was too heavy and the equipment weighed him down so he couldn't keep up with the whales. He ended up just having to freedive in order to capture their sounds. It seems very challenging to get in there with them. As someone who hasn't thought a lot about marine mammal research, I think we take for granted that the ocean is under-researched. Even in just watching this one documentary, they are talking about trying to measure the whales, and how difficult it was because they're so large….they had a drone that they set up like a physical ruler on the ground, and then used that to fly the drone at the same height over the ocean so that they could measure the whales in order to determine how old they are by size. It seems like something that should be so easy to do, but all the logistics of that kind of research, even literally just measuring the whale, is so difficult. So, thinking about the more complicated things like communication and acoustics and sound, it's like, how are we even going to get to a place where that kind of research is possible? This goes back to the question that we've talked about, do you really need to understand everything?

Ella: I think especially with the clicking for echolocation, it seems like the more that they study it, the more expansive it becomes. We seem to know that when a sperm whale makes certain clicks it bounces off their prey, and we seem to be able to determine that it helps them hunt. But there's this other part of it, and it's possible that the clicking that they're doing is way more sophisticated than any human language that we have.

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[26] Giants of the Seas - The Mystery of the Sperm Whales | Free Documentary Nature, 2023. https://www.youtube.com/watch?v=HjVFpEQNyYY.

[27] A rebreather is used in Scuba Diving as a tool that allows for more silent and longer dives through absorbing the Carbon Dioxide of a diver's exhaled breath to rebreathe the oxygen content.

Tiffany: It's like the basic paradox of psychology research, where the brain researches the brain. When they talk about the sperm whale, and their prefrontal cortex and these other parts of the brain, analogous to our parts of the brain that cover communication and empathy and compassion, and all these other things that we've identified in our brain are so much larger in their brain. But that's making a lot of assumptions that we even understand how our brains work. To the extent that we can then impose that onto how a whale's brain works. I feel like there's a lot in between that is still kind of a black box. Going back to the idea of these eight clicks leading to physical touch, in a human situation, we can imagine that you're having some sort of conversation. Like, if I came up to you, and I was talking to you, and I told you something, and then you felt like I needed a hug, it is different than me coming up to you and saying, I need a hug.

Ella: Yes exactly. So actually, I guess since the beginning, you've had this connection, or you've thought about doing an ASMR-based activity with your whale eye, right? I never asked you about your personal connection to ASMR.

Tiffany: I feel like I came to ASMR by accident. it started out how a lot of people get introduced to it, which was… you know, I am someone who struggles with sleep. So, you're on the internet, trying to find sleep meditation videos, or whatever, and I came first to these more abstract or traditional sleep meditations, the sound of rain or the sound of someone talking. And then that leads you down the YouTube algorithm where I was introduced to more traditional, although it's kind of funny to use that word, ASMR videos and ASMR artists in that community. I listen to

ASMR, and I am really interested in it as a social and cultural phenomenon as well. Mostly, I'm a consumer of ASMR, that's my connection, and I think there is an interesting connection between that and the Sperm Whale.

Ella: And you have a desire to make an ASMR video?

Tiffany: I think having a background as a video artist, it's a very appealing medium. I remember being really taken with this one video; it was an ASMR artist who was doing a gallery tour. She was walking through a gallery, but not a real gallery…the ASMR artists are never in an actual place, they're in their home studios. She's describing the artworks, and I was like, this is the best art experience that I've had in a long time. This way of engaging with artwork was so different. It's this very weird thing, because there are these multiple layers, and I think this is what is interesting about ASMR… it is not purporting to be an artwork in itself. To be an ASMR artist is not to be a traditional video artist, although there are artists who engage with ASMR, it exists in its own space. It's almost like a less pretentious way of engaging with video art. So yeah, I do have a background in video art and I think I was interested in this because it felt like an entry point for something that was hard to talk about. Most of the work that I've done as a video artist is mired in research. It's trying to say something, trying to add all of these layers, trying to do something with the content, whereas ASMR is really just trying to do something in the physicality of the medium, in sound and visual effects, it's more direct communication, and that felt like a way of coming to this project because I knew otherwise I would be coming back to you with a literary analysis of Moby Dick lol. The way I've always seen this project is a way to

connect with this marine life that I don't have a connection to…this felt like a better way to do that than intellectualizing it, which would be my normal approach.

Ella: Maybe it's the right time to make it explicit that we are talking about a connection between ASMR videos and the clicking communication of the sperm whale.

Tiffany: Part of it goes back to the idea of whales and the ocean as this kind of majestic mystery. I'm even thinking about watching this sperm whale documentary. In the YouTube comments, someone was like, "I think swimming with these creatures would cure my depression…" I think there is a connection to the whale song and how that really inspired the environmental movements. People feel so inspired by the ocean in these ways that I think resonates with the way that we think about ASMR as a relaxing, calming thing, but also a mysterious thing where we don't quite know how it works, but we love it. People listening to the sound of waves on the shore is OG putting you to sleep ASMR. I feel like there are a lot of ways that we think about this, the sounds of ocean life, as one layer, but also the mystery of it. It's kind of all entangled.

Ella: Whale song is so attached to the history of conservation. When these whale songs were recorded in the 70's, it became, and still is, one of the best-selling animal recordings of all time, and a protest tool used by Greenpeace.[28] So there is a connection between the beauty of their sounds and advocating for their survival. The humpback, which is a species that they would have recorded for whale songs, is a gentle baleen whale. With sperm whales, and this clicking, it's

[28] May, Michael. "Recordings That Made Waves: The Songs That Saved the Whales." *NPR*, December 26, 2014, sec. Animals. https://www.npr.org/2014/12/26/373303726/recordings-that-made-waves-the-songs-that-saved-the-whales.

vibrational and can be aggressive. It is used to hunt and it can be dangerous, but nonetheless incredible.

Tiffany: I was just thinking about this when we were talking because I think, again, there's so many different versions of ASMR. Often there are whispering videos, or more quiet videos but there are also fast and aggressive videos…that will be in the tagline, and people respond to it similarly in terms of the actual ASMR sensation, but obviously it is a totally different experience. I have been thinking of it in terms of how you have the humpback whale and the whale song, and you think of it being a particular way… this majestic experience… but then you also have the sperm whales producing these clicks that are aggressive, which is just as interesting and worthy of "Save the Whales."

Ella: There is also this idea that whales are potentially able to hear these clicks at a great distance in the ocean…I think they said, it's five times that of air. And you had made the point that with ASMR on the internet, these sounds are able to travel through this medium… maybe similar to the way that sperm whales could do it in the ocean. It's relatively new that we can do that, but sperm whales have been doing that for a lot longer than we've been able to.

Tiffany: Yeah. The internet is kind of its own beast, but what I think is specific about ASMR is that there's a lot of emphasis on personal attention, this idea that you have a direct relationship with that person over the internet. It's not just the dissemination of information; it's a real attempt to connect with the person on the other end that you don't necessarily know. So, it's different from chatting with your friend over zoom or calling up your mom over the ocean. It's an attempt

to communicate across this large distance, where you can't necessarily see or know if it's being received, but then getting that response back in these very active comment sections.

Ella: You were worried about anthropomorphizing sperm whale communication by directly relating it to ASMR, but I think it is actually the opposite. This direct, multi-sensory experience brings us closer to understanding how an animal that lives in the ocean communicates, instead of this idea that whales are doing what we do. ASMR could be seen as an attempt to have this kind of multi-sensory embodied experience that focuses on a different way of communication that other species are already doing in a more sophisticated way.

Tiffany: I think especially because we're increasingly online and have become a little bit more disconnected from our bodies and our surroundings. ASMR, in contrast, is very much about connecting with, or having an awareness of, the physicality of things. It's not just talking heads, it's a sound of material, a haptic thing that is more grounding. The whole thing about ASMR is this physical sensation that you get. This is speculative, but I feel like these other species that have these embodied ways of communicating, like receiving vibrations that are impacting other parts of their body, could connect them to each other in a way that we don't necessarily utilize. What's interesting is that a lot of things in ASMR are a bit of an experiment, what they refer to as ASMR triggers, like tapping. It's almost like each one of those triggers is an attempt to see what resonates with other people and what people feel in their bodies. So yeah, I think that point is well taken that it's less about trying to fit the whales into our ideas and more of being like, well, what are other species doing?

Ella: It's like that terrible, unethical experiment with the dolphin where they were literally trying to get the dolphin to speak English.[29] Moving from a question like "is this dolphin sophisticated enough to speak English?" toward "can we get close to understanding in some embodied way what is going on with another form of communication?"

Tiffany: That brought up for me why I kept thinking about ASMR in relation to animal studies. It's not even necessarily the idea of nonverbal communication, or the clicks and the tapping, but it's actually about the way that these things are approached. I feel there's something really useful about the way that ASMR has been approached by researchers. It's not every genre of YouTube that people feel the need to do any kind of scientific research on. With both, we don't necessarily need to know the mechanics behind that in order to have it be valid.

Ella: With ASMR there is this idea of it being a different type of awareness of our surroundings to the material world, this idea of materializing sound indices. That article that we read talks about feeling the material conditions.[30] We were relating that to being in water. When I think about that, I think about what it feels like, I find it impossible to not be in my body and have that type of awareness of the surroundings within water.

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[29]This makes reference to the sensational NASA-funded projects where Margaret Howe Lovatt lived with a dolphin, Peter, and attempted to get him to understand mimic human speech. In an article, published in 2014 in the Guardian, Howe Lovatt describes the sexual encounters she had with the animal.
Riley, Christopher. "The Dolphin Who Loved Me: The Nasa-Funded Project That Went Wrong." *The Observer*, June 8, 2014, sec. Environment. https://www.theguardian.com/environment/2014/jun/08/the-dolphin-who-loved-me.

[30] Gallagher, Rob. "Eliciting Euphoria Online: The Aesthetics of 'ASMR' Video Culture." *Film Criticism* 40, no. 2 (June 2016). https://doi.org/10.3998/fc.13761232.0040.202.

Tiffany: I feel like a lot of people have this feeling about water. Like, going down to the ocean, and having a connection with a body of water. When you're in water, or you're swimming, just feeling that in your body is a way that people often don't feel in their daily lives. I think, to an extent, and again, I don't think it applies to everyone, but I think a lot of people resonate with ASMR in a similar way, drawing attention to those materials in our world… what it sounds like to scratch on cork, or what it sounds like to wrinkle a paper and just those tactile experiences which are very easy to take for granted that make up our daily lives and our material world. When you start listening to ASMR, you're still thinking about objects in a certain way. And when you watch ASMR artists, often they'll talk about when they go shopping, or when they order things. They're thinking about the different ways that these objects might sound. What does the sound of the grip of your fingertips on this certain leather sound like compared to the tapping of this glass, and often they will engage the audience in that, “oh, do you like the sound of this tapping or that tapping?” I think it opens up an opportunity for people to be more conscious of their surroundings, and that is something that is very much the way that people connect with water. There is a similarity in the experience. Could I say what that is? No, because that's the whole thing, it's an experience.

Ella: Any of those sensory experiences involve individuals having different reactions to these things, and the same could be true of a sperm whale. They're not necessarily sitting there being like, okay, click, click, click, we all understand that the same way, they could have their own preferences that have different impacts for individuals.

Tiffany: It's a good point because I feel like we haven't even touched on the fact that a lot of people hate ASMR. A lot of people have a visceral negative reaction. We're all the same species, so the fact that people could have such varied responses to the same stimuli, if we want to put it in scientific terms, opens up an opportunity for us to consider how it could be the same for other species where we see certain gestures, or we hear certain sounds, or noises, and understand that they could be having different responses. I think the other reason that I've thought about ASMR, going back to the videos we initially referenced, is that it makes me think about pedagogy. To have more focus on the visual, or material, or sound. Especially folks who do role plays, for example, you go to a doctor or something, they are accurate. We found that video where someone is whispering sperm whale facts.[31] There's people who are going in depth on certain topics. Are we more open to receiving knowledge in this way? Am I going to read a book about sperm whale facts, or am I going to listen to someone whisper it to me?

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[31] kelcersASMR, *ASMR - Whispered Sperm Whale Facts :)*, 2023. https://www.youtube.com/watch?v=hz9iQtmA68s.

Diving in the Quarry- Weddell Seals and Timothy Morton's subscendence with Andrew Bateman

Figure 28 (Weddell Seal)

Andrew,

For you, I chose the Weddell Seal. The most southerly mammal, and one of the most studied species in the Antarctic. She is also one of the few species that can give birth to twins.

She is sedentary but vocal. She can be approached quite easily and, unlike many of the marine mammals chosen, does not migrate - and travels only 15-20km in her Antarctic habitat. When underwater, she stays close to her breeding colony, within a 100km radius, and can be heard above the water when she sings, even when she is down below.[32]

Although she breathes air, she lives under the ice. Down there, in the darkness of winter, she uses her keen navigation skills and underwater vision to seek out small holes in the ice. She can

[32]"Weddell Seal," March 20, 2018. https://www.antarctica.gov.au/about-antarctica/animals/seals/weddell-seal/.

even make cracks in it to breathe with her canine and incisor teeth. This allows her to avoid some of her predators (Orcas and Leopard Seals). It is thought that she can swim below fish, look up, and use the ice as a backdrop to see her prey's silhouette. In the winter, she and her fellow Weddels congregate around breathing holes or stay together in the water with only their noses poking out to avoid the cold winds.

She is a crazy diver. She can dive over 600 meters, and stay down for 80 minutes. She can do this because she has more red blood cells, which allows her to carry more oxygen with her. She also has extreme cardiovascular control and precise lipid metabolism, allowing her body to shut off most of its functions except the core and switch to tactile sensations through her whiskers in the pitch dark. She learns she can do this in the first two weeks of her life, through her mom. Or as Alexis Pauline Gumbs puts so eloquently in Undrowned,

"She is new here. She does not know that she can breathe underwater. Until she does. And then everything changes. By the time weaning is over, she will be able to dive 2,500 feet below the water. Stay there for an hour if she wants to. Find a tiny hole she made for air after swimming twelve kilometres away. Move gracefully between frozen and liquid worlds but she doesn't know." [33]

Love, Ella

Ella: So, that was the Weddell seal letter, and we just watched the video of the eyes in the water. My first talking point is to describe your dive and your relationship to the site.

[33] Gumbs, 38.

Andrew: I drove there three weeks ago, which would have been mid-May. The temperature of the water in the quarry was very cold at that time, I think it averaged about 10 degrees Celsius, which is probably 10 degrees warmer than some of the waters around the Antarctic. For the human at least, it's very, very cold, which also means for humans that it's more difficult to stay underwater for longer amounts of time when you're free diving. The body tends to focus its energy on preserving heat, so diving down on a breath is much more difficult. So, my dives at that time are shallower and not as long. Typically I can dive comfortably for about one minute and twenty seconds without discomfort. I don't usually go longer than that. If I'm not diving and I'm just holding my breath, I can hold my breath for about three minutes and fifteen seconds. Your letter says that the seal can dive for 80 minutes, so very different from me. It also says the seals can dive up to 600 meters, and I dive generally around 30 meters. It's also interesting that the seals become negatively buoyant between 30 and 50 meters because my max dive is 30 meters. My weight belt is set up so I become negatively buoyant at 11 meters… so the scales are completely different. But, as a free diver, you're sort of bound by the same rules as an animal who's diving, who spends a life diving, you're thinking about conserving energy past 10 meters by not moving and letting the gravity pull your body down so that you can go deeper and deeper. Similarly, I read that the seals will also conserve energy by letting gravity pull them down beyond their negative buoyancy of 30 to 50 meters. For the dive, I took the Seal eyes, and I dropped them near this industrial setting underwater, there was some machinery there that was used for quarrying the rock. I think that quarry is used for making concrete, it's creating aggregate by crushing stones. It was this abandoned piece of equipment after they stopped emptying that quarry and let the water fill in. It’s about 25 meters deep, and there are various parts where you can swim around heavy industrial equipment. So, I decided to drop the eyes

around there. The eyes were a little bit heavier at the back, or more aerodynamic or something. The eyes sort of float downwards towards the quarry floor and you only see the back of the sculpture. As you see the back of the sculpture sink down, which is about 10 meters at that point, I start to go down thinking that I will be able to pick it up and place it somewhere else along the industrial structure, but it turns out that the quarry floor is very soft and muddy, so you can go quite a bit further down. The bottom of the quarry is deeper than perceived… so the seal eyes went into the mud and I haven't been able to find it. The plan for the next few dives is to go back to that spot and see whether I can find the eyes that have disappeared under silt and water.

Ella: When I heard about your plan for the dive, I didn't think that they would look natural in the water, but I wasn't expecting them to look so out of place. Even before it kind of falls on its own, the water kind of makes it look like paper, and the unnatural qualities of the glaze seem magnified in the water.

Andrew: I wonder how much of that is my inability to get it where I want it to be cinematically. I was thinking I could turn the camera and sort of fall upon these eyes in the dark corners of an industrial wasteland. But really, I started this as the start of the artistic experiment, and it was accidentally the end of it for now because the eyes disappeared…but the hope was to then place it on the machinery that you see in the video and play around with it and find it in different locations looking back at the camera lens. So, I wonder how much life you can give to the eyes if you frame them correctly with a camera. There's a lot of algae there and there's some seaweed as well.

Ella: Do you go back to that site often?

Andrew: This is my first year swimming in that quarry. But there's a quarry above it, that's on the same property that we used to swim in, but they've started to mine that area again. So, now all the divers have moved on to this secondary quarry. So, it's an industrial site that I know well.

Ella: Did you like the idea of taking the eyes to an industrial site?

Andrew: Yeah. I think freedivers can relate to some of these marine mammals in that they love the water, they love swimming, they love the properties of the water, the fact that it's three-dimensional space and you can go up, down, left, right, that you're floating and sinking and being neutrally buoyant. They look at these animals and envy them a little bit, you know, seals or penguins, or whales can stay underwater for so long. In Ontario, around Toronto, you're sort of stuck in this very small pool of water at a quarry, that's your best option, right? Even within Lake Ontario, it's a terrible diving site, because the visibility is so bad. You have to make do with what you have and look around for a spot that has clear water and some depth. It turns out quarries are excellent for that. It's funny that these industrial sites have become playgrounds that mimic the activities of seals and dolphins for humans. We've found these places in industrial sites in Ontario, which is one of the most heavily industrialized sites in Canada. So, I felt it was fitting to bring in Seal Eyes as well. It sort of reminds us a little bit of why we're doing what we're doing as freedivers and reminds us of our constraints.

Ella: In relation to diving and the Weddell seal, we have chosen to speak about Timothy Morton's idea of subscendence, which you also addressed with your thesis. The overarching idea of subscendence is that Morton is challenging this truism that a whole is greater than the sum of its parts which Morton argues perpetuates the idea that the parts that make up the whole are replaceable.

Andrew: Yes, or worse, disposable. I think this idea of subscendence is most useful when we're thinking about extinction. We typically like to believe that the whole is always greater than the sum of its parts, which means that the forest is greater than the trees and mushrooms that make it. Or, that our body is greater than the sum of its organs, or that the city is greater than the sewage systems, roads, electricity, or food distribution systems that make it possible to live. But it's the opposite, the whole is always less or smaller than the sum of its parts. This is important for Morton because if the parts are replaceable, then we think the whole takes precedence, which means that in an ecosystem like the Antarctic, the Weddell seal could go extinct and it doesn't really matter, because we still have the ecosystem of the Antarctic, and we have other seals that will replace it. Having the whole be greater than the sum of its parts is an idea that allows us to replace some of the parts, some of the seals, some of the fish, and some of the things that are happening within that ecosystem. I use it in my own work to think about bird extinctions, and city policies in Toronto that affect bird populations. Morton's entire project in this book, *Humankind* is about creating solidarity with other species.[34] I think the idea is actually pretty simple. This idea that humans contain multitudes, and we're not just organs or bones…. we also have thousands of bacteria within us are various other things. In fact, we are made up of less than

[34]Morton, Timothy. *Humankind: Solidarity with Nonhuman People*. London; New York: Verso, 2017.

50% of human cells… the rest is bacteria. The idea demonstrates that we are far more than just humans. Within that, we can also see that other species are more than what we call them or see. If we contain multitudes, other things contain multitudes, and they spiral out into various other things. We can create kinship that way, and understand that we are more than human and we are also all these other things in the world. I think that's how Morton is trying to create a sense of kinship… by understanding that we're more than human and so is everyone else.[35]

Ella: With subscendence, the other important concept is that things can be ontologically big or small.

Andrew: Everything is ontologically smaller than we think they are. Subscendence is the whole that is always smaller than the sum of its parts, and that means that the forest is smaller than everything that makes it up. So, the concept of the forest for Morton is ontologically, small, right? Because it simplifies everything within a forest to one thing, but when we look at that one thing, we see that it infinitely increases from one forest to the trees, to the mushrooms, to the bacteria, to the birds that fly in and out, to the raccoons and squirrels, it just goes on and on and on. The more you look at it, the more difficult it becomes to define a forest. When you take things away, at what point is a forest no longer a forest? For Morton, things are always these wholes, these big things are always much smaller ontologically than we think they are. It's the same with Morton's idea of hyperobjects, which is probably Morton's most famous concept. We're thinking about things that are temporally and spatially much larger or smaller than the

[35]Morton, Timothy. "Subsendence." In *Humankind: Solidarity with Nonhuman People*, 219–59. London; New York: Verso, 2017.

human scale. An example of a hyperobject is climate change, or the biosphere, or the climate, or Styrofoam. The reason they're hyperobjects is because their scales, their temporal and spatial scales are bigger or smaller than human technology and spatial scales. Styrofoam, for example, has a lifespan of 10,000 years.[36] It's something that we can't conceptually understand. We can't see it or witness it. It exists beyond our own personal experiences of 100 years, or even within a lifespan of a civilization. So, these big, gigantic hyperobjects seem huge… but there, in fact, ontologically small, because they are made up of so many different things. With a hyperobject, like the biosphere, for example, when we try and define it, we spiral into all sorts of different definitions. We could look at the biosphere as climate, or the species that make it, or the seasons, it goes on and on and on. So, the biosphere as a concept is small because it sums up all these very complicated things that end up becoming very difficult to explain. Because biosphere is a concept that summarizes things, it is ontologically very small. Morton writes that we are dealing with a potential infinity of entities and a potential infinity of scales. These large notions and concepts are just used to simplify these things. So, it's never greater than the sum of its parts, it's always much smaller than that because we can continue ad infinitum.

Ella: Morton talks about how we can encounter an object as if we were the flu.[37]

Andrew: I think Morton is trying to say that it's difficult to define the human as human because a human is also the mercury that they consume when they eat salmon, for example, and the salmon, and the poisons that it's consuming, ultimately end up back in the human. These objects that we're calling mercury end up confronting us in these bizarre ways. So, it becomes difficult to

[36] Morton, 162.
[37] Morton, 241

be like, this is a human. So, a human is also the mercury that they're consuming through fish, which are consuming smaller animals, which are being affected by the mercury that's being released through manufacturing processes etc. These objects confront us like the flu, because they come into our bodies just by being human and being out in the world. I think the term is helpful, and I think philosophy does a really good job of giving us new ways to think about things. The thing that I don't like about this term is that is doesn't do much for power dynamics. We know that there have been fears of what industrialism will do to the environment since industrialism started. There are records of warnings about what this process will do to the environment. Environmental activism dates back to the start of industrialism. So, we might start to think of things as smaller than the sum of its parts but that doesn't stop people from continuing to extract fossil fuels, from the earth. There's very little in these books, that talk specifically about challenging these institutions with a lot of power who are causing these problems and who have been causing these problems for a very long time.

Ella: Right. It's not very tactical in those ways.

Andrew: No, it's not tactical. It doesn't discuss the politics of climate change, or the actors who are causing climate change. It doesn't talk about fossil companies, or the government subsidies, or consumer behavior.

Ella: I guess the idea would be that thinking about subscendence and hyperobjects could create a paradigm shift that would have the ability to change policies.

Andrew: It's tricky. You know, ideas, change the world, but they do so extremely slowly. This is why people keep going back to the mistake of dualism or Descartes, where the mind is separated from the body and how that has created all sorts of dualisms, and has created the nature-culture divide. Dealing with the nature-culture divide is something that a lot of environmentalists and eco-philosophers will talk about, because it's important to reintegrate the human within the world around them. But the question is, I guess it's a personal question, do you want to work on the thinking and the theory, or do you want to work on a practical level in that you're sort of shaping policies or applying pressure on some of the fossil fuel companies? I'm always torn between that. I appreciate these conceptual exercises that Morton is doing to explain the shortcomings of our thoughts and what it allows us to do, like replace a species for another when we're thinking of the whole as greater than the sum of its parts. But it is also a little bit frustrating, because it's less practical.

Ella: You mentioned a bit earlier how you worked in the idea of subscendence into your own work.

Andrew: Yes. I used it to explain an attitude in city politics, especially around bird conservation. For example, Toronto voted in 2022 or 2021 to change the animal act that governs how they treat various types of animals within the city.[38] One of the primary questions was whether or not cats should be allowed to roam outside. The reason that was in question was that cats are one of the biggest threats to birds in Canada. They decided not to implement that rule, because they thought

[38]Toronto, City of. "Animal Bylaw Review." City of Toronto. City of Toronto, November 19, 2021. Toronto, Ontario, Canada. https://www.toronto.ca/community-people/animals-pets/enforcement-assistance/animal-bylaw-review/.

it was too burdensome on their city staff to monitor that. They also thought that staff in the city have bigger things to worry about than controlling the cat population, and there are too few resources to do that. It fits within this idea that cats are a bit problematic for the lives of birds within the city, but ultimately, they're also not killing all the birds. Some of the birds are making it to their breeding grounds, so it's not a big problem if some of the Toronto cats are responsible for the deaths of these birds. It mimics this idea that ultimately, the bird species are not going to be killed by a few cats in Toronto, it was going to be something else so it feels unnecessary to act on it. If we think about the parts as always greater than the whole, then it changes our attitude toward that, and maybe we would have seen a different approach to the problem of cats within an urban setting and a change in attitude in city politics. Subscendence works really well for understanding why we don't care about extinction.

Ella: We could apply that to Weddell seal, or anything in the ocean. With the ocean, I feel like there's an even greater cognitive dissonance where it becomes about how the ocean isn't going to disappear, even if a species within it does.

Andrew: I have been thinking around the Weddell seal. You mentioned to me at some other point that the Weddell seal is not threatened right now. They've counted over 200,000. So, according to Wikipedia, they were threatened until the 1980s because expeditions were hunting them. That was banned in the 1980s, and they seem to have a very healthy population at this point. Even though subscendence is good to think about extinction, it can also help us in thinking about our anxiety for global warming, right? The Weddell seal is fine at the moment, but we don't exactly know what climate change will do to its population, right. If we start thinking about

climate change, we can start to worry about whether or not the seal's habitat is threatened, whether or not it's going to affect the food sources, whether the species can adapt to a warmer climate, whether hotter waters will cause problems for the seals etc. The problems we can see are sort of infinite. It's a real context explosion. Right now, they're fine. But in the future, there could be multiple threats.

In October of 2022, I went to small Bard in the Norwegian Arctic on a sailboat that was sailing around the islands right around there with a bunch of other artists. We were going there just as the seasons were changing, and the Arctic was entering the winter night. By the time we were finishing the trip, the sun was no longer rising above the horizon. It was really interesting to witness the sun go down for the season… it is something special. It's something that you don't witness ever when you're living in Southern climates. The seal also witnesses this. I read that the seal primarily uses eyesight to hunt for fish. When the winter night comes along, it switches to its highly sensitive whiskers. It seeks out wakes created by fish in the water with its whiskers and goes from using its eyes to using whiskers to hunt. On the boat in the Arctic, we had all sorts of tools to make up for the fact that it was dark. Even the captain was using radar to navigate and to look for big chunks of ice. The captain and the boat are so reliant on eyesight but in an extended way through radar imagery. It’s interesting to think about the ways in which we have to adapt to dark environments. Just like the seal, anyone who's spending time in the Arctic has to contend with these changes in visibility, and they change their behavior.

Ella: Morton also addresses the role of pleasure in ecological society.

Andrew: Pleasure is a huge thing for them. They fear a totalitarian state that justifies its existence because of ecology. They are steadfast in making sure that an ecological society is one that's based on pleasure and democracy. You build kinship or solidarity because you identify the pleasure of other things and you relate to those things. This is also a criticism of ecology in general, or ecological science, that's very interested in inventorying. It's very interested in the parts of the forest and identifying those parts so that those parts can be conserved, and less about forming relationships or kinship with some of the other parts.[39]

You can say that humans and seals are distant relatives because they're both mammals. It's just that one species went back to the ocean and one species stayed on land. A mammal evolved to hold its breath for more than an hour. As a human, you can learn to hold your breath for more than a few seconds. You can slowly realize that you can hold your breath for quite a few minutes. We're both mammals, we need oxygen, we need to come up to the surface for a breath. That's a remote, small connection, but it's a connection nonetheless. I think that brings it into the idea of subscendence as well. We're humankind, we're humans in a fuzzy way. In the same way that seals are seals in a fuzzy way. They're just kind of seals and humans are also just kind of humans. They share a common history, and that history might be very distant, but at the same time, it's one that's shared. If we take these terms and we try and define them, knowing all these other things, they become less and less in focus, and more difficult to understand.

Ella: One thing I've been thinking about is how you said that freedivers share these desires with marine mammals. When you learn to freedive, you have to go through this process,

[39]Morton, 257

physiologically, and learn your limits within it. When we talk about a species and what they do, like the Weddell seal, we talk about what they're capable of but Alexis Pauline Gumbs talks about how they learn their capabilities. For example, the mom seal pushes her baby's head below the water because they don't yet know how long they can stay underwater. I like that so much because it also addresses an embodied learning process in the water that both marine mammals and freedivers go through.

Andrew: That's a good point; I always tell people who are being introduced to freediving for the first time and who are skeptical that I can hold my breath for two minutes. It's actually three minutes and fifteen seconds, it's my record. Most people can get their breath hold up to two minutes, and that's surprising to them. Not many people have really ever tried to see whether or not they can get their breath hold up to two minutes. Most people who take freediving classes know that they can get their breath up to two minutes, even though they start the class not believing that that's something that they can actually do. Then, going longer becomes more challenging. You can increase your breath hold through certain exercises. There are also people in the Philippines and Indonesia who have been living on the water for hundreds of years, and who freedive to catch fish. There are studies showing that their spleen has increased in size to accommodate a higher percentage of red blood cells to allow for more blood cells in the body, and so they have a much longer breath hold. Their bodies have adapted to living on the water. We are seeing individual adaptations with people who are spending a lot of time on the water and holding their breath for quite a bit longer, staying underwater for longer than we ever thought was possible. So, in some ways, we are starting to see more commonalities between

seals and humans. It's all about adaptation, and about realizing that we can do these things that seem impossible at first glance.

Simple Forms - Drawing the Bowhead whale with Rodrigo Marti

Figure 29 (Bowhead Whale)

Rod,

You chose the Bowhead whale for yourself, but I would have chosen her for you anyway. She is a predominately arctic species with two Canadian populations in the Bering-Chukchi-Beaufort Sea and the Eastern Arctic–West Greenland. She is a baleen whale, who filters food through her teeth. She can grow up to 60 feet long and weigh more than 120,000 pounds - with lots of blubber (up to 45 centimeters of it) to keep her warm in the icy water. She gives birth

approximately every three years and carries her babies for 12-16 months. New research suggests she may be able to derive nutrients from her bones.[40]

Like many large whales, she was hunted almost to extinction since the 17th century and is considered endangered worldwide. Today, the typical threats, manmade underwater noise, net entanglements, collisions, pollution, and climate change, affect her populations.

Her movement follows the melting and freezing of the ice floes and she quite literally plows through it. She breaks through sea ice over twenty inches thick with her large skull and big head to find a spot to breathe. Under the ice, where she spends a lot of her time, she can navigate by her keen acoustic sense and maintains contact with groups of up to 15 fellow whales over a distance of 20 miles. She may also be using reverberations to help her determine the dimensions of the ice floe above

She is among the longest-lived animals on earth - with scientists believing she may be able to live over 200 years, moving and growing slowly and reaching sexual maturity at the age of 25. This means that some of the Bowhead whales in the ocean potentially lived through, and survived, the commercial whaling days, and carry that memory with them in the ocean. Or, as Alexis Pauline Gumbs writes in Undrowned, "The bowhead whale lives for centuries and could potentially grow forever. Researchers say their spines don't set, so even at two hundred years of

[40]Kiest, Kristina. "Bowhead Whales: Recent Insights into Their Biology, Status, and Resilience." *NOAA Arctic* (blog), October 8, 2020. https://arctic.noaa.gov/report-card/report-card-2020/bowhead-whales-recent-insights-into-their-biology-status-and-resilience/.

age, they might still grow…. Bowhead whales have breathed through so much history and outlived it too."[41]

Love, Ella

Rodrigo: I decided to do a series of drawings, and the way I started was by using this letter and cutting and pasting keywords that I thought were of interest. I started doing loose and simple online research to know what a bowhead whale was, and the regions in the world they come from. I looked at all of that for jumping off points for drawing. When I was looking up the areas where they tend to be, it wasn't very fruitful. The images I found weren't that captivating, other than a map, and I didn't feel drawn to that for any particular reason. The map was lacking in drama. The spine detail about the continual growth was very interesting to me. Specifically, I was thinking about the skeleton of the whale. So, I searched that and I'll show you the drawings where I used a tracing technique that I tend to do. The mouth out of the water was something I liked and I liked being able to see the horizon. I tried to get a bunch of images underwater and I used them a few times…then I was trying to find cartoons, which I had many of.

Ella: Were you still looking for cartoons of bowhead whales?

Rodrigo: I started specific and then I opened up the search. I couldn't find anything. I even have the alien whales from the recent Avatar movie…I didn't use it, but I took the Skeleton. Then there are these cheesy posters of every type of whale which I found visually interesting. I was

[41] Gumbs, 72.

also really captivated by this old etching of a whale hunt, and I purposely didn't research too much about it. I tried a bunch of them. Oh, but then for this last one, I used super close-up for some drawings that I like.

Ella: Of the baleen? And is that a bowhead whale?

Rodrigo: I think so, yeah. It's very much about an individual's meandering through a subject and my decisions on what was chosen and what was not. First, I drew them with ink. Because of my interest in the skeleton, I had pictures of my house while it was being renovated. They're just captivating to me. So, I wanted to pair the idea of the skeleton of my house and the skeleton of the whale. I started doing that but wasn't particularly excited by it. Some of the drawings that I liked were very abstract and used the hair-teeth close-up. I drew the teeth and juxtaposed the joists along the floor, and I liked it. I tried to increase the size as much as possible… but it's very abstract. It's one of the only drawings where there are two images on top of each other. And so, I did that twice.

I decided that I liked the way that the pencil outline functioned and the smudging. There's kind of a naive kid-drawing aspect to it which made a lot more sense to me. I didn't know how to do this properly, so I tried a bunch of versions. I started playing, and I was thinking of doing other drawings where I had a bunch of contemporary art, mostly sculpture that I liked. So, then I just started throwing some in to see how they looked…that's like an animal folded into a 70s British sculpture. Then I started taking color back out and using structure in really simplistic ways to see how that worked but they seemed boring. I then included contemporary art in it, to see how that

worked but it just seemed too strategic and too specific, like there's no need for minimalism in this situation.

I then started layering so many images on top of each other, you can't read it anymore. The last one I did is starting to be a little bit more resolved as an image. One of my ideas now is to cut the detail and representational aspects of it away completely and start trying to make a drawing where I'm just overlapping the forms and shapes on top of each other and doing a bunch of it. It will probably turn into an abstract mess that is all sourced from this series of drawings.

Ella: I was hoping we could jump back. One of the things that I talk about, that Natalie Loveless talks about in her book on research-creation, is that the book is an extension of social practice. You and I have had endless conversations about social practice. For me, these eyes are asking people to collaborate with me in a social practice way. We've talked about the conceptual heaviness that can go with social practice and now, you are allowing yourself to have a process that involves loose experimentation. Then, I come back to you with this project that's participatory in this specific way, and you have chosen to deal with it formally. Based on our shared history in social practice, I wanted to ask you about your choice to do this, and also about your process now and why it's important because it didn't start with these drawings, you were already doing them.

Rodrigo: I'm thinking about it almost in the same vein as how I started social practice 10 years ago. All of my early projects were dialogue-based between two people. Part of where my politics evolved, as I was learning much more about engaged art practices, and the nature of politics and

activism, was about meeting people where they're at, and giving people the respect that they deserve, in their context. A lot of the work that we would do, like learning from ethnography and so on, was learning how to do that. I think over several years, I ended up learning that I needed to do that for myself as well. I'm giving myself that place to do the thing that is very generative for me right now, and I find value in using this exploratory tool and capacity that I have visually.

Ella: You've always had an interest in simple forms. There's always been a whittling down, or a layering over, which seems like a big part of your practice. I'm wondering if you want to describe what's happening not just with these drawings that you've made, and the research that you've done about their images, but what kind of decisions you're making based on the fact that you don't have a studio and you have this prolific drawing practice of layering things and allowing things to be intuitively interesting.

Rodrigo: I hit a bunch of personal and artistic walls the years after grad school. I knew that I couldn't continue working the way I had been and I was essentially burnt out. I didn't know where I sat in the world, you know? I was trying to get back to that place and grasping for the things that ground me. When I started this practice of drawing, I decided that some of the criticism I'd gotten over the years in general was that I was an over-thinker so I started the process of automatic drawing. I am also very visual; I love media in general. I was listening to podcasts and going through my archive of drawings, or I would even have YouTube videos of people talking about political or artistic subjects. I would stop on images I liked and I would draw them fast, with no detail, and I did that for weeks. This idea of taking images, archiving, choosing, and working over a period of time is something I always do in different ways. The

very idea of images superimposed, confused, brought together, with muddled associations that are non-sensical, I just do that. My criticism of myself before when I was working in an overtly political or conceptual way was that politics always seemed forced. It's the critique of social practice, or public art in general when it's done poorly. So, I've been thinking about this process of making drawings with your whales, or with random personal images. Eventually, I can start taking images from the world and start associating them with a politic of some kind, I can see the work going in that direction eventually, and I would like that, but I don't want to tell it to go there.

Ella: Do you find that these loose associations can help with research creation by allowing us to keep things open to make connections that we wouldn't make if we were putting politics first?

Rodrigo: When it came to the public practice world, I felt like that was becoming irresponsible. I was acting like an activist, but I couldn't deliver to the level that the politics that we were discussing were asking. My main research interest is super open and it depends on if you agree to the terms that I'm using, to call it research or not. I am thinking about visual production as a form of adding new images to the world that can be read in different ways in an “everything's a text” type of way.

Ella: It's really hard to get to a place where you are making and thinking and have a model for knowledge creation when it's so firmly based on older models. Other people's associations are helpful to me because as much as I might want to be in this process of asking open questions, I'm

also five years into it. So, I have so many assumptions and so many ways that I think about doing this kind of research. Your experiment is so different than mine.

Rodrigo: When I was a teenager and drawing, and learning about the world at the same time, my most developed or interesting ideas tended to come up while I was making an image/drawing. Making an image almost always helped me understand and process ideas. It always brought about some kind of reflection that I found to be generative. It's a tool I used to understand. In a sense, I felt very comfortable with doing this with your project because this is how I'm thinking, this is my baseline, to have a little area to free associate and figure things out for myself.

Ella: I am interested in how that association happens when it comes to bowhead whales, or whales in general, what is your making/thinking process?

Rodrigo: There are two sides to it, the relationship I have with the specific whale and then with bowhead whales in general. Specifically, how little I know, and how far away from the subject I am. My ability to use the subject in any sort of useful or responsible way is highly symbolic. It's super far removed and floating. When I think about the drawings and how other people might read them, I'm uncomfortable with the simplistic reading you can make. I am thinking about one of the biggest, most pervasive whales in Western culture of the last 100-plus years, Moby Dick, and sperm oil. I juxtapose the whale with my house, which is a big thing in my life, but it's also a big problem in my life. It's an easy thing to look at, an easy association between the monster of industrialization and the whale, which I'm not very comfortable with, but I laid it out right there. Those drawings helped me realize that one of the only ways for me to push past that superficiality of scanning through images and reading a few articles, is that I would need to take

time and find other media that help me dig into the subject a lot further, which for me, would probably be a documentary. Something that grasped me that I can work with and kept going. All of that is to say that I'm quite separate from the subject, and even from the category of marine life. It is a very distant reality from mine. Trying to sandwich them together clarifies that.

Ella: I've been sitting here wondering if that's something that a lot of people are doing. This idea of making these drawings, and these parallels between daily life in a city and these different things that marine life might do. In a way, it's also what I've asked people to do. I have asked people to make their associations through a short letter and to think of what the relation points are for them. There's no way to fully know if those relation points make complete sense. Like bones continuing to grow, they're all loose associations. It's also funny that you mentioned documentaries because to me, one of the questions that I'm asking more broadly is, with all of this information that we have, are there ways in the arts or video and performance that will make us feel a closer connection to marine mammals? So, looking at the skeletal structure of bowhead whales with the skeletal structure of a massive house project could be seen as self-indulgent, but in another way, these relation points are potentially more constructive than more facts about a species because it's an attempt to bring it to yourself to become more curious, instead of looking at a Wikipedia page about them.

Rodrigo: Honestly, even just to have an association, and an experience that brings you into a relationship to the subject is already a step. Your prompt created an experience that has engendered a series of things and a memory that I will then use in the future, The Canadian artist

Brian Jungen did the giant whale sculpture made out of plastic chairs.[42] It was amazing. It was such a good and simple way of thinking about the scale of a whale, and this is essentially doing a very similar thing to my drawings in a much more impressive and succinct way. It's taking an object from your everyday, in this case, furniture, that relates to the human scale and creating a skeleton of the actual animal. Part of working visually this way is figuring something out, but also working within an area of my lack of understanding, there's always a knowledge that there's a productive ambiguity that is available to others. It's clear to me that sentiment is temporal, like, that's where I'm at right now with the subject matter. With these drawings, if I wanted and was able to continue, many routes of contemporary visual production can bring about the other, more optimistic worldview and politic about how connected we are. There are ways through drawing to bring it back, but physically, it's far away.

[42]Jungen, Brian. Shapeshifter. 2000. Sculpture, white polypropylene plastic chairs, 145 x 660 x 132 cm. https://www.gallery.ca/collection/artwork/shapeshifter.

The spirit of Springer - Exploring grief with children with Shalon Webber-Heffernan

Figure 30 (Orca)

Shalon,

Thank you for taking part in my funny project. I am (of course) giving you the Orca. Having lived on the West Coast, you probably know a bit about them already and are potentially more familiar than me. I am used to the baleen whales and have always been made somewhat uneasy with the whale-as predator…. and not just any predator, but an Apex predator. Of all the whales, they are easiest to find - both in the oceans (they are found in every ocean in the world), and in the cultural imaginary. Although I don't have any quantitative data, I am sure they are the most widely represented whale in western pop culture.

In BC, the resident orca clan is made up of only three pods - J, K and L (which I think I saw members of when I was there). The J Pod is endangered. Unlike many Orca species, they eat fish - and are greatly influenced by the salmon population. In the summer of 2021, this pod, which is

usually spotted between the southern tip of Vancouver Island and the United States, simply went missing from the Salish Sea. For 108 days, no one spotted them, popping back up (quite literally with the breech) in late August.[43]

There are so many things about orcas and their many pods around the world I am sure you will discover (or already know!) but just to name a few….
Orcas never fully sleep (sound familiar?). Unlike humans, their bodies don't tell them to breathe when they are unconscious, so they sleep with only half of their brains, floating on the surface, while the other half ensures they breathe and keeps a lookout for predators while floating on the surface.

Orcas rely on sound to communicate (clicks, whistles, and pulses), and knowledge is passed down from elders. What and where to hunt, what to avoid, and calls, vocalizations, and accents specific to their pod of whales to maintain group cohesion. They are social and stick to their pods, which are maternally related. Generally speaking, an average pod would consist of about twenty whales.[44]

Males generally do not live as long as females, with an average life span of 30 years. A female orca has an average lifespan of 50, but could live up to 90 years in the wild. She reaches sexual maturity around ten to thirteen years old and carries her single calf for sixteen to eighteen

[43]News ·, C. B. C. "Regularly Sighted Orca Pod Hasn't Been Spotted in Salish Sea for More than 100 Days | CBC News." CBC, July 22, 2021. https://www.cbc.ca/news/canada/british-columbia/where-is-jpod-1.6112278.

[44]"Killer Whale | NOAA Fisheries." Accessed December 26, 2023. https://www.fisheries.noaa.gov/species/killer-whale.

months. The birth rate for an orca is estimated at every five years. Female orcas, alongside belugas, short finned pilot whales, narwhals, and humans, are among the only known species that experience menopause. [45]

Their "killer" status has been used as justification for our harmful practices toward them - capturing and confining them for our own entertainment, hunting them, and culling them for better fishing practices. I can't help but think it would be harder to justify if we really knew them. I cannot say it better than Alexis Pauline Gumbs says in her "be fierce" chapter of Undrowned:

"I would say the orca before and after 1970 are influential. In matrilineal, multi-generational groups all over the planet, orca families influence all the other species in their range. They inspire seals to move onto land, they impact the migration of animals as varied as moose and humpback whales. In truth, the orca is a large dolphin, but there is no species on Earth too large to fear her. And give respect. Orcas greet each other respectfully as distinct resident groups and celebrate their own social order. They collaborate on the care of their young. They are not afraid to express their grief for months and years in public. Yes, I would say the orcas are powerful, influential, necessary. Nuanced and majestic, brave and committed. Those are the words I would use."[46]

For many reasons Shalon, the orca is your whale.

Love,

Ella

Ella: It's a funny time; orcas are having a particular moment right now with White Gladis destroying yachts.[47] I feel that Alexis Pauline Gumbs' observation is only more relevant with

[45] Beluga Whales and Narwhals Go through Menopause | CBC News." Accessed December 26, 2023. https://www.cbc.ca/news/science/beluga-narhwal-menopause-1.4798359.
[46] Gumbs. 110
[47] Beddington, Emma. "The Orca Uprising: Whales Are Ramming Boats – but Are They Inspired by Revenge, Grief or Memory?" The Guardian, July 11, 2023, sec. Environment.

how much orcas influence and teach each other. I am sure, without getting a statistic, that orcas are the most common whale in pop culture. They're just so iconic. There are so many killer whale revenge stories.

Shalon: Yes and of course, the original Free Willy[48] was implanted in all Millennial psyches at a young age.

Ella: Yes, and the documentary Blackfish as well… So, you chose the spirit of Springer. We could just talk about the story a little bit, and talk about why you chose it.

Shalon: Yeah. I didn't know about the book beforehand, it was sort of a reverse process where I thought about what I wanted to talk about in relation to orcas, and then was looking online for children's books that addressed the maternal and grief process of orcas. I watched Michelle Pearson Clark's TED talk on grief.[49] It's not about whales, but she does reference Tahlequah, the orca who carried her dead calf for several days, which is common, but she carried hers for longer than usual. So, it was my starting point for thinking about what I wanted to do as a workshop with kids, text wise. I was doing some Google searches and I found that book, which doesn't necessarily deal with that, but it does deal with an orphan calf. So, I thought, that could be an interesting way to think about that. Also, it wasn't Michelle's talk that got me thinking about this, I'd already been thinking about grief in the animal world in relation to their children from my

https://www.theguardian.com/environment/2023/jul/11/the-orca-uprising-whales-are-ramming-boats-but-are-they-inspired-by-revenge-grief-or-memory.

[48]*Free Willy (1993) - IMDb*. Warner Bros. Pictures, 1993. https://www.imdb.com/title/tt0106965/.
[49]Rethinking How We Hold Space for Grief and Loss. | Michèle Pearson Clarke | TEDxPortofSpain, 2019. https://www.youtube.com/watch?v=ZKb1XKxwyhg.

own experience of being separated from my daughter at birth for 10 hours, it was a very animal experience that I had. It's a very animal feeling where you just feel so connected to a primal part of yourself. *The Spirit of Springer* doesn't really contend with these issues, but it does talk about an orphan whale and tells a scientific, conservational story around getting this orphan back to their family. The kids in the workshop were three and four, so that was huge, because the book is very complex, and it's long. It's great if you're in grade seven, but it was just very detailed in this way that doesn't really lend itself towards a narrative. I kind of ended up improvising…maybe it makes sense to talk about the workshop.

Ella: Yes

Shalon: Marlow helped me to create a blue sheet and blue pillows so that when the kids arrived, they were sitting in the sea. There were six or seven kids, and we had ocean music playing. It was kind of hilarious because it was ocean-sound yoga music from Spotify…. deep relaxation ocean sounds, which is kind of cool because then all the kids were sitting on the sheet on the floor. It was chaos because there were seven three and four-year-olds. There were snacks, and the kids were running around. Eventually, I think the calming ocean music chilled them out, and I started reading the story and they were surprisingly all very compelled. It's very difficult to read a story to seven children, but they were all sitting in the pretend ocean and they were all wide-eyed. Pretty much right off the bat, Springer gets lost from her family. I asked them if they knew what an orphan was, and then explained it because I was like, there's no sense continuing with the story if they don't even really understand what's going on. So, we talked about how an orphan is somebody who gets separated from their family. But then of course, there was a little bit of

sadness. Then, because the story was evolving, Springer was away from their family. This one kid, Ed, kept asking questions about where the family was, and if they were going to get reconnected. I didn't want them to feel scared. So, I read one sentence from each page because it was too long. We went through how the scientists were helping, I also tried to focus on the whole community, and how they're all supporting the family. We looked at the pictures instead of reading everything that happened, and then they catch Springer, but then somehow, Springer's lost again. I focused once again on how the community helped Springer get back with their family. I could tell that they were scared, afraid, and sad about the separation, which was interesting because the separation was the main entry point for me.

When the story ended, our kitchen table was covered, and everybody had their own little orca picture to draw or color. We had sparkles and gems and stickers, and I had also cut out all of these marine scenes from a massive stack of old National Geographic magazines. So, they were able to glue and cut them. I think having the cutouts from National Geographic was what made it interesting because it was able to activate their minds a little bit with some scuba divers. Obviously, it wasn't orca-centric… it was turtles etc.… but it was good to have their little minds attuned to it. One of the things I thought about a lot afterwards was that one of the things that is really cool about art with children is that you have no idea what's going on with them… they had the story experience, and then they're doing these random crafts where they're dumping glue on the Whales, and its total chaos. I was thinking about collage and children's thinking and was wondering, what is in their head right now? It's just fascinating to me that we really can't know. I do believe that these imprints do something that we take with us our entire lives.

Ella: Did they ask any questions during this story?

Shalon: They asked about what they were all quite concerned about, whether or not Springer was going to be with their family again.

Ella: Yeah, I remember that stage of always wanting to know how it ends.

Shalon: It was the main fixation…100%. When the scientists lift Springer out of the water with a crane, they were interested in that. But they were all quite fixated on the return, which is heartbreaking, in a sense, because we all know that, whales or otherwise, that's not always the case. There's not always a happy ending where the family and the community all come back together, and it's all great. There was a part of me that felt a bit heartbroken.

Ella: One of the things I talked about in the first chapter was this quote by David Hickey, who was talking about Looney Tunes and how many kids' first experience of death is often animal death through pets. We learn that animals are fragile. He makes the argument that one of the reasons that Looney Tunes is so popular is that it counters this fragility because the animals are completely indestructible. This idea that you do kind of need that as a kid and, at the same time, it's an early seed that's planted that tells kids everything will be okay, which is, of course, not the reality, and then we deal with that grief later.

Shalon: Exactly. Yeah, it's really this fine line with children… it was also other people's children. If it was just my own child, I might be more willing to have this conversation. To share a side

anecdote, my three-year-old is particularly obsessed with death right now. It's very interesting to me because I wasn't expecting it at this stage. She hasn't experienced any great death or anything. One thing which I feel like you'd appreciate is when we were in Georgia last summer, we went to a nature conservatory. Part of it was you walk through this huge forest, and it was one of the coolest pedagogical nature things that I'd ever seen and it was really old, but it was so effective. You walk through this path… it's like a boardwalk through the forest. You'd walk along this boardwalk, which was very long… it's a long journey through the forest. There was a story on these historical-looking plaques, and it was the story of an oak tree. You would follow along, and you'd have to walk two minutes in between each plaque. The first plaque was this beautiful grand oak tree. There were maybe 25 of these plaques, it's basically a storybook. What happens is this beautiful oak tree is so grand and beautiful and the king of the forest, and then it dies. And the story is sort of about the lifecycle of the tree, but then also its afterlife and how the ecosystem of the forest lives. It's so beautiful. Marlow was so into it; she would run to the next one. It felt so effective to me, because you're literally immersed in the forest… and then there's this pacing where you must walk through the forest to get to the next part of the story. It was nice because it went into the afterlife and not only was it all the bugs, and critters, and animals living off of the tree, but it also went into how it disintegrated, and then how it produced seed and kept growing. What I'm trying to say is that Marlow has thought about that so much. I feel like it has influenced her thinking about death because she constantly talks about it. We have this a picture of Brian's grandparents; they have been dead for a very long time. Marlow picked it up, and looked at it, and she was asking me who it was, and I told her, "Those are your great grandparents, and they've passed away now." And she was like, "well, they're going to come back as something else." This idea of regeneration has really been implanted.

Ella: That's beautiful. It sounds like a more constructive way of thinking about it, and at the same time, there's still this western impulse to avoid death or grief. Going back to the story of Tahlequah, there's two parts of it. One is the way that orcas grieve for their young and how we relate to that, and then there's a larger ecological grief in terms of the way that we treat orcas, and the way we treat the ocean and the species within it. Both of those types of grief exist in this story, it wasn't just about the way that she carried her young, it was also about our role in that happening.

Shalon: I find people's reactions kind of surprising, that they can't believe it's happening. Why are people so shocked that this animal is grieving the death of her child? People will post videos on Facebook that show a horse mourning its dead calf, but it's like, obviously it's going to be sad, why would it not? Why do we expect that other animals don't grieve? That's a human-centered idea… as if animals are these, non-sentient, non-conscious creatures… it's a very pervasive thought.

Ella: Yeah, how did this happen? Why are we so shocked that it's happening when we have such an acute sense of the reality of what's going on in the ocean, and the plight of a lot of species?

Shalon: Something like the whale carrying the dead calf is just one of those things where it's not something that we can just ignore. It has that sensational quality that is weirdly human. It's one of those things where humans identify with it, so they can suddenly have compassion or something.

Ella: In a lot of ways, this chapter is looking for kinships or relation points. Regardless of whether it's anecdotal, or anthropocentric… and Tahlequah is hard to ignore. I was also thinking about the most recent story of White Gladis, and thinking about how that story is psychologically easier, because there is this narrative that they are seeking revenge.

Shalon: Yeah, and there's this magnification process. It's quite interesting to me how that happens, the circulation of these images, and stories, and how they are understood.

Ella: Yeah. This idea that whales are finally getting revenge and that White Gladis started attacking boats after a "critical moment of pain" with a boat.[50] A lot of the headlines aren't focusing on the pain, they're focusing on her revenge. I think it's interesting, especially with orcas, we have so much fodder for different ways that they're represented as killers, instead of thinking about their capture. I think one of the most interesting things for me about *The Spirit of Springer* was the way that the whales reunited. The story is very human-centric, but for me, the extended family finding each other is the most incredible thing. Still, I can't imagine the number of resources it took to reunite Springer with her family - especially the airlifting.

Shalon: I would have liked to know more about how Springer was re-accepted and relearned within this group. Apparently, they went on to thrive and have their own children.

[50] Stern, Jacob. "Killer Whales Are Not Our Friends." The Atlantic (blog), June 17, 2023. https://www.theatlantic.com/science/archive/2023/06/orca-killer-whale-attacking-boats/674438/.

Ella: I have a friend whose father died when she was a kid. She had a lot of deaths early in her life, and it was always wrapped up in other people's grief. She said in some ways, she never felt like she could have her own grieving process. When she was in her 30s, one of her cats died in a hit-and-run. She told me that it was the first time that she felt like she was able to grieve just for herself. Having her cat die was a catalyst for giving herself permission to grieve. I just found that so interesting that animals can help us process that, and maybe we give ourselves permission through them. What is your relationship with the orca specifically?

Shalon: I don't really relate to the book. It was less oriented toward my initial seed of thinking, which was about Tahlequah, specifically, the relationship that she had with her calf and her grieving process. I think there was something to be said about the extended nature of it, because that's what resonated with me about that story is that in humans, specifically postpartum experiences, there's this expectation that you should recover from it quickly. That was my experience. I had very serious postpartum depression based around the experience of being separated at birth, I would describe it as having PTSD, and it went on for a long time. I would cry randomly six months after she was born, and I would go into this obsessive thinking about it. I would talk to Brian about how angry and sad I was, and how that was part of my birth that was taken away from me, from him. Brian would say it was time to move on, which I get, it's a hard thing for people to understand because it's grief. There's not an orderly process to it, sometimes it can take a year, and sometimes it can take five years. I really identified with that story of her grief going on longer supposedly than it should, or normally does.

Ella: I can understand that. In my own experience, the thing that I resonate with the most is the extended ideas of kinship and raising young and the time it takes to process that type of loss. The support around her from the rest of the pod who allowed her to do that. I don't even know if allowing is the right word, because who knows the way that they work those things out. But you know, staying with her. I find it powerful because I think that you're right, that there are expectations of how to cope with the "end of the story." Like, how you get to a good conclusion. It's like, okay, but did it all work out? Great. Were you able get pregnant again? Have your child? Okay, well, then it's a happy ending.

Shalon: That was constantly what people would say. On the one hand, everybody is safe and that's what matters. It's basically a message to say, stop grieving now because everybody's okay. I feel like our culture is so uncomfortable with grief. The birth was also interesting to me, because it was an experience in my life that connected me more to my animal self than ever. But it also made it so apparent to me that we are not living in that animal state that connects me to the orca whale and that sense of touching in on that raw place. That is what we should be doing, but we're not because there are these weird, fucked up, social expectations around these things.

Ella: It seems like in those moments where you're bringing life into the world, or experiencing intense grief, there is no way through except to connect to that. I have also experienced that. If that is the way we need to get through these moments, why aren't we working more on connecting to them in our daily lives? I also relate to what you were saying about grieving the birth story that you wanted to have. Culturally, motherhood is one area where these stories are so strong. I feel the same way with my own story, where I think a lot of the grieving process for me

around miscarriage has to do with knowing that even if I have a child, I will never get to have a child without the anxiety of miscarrying. I'm not saying that people necessarily do have that, but that's the narrative. You get pregnant, and then you celebrate it with your partner, and then you watch your baby grow, and you involve everybody, and you go for your appointments, and then you give birth. This whole process of getting pregnant and being pregnant is supposed to have this happy and positive feeling, and that is predominantly shared with a partner. That was what felt the hardest and the most unfair was that I was grieving a narrative that I had grown up with that I would never have.

Shalon: I think part of the reason why people are so uncomfortable with death and grieving is that they fuck with a capitalist mode of existence because it's a different temporal zone. Like, you're not in production mode, you're not in find-the-solution mode. You're in a different mode. You're like, in the abyss of your own existence. I think it just makes so vividly clear that people are uncomfortable with the topic of death. I think part of that is because death makes us acutely aware that a lot of the things we are up to in this life are irrelevant. It forces us to grapple with the existential crisis that is our existence because if you were to find out you're going to die tomorrow, you're probably not going to be like, this PhD means everything to me…it would be irrelevant to me. I think that's part of the reason why people don't really want to think about it. It's understandable. We don't want to be living in an existential crisis every moment of our lives. It truly fascinates me too, because I often wondered if it is part of an animal instinct in humans. We're so conscious that death is something that's going to happen to us one day. I feel like I'm a person who's thinking about death and yet, every single day I act as if I'm never going to die. I get wrapped up in my PhD… but it's like if we were constantly living in this state of awareness,

we would be spinning out into these neurotic rages about shit that's so relevant. Again and again, when you hear people's testimonies of the death of a loved one, people say it didn't feel real. I've had that experience too, where you just can't imagine that this is possible. And I think it's because there's no escaping it.

Blue whales, earwax and loneliness with Veronique Sunatori

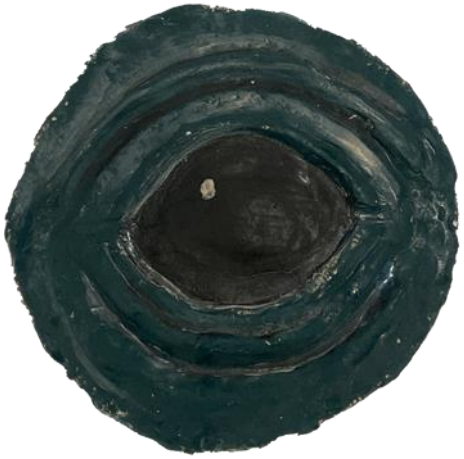

Figure 31 (Blue Whale)

Vero,

I chose the blue whale for you, the gentle giant of the ocean. The blue whale is the largest animal to have ever existed. She can reach up to almost 30 meters, and weigh just under 200 tons. Despite their size, they have managed to remain quite mysterious (Mysticeti), partially due to her shy and solitary nature but mostly because her population has been reduced by 94%, having been hunted almost to extinction before the banning of blue whale hunting in 1966.[51]

Much of what is known is learned through her earwax, which she secretes throughout her life. The wax forms long, multilayered plugs that has light or darker layers during migration and during feeding. The layers of wax on the plugs let us know, for example, that the maximum age

[51] Royal Ontario Museum. "Great Whales." Accessed December 26, 2023. https://www.rom.on.ca/en/collections-research/magazine/great-whales.

of a blue whale is eighty to ninety years old. Age could also be determined in females through scars on their ovaries.

Her ears are also well adjusted to hearing low-frequency sounds, and she emits low-frequency vocalizations herself within a range of 7 Hz to 22 kHz.[52] The song of the blue whale was picked up by Russian submarines in the 1960's. When she sings, she omits some of the loudest and lowest frequencies made by any animal, which can be divided into thirteen song types, and at least seven of these song types have shifted to even lower tonal frequencies over time (being 31% lower than in the 1960's).[53] People like to think the blue whale is lonely, and solitary, traveling most of her life, and singing alone, but her sound carries, and, as Alexis Pauline Gumbs says in *Undrowned*, "With one breath they send sound across entire oceans, envelop the planet in far-reaching chant." [54]

I have never seen a blue whale, but I know of people who have in Tadoussac between May and November.

Love,

Ella

Vero: Actually, I don't think I've told you this, but I went whale watching when I was a kid.

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[52]Berchok, Catherine L, David L Bradley, and Thomas B Gabrielson. "St. Lawrence Blue Whale Vocalizations Revisited: Characterization of Calls Detected from 1998 to 200." *J. Acoust. Soc. Am.* 120, no. 4 (2006).
[53] "Study Says the Blue Whale's Mating Call Has Grown Deeper - The New York Times." Accessed December 26, 2023. https://www.nytimes.com/2008/07/29/science/29whale.html.
[54] Gumbs, 76.

Ella: Really?

Vero: Yeah, I can't remember this must have been when I was like eight years old or something. I was quite young. I can't remember which whale we saw. Yeah. I still have a beluga whale plushie that we bought when I was there. When I was a kid, my favourite animal was a dolphin. So, I feel like the plushie was in the same kind of category and I was excited about it.

Ella: I thought we'd start to talk about the trajectory of getting to this chosen topic a bit.

Vero: Yeah, we started looking at the podcast 99% invisible, "A well-oiled machine," which was talking about whale oil and how it was a very high-performance lubricant, which is hard to achieve with other lubricants, even synthetic lubricants. So that's an interesting thing about the blubber.[55]

Ella: We started with this podcast and thinking about whale oil. Since the beginning, we have been talking about whale by-products in some way. First, with whale oil as a lubricant. and then earwax.

[55] Ackerman, Daniel. "A Whale-Oiled Machine." Accessed December 26, 2023. https://99percentinvisible.org/episode/a-whale-oiled-machine/.

Vero: I think the earwax is a lot more interesting, there's so much information and complexity there that tells us so much about the whales themselves, both the whole species, and the lifetimes and personalities of individual whales.

Ella: It is delightful how many things you can discover through the ear wax of blue whales, but also so fascinating as an object. It's similar to the rings on a tree, and the 10-inch-long plug of earwax is very visually satisfying. We discovered that one of the darker and lighter layers combined represents one year of the whale's life, and indicates when they're feeding through the lighter layers because they contain more lipids. The darker layers happen when they're migrating.[56]

Vero: Every year they migrate, and that's how you get these light and dark layers. The high cortisol layers create a bigger ring which can determine when whales are more or less stressed.

Ella: The other thing that we discovered is that they can only extract the earwax from a deceased whale. Museums have had these earwax plugs around for ages without knowing how much information they held. Three people seem to be at the forefront of blue whale earwax research. I think they have tested over 20 whales and tested the earwax for different compounds.

Vero: Yeah, they found trends in the high cortisol levels, there's been spikes in it. At the time when the whaling industry was peaking, there was more cortisol in the earwax. More recently,

[56] Gannon. "10-Inch-Long Earwax Plug Reveals Blue Whale's Life History | Live Science." LiveScience, September 17, 2013. https://www.livescience.com/39727-blue-whale-earwax-chemical-archive.html.

with the climate crisis, I'm assuming, or that's the main assumption, blue whales are dying off in that different way, and this stress is once again manifesting in the cortisol in their earwax.

Ella: To study this, researchers shaved off these different rings, and then would test the cortisol levels within. It seems like there are other things that they could test as well using the same process. We could potentially know a lot about whales, not only their life and death but also their interior life.

Vero: They're reaching deep inside and getting a slice of things. It’s kind of funny to think of it.

Ella: I think one of the reasons it feels so exciting, is that it gives so much information about a mysterious species, more than we could observe.

Vero: It's kind of like a diary. The record of that is so interesting. You can track the movement of a whale, but you can't be with it…you probably can't even see the whole thing. You can't analyze its behaviour that way. It's interesting to me that this is the best way to know.

Ella: Yeah. For such a seemingly mysterious and shy species. It feels very transparent.

Vero: Yeah, we were also looking at how blue whales have had different trends in their singing. We were looking at the frequency and how it's been changing over time. These trends may or may not correlate with the ones in the earwax, but the total frequency is falling every year by a few fractions of a hertz. It’s speculated that it might be because noise pollution and shipping

traffic have increased within the ocean. All of the ambient noise in the sea is like 12 decibels, more than it was in the 20th century.[57] There's also the possibility that because whales are more sparse, blue whales are lowering their pitch to broaden the range of their singing. I'm assuming a lower tone reaches farther. A lot of the articles and writing about it are talking about loneliness in blue whales. It seems like there's this mythology about this, the blue whale being an increasingly lonely species.

Ella: With tree rings, when I was a kid, I thought it was so exciting that the lifecycle of something could be read like this. But it was also kind of freaky, because it was an introduction into realizing that trees were alive.

Vero: I think with whale oil you don't know much about the whale, just the material that comes out of it. Blubber is one of the only lubricants that performs so well in really cold temperatures, and really high temperatures, there's something really special about it. That was where the initial interest was, but now, learning more about them, especially the ear wax, their whole lives are on this record. Stress in loneliness and relationships are so relatable. Not to anthropomorphize, but this is the type of thing that helps us care more. It made me think about this one video circulating the internet about a turtle with a straw in its nose. We have eliminated plastic straws everywhere…this one video had such an impact. There's so much mystery attached to the blue whale. Are they lonely? Their singing is so slow and beautiful and majestic. They are so special and there are so few ways to know much about them.

[57]Haskell, David George. "An Ocean of Noise: How Sonic Pollution Is Hurting Marine Life." *The Guardian*, April 12, 2022, sec. Environment. https://www.theguardian.com/environment/2022/apr/12/ocean-of-noise-sonic-pollution-hurting-marine-life.

Ella: It's true. They are solitary, but they're also one of the loudest, if not the loudest species in the world. I realized that I refer to the blue whale as she but in fact, it's only the male blue whale that's singing, because it has to do with finding a mate. In the 70s Russian submarines picked up blue whale songs… they weren't looking for it, but they discovered it.[58] The mysteries around them are ones that we can look at and hear. In this way, it's really satisfying because it's so different than humpback whales who we see so often on tours.

Vero: It makes you think of the whales as a community, the blue whale community, you're experiencing this as a whole. It's a good reminder that everything is connected and they're living through this era with us as well and potentially having similar feelings… there's this form of depression… it's so relatable.

Ella: We talked a little bit about 52 Blue, this documentary that was made about the search for the "loneliest whale in the world" who sings at the frequency of 52 Hertz. I can correct this later if I'm wrong, but I am pretty sure they have never seen him, right, only heard him?

Vero: Right, yeah. They detected the sound and everyone was confused about what it was because it was such a low frequency and so loud then they discovered it was this blue whale, and it became a legend, to the point where BTS wrote a song about it, too…it's about loneliness. Spoiler alert.[59]

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[58] Lipsett, Lonie. "A Lone Voice Crying in the Watery Wilderness." *Oceanus: The Journal of OUr Ocean Planter*, April 5, 2005. https://www.whoi.edu/oceanus/feature/a-lone-voice-crying-in-the-watery-wilderness/.
[59]The Loneliest Whale: The Search for 52 (2021) - IMDb. Bleecker Street, 2021. https://www.imdb.com/title/tt2401814/.

Ella: The documentary is about searching for 52 blue, but they don't even know if he is alive. One of the headlines I saw said it taught us more about ourselves than the whale. Specifically, our interest in this idea that he sings at such a low frequency, that other whales can't hear him. I was also thinking about how, because the frequencies of the whales are getting lower, maybe 52 Blue is the trendsetter.

Vero: With this story, there is something about learning about individuals and, in turn, seeing them as a whole community. It helps us really feel something toward them, as opposed to just thinking of them as a species. These tiny traces of information that we get, it's small, but the mystery is so endearing.

Ella: When we think about them as a species we talk a lot about declining numbers. There is so much around their death. One of the things that is exciting about the ear wax is it's about their life, the years of their life.

Vero: I saw a picture of a beached blue whale that had garbage spilling out of its mouth. It's so messed up and I feel like that makes you think about its life so much more. You think about how it has lived and the pain of that life.

Ella: I know what you mean. Thinking about them moving through these spaces and dodging our garbage, or ingesting our garbage, and stressing them out with noise pollution, it's sad and it makes me think about their life in the ocean.

Vero: It makes you wonder what they are saying to each other about us. Blue whale sounds are very slow and calming. There are these sounds for falling asleep on YouTube. I have been thinking about making a mix that creates something that's in between what we do and what they do musically. I've also been thinking about the earwax, and thinking, what do we have to record our lives? What do I have? Is there something I've been slowly accumulating over time, or that my body accumulates, that provides a recording of the peaks and valleys of my life?

Conclusion: The Humpback Whale & How to Make Art at the End of the World

Figure 32 (Humpback Whale)

Last weekend my friend Julia told me that she is going to a Taylor Swift concert in Boston. Her friend who had procured the tickets via lottery is a huge Swiftie. When she found out she was going to go, Julia set to work listening to all of Taylor Swift's albums. She even bought a pair of pink cowboy boots for the occasion. She described doing this for her friend because she knew the hurt feelings of really loving something, sharing it, and having someone not share your enthusiasm, or understand it. This is certainly how I feel, and have always felt, about marine mammals. Although I have lured many to Brier Island to see the humpbacks, perhaps similarly to a live Taylor Swift experience, live encounters with marine mammals should be special and rare, a subject I address in Chapter One where I outline the necessity of alternate and art-based ways

of building a kinship with marine mammals and more broadly, the Ocean. With this assertion, it is important to me to find experimental ways to build relationships.

The original concept used to guide this section of my dissertation was Claire Pentecost's definition of a public amateur, wherein

> ...the artist serves as a conduit between specialized knowledge fields and other members of the public sphere by assuming a role I have called the Public Amateur. In such a practice the artist becomes a person who consents to learn in public. It is a proposition of active social participation in which any nonspecialist is empowered to take the initiative to question something within a given discipline, acquire knowledge in a non-institutionally sanctioned way, and assume the authority to interpret that knowledge, especially in regard to decisions that affect our lives. The motive is not to replace the specialist, but to augment specialization with other models that have legitimate claims to producing and interpreting knowledge.[60]

To add to this concept of the artist learning in public is Loveless' emphasis on the importance of curiosity and love in research creation: "rather than allowing discipline to tell us what questions are worthwhile and what methods are appropriate, a research-creational approach insists that it is to our deepest, doggiest, most curious loves that we are beholden, and that it is love — eros — that must drive our research questions as well as our methodological toolkits."[61] If, as Loveless referencing Donna Haraway so aptly describes, it is our "deepest doggiest loves" that must drive our research, one question I am asking in this chapter is, how do you begin to share these with friends, peers and students, and perhaps even enlist others into sharing these interests? How do you create fans of Marine Mammals so we can learn in public together?

Loveless also places importance on curiosity as a libidinal drive and organizational principle for research creation,[62] naming curiosity as something uncanny that erupts.[63] This

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[60]Pentecost, Claire. "Oh! The Public Amateur Is Not Afraid to Let on That She Just Figured It Out." The Public Amateur (blog), March 26, 2007. https://publicamateur.wordpress.com/about/.

[61]Natalie, Loveless. How to Make Art at the End of the World: A Manifesto for Research-Creation. Durham, NC: Duke University Press, 2019, 28.

[62] Loveless, 46

[63] Ibid, 47

curiosity is also conceptualized in the context of Loveless' term polydisciplinamory, which examines theoretical polyamory, critical pedagogy within queer theory, and interdisciplinarity as a way to further critique the concept of disciplinary specification.[64] The people I have asked to be a part of this project very generously agreed to attempt to share in some of my curiosity and love with Marine Mammals. The concept of polydisciplinamory was central to this chapter through my own process of working with sculpture, theory, and interview practices, but also in inviting others to share in their disciplinary loves through the offer of the eyes. This chapter is also a way within my dissertation to allow for, as Natalie Loveless says, "the insertion of voices and practices into the academic every day that work to trouble disciplinary relays of knowledge/power, allowing for more creative, sensually attuned modes of inhabiting the university as a vibrant location of pedagogical mattering."[65] Having focused on marine mammals for many years now, involving people and asking them about their own curiosities and relation points to their respective eyes helped me to broaden the artistic practices used as research methods within this dissertation,[66] and lifted me out of my own, at times myopic vision about what interdisciplinary marine mammal research, art and advocacy could look like.

Loveless focuses on the political capacity of curiosity to tell stories that re-make the world. Referencing Donna Haraway once again: "Haraway suggests that to 'find arguments and stories that matter to the worlds we might yet live in' we must investigate, with the curiosity of she-who-does-not-already-know, the material-semiotic entanglements, the "worldliness" out of which each of us, at any given moment, emerges."[67] To draw on the work around research

[64] Ibid, 6
[65] Ibid, 3.
[66] Ibid, 4.
[67] Haraway in Loveless, 23

creation in "Research-Creation: Intervention, Analysis and "Family Resemblances"' by Owen Chapman & Kim Sawchuk, working in this way also assists in challenging the "established protocols and practices for what constitutes valid scholarship that act as normative frameworks for modes of presentation,"[68] to question what they describe (through Foucault) as the "regime of truth."[69] I did not come into this project with prescribed texts or theories to arrive at the video and performative experiments. Rather, I started with an artistic output, whether it be a performance, a ceramic whale-eye, or an experimental video edited from qualitative interviews. This not only served as a practice-based diving off point but was a crucial component of the making of the form and content of the written component of this dissertation.

Choosing peers engaged in their own practices who were coming to their marine mammals without a previous knowledge of them allowed us to have conversations from a "she-who-does-not-already-know" perspective and allowed for broad questions based on Loveless' ideas of curiosity and love namely, "What do I not know here? To what am I not attending? What is drawing me forward, and why?"[70] From this, topics in relation to marine mammals as broad as ASMR, Timothy Morton's idea of subscendence, Drawing as Research, and the earwax of blue whales emerged. That the creation of my work, and the work of the collaborators, was necessary for the "research to emerge,"[71] using four different approaches throughout this dissertation, places this work in the "research-as-creation" category which involves "gathering and revealing through creation, while also seeking to extract knowledge from the process," understanding the media and practices produced throughout are garrisoned as necessary components of the research

[68] Chapman, Owen. "Research-Creation: Intervention, Analysis and 'Family Resemblances.'" Canadian Journal of Communication 37, no. 1 (2012): 5–26. https://doi.org/10.22230/cjc.2012v37n1a2489, 6.
[69] Ibid
[70] Loveless, 71
[71] Chapman et al, 19.

process.

I see the video and performance experiments done in this chapter and the other three chapters as "an integral part of the study"[72] in the sense that in all four cases, I could not have developed the written components of the work without the performative and video-based experiments. Specifically, before I wrote the theoretical text footnoted in *Wish Whale*, I performed it as a stand-alone speculative whale tour in 2030. It was through developing the video performance and construction of the dorsal fins for the performance that I began really interrogating the surfaces that I was referencing and thinking about. The entangled empathy is not merely a thought experiment but functioned as a feeling, engaging sight and touch as I carefully studied and constructed the scars on the whale's skin. For *Boundary Objects*, it was through the creation and gift of the whale eyes themselves that we were able to collaboratively arrive at the topics and work. Throughout the conversations, the sculptural components create a layer of haptic understanding that changed the final written and video-based results. For the third chapter, I filmed *Wicked Game* before arriving at the written letters, both sharing in an existential and dream-like knowing or loose references and connections to marine mammals that could not exist as a written text or as qualitative interview analysis.

Originally constructed as novice sculptural "teaching tools," the whale eyes function as transitional objects, with the intention of creating a sense of connection and intimacy between the subject (in this case, marine mammals) and the viewer. This has also been a method for research-creation, as I have used the construction of the eyes to learn new skills and think through the theoretical and practical components of my work in new ways. I also find useful the

[72] Ibid, 6

definition of boundary objects, as defined by Geoffrey Bowker and Susan Leigh Star in Loveless as

> those objects that both inhabit several communities of practice and satisfy the informational requirements of each of them. Boundary objects are thus both plastics enough to adapt to the local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use and become strongly structured in individual-site use... These objects may be abstract or concrete...but their structure is common enough to more than one world to make them recognizable, a means of translation.[73]

Boundary objects as part of research-creation, according to Loveless, challenge the boundaries of discipline-based research through the creation of an "uncanny tie across discipline"[74] through remaining legible to multiple disciplines at once, without "belonging properly to any one of them."[75] The ceramic whale eyes and subsequent interviews are intended to be recognizable as art objects, pedagogical tools, theory-based quantitative interviews, and collaborative video-art. Constructed as sculptural works, they are meant as an offer for further research and discussion, as well as something that I hope creates a further reminder and kinship with the respective species. Further, depending on the curiosities that emerge, the eyes take on extra functions: as a drawing prompt for Rodrigo Marti; an ASMR trigger for Tiffany Schofield; a model to be reconstructed in a children's workshop on Orcas and grief by Shalon Heilfeld; an object for freediving for Andrew Bateman, among others, with the intention of addressing academic and non-academic uses simultaneously, while using "artistic forms as spectacular lures and mobilizers of affect and action."[76]

How to Make Art at the End of the World, as is clear from the title, is also about ecology. Through changing what counts as research, the hope is that it will further the question, "how

[73] Bowker and Leight in Loveless, 32
[74] Loveless, 32
[75] Ibid, 32.
[76] Ibid, 37

might the world be organized differently?"[77] The call for research creation is made with the understanding that we are living in "petroculture end times,"[78] and is a call to formulate research, practices of care and "art attuned to human and more-than-human social justice"[79] to this question within the academic institution. I believe marine mammals occupy a special position to help us do this. As charismatic megafauna, they have played a large role in Ocean-based more-than-human justice movements. We meet them on the surface when they come up for air, but they can help us to formulate questions related to the world organized as an ocean world. This project is about building kinship, and it is also about learning about, respecting, and hopefully making efforts to conserve how they live, whether that be in a matrilineal pod like the Orca, throwing your young underwater to convince them they can hold their breath like the Weddell seal, traversing across the Atlantic or Pacific with their young like the Humpback, or breaking the Ice in the Antarctic to create a hole to breathe, like the Bowhead.

In keeping with the importance of collaboration, curiosity and love within research-creational practice, it seems important to mention that this chapter was energizing for me in a way the others weren't. Coming from the field of Social Practice, it was, as Loveless describes, a way to apply some of the tenets of Social Practice, the Pedagogical Turn, Relational Aesthetics, or New Genre Public Art to my dissertation in a way that allowed me to let people in on the process.[80] A PhD can be lonely and it can be hard to share the layers of ideas and research with those close to you. One can become protective and afraid of sharing unfinished thoughts. This Chapter offers a series of vignettes that are based on what we don't already know - they are open

[77] Ibid, 16
[78] Ibid, 16
[79] Ibid, 16
[80] Ibid, 2.

questions, forging preliminary experiments that help us learn in public out of love and curiosity through beginning with sculptural boundary objects and allowing them to generate new ideas and forms within the research-creation process.

Chapter Three: Dear Ursula, you go to a place where I cannot reach you.

Letter One: Bodies of Water

Dear Ursula,

I recently read that over a lifetime, we lose an average of 200,000 items a piece and this does not include things less tangible, like relationships, loved ones, or ourselves. This adds up to roughly six months of looking for missing objects.[81] I came back to Brier Island to further my research on whales, and this is how I learned about you, the humpback who, as if to quell the rumors of your death, resurfaced after - was it fifteen? - years of not being seen. You appeared once in May, and then you were gone again, diving deep to a place where we have not reached you.

To explain why your sighting was so exciting for me, I want to describe my original idea for this chapter. This project has been about forging connections with marine mammals through embodied kinship. The first chapter explored the surface of the water; the second looked at how to create deeper knowledge with practice-based methods; and this chapter is about disappearances, where there is always the hope of resurfacing, in some way, and in some place. This chapter is based on interviews from San Pancho, Mexico. In one of the interviews, Anthony Christopher of GRIMMA, a non-profit organization focusing on marine mammal conservation and education, told me that there was a rumor that there were underwater caves that grey whales swam through. The audio clip from this interview is in a video I made for this chapter

[81] Shulz. "When Things Go Missing | The New Yorker." *The New Yorker; New York*, February 13, 2017. https://www.newyorker.com/magazine/2017/02/13/when-things-go-missing.

entitled *Wicked Game*. Based on this interview, I decided that I wanted this chapter to be a speculative fiction where a whale, Peajack, leads a group of freedivers who never resurface to an underwater cave to create a new community. I wanted the story to be told from two different perspectives, one from the perspective of the whale, and one from a freediver who had been left behind. Peajack would not take everyone to the cave. Eventually, a couple, Catherine and Annie, grieving the loss of a child, would try to go together but Peajack would not guide them down. Catherine decides to go first and Peajack takes her, but Annie is never taken. Heartbroken, Annie reports the freediving group to the police and the media, who subsequently become investigated as a cult, sparking a media frenzy. Because of the danger to the group, and the damage it does to the whales, the whales, including Peajack, disappear. The story was intended to begin with letters back and forth five years after the group was reported, and the whales were seen once again.

The story I wanted to write, and the story I heard on the boat about you, are entangled in a great personal loss. When I learned about your return, I realized that what I had developed was dishonest in some way, and what I really wanted was to write letters to you with stories that helped me tangentially describe how the most embryonic and watery parts of myself feel as if they have been lost at sea. I wanted to write about the embodied interconnection I feel with you as I come to terms with how these parts may never resurface. In this chapter, I am searching for more tools to conceptualize this. For this, I have turned to four different ways of being lost at sea: the anxious mysteries of the Bermuda Triangle; artist Bas Jan Ader's disappearance on his sailboat; Natalia Molchanova's disappearance while freediving; and work that addresses the pervasive effects of the Transatlantic Slave Trade, the Middle Passage, and colonialism namely, Christina Sharpe's writing on residence time, the work of Detroit techno group Drexciya, and

Alexis Pauline Gumbs' work with marine mammals in *Undrowned*. Throughout, I make a connection to Astrida Neimanis' 2017 book *Bodies of Water: Posthuman Feminist Phenomenology*, and their work around the hydrocommons, in which our watery bodies are part of a "relational aqueous embodiment that we already incorporate, and trans-corporate."[82] Through understanding my body as a body of water connected to all bodies of water that "we make and that makes us in turn,"[83] I hope to turn away from the Western perception of my body as autonomous and "to respond to wounds of other bodily waters in which we are implicated, even at a distance."[84]

Letter two: Close Encounters of a Third Kind

Dear Ursula, my fascination with things being lost (and maybe found) at sea and its acute relationship to grief is intergenerational. When my father was twelve, at 4 am on March 23rd, 1965, my grandmother Lorraine let a naval officer and a priest into his room to tell him that his father had disappeared. The Argus II and its fifteen passengers, including my grandfather Joseph Tetrault, and two observers, disappeared over the Puerto Rico Trench, the deepest part of the Atlantic Ocean during a NATO exercise. As it occurred only three years after the Cuban Missile Crisis, and at the height of the Cold War, my family was given very little information about the event and told there was no trace of the jet. Years later, while living in Bermuda, my aunt found a piece of the Argus in a local museum. From this family tragedy, I inherited from my father a hopeful fascination with this corner of the Atlantic Ocean, and more broadly, with mysteries at

[82] Neimanis, Astrida, Greg Garrard, and Richard Kerridge. Bodies of Water: Posthuman Feminist Phenomenology. London; New York: Bloomsbury Academic, 2017, 169.
[83] Neimanis, 170.
[84] Ibid.

sea. This area would later become a part of the sensational Bermuda Triangle, which reached its apex of popularity in the 1970s with Charles Berlitz's book by the same name. The Bermuda Triangle, also known as the Devil's Triangle, Limbo of the Lost, the Twilight Zone, and the Hoodoo Sea, is an area that spans around 500,000 square miles of the Atlantic Ocean between Florida, San Juan, and Puerto Rico. Although the term became popular later, Bermuda had already earned a reputation as the "Devil's Island" for the sounds of the wild pigs and cahow birds heard offshore, made even more mystical by Shakespeare's *Tempest.*[85] Christopher Columbus' logbook from the 1400s also shrouded the area in paranormal mystery when he wrote of a faulty compass, strange lights, and shallow areas of sea without land.[86] These areas and early stories of boats stranded and abandoned in tangled seaweed are often attributed to the part of the Bermuda Triangle known as the Sargasso Sea, or "the ships graveyard." The Sargasso Sea is the only sea defined wholly by dynamic ocean currents instead of land boundaries, namely, the Gulf Stream, the North Atlantic Current, the Canary Current and the North Atlantic Equatorial Current.[87] It is known for its floating Sargassum algae which acts as the "ecological crossroads of the Atlantic," and constitutes a hive for Marine Wildlife as a resting, feeding and breeding ground for eels, whales, turtles and marlins.[88] Horror writer William Hope Hodgson wrote many stories about the haunted sea including: "From the Tideless Sea," "Further News of the

[85] Shakespeare, William. The Tempest. D.C. Heath & Company, 1910.
[86] Bloom, James J. The Imaginary Sea Voyage: Sailing Away in Literature, Legend and Lore. Jefferson, North Carolina: Mcfarland & Co Inc Pub, 2013, 175.
[87] Bloom, 181
[88] Sargasso Sea Commission. "Protecting the Sargasso Sea." Accessed January 29, 2023. http://www.sargassoseacommission.org/storage/documents/SargassoBrochure.FIN.pdf.

Homebird," "The Mystery of the Derelict," "The Finding of the Grayken," and "The Thing in the Weeds,"[89] writing of the otherworldly quality of the nebulously boundaried area.[90]

The Bermuda Triangle predominately owes its fame, however, to the numerous stories of ships disappearing without trace or explanation. The infamous Mary Celeste was found drifting intact and with plenty of food and water off the coast of Gibraltar in December 1872, five weeks after her departure from New York, without any sign of the ten passengers.[91] The story excited Sherlock Holmes creator Arthur Conan Doyle who, in 1956, made an 83-minute documentary "Le Mystère de la Mary Celeste" as part of the television series "Énigmes de l'histoire." [92] Then, on March 9th, 1918, the USS Cyclops, a 522-feet long proteus class U.S. Navy Collier ship disappeared without a trace, rendering it the single largest loss not directly involved in combat with 306 crew and 3 passengers on board.

Perhaps the most famous fable associated with the Bermuda Triangle involves a series of five TBM-3 Avenger torpedo bombers that disappeared on December 5th, 1945, named Flight 19. In total, there were nine men on the planes, two per plane, save one, who, according to Berlitz, had decided not to fly based on a premonition.[93] Each plane carried enough fuel to go over 1000 miles, and the weather had been reported as ideal for flying. Their disappearance was followed by the disappearance of the rescue plane PBM Mariner with an additional thirteen men. In the

[89] Hodgson, William Hope. The Thing in the Weeds and Other Tales of the Tideless Sea: The Sargasso Sea Stories of William Hope Hodgson. Annotated edition. CreateSpace Independent Publishing Platform, 2015.
[90]Bloom, 180
[91] Bloom, 180
[92]"Le Mystère de La Mary Celeste - The Arthur Conan Doyle Encyclopedia." Accessed January 29, 2023. https://www.arthur-conan-doyle.com/index.php?title=Le_Myst%C3%A8re_de_la_Mary_Celeste.
[93]Berlitz, Charles. The Bermuda Triangle. Reissue edition. Avon Books, 1984, 26.

correspondence, Lieutenant Charles C. Taylor, the pilot leading the mission, changed course several times. On the radio, Taylor informed the pilots of Flight 19 that when the first plane goes down, they should all go down together, which was followed by an eerie buzz of static.[94] The search for Flight 19 and the PBM Mariner was extensive, with a daily average of 167 flights flying all day, covering over 380,000 miles between a part of the Gulf of Mexico, the Florida mainland, and the neighboring islands. Subsequently, the beaches of Florida and the Bahamas were also checked for seven weeks for any sign of the planes.[95]

When not a trace of Flight 19 could be found, a member of the board of inquiry commented "they vanished as completely as if they had flown to Mars,"[96] planting the seed of extraterrestrial activity that was then exploited by Steven Spielberg's 1977 film *Close Encounters of the Third Kind*, in which all of the planes from Flight 19 are found unscathed and with full fuel tanks earlier in the movie, followed by a final scene where the crew of Flight 19 come to Earth from an alien mothership the same age as at the time of their disappearance.[97] In addition to these infamous disappearances, there have been many other untraceable planes and ships lost which have inspired a host of pop-culture references from the 1970s on, including songs by Fleetwood Mac and Barry Manilow, a made-for-TV Movie with Kim Novak, a short documentary narrated by Leonard Nimoy and another narrated by Vincent Price with a score by Velvet Crimson, a Scooby-Doo episode, a Wonder Woman episode, a board game by Milton Bradley, and an

[94]Andrews, 2018.
[95] Berlitz, 30.
[96] Berlitz, 32.
[97] Spielberg, Steven, Close Encounters of the Third Kind (1977) - IMDb. Accessed March 17, 2023. https://www.imdb.com/title/tt0075860/

ATARI game.[98] These events and their subsequent cultural references represent what Neimanis describes as "a kind of mystery that can never be definitely captured by any apparatus of knowledge,"[99] and something very hopeful for my father.

As technology and our knowledge of the surface of the ocean improves, there has been a sharp decline in things being lost without a trace over and in the Bermuda Triangle. In fact, none of the statistics or documented evidence of planes or ships getting lost in the Triangle indicate an unusually high number in comparison to any other area of the ocean. Many of the disappearances happened in bad weather, or could later be explained by natural phenomena.[100] Further, the Sargasso Sea, with the strongest currents in the world and the sometimes-impassable sargassum algae, has long been credited with stranded ships and impossible conditions, in addition to mysterious and monstrous sea creatures due to being a home for so many marine species.[101]

Neimanis draws upon Cecilia Chen's interpretation of Foucault's concept of a non-place a well as Marc Auge's book *Non Places* to describe water as a paradoxical space that is both familiar and unfamiliar, as a "place that can become uncanny and transformed through upheavals."[102] These non-places, according to Chen, serve as "thresholds of experience and comprehensibility, where the meaning of waters is neither steady, nor uniform, nor easily mapped."[103]

[98] Eddy, Cheryl. "The 10 Greatest Bermuda Triangle Moments in Pop Culture History." Gizmodo, November 19, 2014. https://gizmodo.com/the-10-greatest-bermuda-triangle-moments-in-pop-culture-1660287457.
[99] Neimanis, 2017, 83.
[100] Bloom, 180
[101] Bloom, 2013, 181.
[102] Chen in Neimanis, 144.
[103] Ibid, 144.

However inaccurate or debunked, the Bermuda Triangle will always represent my first encounter with the faraway mysteries of the ocean. While technology has evolved, the fundamental unknowability of the ocean remains largely unchanged. Neimanis emphasizes this point by reminding us that the darkest and most inaccessible depths of the Pacific are less familiar to us than the moon.[104] Even with recent advancements in bionic submersibles capturing footage of these depths, their spotlights can only illuminate a small portion of this profound darkness at any given time.[105]

Neimanis poses the question of "how far should our quests for knowledge reach?"[106] They argue that acknowledging and respecting the unknowable aspects of water could lead to a different kind of relationship with it, one that doesn't seek to instrumentalize it solely for human-centered endeavors. This necessitates discerning between different forms of knowledge – knowledge that commodifies and colonizes, knowledge that fuels necessary outrage and action, knowledge that heals, knowledge that builds communities, and knowledge that fractures them. As we can never fully grasp the ocean, our role should be that of curious custodians rather than its masters. Intimacy with water does not equate to mastery over it; we are in a constant state of becoming water, but water "is also always beyond us."[107]

Neimanis argues instead for a "planetarity," which asserts that all water embodies unknowability as an ontological demand. As waters are gestational, perpetually changing and blending existing and potential waters, no water is entirely knowable – not the water of the Other, nor the

[104] Neimanis, 146.
[105] Ibid, 146.
[106] Ibid, 146.
[107] Ibid, 146.

hypermarine channels coursing through our own bodies.[108] While we do harm to water, it is also "in a sense inexhaustible and its ways of proliferating are unpredictable, rendering it "'one step ahead of anybody.'" [109]Neimanis references feminist theorist Karen Barad to remind us that water is not a "'secret to be revealed' by us humans. It is rather in a constant process of emergence."[110]

The myths and fantasies of the Bermuda Triangle seem to pull us into the heart of this non-place and our threshold of experience with the ocean. They indulge our fears of the uncanny depths and strange creatures and demand a different type of knowledge and relation. It is my fascination with the unknowable nature of the ocean, and water more broadly, that led me directly to you, Ursula.

Letter Three: Dully Mortal

Dear Ursula,

I probably saw the title *The Strange Last Voyage of Donald Crowhurst* hundreds of times when scanning my dad's bookshelf for something to read on visits home. Written by Nicholas Tomalin and Ron Hall, the book dives into the tragic story of British Businessman Donald Crowhurst's ill-fated attempt to compete in the 1968 Sunday Times Golden Globe Race. Crowhurst falsified his logbooks so it looked like he was completing the race when in fact, he remained floating with a broken ship near the beginning of the course until his disappearance. In my early twenties,

[108] Ibid, 147
[109] Ibid, 147
[110] Ibid, 147

living on my own and cultivating my own interests in the arts, I did not connect my love for artworks about the ocean with this early, intergenerational fascination with the Bermuda Triangle. Despite the books about sea voyages and shipwrecks lining my father's shelves, I separated my interest from my family, and in many ways from you.

Dutch conceptual and performance artist Bas Jan Ader shared an interest in *The Strange Last Voyage of Donald Crowhurst* with artist Tacita Dean, who often makes work about being lost at sea. Dean wrote a short, tangentially connected text about the disappearance of Ader entitled "and he fell into the Sea," a reference to the plight of Icarus. In it, she starts by describing how Crowhurst's son Simon learned about the disappearance of Ader at school:

> It was a time when people, whole boats went missing in the Bermuda Triangle without rational explanation: strange algae consuming the oxygen out of the sea and causing a vacuum in the air above. Buoyancy was lost and everything became as lead. This was better than the truth, which he only discovered some months later when he took The Strange Last Voyage of Donald Crowhurst out of his school library, and his father's fraudulent journey and agonized death at sea was revealed to him. So, Bas Jan Ader's disappearance confirmed only that his father was somehow not alone out there and that one day these unfathomable disappearances would have to be resolved. With disappearance will always come the hope of reappearance.[111]

I like to think my father could have also found solace in the story of Ader as Simon Crowhurst did. Reflecting on Ader's mysterious disappearance, I am considering Neimanis' question, "how, and to whom, we pass our own watery bodies on? If evolution is composed of inheritances and exchanges of all kinds, what do water and our watery kin inherit from us, in the context of late capitalism and the Anthropocene?"[112] Perhaps the act of sharing the narratives of Crowhurst and Ader serves not only as tales of hope to counter an "unfathomable disappearance," but also an

[111] Dean, Tacita. "And He Fell into the Sea." *2006*, n.d. http://basjanader.com/dp/Dean.pdf.
[112] Neimanis, 112.

invitation to conceive of our bodies of water, and those lost at sea, as interconnected parts of an embodied hydrocommons.

Bas Jan Ader was born in the Netherlands in 1942 and was based in Los Angeles at the time of his death. In Ader's work, there is a pervasive sense of romantic misadventure and melancholic failure, executed with questionable sincerity. In his 1971 piece, *I'm too sad to tell you*, for example, he filmed himself outside of his house crying for an unknown reason. Although this original video was lost, he abstracted a film still to make into a postcard with "I'm too sad to tell you" Written on the back and sent this to a select group of his friends.[113]

Ader's 1972 performance The Boy who Fell over Niagara Falls is often cited as a precursor to Ader's impending disappearance at sea in 1975 during his performance, *In Search of the Miraculous*. In it, Ader reads a reader's digest story about Roger Woodyard, who survived falling over Niagara Falls in a tiny ship.[114] Dean notes of this work, "Bas Jan Ader probably felt closer to the boy whose very lightness would be his protector as he fell the 161 feet to certain death."[115] Primarily, through performance and video-based experiments, Ader was concerned with repeated acts of falling and failure. Or as Tacita Dean describes, "Ader was a master of gravity. But when he fell, all he would say was that it was because gravity made itself master over him. He understood the necessary surrender and decisiveness of purpose needed to make gravity his companion."[116] In a series of small pieces from 1970-71, *Falls*, Ader filmed himself

[113] Bas Jan Ader, I'm Too Sad to Tell You, 71 1970, Performance, Video & Postcard, 1970-1971.
[114] Emma Cocker, "Salvaging a Romantic Trope: The Conceptual Resurrection of Shipwreck in Recent Art Practice," in Shipwreck in Art and Literature (Routledge, 2013), 222.
[115] Dean, 2006.
[116] Ibid.

surrendering to gravity from a roof, on his bicycle into a river, on top of a stand, hanging from a tree until the branch snaps, among other places. In the 2007 documentary *Here is always somewhere else*, Hank van de Velde makes the argument that within Ader's experiments, "the moment he is riding his bike isn't important, the moment he falls into the water isn't important. Neither is the moment of falling…it's the moment he lets go…..he lets go to experience eternity."[117] These short videos are shown alongside other artist's experiments falling including Fiona Tan, Rodney Graham, Fernando Sanchez, Pipliotti Rist, and Chris Burden, among others.[118] When watching the artists' attempts in succession, it becomes obvious that there is an added level of surrender in Ader's experiments that renders his work more melancholy, and more freeing.

Ader's fatal work *In Search of the Miraculous* was intended as a trilogy, beginning with *One Night in Los Angeles* in 1973. In this performance, Ader walked at night from the Hollywood Hills to the Pacific Ocean. The performance is documented in a series of eighteen black and white photographs with lyrics from the Coasters' 1957 song Searchin' inscribed onto them. The implications of the song lyrics associated with the photograph suggest a search for a long-lost love. This walk and search were intended to be repeated by Ader in the third part of the trilogy in Amsterdam when he arrived by boat.

In the second part of the trilogy, *Songs from the North Atlantic*, Ader planned a solo crossing of the Atlantic in his ship *Ocean Wave*, the smallest vessel to cross the trans-Atlantic at the time.

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[117] Hank van de Velde in Here Is Always Somewhere Else (2007) - IMDb. Accessed March 17, 2023. https://www.imdb.com/title/tt0803004/.
[118] *Here Is Always Somewhere Else* 2007.

The project was intended to probe "the Romantic idea of searching through a series of proposed journeys or voyages in which the artist adopts the role of the wanderer pitched against the logic of an irresolvable quest."[119] To announce the second part of the trilogy, Ader produced a single folded sheet bulletin. On one side was a black and white photograph of himself on *Ocean Wave* before its departure, and on the other the sheet music for a sea shanty "Life on the Ocean Wave." Ader set sail from Cape Cod, Massachusetts, for Falmouth, England on July 9th, 1975 with little fanfare.[120] He anticipated the journey would take 67 days, but his ship was found "upturned and abandoned" off of the coast of Ireland on April 18th, 1976.[121] In her short text about Ader's journey "Bas Jan Ader: Missing at Sea, Missing at Home," his wife Mary Sue-Andersen Ader says, "the craft was Bow down, the rigging was missing, and there was a big hole in the back wall of the cabin, the wall his safety line would have been attached to. There was no Bas Jan."[122] The boat was taken to the Galician port of La Cour where it subsequently vanished.

In *Salvaging the Romantic Trope: The Conceptual Resurrection of Shipwreck in Recent Art Practice,* Emily Cocker argues that a shipwreck represents a failure, a "persisting reminder or remainder of a quest prevented from reaching its goal, shipwreck marks the site of a break or ruptures in the timeline of a journey,"[123] a trope associated with the romantic artists from the eighteenth and nineteenth centuries such as Caspar David Friedrich (1774–1840), J.M.W.Turner

[119] Cocker, 223
[120] Ader Bas Jan, In Search for the Miraculous - Unfinished, 1975, 1975, https://basjanader.omeka.net/exhibits/show/bas-jan-ader/in-search-of-the-miraculous/-search-for-the-miraculous-unf.
[121] Cocker, 222
[122] Mary Sue Andersen-Ader, "Bas Jan Ader: Missing at Sea, Missing at Home," The Brooklyn Rail, June 1, 2022, https://brooklynrail.org/2022/06/criticspage/Bas-Jan-Ader-Missing-at-Sea-Missing-at-Home.
[123] Ibid.

(1775–1851) and Theodore Gericault (1791–1824). Cocker makes the argument that both Dean and Ader may have been interested in the journey of Crowhurst for the lack of romantic fanfare attached to solo seafaring journeys, a task executed without a grand narrative, similar to the task-oriented work that dominates early conceptual art. Unlike the sea voyages of the romantic period, Cocker suggests, "by limiting or eliminating the expression of the individual biographical narratives and personal psychological dramas typically associated with the Romantic topos' of seafaring adventure (and the attendant promise of glory and/or threat of disaster therein), these artists draw attention instead to the conceptual potentiality of the unrealized, the resolutely open-ended."[124]

Writing about Ader has made me interrogate my own romantic notions of shipwrecks and being lost at sea, Ursula. In *Bodies of Water,* Neimanis cites geographer Jamie Linton, who argues that water is shaped by our collective imagination: "Water as an imaginary is necessarily forged in the entanglement of our values with the very material matter at hand."[125] Neimanis builds upon this idea and advocates for paying more "attention to how we imagine water,"[126] urging us to "forge alternatives to our dominant imaginaries."[127] We could see Ader's conceptual resistance to the romantic trope of seafaring as a way of dislodging water from the imaginary of the romantic period and the failure of shipwrecks.

Neimanis cites Italo Calvino's story *The Aquatic Uncle* in the chapter "Waters remembered (moving below the surface)" to describe how returning to the sea, because of our potential "fishy

[124] Cocker, 219
[125] Linton in Neimanis, 155.
[126] Neimanis, 21
[127] Ibid, 21.

beginnings'' from an evolutionary standpoint, can also be an expression of untimely love, similar to Ader's implication within the trilogy that he is searching for a long-lost love. In the story, the character N'ba N'ga, a lobefish, from the extinct species of Coelacanths,[128] cannot imagine things better on land or let go of the concept of the ocean."(H)e insists on staying mired in the ecotonal muck, has a penchant for nonsensical fishy proverbs, and can only measure the world through the logic of water columns and currents."[129]

Songs from the North Atlantic had not been Ader's first treacherous sea voyage. Ader had also sailed from Morocco to California on a 45-foot Gaff with an experienced Sailor in 1961, "enduring everything but total shipwreck—a hurricane, two broken masts, a failed engine, no radio or navigation equipment. It was an amazing story that was verified by the US Navy when they towed the mastless ketch into the port of San Diego. It was on that voyage that Bas Jan learned dead reckoning with a sextant, compass, clock, and charts."[130] In the same text, Mary-Sue Andersen Ader writes, "He loved me and he loved the sea. The sea was my only competition. He trusted me and he trusted the ocean—it would never harm him. His confidence gave me hope, a little."[131] Dean questions this sentiment in "and he fell into the Sea" when she writes, "did Ader feel protected because he was making a work of art? Protected in his pursuit of the sublime, which suspends all truth and postpones the realization that we are, in fact, dully mortal?"[132]Although Ader may have resisted the romantic imaginary attached to seafaring, perhaps the long-lost love that Ader is searching for in *In Search of the Miraculous* is this

[128] Calvinho in Neimanis, 131
[129] Neimanis, 131.
[130] Mary Sue Andersen-Ader, 2022
[131] Ibid.
[132] Dean, 2006.

ecotonal muck, this desire to measure the world through water, be more than dully mortal, and return to our fishy beginnings.

Letter Four: Surface Fuss

Dear Ursula,

Being one with the sea has led some in recent years to seek out an even more embodied experience of being in the water through diving. This certainly brings us physiologically closer to you. In Neimanis' introduction, "Figuring Bodies of Water," she reminds us that "phenomenology always comes from somewhere. Our own politics of location, and our bodies in all of their prosthetic interfaces, co-world the phenomena we describe."[133] She describes that in both Merleau-Pontian phenomenology and Feminist posthumanism, things are "always cowordlings," and, as bodies, we are always involved in the process of making the world.[134] She illustrates these ideas when describing our own "fishy beginnings," an experience that I believe becomes phenomenologically accessible through the process of freediving.

I learned about Natalia Molchanova on the first day of my freediving training with Jillian Rutledge. There were so many things I liked about Molchanova's story. When she disappeared at age 52, she had been diving for twelve years, had 41 world records, and 23 world titles.[135] She

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[133] Neimanis, 62

[134] Ibid, 51

[135] Skolnik, Adam. "The Mysterious Disappearance of Natalia Molchanova," *Outside Online* (blog), August 5, 2015, https://www.outsideonline.com/outdoor-adventure/water-activities/mysterious-disappearance-natalia-molchanova/.

could hold her breath in static apnea (when you float in a pool without moving) for nine minutes and two seconds, swim underwater in a pool for 777 feet and held the world championship for a constant weight dive (an ocean dive using your arms and legs without a line) at 282 feet.[136] When she disappeared, Molchanova was training for the AIDA Individual World Depth Championship in Cyprus, where she was favored for the Gold medal.[137] Other freedivers referred to her as "the Queen."[138] After she began, her life had become all about freediving. She wrote poetry about it, was president of the Russian Freediving Federation, coach to the Russian Freediving Team, author of eight scientific articles on freediving, was an associate professor at the Russian State University of Physical Culture, Sport and Tourism, and, as co-owner of a freediving apparel company with her son, Alexei, helped to certify hundreds of freedivers a month using her own curriculum.[139] Having begun her diving career at forty, Molchanova tried to break world records on her birthday to inspire older athletes: "many people, when they reach fifty, they think life is over, I want to show them, there is more they can do."[140]

Molchanova, having been a competitive swimmer in her youth, took up freediving when she moved to Moscow to "pick up the pieces"[141] after her divorce. Freediving acted as an outlet for grief, and as a way to process major and painful changes in her life. Although she has broken records in pool competitions, the ocean was where she preferred to dive, once comparing the

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[136] Ibid

[137] Ibid

[138] Ashifa Kassam and Matthew Weaver, "Natalia Molchanova: World's 'greatest Freediver' Feared Dead," The Guardian, August 5, 2015, sec. Sport, https://www.theguardian.com/sport/2015/aug/04/free-diver-natalia-molchanova-feared-dead.

[139] Stephan Whelan, "Profile: Natalia Molchanova - DeeperBlue.Com," August 4, 2015, https://www.deeperblue.com/profile-natalia-molchanova/.

[140] Skolnik, 2015.

[141] Skolnik, 2015.

pool to running on a treadmill vs. running in the forest.[142] When on a dive through the Blue Tunnel, a clear, sapphire tunnel 56 meters underwater and 26 meters long in Dahab, Egypt in 2006, she told reporters that she had an epiphany that freediving was a way to understand who we are: "when we go down if we don't think, we understand we are whole. We are one with the world. When we think, we are separate. On surface, it is natural to think, and we have much information inside. We need to reset sometimes. Free diving helps do that."[143] She called this over-thinking before you entered a different state "surface fuss" and used the ancient concept of "attention deconcentration" used by Samurai warriors and more recently recommended to soviet workers in mundane jobs. With this technique, the eye stops focusing, and awareness is shifted to the periphery of one's vision or to an imaginary screen. This, in turn, slows down the heart rate and renders a trance-like state.[144]

In *Bodies of Water,* Neimanis may describe a process like this through embodied attunement, referencing phenomenologists Herbert Spiegelberg's concept of 'phenomenological intuiting,' and Samuel Mallin's "body hermeneutics."[145] Both of these phenomenological exercises involve focusing on something without becoming so absorbed as to not look critically. This necessitates tuning into a lived experience. Within this process, we can start by asking questions about what we experience when interacting with water, or experiencing water in different contexts, both externally and internally. This can happen when floating in the water, but can also include what

[142] Ibid.
[143] Skolnick, Adam. "Free Diver Natalia Molchanova Descends for Fun, Then Vanishes," The New York Times, August 4, 2015, sec. Sports, https://www.nytimes.com/2015/08/05/sports/natalia-molchanova-champion-free-diver-is-missing-near-ibiza.html.
[144] "Molchanovs Freediving Education," Molchanovs, accessed March 17, 2023, https://molchanovs.com/pages/molchanovs-freediving-education.
[145] Neimanis, 54

happens when we are dehydrated and drink a glass of water, need to pee, to how it feels to be "excessively lubricated."[146] Through asking questions about our experiences with water, we inch closer to a phenomenological intuition that assists us in thinking of ourselves also as bodies of water beyond "human-scaled perception."[147] This, she proposes, is a way to come closer to larger questions such as: "How do we trace the wateriness of our distant pasts, our unknowable futures, or of our body's own microscopic internal seascapes?"[148] Through this, we can trace our own internal bodies of water and their expulsions to "estuarine communities downstream, or the dissipation of my perspiration into a humid forest atmosphere, to exchange wet breaths with the casuarinas." [149] By experiencing water in a state of "attunement" or "deconcentration," we move beyond the limits of human-scaled perception, or "surface fuss" to a more embodied understanding of what it means to be connected as a body of water to all other bodies of water.

When Molchanova disappeared on August 2nd, 2015 near a chartered boat off the coast of Formentera, Spain, she was teaching a private lesson to Russian Tycoon Pavel Tyo, one of the co-owners of the Capital Group.[150] She likely would have dropped a 20-meter line and accompanied her fellow students on each dive, potentially diving to unknown depths in between.[151] Although a clear and beautiful day with a water temperature of about 79 degrees on the surface, according to her son, Molchanova dove to a depth of 115-130 feet without fins, where there was a strong current. As she was with two people who were training, she did not

[146] Ibid, 54
[147] Neimanis, 54
[148] Ibid, 55
[149] Ibid, 55
[150] Stephan Whelan, "Natalia Molchanova Missing - What We Know So Far - DeeperBlue.Com," August 6, 2015, https://www.deeperblue.com/natalia-molchanova-missing-what-we-know-so-far/.
[151] Skolnik, 2015.

have an experienced safety diver, and all that is known is that she did not resurface.[152] When she did not come back up, the crew of the boat radioed the Spanish coastguard, who sent additional ships, and a helicopter. The search continued through the daylight hours for the next two days, adding marine police, and a special team of divers from the Guardia civil who brought a robot capable of searching up to 500-meter depths.[153] Two days after her disappearance, the search efforts were reduced. As one article explains, "at this point, it's impossible to know if she was injured at depth, was caught in a ghost net (a stray fishing net difficult to see in deep water), blacked out, or if she is still alive, drifting at sea."[154]

Neimanis, regarding our potential evolutionary "fishy beginnings," describes a process that starts with what sounds like a dive:

> You might find yourself sinking, a bit breathless, in this undertow of effect and memory, of science and fable, of gut feelings and fossil records, motor-body archives, and a biological psyche. But isn't this what a posthuman feminist phenomenology of our watery bodies can do? In imagining ourselves as extended across space and time, but also suspended between ostensible fact and so-called fiction, this kind of phenomenology draws on all of our sensory apparatuses to find different kinds of stories to tell.[155]

Molchanova's disappearance is a tragic story, but her story as a diver is beautiful, and can create a new phenomenological experience, pushing the boundaries of what a body can do physiologically in water, and attuning us to our own bodies of water beyond the surface fuss.

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[152] Ibid
[153] Skolnik, 2015.
[154] Ibid
[155] Neimanis, 139

Letter Five: Residence Time

Dear Ursula,

So far, I have focused on (western) individuals being lost at sea. These stories, however mythologized, are minute in comparison to the tragedy of the middle passage and its ongoing reverberations. As Christina Sharpe describes in her book *In the Wake*, the Zong is the most documented slave ship because of its very public lawsuit, Gregson V. Gilbert. In the events spanning from late November to early December 1781, in the name of claiming insurance, one hundred and thirty-two African captives were murdered by being thrown overboard the ship,[156] resulting in the Gregson V. Gilbert court case of 1783. In the second chapter, "The Ship," Sharpe reminds us that the insurance trade began with marine insurance through three different conceptual frameworks: the bottomry agreement which consisted of money loaned with a high-interest rate for voyages at sea; the notion of the general average in which "losses undertaken to save a boat (jettisoning or cutting down masts in a storm, for instance) represent a risk shared among those investing in a voyage;"[157] and lastly, the concept of "Perils of the Sea," which is more commonly known as insurable risk today[158] and can be defined as a clause which "covers damages to the ship during the voyage by the Acts of God. It includes those accidents or casualties which do not happen due to the free will of a human being."[159] Sharpe quotes scholar

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[156] Trevor Burnard, "A New Look at the Zong Case of 1783," *XVII-XVIII. Revue de La Société d'études Anglo-Américaines Des XVIIe et XVIIIe Siècles*, no. 76 (Décembre 31, 2019), https://doi.org/10.4000/1718.1808.

[157] Armstrong in Christina Sharpe, In the Wake: On Blackness and Being (Durham, NC: Duke University Press, 2016), 29.

[158] Ibid, 29

[159] securenow_insuropedia, "What Are the Perils of the Sea in Marine Insurance?," *SecureNow* (blog), November 1, 2017, https://securenow.in/insuropedia/perils-sea-marine-insurance/.

and gender studies professor Katherine McKittrick in her description that insurance claims are part of the "mathematics of black life."[160] The Zong, as the most "infamous atrocity in the Atlantic slave trade,"[161] became an important example for the anti-slavery movement, as a symbol of the "inhumanity of a legal system that saw the murder and forced suicide of one-hundred-and-thirty-two Africans solely as an interesting example of marine insurance law."[162]

The Zong, which had initially been named the Zorgue, was originally based in the Netherlands. It had been captured by the British with three-hundred-and-twenty abducted Africans already on board.[163] Although the ship was built to hold only approximately two-hundred-and-twenty people, it left from the coast of West Africa setting out for Jamaica on August 18, 1781 with between four-hundred-and-forty-two and four-hundred-and-seventy abducted Africans. It departed with enough food and water for four months and had planned to stop at ports in the Caribbean to replenish supplies if need be. Due to navigational errors, the ship overshot Jamaica and was running out of water when the ship's crew made the decision to throw a portion of the enslaved overboard for "the preservation of the rest."[164] The news of the one-hundred-and-thirty-two murdered enslaved Africans became public when the ship's owners decided to sue the underwriters for the insurance value of the captives who were thrown overboard.[165] Although the chief mate testified that they never began to ration the water, the owners of the Zong initially won the case, which was then appealed by the insurers.[166]

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[160] Mckittrick in Sharpe, 35
[161] Burnard, 18
[162] Ibid, 18
[163] Sharpe, 34
[164] Philip in Sharpe, 35.
[165] Sharpe, 35
[166] Burnard, 4

The painting that is often referred to in relation to the Zong and spoken about by Sharpe is J.M.W. Turner's *The Slave Ship: Slavers Throwing Overboard Dead and Dying—Typhoon Coming On*.[167] Because Turner does not label it specifically after the Zong, Sharpe describes Turner's Slave Ship as representing "every slave ship and every slave crew, for every slave ship and all the murdered Africans in Middle Passage."[168] Or, as Hito Steyerl writes of the painting in "In Free Fall," "the idea of a calculable and predictable future shows a murderous side through insurance that prevents economic loss by inspiring cold-blooded murder. Space dissolves into mayhem on the unstable and treacherous surface of an unpredictable sea."[169]

Turner's painting symbolizes more than just a singular historical event, but an enduring reality which Sharpe describes through Dionne Brand as the "going concern"[170] of the slave trade. Sharpe terms this going concern "the wake," wherein black people continue to live in the ongoing afterlives of the slave trade and colonialism's profound impacts. Sharpe furthers this idea with the concept of "residence time," defined as the amount of time it would take for a substance to enter and leave the ocean. By looking specifically at what became of the bodies of the one-hundred-and-thirty-two people thrown overboard, Sharpe learns through geologist Anne Gardulski that most would have been eaten by fish and other organisms in the water. As human blood has a residence time of 260 million years,[171] Sharpe explains that "black people exist in the

[167] Sharpe, 36
[168] Ibid, 38
[169] Hito Steyerl, "In Free Fall: A Thought Experiment on Vertical Perspective - Journal #24 April 2011 - e-Flux," accessed March 17, 2023, https://www.e-flux.com/journal/24/67860/in-free-fall-a-thought-experiment-on-vertical-perspective/.
[170] Brand in Sharpe, 36
[171] Ibid, 41

residence time of the wake, a time in which 'everything is now. It is all now.'"[172] Sharpe asks, "how does one account for surviving the ship when the ship and the un/survival repeat?"[173] A repeating that Sharpe describes through NourbeSe Philip's poem Zong! as "hauntological."[174]

The myth of Drexciya also addresses the wake of the middle passage by asking what became of the bodies thrown overboard. Created by Detroit-based electronic music duo James Stinson and Gerald Donald, Drexciya recorded a series of Afro-Futurist concept albums between 1992 and 2002, which can best be described by the series of questions in the liner notes of their 1997 album The Quest:

Could it be possible for humans to breathe underwater? A foetus in its mother's womb is certainly alive in an aquatic environment.

During the greatest holocaust the world has ever known, pregnant America-bound African slaves were thrown overboard by the thousands during labor for being sick and disruptive cargo. Is it possible that they could have given birth at sea to babies that never needed air?

Recent experiments have shown mice able to breathe liquid oxygen. Even more shocking and conclusive was a recent instance of a premature infant saved from certain death by breathing liquid oxygen through its undeveloped lungs. These facts combined with reported sightings of Gillman and swamp monsters in the coastal swamps of the South-Eastern United States make the slave trade theory startlingly feasible.

Are Drexciyans water breathing, aquatically mutated descendants of those unfortunate victims of human greed? Have they been spared by God to teach us or terrorise us? Did they migrate from the Gulf of Mexico to the Mississippi river basin and on to the great lakes of Michigan?

Do they walk among us? Are they more advanced than us and why do they make their strange music?

What is their Quest?
These are many of the questions that you don't know and never will. The end of one thing . . . and the beginning of another.
Out
—The Unknown Writer[175]

[172] Morrison and Sharpe in Sharpe, 41
[173] Philip in Sharpe, 38.
[174] Sharpe, 38.
[175] Drexciya in Mckittrick, 54-55

The Otolith Group uses Drexciya's work as inspiration for their 2013 project "Hydra Decapita," a video work that explores intersections between the Transatlantic slave trade, colonialism, and current western financial capitalism. Also referencing J.M.W. Turner's painting *The Slave Ship,* the work focusses on critic John Ruskin's description of Turner's methodology for painting water, the 30-minute video intertwines eerie singing with a non-linear narrative as a way of "trying to apprehend abstraction. The idea is that financial capitalism works through abstract processes that nonetheless have real effects, which means that our language, aesthetically speaking, has to become as abstract as reality itself."[176] This notion of abstraction, as it relates to the enduring reality or going concern of the slave trade also speaks to the hauntological effects of Gregson vs. Gilbert, where concerns over capital continue to take precedence over human lives.

Alexis Pauline Gumbs makes the connection from the middle passage to you, Ursula, in her beautiful book *Undrowned,* which is referenced throughout this dissertation. [177] Akin to residence time, Gumbs describes a "massive drowning yet unfinished where the distance of the ocean meant that people could become property."[178] She, like Sharpe and Drexciya, questions the distinction between those drowned in the middle passage, and those who continue to live in "unbreathable circumstances" as the "undrowned." [179] She sees their breathing as intertwined with the breathing of the ocean, and kindred with hunted whales. She says this breathing did not

[176] Eshun in Young. "'Hydra Decapita ', The Otolith Group, 2010." The Otolith Group Hydra Decapita 2010. Accessed August 15, 2023. https://www.tate.org.uk/art/artworks/the-otolith-group-hydra-decapita-t15029.
[177] Alexis Pauline Gumbs and adrienne maree brown, Undrowned: Black Feminist Lessons from Marine Mammals (Chico: AK Press, 2020).
[178] Ibid, 3
[179] Ibid, 4

make “individual survivors. It made a context.”[180] She names racial, gendered, ableist capitalism as a circumstance that has left many in a circumstance of the “undrowned,” not able to breathe, which stretches beyond those who specifically survived the middle passage, “because the scale of our breathing is planetary, at the very least.”[181] She references the bowhead whales, who can live over 100 years and were hunted for their oil, as having “breathed through so much history and outlived it too.”[182] In the short fiction “Bluebellow," Gumbs tells the story of those whose ancestors survived the middle passage being called back to the ocean by mermaid doppelgangers to be reunited with the other part of themselves. The story ends with those called back holding hands as they walk into the ocean, the protagonist texting her sister before wading in to say, “meet me in the middle.”[183]

Niemanis, through her description of Anishinaabe we performance artist Rebecca Belmore’s installation *Fountain* at the Power Plant in Toronto, speaks about the power of art as “proxy stories” for “de-sedimenting our human-scaled perspective.”[184] She explains that they are not substitutes for our individual and intersectional embodied experience of the water, but act as amplifiers to experience water: “...and I feel the waters of my white settler body flow into the colonized waters of Turtle Island (also known as Canada). Belmore’s video installation Fountain (2005) allows me to access, and amplify, my own watery politics of location, channelling through my corporeal seas.” Neimanis describes any case of interconnected water as one where

[180] Ibid, 4
[181] Ibid, 4
[182] Ibid, 73
[183] Gumbs, Alexis Pauline. “BlueBellow.” Strange Horizons, January 16, 2017. http://strangehorizons.com/fiction/bluebellow/.
[184] Neimanis, 165

human "togetherness" is separated by differences that matter. She asks, "if we are all in the same boat, why do some of us seem to be (to quote poet Stevie Smith) not waving, but drowning?"[185] She reminds us that although we are all bodies of water, questions of race, gender, species, class, culture and taste are not separable from others, or from us. She references Audre Lorde when she says that although we may share things as women, we are separated by differences that are vital strengths.[186] Concepts of black feminism and the politics of location gave us "tools for thinking through the tricky business of interconnection but also the specificity of social justice movements."[187] Neimanis insists that it is now imperative to "bring this theoretical agility to Anthropocene thinking, where difference and connection are also material, and connected to hydrological, geological, and other kinds of environmental movements."[188] She calls on us to extend the way we see these intersections across species, elements, timescales, and geographies. She echoes scientists Simon Lewis and Mark Maslin's Orbis Hypothesis to make an argument that the Anthropocene's "golden spike" may be the "advent of the modern 'world-system' of globalization, trade, and colonialism."[189] She cites international relations scholar Audra Mitchell's work on the Orbis hypothesis to highlight that one of the most important points of the hypothesis is that it links "power, violence and agency to the contribution of the Anthropocene"[190] and that it underlies two key points: it draws a direct link between the violence of colonialism and earthly changes in the Anthropocene, while insisting that the "wounds inflicted by colonization" upon humans also remain 'ingrained in, and integral to, very lively

[185] Ibid
[186] Ibid, 165
[187] Ibid, 165
[188] Ibid, 165
[189] Neimanis, 166
[190] Mitchel in Neimanis, 166

Earth systems that persist today and will continue far into the future.'"[191] This reiterates Sharpe and Gumbs's point that the violence that lives on from the legacy of colonialism and the slave trade rebounds on "global, interspecies populations of generations that follow."[192] Sharpe's description of The Zong and residence time, Drexciya's speculative concept albums and the Otolith Group's investigation of their work, as well as Gumbs' concept of the Undrowned echo how our own watery composition is linked to colonial violence, and how our interconnections and differences further link us to and as bodies of water, and call us to action.

Letter Six: If only for a moment, even at a distance

Dear Ursula,

Thank you for resurfacing, if only for a moment.

Through the story I wanted to write, I wanted to speculate about a cave in the ocean that could resolve the distance between you and me. In my letters to you, I have been trying to work through what Neimanis calls the "sloshy transition between air and water, or land back to sea,"[193] which, whether through unresolved paranormal mysteries, misguided romantic artistic endeavors, freediving accidents, or much larger pervasive atrocities and their aftermaths, can be impossible, violent and tragic. Neimanis quotes philosopher Alphonso Lingis in saying that although we can understand your decision, Ursula, to "forgo a terrestrial existence," it has nonetheless created a fatal border between our existences.[194] She reminds us of the tedium and difficulty involved in a possible return to the sea, and the many "supplementary organs" we need

[191] Neimanis, 166
[192] Ibid,
[193] Ibid, 140
[194] Lingis in Neimanis, 140

to return, whether it be wetsuits, oxygen tanks, regulators, flippers, or weight belts.[195] Neimanis sources Deleuze and Guattari when she reminds us that to "destratify too far results only in annihilation."[196] In turn, she reminds us through the writings of Cousteau that, as we have seen far too many times with beaching and strandings in the last decade, you do not have the strength to survive on land, and the weight and power that renders you so magnificent in the water becomes lethal.[197]

These letters to you are about disappearing, being called back, and the messy, imperfect and incomplete kinship swimming around and through it. More abstractly, they are about vanishing in grief and resurfacing in hope, and how thinking of our bodies as bodies of water can help with this. For me, as well as the stories in these letters, the ocean has played a starring role. Through thinking about the influence the myth of the Bermuda Triangle has had on my family's life and the stories of being lost at Sea that deepen it, I am hoping to understand our closeness in a different way, through a hydrocommons, and part of a watery relation, that "we make and that makes us in turn" which can work to "respond to wounds of other bodily waters in which we are implicated, even at a distance."[198]

[195] Ibid, 140
[196] Deleuze and Guitarri in Neimanis, 140
[197] Cousteau in Neimanis, 140
[198] Neimanis, 170

Chapter Four: Low and Slow

(Chime)

Begin by taking a deep breath, inhaling slowly. Feel the oxygen as it is carried around your body through your bloodstream as it reaches every cell. As an introduction to Wet Ontologies, Phillip Sternburg and Kimberly Peters quote writer William Langewiesche's Atlantic article Anarchy at Sea: "Since we live on land, and usually beyond sight of the sea, it is easy to forget that our world is an ocean world and to ignore what in practice that means."[199] In July 2020, I began the process of learning how to freedive. Although referred to in certain contexts as an extreme sport due to the risk of drowning, freediving involves slowing your heart rate by reaching a meditative state through "low and slow" breathing techniques with the intention of holding one's breath for long periods underwater, a characteristic of many marine mammals. When beginning this project, I saw freediving as a way to apply the theoretical aspects of living in an ocean world to my physiological state underwater.

(Pause)

Fill your diaphragm and then your lungs up all the way. Pause for a second. Exhale low and slow as the carbon dioxide leaves the body. I also saw learning how to freedive as a way to embody Donna Haraway's suggestion that we need to encounter animals as if they were

[199] Langeweiche in Steinberg, P., and K. Peters. "Wet Ontologies, Fluid Spaces: Giving Depth to Volume through Oceanic Thinking." *Environment and Planning D: Society and Space.* 33, no. 2 (May 1, 2015): 247–64. https://doi.org/10.1068/d14148p.

strangers, and to ask, as philosopher Vinciane Despret asks, citing Haraway, "in what world must this stranger live so as to present such ways of being?"[200] By entering into the ocean, I was hoping to find a way to situate knowledge from the ocean and to explore associative ocean worlds through an intersubjective and embodied form of knowing.

(Pause)

For the next little while, I would like you to continue this rhythm, feeling the oxygen come in for a count of two and expelling the carbon dioxide for a count of four. Through freediving, I saw the loose aims of art and performance as fertile ground for unlearning terrestrial habits and exploring new forms of interspecies communication that aid us in "thinking with." Or, as Scholar Una Chaudhuri identifies, exploring the "enhanced ecological and interspecies consciousness that the Anthropocene demands."[201]

As Alexis Pauline Gumbs says in her naturalist meditation on marine mammals and survival, Undrowned, "breath is a practice of presence."[202] Gumbs sees our breath as something that unites us with marine mammals and reminds us that we have a lot to learn from their relationship to breathing—both in a world where environmental and political forces make it harder to breathe on land, but also "in relationship to our intentional living, our mindful

[200] Despret, Vinciane. What Would Animals Say If We Asked the Right Questions? Translated by Brett Buchanan. 1 edition. Minneapolis: Univ of Minnesota Press, 2016, 163
[201] Chaudhuri, Una. Human Rights & Animal Ethics Research Network. Keynote Lecture "Animal Publics" 2015. Accessed March 15, 2019. https://www.youtube.com/watch?v=nvTUXqNmT4Q
[202] Gumbs, Alexis Pauline, and adrienne maree brown. Undrowned: Black Feminist Lessons from Marine Mammals. AK Press, 2020, 38.

relation to each other."[203] Since beginning my (relatively unsuccessful) attempts at freediving, I have been interested in looking at freediving beyond a mindful relation, and as ocean and trans scholar Eva Hayward describes in relation to the starfish, as critical enmeshment, "knowing that I get knotted into a kind of phenomenological telling that grapples with the mundane and sublime. I am not only describing and articulating, not merely charting the geography but am pulled into the fleshy gerunds of what I write out. That is to say, I am not telling my story; rather I'm simply entangling myself within the stitches of ongoing processes."[204]

(Pause)

For the next little while, I would like you to continue this rhythmic breathing alone, but together––oxygen in for two and carbon dioxide out for four. I am interested in, as Eva Hayward in "More Lessons from a Starfish" describes in reference to Antony and the Johnson's 2000 song "The Cripple and the Starfish," how freediving can put us in touch with the physiological transformations that are happening through the process of diving deep that work beyond a slow exchange between terrestrial and aquatic mobility, and toward the "transformative and relational power of prefixes like 'trans-' or 're-?'" How do these changes, like the regenerative limbs of a starfish, contribute to an understanding of the "poetic and material enactments of trans-sexing/ speciating?" [205]

[203] Gumbs. 38.
[204] Hayward, Eva. "More Lessons from a Starfish: Prefixial Flesh and Transspeciated Selves." *Women's Studies Quarterly* 36, no. 3/4 (2008): 64–85. https://doi.org/10.1353/wsq.0.0099, 65.
[205] Hayward, 2008, 67.

You may notice that, with relatively little effort, you have created a very nice feeling of stillness and you have achieved this quite easily.[206] I am thinking about freediving and the perceptual, haptic, and physiological changes that take place through Hayward's understanding of trans*. Hayward and Jack Halberstam both use trans* with an asterisk following Derrida who, in reference to his writing about his cat, used the asterisk to speak about the particularities of animals, as opposed to animals as generic. Hayward extends this to an ontological understanding of trans* "insofar as it is the movement that produces beingness. In other words, trans* is not a thing or being, it is rather the processes through which thingness and beingness are constituted."[207] Taking the role of a prefix, trans* speaks to the "with, though, of, in, and across that make life possible."[208] Thinking through the sensorium of invertebrates and particularly the starfish in relation to trans women's identity, Hayward is interested in how the changes and pleasures experienced by trans women exceed the more traditional narratives "of male to female man to woman transition as a narrative of being trapped and somehow being free. For me, these are all quite problematic, and actually limit our understanding of what trans might mean for us."[209] Instead, she is interested in thinking about trans as desire, and the reclaiming of beingness beyond coherent destination, as a way to "unthink sex, gender, to unthink, the ways in which these technologies which are inherited through colonialism and racial violence."[210] Her research involves examining parallels between ways to unlearn how we "know" the animal in attuning to

[206] Hayward, Eva. 2010. "FINGERYEYES: Impressions of Cup Corals." Cultural Anthropology 25 (4): 577–99. https://doi.org/10.1111/j.1548-1360.2010.01070.x, 579
[207] Hayward, 2008, 70
[208] Hayward, Eva, and Jami Weinstein. 2015. "Introduction: Tranimalities in the Age of Trans* Life." TSQ: Transgender Studies Quarterly 2 (2): 195–208. https://doi.org/10.1215/23289252-2867446, 196
[209] Hayward, Eva in TBA21-Academy. n.d. "Ocean Wants: Conservation Libido, Featuring Eva Hayward." Ocean Wants. Accessed December 25, 2023. https://soundcloud.com/tba21-academy/ocean-wants-conservation-libido-featuring-eva-hayward.
[210] Hayward in TBA21-Academy

their beingness and sensorium, with thinking about the "open-endedness of trans as pleasure."[211] With this, she specifies that being trans is not the same as disorienting the animal "but to the degree that my sensorium is at work in these encounters, they share resonance."[212]

As you listen to the sound of my voice, we are beginning a process that freedivers refer to as a "breathe-up." In the words of the International Association for the Development of Apnea (AIDA), "you are preparing for a breath hold by doing less and less, until you do nothing at all anymore"[213] More than stillness, floating at the surface of the ocean, as it "roars aloud its own wet substance, its own poetics, its own modes of contact: saturating, shimmering, sonic,"[214] can assist us in developing "fingeryeyes" which Hayward describes as a site where, among other things, "human perception is refracted, textured by the encounter of shoreline and ocean."[215] I am interested in how freediving fits into this concept. Fingeryeyes describes the process of exploring synesthetic ways of knowing, where one's eyes become tentacular and develop a sensory disposition. Developed originally from Hayward's experience with feminizing hormone therapy in which she experienced a new sensitivity and unfamiliar relationship to touch and to her own sensorium, it also references her work in marine laboratories as a way to "think about the fullness, the materialized fullness of those encounters of those processes of perception."[216] How can fingeryeyes assist in more fully describing this physiological transformation and change in perception that occurs in freediving?

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[211] Ibid
[212] Ibid
[213] Christen, Oli. 2015. *AIDA Freediving Manual 2*. AIDA International, 21.
[214] Hayward, 2010, 579
[215] Ibid
[216] Hayward in TBA21-Academy

(Pause)

This simple process of breathing up helps you slow your heart rate to achieve a longer breath hold on land or in water. Or, as Melody Jue in *Wild Blue Media* poses, helps us to develop an amphibious perspective—a slow exchange of terrestrial for aquatic mobility.[217] Jue sees diving as an interface, which, "unlike screens and keyboards…extends from the lungs into body tissues as they absorb extra air"*[218]* The acute sense of breath, or the lack thereof involved in freediving connects me to the breathing of marine mammals. A blue whale, for example, with ten tonnes of blood pumping through her veins, and a heart the size of a small car, breathes in thirteen hundred gallons of air to dive down for twenty to thirty minutes. The pressure of the ocean compresses her body, as it would ours, bringing the air into her upper lungs. Her blood and muscles are almost a shade of black with hemoglobin for storing oxygen. Her heart will slow down to four beats a minute (the human heart beats an average of sixty-one to one hundred beats a minute). [219]

As Rachel Carson so eloquently wrote, "to sense this world of waters known to the creatures of the sea we must shed our human perceptions of length and breadth and time and place." [220] Carson, concerned in her works with instilling a sense of wonder in her readers, began to study the ocean before she had even seen it. Her writings could be interpreted as precursory to the

[217] Jue, Melody. 2020. *Wild Blue Media: Thinking through Seawater*. Illustrated edition. Duke University Press Books, 37.
[218] Jue, 35
[219] Calvez, Leigh. 2019. The Breath of a Whale: The Science and Spirit of Pacific Ocean Giants. Sasquatch Books, 97
[220] Carson, Rachel L. 1937. "Undersea." The Atlantic, September 1, 1937. https://www.theatlantic.com/magazine/archive/1937/09/undersea/652922/.

process of developing an amphibious perspective, as she worked in her popular science writing to avoid a human bias and to "portray the world of waters solely from a creaturely perspective."[221] Doing her best to immerse us in an ocean world, through this sense of wonder, Carson worked toward an interconnectedness that could be seen as a stepping stone (or diving bell) for the physiological transformations that begin to happen through the process of deeper and deeper physical immersion.

(Pause)

This theoretical plunge into the ocean will help us to envision on land, on our computers, the beauty of experiencing the master switch of life: this term was coined by Per Scholander in 1963 to describe the phenomena in vertebrate animals of the "physiological reflexes in the brain, lungs, and heart, among other organs, that are triggered the second we put our faces in the water. The deeper we dive, the more pronounced the reflexes become… turning us into efficient deep-sea-diving animals."[222] This master switch is otherwise known by a more common expression as the mammalian diving reflex. It can lead us to an embodied understanding of the ocean and its inhabitants, which for many aspiring freedivers, including myself, represents a very deep and very powerful desire. It is through the process of observing marine mammals that we came to understand how these physiological changes in water might apply to the human body. Through studying the blood shift in the Weddell Seal, Scholander conducted an experiment in

[221] Chen, Anelise. 2022. "What It Would Take to See the World Completely Differently." The Atlantic, no. May 17, 2022.https://www.theatlantic.com/books/archive/2022/05/rachel-carson-book-sea-trilogy-wonder/629842/

[222] Nestor, James. *Deep: Freediving, Renegade Science, and What the Ocean Tells Us about Ourselves*. Boston: Houghton Mifflin Harcourt, 2014, 80

1962 where he performed a series of calisthenics tests with humans and found a similar response to a Weddell Seal. Preceding his research, Robert Allison studied this shift in sea lions and enlisted former U-boat officer Karl Schaefer and freediver Bob Croft to conduct a series of experimental dives in a wet hyperbaric chamber to simulate the effects of depth and pressure experienced when diving. Hitting over 70 meters in the chamber, they found that when the regular oxygen supply was cut off, "their spleen contracted, and the blood vessels in their brain and heart strategically dilated, it allowed oxygen to get where it was most needed, more efficiently." [223]

A grown harbor seal can stay underwater for as long as thirty minutes and can slow her heart rate down from 120 beats a minute, to three, or four. [224] This is not so different from some competitive freedivers who have reported heart rates as low as 7 beats per minute.[225] Competitive freediver Natalia Molchanova holds the female record for the longest static apnea hold of nine minutes and two seconds.

Challenging ourselves to sink deepens our imaginations of what material realities can be. As Sabrina Imbler describes, it was not until quite recently that scientists believed all life was dependent on light and sun: "our imagination was not vast enough to look beyond the surface, to conceive of another way of living on Earth."[226] Donna Haraway, as referenced by Hayward,

[223]Skolnick, Adam. One Breath: Freediving, Death, and the Quest to Shatter Human Limits. Crown Archetype, 2016, 73
[224] Gumbs 2020, 225
[225] Nestor 2014, 118
[226] Imbler, Sabrina. How Far the Light Reaches: A Life in Ten Sea Creatures. Little, Brown and Company, 2022, 108.

describes this as well when she says, things are never "purely themselves," but rather, "compound . . . made up of combinations of other things coordinated to magnify power, to make something happen, to engage the world, to risk fleshly acts of interpretation."[227] Hayward, through Haraway, describes her work at the Long Marine Laboratory, a site where diving physiology, physiological acoustics, bioacoustics and cognition are studied, as a place where she finds herself "entangled in 'moist threads,'"[228] and where compounded things are made concrete through the attention of "senses and sensing"[229] made possible by the research and the aquatic vantage points available from the tanks.[230]

On your next exhale, think of the Weddell Seal, who, when born, does not realize her diving capacities. By the time she has finished nursing, her mother will force her head below the surface until she dives 2,500 feet below—where she could stay for an hour if she chooses. [231] With these early studies where divers learned about bodily changes in water through sea lions and seals, I am asking, as Hayward does in relation to the Starfish, when "metaphor and metonymy "ripple" into one another?"[232] When considering a "like-ness" to marine mammals through the physiological transformations of the mammalian diving reflex, I am proposing that in this process, there is a re-working and refolding of the body, tissue and skin to adapt to a marine environment. I am asking how this allows for new ways of conceptualizing how we "encounter one another and share in the mutuality of our different materializations."[233] Taking inspiration

[227] Haraway in Hayward, 210, 579.
[228] Ibid.
[229] Ibid.
[230] Ibid.
[231] Gumbs 2020, 4.
[232] Hayward, 2008, 67.
[233] Ibid.

from Hayward, I am asking, by looking at the material and semiotic aspects of the changes in the human body when diving, how we can see ourselves as parts of "the world's ongoing refiguring,"[234] which assists us in understanding the "embodied premises that we live in a process of constant enfolding and that it encourages a deeper and more expansive regard for ways that life comes together."[235] To see the human body and the changes it undergoes in a marine environment, and to learn from and share this with other marine mammals, is to see it as part of the refiguring and constant enfolding that can help us understand how our lives come together with the lives of those in the ocean.

A low and slow breath-up not only helps you to clear your mind but will also help you focus on what's really important. As the AIDA freediving manual says, "letting go, (and) becoming absolutely silent and focused on the moment,"[236] will assist you in creating the perfect conditions for a successful dive." Or, as Gumbs hopes, "may our breathing open up to the possibility of peace" [237] This can refer to how we may feel at peace within the water, but also lends itself to thinking of peace as an interspecies process. Peace activist Mahatma Gandhi has said that the greatness of a nation can be judged by the ways its animals are treated. In 2013, India became the first country to recognize dolphins as nonhuman persons.[238] Recognizing the rights of nonhuman persons is a necessary step toward human-marine mammal relations. By recognizing their personhood, we can also begin to respect and acknowledge their cultures and rights to the ocean. Toni Frohoff, scientific director and co-founder of Sonar, a think-tank and

[234] Ibid.
[235] Ibid.
[236] Christen 2015, 21.
[237] Gumbs 2020, 38.
[238] Calvez, 366.

advocacy group for the more-than-human world, reminds us the cetaceans have been "indigenous far longer than humans,"[239] and advocates for cetaceans to be given a seat at the table as stakeholders for the annual International Whaling Commission meetings, "where quotas are set for how many of each species of whale can be killed by each member country." [240]

You can stop counting your breath now. Perhaps, as Gumbs suggests, you have slowed down enough to deepen into trust.[241] Trust, like peace, is made much more rewarding when it is more than trusting our bodies in the ocean and takes place on an interspecies level. The most profound example I have experienced with interspecies trust was on Brier Island when (and this happens more than you'd think) a mother Humpback will leave her baby on the surface in the care of the boat to take a deeper dive into the ocean to feed. Leigh Calvez also speaks about this phenomenon when she describes a gray whale offering her calf up to be touched by two little girls: "never before in all my years observing wildlife had I witnessed a wild mother offer her baby to outstretched human hands."[242] This trust also extends beyond a single interaction to radical bodily transformation. In *How Far the Light Reaches,* Sabrina Imbler describes a graduate student who, unable to part with their invertebrate companion, collected the fragments of a dead moon jellyfish and learned that they are in fact immortal through their capacity to regenerate themselves: "they are one of the best-studied jellyfish in the world, and yet no one noticed the moon jelly's power of regeneration until someone gave it time and trust that it might grow into itself. Perhaps any jellyfish is capable of such transformation."[243]

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[239] Frohoff in Calvez, 366.
[240] Calvez, 367.
[241] Gumbs, 38.
[242] Calvez, 367.
[243] Imbler, 262.

Now, create a tranquil and clear setting in a calm place in the ocean. Place yourself floating and bobbing at the horizon line as water gently splashes your face. Imagine that you are upright and wearing flippers. A weight belt and a wetsuit keep you comfortably buoyant with minimal effort. See the yellow safety float as it bobs gently with a long yellow rope descending straight down into the water. Notice a harbor seal bobbing curiously and looking at you from a distance. In a few moments, it will be your turn to dive. You will go inward, both physically and mentally, as you calmly work your way down to new depths. The question of new depths is, in addition to exploring physiological changes, about exploring ways of engagement. In "The New Depthiness," Timotheus Vermeulen describes how author Alessandro Baricco distinguishes between diving and surfing, in which the diver looks for meaning by delving deeper into a particular topic, whereas the surfer looks for meaning on the surface, or the movement of looking from one point to another, building sequences of experience. This can be seen as different forms of research: "unsurprisingly, if the diver is the person who reads Proust, Baricco writes, the surfer is the person browsing the internet."[244] Vermeulen uses this metaphor to further elaborate on Fredric Jameson's description of depthlessness in a postmodern and late capitalist society not as a lack of depth, but as an attempt to "perceive the ocean as a trajectory rather than either a territory (implying a mapping) or a telos (suggesting direction)."[245] It is a process that allows for movement, jumping from one point to another: "he literally lets the waves carry him, he lives in the moment."[246] By always moving from point A to point B, we stop ourselves from going

[244] Vermeulen, Timotheus. "The New 'Depthiness' - Journal #61," no. 61 (January 2012). https://www.e-flux.com/journal/61/61000/the-new-depthiness/.
[245] Ibid.
[246] Ibid.

under. Thus, part of exploring new depths could lie in letting yourself sink, and in so, resisting the post-modern urge of constantly advancing and progressing in an effort to stay afloat.

But for now, on your next exhale, let us remain on the surface. As I thought more about the process of freediving and how I came to it, especially the embodied understanding of the ocean through these changes, I became increasingly interested in the roles desire and pleasure play in this process. In the TBA21 podcast Ocean Wants, Hayward describes an experiment that she conducts with her class where she asks if, when they consume plastics through food or fashion, involving materials that unleash disruptive compounds, alter breast health, fertility rates, and the immune system, there is a larger unconscious desire to disrupt bodily sex.[247] Although there is a slight correlation between extreme breath-holds and erectile disfunction, the physiological changes in freediving have more to do with changes in lung capacity and the processing of Oxygen and C02 than bodily sex. However, for me, this deep desire to observe these extreme physiological changes in one's body correlated to a desire to break free from the constructs and limitations of my own bodily sex. My desire to free dive and to challenge my body in this way corresponded with taking fertility hormones for the process of in-vitro fertilization. Unwell and unstable, I was frustrated and alienated with my body, and its inability to respond to the hormones in the way I had hoped. Suppressing my body's natural cycle and replacing it with stimulating hormones alienated me from my female gender in unexpected and unimaginable ways. I turned to freediving and specifically, the idea of these physiological changes in water as

[247] Hayward, Eva and Ingo Niermann. "Ocean Wants: Conservation Libido, Featuring Eva Hayward." Presented and produced by TBA21-Academy. *Ocean Wants*. October 21, 2021, MP3 audio, 1 hour, 27 minutes. https://soundcloud.com/tba21-academy/ocean-wants-conservation-libido-featuring-eva-hayward.

hopeful transformation, one that allowed me to transcend beyond the current realities of my body undergoing fertility treatment. With this, the desire exceeded beyond bodily sex, to a desire for a desire for transpeciation, however romanticized.

(Pause)

In Surface Encounters, post humanist scholar Ron Broglio attempts to carve out what an animal phenomenology may mean. He argues that we have made assumptions that animals have no ability to reflect critically and lack the depth of memory. Or, in Georges Bataille's words, the world of animals is "like water in water."[248] Broglio thinks we have "cornered the animals by limiting their sense of depth."[249] But what does being "water in water" mean sensorially? To return to Hayward's concept of "fingereyes," Hayward is asking with this term how zones like intertidal zones can be sites where species are meeting not just as "critters" but also as "objects and subjects of different sight, sense, sensibility, and sensuality."[250] This term describes this haptic-optic zone of "tentacular visuality of cross-species encounters" naming "."[251] As it exists in water, the actions of one species can cause a ripple and transform the arrangement of the way we touch, "senses are amalgamated, superimposed, forging cross-species reticulations and sites of solidarity."[252] In this description, the ever-changing encounter between species in water renders species as impressions and "thresholds of emergence." [253]

[248] Bataille in Broglio, xvi.
[249] Broglio, xvi
[250] Hayward, 2010, 580.
[251] Ibid.
[252] Ibid.
[253] Ibid.

Ah, but here we are caught in a surface and depth binary once again. As Jue explains, pressure and saturation are factors often neglected when speaking about the ocean. By immersing ourselves, instead of standing on the surface, gazing into the depth, these factors come to matter and assist us in developing "milieu-specific environments of critical practice that differentially implicate the human observer and their normative orientations."[254] It seems important to note that Jue's text, written in 2020, was too early to catch when oceanic pressure had its moment in mainstream media. Titan, a submersible operated by the American Tour Company OceanGate led by Stockton Rush, imploded on June 18th, 2023 off of the Coast of Newfoundland in Canada, on an expedition to visit the Titanic. With five passengers on board, the vessel reached the abysmal zone of the ocean, where the pressure is 5000 to 6000 pounds per square inch.[255] Many raised concerns about OceanGate's arrogant and reckless operations, which rendered the implosion a humbling moment for millionaire-led ocean exploration. Author Susan Casey described the sentiment well when she said, "the abyss doesn't care if you went to Princeton, or that your ancestors signed the Declaration of Independence. If you want to go down into her world, she sets the rules."[256] The pressure of the ocean at this depth renders it logistically much more challenging than launching into space, a reality tragically highlighted with this scandal.

[254] Jue, 57.
[255] Casey, Susan. "The 'Titan' Submersible Disaster Was Years in the Making, New Details Reveal." *Vanity Fair*, August 17, 2023. https://www.vanityfair.com/news/2023/08/titan-submersible-implosion-warnings.
[256]Ibid.

Imagine yourself turning facedown, lying flat, and looking into the water. When you're ready, take your last breath through your snorkel then duck-dive into the water. Turn toward the rope and pinch your nose to hear a light squeezing sound as the first bit of pressure releases.
Begin to pull yourself gently down as calmly as you possibly can. Relax, because as Gumbs says in reference to the harbour seal, "the pressure is coming."[257]

(Pause)

Although competitive freediving is seen as an extreme sport by some, the process of freediving is also a slow process where one is attempting to make gradual physiological changes that have tested the limits of a human body to adapt to a water world. The Titan, however, is an extreme example of hubris when facing oceanic pressure. Skolnik, in the freediving book *One Breath,* investigating the death of freediver Nick Mevoli, argues that divers such as Mevoli were seduced by constantly beating their records and diving quickly to new depths without fully allowing their bodies to adjust to the change. He describes the "Frenzel-Fattah equalizing technique" as a "fundamental sea change"[258] in the sport of freediving. This technique allowed freedivers to equalize much quicker and thus, reach new depths. Initially, experienced freedivers used the technique to gradually descend, but, as more freediving schools popped up around the world, the freediving community saw relatively new divers diving much deeper, "without any knowledge about their physiology and how it adapts."[259] Although the model of what is possible may come from the study of sea lions and seals, a model for physiologically adapting over time is not part

[257] Gumbs, 207.
[258] Skolnik, 89
[259] Ibid, 93

of these studies. This extends Jameson's postmodern idea of depthlessness where we move from point A to B, to diving. Ultimately, it becomes very dangerous, if not fatal. Perhaps studying not only how the bodies of marine mammals transform when diving in the water, but their gradual adaptation process can assist us in a responsible transformation. Further, to think about the bodily changes that happen with diving as a process of unlearning, and through the prefix trans*, how can we see these changes as part of a process that produces "beingness"[260] "across, beyond, through,"[261] as opposed to a linear progression into the ocean?

As you imagine yourself climbing down the rope, think of the Ama—an ancient culture of Japanese diving women that dates back to 500 BC. For the Ama, freediving is both a tool to gather food on the ocean floor and a spiritual practice; they were capable of diving up to 150 feet and staying down for more than three minutes. Passed down from mother to daughter, they saw themselves not as visitors to the ocean but as a part of it. As one Ama wrote, "[Underwater] I hear the water coming into my body, I hear the sunlight penetrating the water."[262] For me, the Ama's description of their body in a dive describes an alternate sensory experience reminiscent of fingeryeyes in its synesthetic qualities.

(Pause)

Allow yourself to let go of the rope.

[260] Hayward, 2008, 74.
[261] Ibid, 68.
[262] Nestor, 80.

(Pause)

Do you feel vulnerable here? If you were a whale, and you didn't resurface, you would gradually sink to the bottom of the ocean in a process called "Whale Fall." As Sabrina Imbler explains, "entire ecosystems depend on these deaths, creatures whose lives revolve around chance windfalls of blubber, gut, and bone."[263] When a whale dies and sinks to the ocean, they remain in some capacity for decades; first, through large, mobile scavengers like sharks who work quickly tearing at the flesh of the dead whale; then through smaller scavengers like invertebrates such as worms and tiny crustaceans, and lastly the sulfophilic stage, when species that have evolved to eat the lipids inside the skeleton arrive to feed on the fats and oils inside the bone, eventually disappearing the whale skeleton. In large whales, the sulfophilic stage may last up to a century. As Imbler so beautifully puts it, "if a whale's life is a marvel, its death is its legacy."[264] There are up to 690,000 skeletons of the nine largest whale species decaying on the seafloor at any given time, so, when we kill whales and take their bodies to land we have "caused another, unimaginable ripple of death at the bottom of the ocean. Hagfish, octopuses, sea snails, bristle and bone worms, adults and larvae, shuttling themselves along the great expanse of the deep sea and coming up with nothing: no whales, living or dead."[265] As a result, about one-third of the organisms that rely on Whale Fall may have already gone extinct.

Assuming you are diving within your limits, keep going.

[263] Imbler, 99.
[264] Imbler, 101.
[265] Ibid, 102.

At around 60 feet, in the words of journalist and free diver James Nestor, "we are not quite ourselves."[266] *Your heart will be beating at half of its normal rate and blood will rush from your extremities. Your lungs will shrink to a third of their normal size and your senses will numb.* Indeed, diving into the ocean transforms our blood and organs and creates a feeling of sensory disorientation, or as Hayward defines in relation to thinking through the prefix trans, in" More Lessons from A Starfish," "something that starts in one place and ends in another place."[267]

Congratulations, you have reached an ocean depth of 100 feet. Perhaps begin to think of yourself, as what Gumbs refers to, as a "depth mammal." [268] Hayward argues that changeability is intrinsic to the transexual body: "our bodies are scarred, marked, and reworked into a livable gender trouble, sex trouble, or uneven epidermis."[269] She argues that the survival of trans people is not dependent on becoming whole. Because the trans body is an embodiment of this layered experience, instead of wholeness, what is "intact" is a body that is "pliant to a point, flexible within limits, constrained by language, articulation, flesh, history, and bone."[270] I argue that the process of transforming into a depth mammal finds a home within this paradigm of pliancy and changeability.

(Pause)

[266] Nestor, 80.
[267] Hayward, 2008, 68.
[268] Gumbs, 191.
[269] Hayward, 2008, 78.
[270] Ibid.

Ocean activist and scuba diver Sylvia Earle lived in a depth laboratory at 50 feet underwater where she spent 336 hours between 20 to 100 feet, thus allowing her to get to know the fish whose "habits become as familiar as those of neighbors."[271] *For this privilege, which she refers to as an "extended passport" in the ocean, she spent twenty-one hours decompressing at the surface in a special diving bell*. I like to think about this type of necessary adjustment in relation to Cuvier's beaked whales, who have record-breaking dives of 9,816 feet in 137.5 minutes in one breath. Although unparalleled divers, it is their mass strandings as a result of naval midfrequency sonar exercises that they are best known for. They have no technologies that can help their bodies adapt to these changes. Again and again, we are given examples about the limits of this pliancy in bodies in the ocean, about sensory disorientation that becomes fatal. Hayward argues that even our most radical responses to environmental crises are caught up in the original problems caused by unattended racism, sexism and transanxieties. She uses the late work of Nazi propaganda filmmaker Leni Riefenstahl who filmed corals before they went extinct, and joined Greenpeace as her "only party affiliation" to point toward how the activist answer to environmental catastrophe is often a "reification of the original catastrophe. One aspect of that history is the anthropocentric idea that organisms are for us. They belong to us. And in that our care for them, our stewardship, if you will, is an enactment of rather regressive and problematic ideals."[272] Although Hayward doesn't have a solution, she is interested in finding insight in trans studies through what she perceives as the catastrophic regime of ordering through sex and gender.

[271] Earle in Jue, 60
[272] Hayward and Niermann, 2021

(Pause)

Imagine sinking down to 300 feet where the pressure is nine times what it was on the surface. This far down, your heart beats at a quarter of its normal rate—slower than a person in a coma. Your senses begin to disappear, and you have likely already entered into a dream state. [273]

(Pause)

Not too far ahead of you now, you hear (or feel) a clicking noise. You turn your head to see a huge, oval, and dark shape floating in the water. I can imagine this feeling extending beyond sight, sound and touch, to another oceanic sensory disorientation akin to fingeryeyes.

(Pause)

Let her come a little closer to you. As she approaches, you begin to feel her vibrating through your body.

(Pause)

Can you guess who she is?

(Pause)

[273] Nestor, 91

You have been visited by a sperm whale, the largest predator in the ocean. The whale in Herman Melville's classic tale, Moby Dick. [274]

(Pause)

Sperm whales, like dolphins, have the ability to echolocate. She sends out a clicking noise and feels an echo in a fatty sac beneath her jaw, which, unlike our two directional ears, has thousands of data points that can "gauge the distance, shape, depth, interior, and exterior of the objects and creatures around it."[275] Although she is characterized by a narrative of sharp teeth and fierce ocean behavior, scientists now believe that her teeth are not used to chew; instead, they attune her echolocation.[276] This skill acts as another iteration of fingeryeyes. Hayward uses David Howes' trope of "emplacement" as a more expansive term that extends beyond mind-body integration to suggest a sensuous relationship between mind, body and environment.[277] She suggests that fingeryeyes is a "boost" to emplacement to further include "texture, animation, galvanizing drive such that emplacing is defined by the quality of invigoration and its transfiguration of future emerging's, of senses and species that may yet emerge."[278] Although we do not surpass our own flesh, we "deterritorialize the body through our 'island of senses.'"[279]

[274] Melville, Herman. *Moby-Dick*. Reissue edition. London: Macmillan Collector's Library, 1851.
[275] Nestor, 91.
[276] Gumbs, 195.
[277] Hayward, 2010, 592
[278] Ibid
[279] Ibid

(Pause)

Researcher and freediver Fabrice Schnöller, founder of Darewin, has collected the largest database of sperm whale behavioral and vocalization data which, among other things, has worked to expose how little we know of whale communication. Schnöller believes that because sperm whales communicate with sonar, a sensory system we do not possess, we simply do not "get it".[280] Here, "getting it" requires a new attunement to our sensorium. Understanding sperm whale sonar communication makes demands that extend past our reliance on auditory communication. It requires a new way of being embodied in the world. It requires fingeryeyes. Within this, our body is yet again in a state of transformation.

All toothed whales (dolphins, porpoises, river dolphins, killer whales, and sperm whales) can echolocate. This is a practice that, as Gumbs describes, has the capacity to change our understanding of "vision" and "visionary action." [281] Through fingeryeyes as "multispecies and multimedium sensing,"[282] Hayward is suggesting that our encounters with other species, and particularly attuning ourselves to their sensoria, allow feeling, sensing, and touching to "slide into each other making new prepositions of observation: seeing with tact; touching by eye; feeling from vision." [283]

(Pause)

[280] Nestor, 91
[281] Gumbs, 27
[282] Hayward, 2010, 582
[283] Ibid

We are almost at the end of our breath hold.

(Pause)

Grab hold of the rope, turn, and begin to kick. No need to relieve the pressure on the ascent. Move quickly, but intentionally.

(Pause).

We have once again reached 16 feet. Our safety diver has come to meet us, and in just a few moments, we will break the surface of the water where, in our first breath after several minutes, we will expel the carbon dioxide from our bodies.[284] Hayward's interpretation of Haraway's concept of metaplasm is useful. Haraway initially uses this term in reference to companion-species relating where there is a "remodeling of dog and human flesh, remolding the codes of life."[285] Hayward employs the concept of metaplasm to speak about the practice of enfolding relationships, where species are in a constant state of becoming. She argues that "metaplasm begins in the sensual and carnal intercourse between and among species, constantly changing and reworking boundaries."[286] However, the risk of this kind of metaplasmic mixing is high. With this metaphor comes the risk of toxic and cancerous relations. It is a "kind of trope that takes

[284] Skolnik, 451
[285] Haraway, Donna Jeanne. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Paradigm 8. Chicago: Prickly Paradigm Press, 2003, 20.
[286] Hayward, 2008, 77

biology and semiotics very seriously---differences are material and discursive. It is ardent with consequence."[287] Like the concept of metaplasm and its relational enfolding, the process of examining how we transform in water, and the intermixing of sensorial experiences with marine mammals is an ethical relation.

(Pause).

You are finally back on the surface. Imagine you are taking three sharp hook breaths. You are acclimatizing back to the terrestrial world after conditionally belonging to an ocean world, a brief "extended passport."[288] *Your safety diver will be watching you. Let them know you are okay.* Hayward is arguing that through the process of attunement to our own sensorium, we materialize and re-materialize our subjectivity. Beyond Donna Haraway's concept of staying with the trouble of living and dying together on a desecrated planet, Hayward proposes "going into the trouble so as to better understand the processes that have materialized my condition and the differences of my condition from other differences."[289] Through focusing on our own sensorium and subjectivity, Hayward sees a way to reject the ordering structures, including gender and limiting species classifications, that have "got us into this incredibly terrifying situation."[290]

(Chime)

[287] Ibid, 78
[288] Earle in Jue, 60
[289] Hayward and Niermann, 202.
[290] Ibid

It is my hope that each time you imagine this dive, you become more finely attuned with the world as an ocean world, establishing a deeper, more porous connection between your own lungs, and what Earle refers to as "the blue lungs of the planet,"[291] *as you gain both physiological and theoretical capacities for an embodied human-ocean and human-marine mammal encounter.* Building from a desire for likeness to marine mammals, the deeper I went into freediving, and the desire attached to these bodily changes, the more I perceived this transformation as a way to disorient our sensorium and through this, consider the prefix trans* through the act of freediving, and the "moist threads" we can entangle ourselves in through this process. Paying attention to the development of a new sensorium through" fingeryeyes" provides me with new tools for interrogating the desire for such transformations, and the expansive theoretical space it can create in terms of thinking about transpeciation through the reworking and refolding of the body in adapting to an ocean space.

[291] Earle in Jue 2020, 67

Conclusion:

For as long as I can remember, the existence and survival of marine mammals were a part of my heart and mind. I didn't realize how special this was until I returned as an adult. This guided me to think about what it would mean to apply research-creation in visual art to foster a feeling of kinship through video and performance. Initially, I was thinking of post-human kinships, and increasingly, as my life changed, I was also thinking of queer kinships.

Low and Slow is anchored in an investigation of how video and performance can cultivate alternative modes of ocean-based education and advocacy. Through four propositions in research-creation, I experimented with ways to help submerge my research in new conversations and artistic practices.

During my comprehensive exam, I was asked who my audience was for this project. Through this, I realized that I was thinking predominantly of an audience of ocean conservationists, citizen scientists, and marine mammals themselves. At its heart, this project is a research-creation project which draws on research in performance studies, human-animal studies, feminist posthumanism, naturalist writing, the blue humanities, and queer studies using an independent-analysis and mixed-method approach. In taking an independent analysis approach, the written and artistic components have been developed using a series of different modalities, which weave together texts in the aforementioned fields. The academic contribution runs parallel to, and scripts itself into, the practice-based component of this project. Having a profound respect and deep connection with the Ocean, this project is also very personal and draws on my own joy and grief. At times anecdotal and running the risk of anthropomorphism throughout, each of the four chapters attempts to work through notions of interspecies connection and kinship through a collection of thoughts and inquiries as opposed to a tightly constructed argument.

Central to the artwork and writing in this dissertation is my belief that it is vital to adopt new, non-anthropocentric perspectives to understand, as Donna Haraway describes of companion species, the implications of "living well together."[292] This question has led to examining how different practice-based methodologies can be applied to advocate for the survival of marine mammals while challenging current paradigms of ocean entertainment. I have attempted to do this through four emergent writing and practice-based experiments to think through different ways that performance, video and practice-based research could relate to ocean education and conservation.

My responses to these overarching questions and beliefs are entrenched in the notion that despite the knowledge about the plight of marine mammals that we do have, in the form of documentaries, books, nature education, conservation campaigns, among others, it has still not been enough to change attitudes or behaviors toward the oceans and toward marine mammals. Perhaps instead, it takes stranger, less direct approaches to forge a kinship. Through video, performance and sculptural "boundary objects," I am interested in exploring if it is possible to build this connection without seeing a "live" marine mammal, through creating an immersive, experience through multiple, at times loose, at times scrappy, relation points.

With Brier Island as the original site of my Epipelagic Zone, *Low and Slow* is structured like a dive from the surface to the depth. The first being is outlined in Philip Steinberg's *A Social Construction of the Ocean,* which examines how industrial capitalism rendered the perception of the sea a flat transportation surface, resource provider and monitorable space for the scientific observation of currents. This practice erased perceived lived ocean worlds while enabling imperial power, free trade, and extractive logics. Steinberg uses the example of the drawing of

[292] Haraway, Donna J. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. 1 edition. Chicago: Prickly Paradigm Press, 2003, 25

the ocean on maps, which diverted from being colourful and teeming with monsters and fish to a "blue, formless expanse."[293]

The second surface is the surface of the skin of the whales, as we encounter them on these tours when they come up for air, or wash up on the shore. When we see the surface of their bodies, they are almost always scarred by journeys in the ocean and often by human-made causes (like entanglements). With this, the idea of the ocean as a flat transportation surface begins to glitch, and I believe this is where we start to really understand our shared vulnerability with the whales the we encounter. The third type of surface I wanted to address was described in Ron Broglio's *Surface Encounters,* where Broglio attempts to construct an animal's phenomenology by speaking about surfaces as the place where these meaningful encounters take place - a site of productive engagement.

Moving just below the surface, the second chapter looks at transitional and boundary objects as catalysts for oceanic research through small vignettes of practice-based research from five perspectives. In this part of the research, I was really guided, and inspired, by Natalie Loveless' *How to Make Art at the End of the World* where she says,

> "a research-creational approach insists that it is to our deepest, doggiest, most curious loves that we are beholden, and that it is love — eros — that must drive our research questions as well as our methodological toolkits."[294]

I also focussed on Claire Pentecost's notion of the artist as Public Amateur, someone who was learning in public, and to create an environment where others were doing the same.[295] I wanted to start with an offer, which was the to-scale marine mammal eyes that I constructed as "Boundary

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[293] Steinberg, Philip E. The Social Construction of the Ocean. Cambridge University Press, 200, 161.
[294] Natalie, Loveless. How to Make Art at the End of the World: A Manifesto for Research-Creation. Durham, NC: Duke University Press, 2019, 61.
[295] Pentecost, Claire. "Oh! The Public Amateur Is Not Afraid to Let on That She Just Figured It Out." The Public Amateur (blog), March 26, 2007. https://publicamateur.wordpress.com/about/.

Objects." With these eyes: Tiffany Schofield explored the potential relationship between the click of a sperm whale for echolocation and ASMR by creating an ASMR video with her respective eye; Véronique Sunatori focussed on the ear wax plugs of Blue Whales and what they can tell us about their stress levels, as well as their lives as solitary creatures, whose mating calls have been getting deeper over time. For her video work, she focussed on the calls of whales out of place in a tunnel; Shalon Webber-Heffernan, when given the eye of an Orca, explored maternal grief and created a subsequent children's workshop based loosely on the children's book *The Spirit of Springer* about an Orca who is separated from his mother; Rodrigo Marti, who took the Bowhead whale eye as a prompt, learned about them through researching images to draw and speaking about his automatic drawing approach. The video for this consists of him taking us step-by-step through his drawing process until he finally gets to a drawing that he feels is formally interesting. Lastly, Andrew Bateman took his Weddel Seal eye freediving and filmed the process, while focussing on Timothy Morton's idea of subscendence.

I was honoured by the way people participated in this project and the sincerity they came into it with. Coming from Social Practice, this chapter really felt the most in line with methods I was used to working from my MFA in public art and new artistic strategies. I had chosen the people I did expecting them to engage in certain ways, and for the most part was pleasantly surprised with what happened. I think this model was the most successful for me in thinking about marine mammals very openly, and as a non-expert.

The second part of this engagement, and the part that receives the most space on the website, is the edited videos themselves. Although what everyone ended up with was quite different, I really envisioned it as a future web series, where you have these strange, theory-based, short video art experiments. I tried to create this through-line through the eyes and the edited intro to the video.

I think where this chapter's experiment really shines is in these artist videos because they are so varied. It was nice to see these boundary objects themselves (i.e. the Ceramic Eyes) out in the world in people's homes after the project. Like a book on the shelf that can remind you of its contents, my hope is that the whale eyes remind the participants of their marine mammal.

Dear Ursula, you go to a place where we cannot reach you, was conceived at a depth where one would start to feel pressure. I asked, what do you need in this moment? What does this look like in terms of research? Or artwork? My answer to this chapter was to go both intergenerational and metaphysical. I focussed on disappearance and loss as it is related to different ways of being lost at sea, beginning with my family's history with the mysteries of the Bermuda Triangle and moving on to artist Bas Jan Ader and Natalia Molchanova's disappearances. Arriving at the fifth letter, I explore how through Alexis Pauline Gumbs, Christina Sharpe, Drexciya and the Otolith group's writing and artistic projects, being lost at sea is understood through the history of racialized violence of the Middle Passage. Here, the ocean emerges as a site where colonial violence is ongoing, material, and hydrologically embedded.

Swimming through the letters are the theories espoused in Astrida Niemanis' book *Bodies of Water* where she crafts an argument for a feminist post-humanist conception of connecting our watery bodies to a larger hydrocommons in the hopes that it can lead us to a broader understanding of self, and a deeper connection and consideration of the bodies of water that we make and that make us. Understanding ourselves as bodies of water reframes loss, survival, and kinship across race, species, and time. Neimanis describes any case of interconnected water as one where human "togetherness" is separated by differences that matter. She asks, "if we are all in the same boat, why do some of us seem to be (to quote poet Stevie Smith) not waving, but

drowning?"[296]

Unlike the previous, practice-based experiments that script themselves into the written work, the accompanying video work for this chapter runs alongside the letters. *Wicked Game* is based on the previous interviews from San Pancho, Mexico with "whale people" of all kinds which I conducted through the Lilha art residency. I wanted to focus on experiences where the whales have travelled to the interviewees, both actually and spiritually. *Wicked Game* layers small segments from the San Pancho interviews with Katie Kim's cover of the song by the same name, and clips from whales in mainstream movies, advertisements and cartoons. These pop-culture and media portrayals of whales, interwoven with my interviews from San Pancho describe these watery connections that the interviewees feel toward the humpbacks who migrate to the Pacific while exploring how pop culture representations of marine life are entangled with our imaginaries of whales.

Finally, for the last chapter, I want to sink even further down by focussing on the physiological changes that happen to the body while freediving. Here, freediving operates as an embodied research method that disrupts terrestrial habits by attuning the human body to oceanic pressure, breath, and physiological transformation. Engaging freediving through Hayward's trans*, and fingeryeyes, reframes bodily change as an open-ended process attached to changes in the sensorium and desire. I was interested in how these underwater changes when freediving, like the regenerative limbs of a starfish described by Hayward, contribute to an understanding of the "poetic and material enactments of trans-sexing/ speciating?"[297] Hayward describes

[296] Neimanis, Astrida, Greg Garrard, and Richard Kerridge. Bodies of Water: Posthuman Feminist Phenomenology. London; New York: Bloomsbury Academic, 2017, 181.
[297] Hayward, Eva. More Lessons from a Starfish: Prefixial Flesh and Transpeciated Selves." Women's Studies Quarterly 36, no. 3/4 (2008): 64–85. https://doi.org/10.1353/wsq.0.0099. 65.

"Fingeryeyes" as a way to orient to our sensorium differently within water through this haptic-optic zone of "tentacular visuality of cross-species encounters,"[298] naming "the synaesthetic quality of materialized sensation." [299] In this description, the ever-changing encounter between species in water renders species as impressions and "thresholds of emergence."[300] Hayward is interested in how the changes and pleasures experienced by trans women exceed the more traditional narratives that she perceives limit our understanding of what trans* might mean. Instead, she is interested in thinking about trans* as desire, and the reclaiming of beingness beyond coherent destination that she finds in concepts like Fingeryeyes.

I developed this as a meditative performance lecture and have since adapted the main part that is in italics to The Petite Queer Pride festival, for example, whose theme of the ocean this year made it possible to create a similar, more site-specific version to read as an opening for the festival. I can see this envisioning of a "dive" as functioning in a more site-specific, performative way in the future.

Here, I also wanted to address how *Low and Slow* is shown online, as the exhibition component of the work, housed in the "low and slow" platform. Originally, I had set out to create a more 3-dimensional oceanscape, which dived from the surface to the depth. Because of the interweaving of the practice and written parts of this work, it was very hard to be selective about what should be housed on the website and what should be left out. I wanted, for example, the interviews from Boundary Objects to be available alongside the accompanying video vignettes. The more I experimented, the clearer it felt to me that the platform should be kept relatively simple, so that it

[298] Hayward, Eva and Ingo Niermann. "Ocean Wants: Conservation Libido, Featuring Eva Hayward." Presented and produced by TBA21-Academy. *Ocean Wants*. October 21, 2021, MP3 audio, 1 hour, 27 minutes. https://soundcloud.com/tba21-academy/ocean-wants-conservation-libido-featuring-eva-hayward.
[299] Ibid
[300] Ibid

was easier to house more collaborative projects in the future.

This project has led me to think about how to build on this research. I am still interested in experimenting with different forms to create kinship and engagement with ocean worlds as a way toward research-creation-based ocean education and advocacy. Projects like *Boundary Objects* sparked thinking about extending this type of multi-modal collaborative strategy beyond charismatic megafauna like whales, to lesser-known marine life, like Eel Grass Beds. Moving forward, my intention is to work more across disciplines, collaborating with ocean activists and Marine Biologists using similar strategies I employed in this dissertation. Looking through the different chapters, and from where I stand now as someone who teaches Visual Culture, it's clear that I often referenced aspects from Popular Culture - both in Wish Whale through my use of well-known pop songs, and in Wicked Game through editing in many different references to whales in pop culture, including an animated version of Pinocchio, Star Trek's Voyage Home, among others. In the future, I would like to focus more on this aspect of the work, as I think that this scrappy referencing of marine mammals in visual and pop culture is a bigger part of my practice than I gave it credit for. When performing *Low and Slow* at Petite Queer Pride, for example, I really felt like this work resonated in a way that also allowed me to share it with a larger, intergenerational public. In the future, I would also situate my work in queer ocean studies because, as I began to develop in the last chapter, I see that this is a generative way forward through exploring water as a medium and concept that assists in challenging land-based binaries (masculine/feminine, human/nature) through fluidity, and finding queer joy and connection in marine environments.

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