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The Whelming Sea

by

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Abstract

The Whelming Sea is a thirty-minute experimental documentary that reveals the moments of entanglement between three animals living along the Mid-Atlantic shoreline; curious humans, spawning horseshoe crabs, and migratory shorebirds. Working from the realm of multispecies ethnography, the film shifts the subjective positioning of the viewer between the human and nonhuman to suggest the complexity of our enmeshed experience. We witness these animals strive for sustenance, seek sanctuary, make their daily commute, complete research, and spawn on urban beaches. In the face of this current era of mass extinction, the film explores the limitations and poetic possibilities of scientific encounters with the lives of others.

Project Description

Every May through June, the Atlantic seaboard is the site of coinciding natural phenomena: a global migration of shorebirds and the spawning of ancient horseshoe crabs. Following the shift in hemispheric seasons, various species of shorebirds depart southern South America and fly a route that takes them along the edges of the continents on their way to the Arctic Circle. At the same time, the Atlantic horseshoe crab makes its way from the depths of the sea to spawn on beaches from the Yucatán to Maine. Guided by the high tides of the full and new moons, female horseshoe crabs burrow their bodies into the sand and deposit tens of thousands of tiny, green eggs. Shorebirds, having flown days without eating, make stops along the coast to feed on these eggs, often doubling their body weight in a matter of weeks. All the while, biologists, students, and volunteers race to count, measure, and track both horseshoe crabs and shorebirds in an effort to understand their population dynamics and suggest federal management policies. It's a confluence of bodies on the beach that only happens once a year. Yet most of this

occurs unbeknownst to the majority of people living in close proximity to the sea. Our everyday lives are increasingly alienated from nature. We are living within a dire climate crisis and in an era of mass extinction. We can and should learn from these rare encounters with our nonhuman neighbors. By documenting the enmeshed everyday lives of shorebirds, horseshoe crabs, and humans, *The Whelming Sea* explores what's possible, what's challenging, and as scholar Donna Haraway has wonderfully stated, what emerges "when species meet."

The film centers the action between New York and Delaware Bay, the sites of major stopovers for migrating shorebirds such as Ruddy Turnstones, various Sandpipers, and Red Knots. We spend time on beaches including Reed's Beach in New Jersey, Slaughter Beach in Delaware, and Plumb Beach in Brooklyn, New York. My filming locations were separated by state borders, but they are bound by the same tides. As the migratory bird flies, the distance is insignificant. I met a man on Plumb Beach who claimed that he found a horseshoe crab one spawning season that had been previously tagged in Maine. Following the lead of its nonhuman subjects, who do not experience geographic boundaries, the film presents an amalgamation of coastal habitats, at the edges of both megacities and smaller townships. Each are delicate ecosystems and all face the same threat from rising sea levels.

The film's governing structure follows the course of one day in May as we shift from darkness to light. We drift between disparate beaches, groupings of shorebirds, teams of researchers, congested parkways, a college classroom, and then back to night for the horseshoe crab spawn under the glow of the full moon. Shot in extreme close-up from within the surf, on the sand, and underwater, the film puts the audience in a unique position to better experience what we could speculate is the perspective of shorebirds and horseshoe crabs. We learn what's at

stake for these species through a polyvocal approach to sound editing. We hear the research discussions of biologists, sociologists, and students as well as the voices of contemporary poets who attempt to embody the enigmatic thoughts of both shorebird and horseshoe crab. The polyvocal approach ultimately asks for radical empathy as we try on the perspective of our most vulnerable neighbors. We are at a time when alternative ways of visualizing the climate change narrative are necessary to catalyze action.

Background

My work is invested in navigating the construction of nature through studies of landscape, place-making, ecological management, and the role the cinematic image can play in either perpetuating or subverting these frameworks. I've made many short works that focus on shoreline life, whether it be the history of New York's canals or the labor of an oyster shucker. My thesis film combines these fascinations with a call to action for a mindful approach to ecological policy. I believe that climate change stories need to be told at the local level or else they risk becoming unfathomable. By focusing on a specific set of beaches and a narrow set of species, the project allows for a manageable conversation about what's at stake for both us and our nonhuman neighbors.

The origins for *The Whelming Sea* began in 2013 when I was invited to Plumb Beach by an urban ecologist who quite deftly said, "Do you want to see the craziest thing in New York?" Curious, I agreed to join him for the night. What came from those first visits to the beach was a 2-minute film titled *Living Fossil*. In that project, I used a 16mm film camera with a time-lapse motor to make images of the horseshoe crab spawn, using just ambient light from the moon, the city, and the headlamps used by the researchers. This was my first time witnessing the spawning

event and I was convinced that it *was* the “craziest” thing one could ever see in New York. The result was a very short film that attempted to represent the *longue durée* of the horseshoe crab spawn. The time-lapse imagery evokes an experience of time outside of our perception. The humans zip up and down the beach like fireflies as the crabs stay relatively stable while amplexed or burrowed into the sand. Experimenting with these techniques convinced me that horseshoe crabs deserve a specific aesthetic rendering that reflects their unique place on this planet. For these, I knew I needed to diverge from the conventions of the traditional nature documentary. In order to understand the vast timeline in which the species has inhabited the Earth, we need a formal device that decenters our human experience of time. In this first iteration, the use of timelapse represents the human blip in the full scheme of deep time. *The Whelming Sea* expands the scope of the story to include the human and shorebird perspective. The task I set for myself was to discover ways in which the subjective camera can create space for empathetic understanding and expose the intertwined ecologies of the beach.

Research Analysis

My initial research for *The Whelming Sea* started with the popular science writing of Rachel Carson, specifically *Under the Sea-Wind* and *The Sea Around Us*. First, her well-known and elegant writing style proved inspirational for my vision of the project. I collected phrases and excerpts from Carson’s writing for reference in my collaboration with the poets whom I had asked to write from the perspective of nonhuman animals. The poets incorporated Carson’s words into their process and it is rendered throughout the film. Secondly, Carson was at the forefront of the environmentalism movement in the middle of the 20th century. *Under the Sea-Wind* advocated for a holistic understanding of ecosystems (“sea-wind” was her expression

for the web of life among the sea, shore, and sky) and employed a strategic use of anthropomorphism to place the everyday reader into the lives of other creatures. Each chapter is written from the perspective of a different animal inhabiting the shore. Carson names them as individuals, with motives and desires. My film does not utilize that characterization to the extent that Carson did, but in the end, it opened many threads for me to follow.

My primary source of critical theory was Lisa Jean Moore's *Catch and Release: The Enduring Yet Vulnerable Horseshoe Crab*. Written from the perspective of a sociologist and post-humanist casting a wide net of inquiry, Moore's text provided an introduction to the ideas of multispecies scholars like Donna Haraway, Karen Barad, and Anna Tsing, an overview of the object-oriented ontology of Timothy Morton, and Bruno Latour's actor-network theory among others. All of these concepts informed the way in which I approached the subjects and sites in the film. As a resident of New York City, Moore's insight was also personal, honest, and specific to Plumb Beach. I met with Moore a few times over the course of the production and I owe much to her goodwill. I recorded one of our conversations and Moore's perspective on the "everyday life" of horseshoe crabs is heard in voice-over near the middle of the film.

Thom van Dooren, Eben Kirksey, and Ursula Münster's introductory essay "Multispecies Studies: Cultivating Arts of Attentiveness" provided me a good overview of the various scholarly approaches to post-humanism and animal studies. I found their summary of the new frameworks for living, relating to others, and making art in the Anthropocene was essential in all stages of production for *The Whelming Sea*. In short, multispecies studies is an umbrella term within the social sciences to reflect the shift from humanism and speciesism (the Western philosophical and scientific modes that place human agency and individualism on the top of a

hierarchical “chain of being” while classifying every other organism as “subhuman”) toward new and emerging disciplines that challenge anthropocentric classification and engage in inquiry from *within* the spectrum of living *and* non-living things, not outside of it. The point of questioning anthropocentrism, as Eileen Crist and Helen Kopina have noted, is “far more than an academic exercise” (387). It is a call to action to investigate the initial causes of the problem and suggest alternative ways of being. The root of anthropocentric thinking is often attributed to what philosopher Martin Heidegger described as “the fundamental event of the modern age, [that is] the conquest of the world as picture” (134). This entails the Enlightenment Age shift in consciousness from one in which humans are looked upon by the gods to one in which we inherently look upon the Earth and see *it* as object. This new way of looking at the world required the categorization and classification of all its places and beings as apart from, subjugated by, and stewarded by humanity (Crist and Kopina 389). Post-Enlightenment science was constructed on this hierarchical world-view, and by doing so, perpetuated the doctrines of patriarchy, white supremacy, ableism and speciesism.

In *Why Look at Animals?* art critic John Berger traces the path of human-animal relationships from the earliest myths and metaphors to the paradigm shift in Enlightenment consciousness. He writes, “Descartes internalized, within man, the dualism implicit in the human relation to animals. In dividing absolutely body from soul, he bequeathed the body to the laws of physics and mechanics, and, since animals were soulless, the animal was reduced to the model of a machine” (21). This opened the door for unchecked exploitation of the animal body, the animal as observable, and then animal as image. But how does holding knowledge of the evolution and morphology of animals alienate humans from them? Berger continues, writing, “they are the

objects of our ever-extending knowledge. What we know about them is an index of our power, and thus an index of what separates us from them. The more we know, the further away they are” (27). When I set out to make *The Whelming Sea*, I knew I did not want to make a “nature documentary” with a traditional omniscient narrator or talking head experts. I did not want to demonstrate our hierarchical holding of knowledge but rather, I wanted to make a film that sought out mystery, overlooked the details, and relied more on feeling than fact.¹ In my research, I watched previous projects produced for public television, very informative films like *Alien Crab* (2012) and *Crash: A Tale of Two Species* (2008). While these films sometimes use extreme close-ups and subjective framing to mimic the perspective of horseshoe crabs, they always do so with the aim of reinforcing the facts of the narrator. The camera renders the nonhuman animal subjects in a domain that will never be entered by the spectator (26). There is no opportunity for the audience to be affected by the immersive perspective. These films can certainly be useful as teaching tools, but I believe the good intentions of the filmmakers may very well enforce the species division Berger described.

But it is through the “arts of attentiveness” that scholars are working to suggest new methodologies and “contest for better worlds” (Van Dooren, Kirksey, and Münster 16). As Donna Haraway proclaims in her essay “Making Kin,” “no species...acts alone; assemblages of organic species and abiotic actors make history” (159). *The Whelming Sea* depicts a variety of agents that hold and make knowledge in concert with each other. The work of professional biologists, passionate volunteers, and undergraduate students is featured alongside the imaginative investigations of the poets who attempt to speak from the nonhuman perspective. In

¹ My thinking here was inspired by anthropologist Kathleen Stewart’s notion of the “ordinary affect,” which she describes as the affective dimensions of our everyday private lives that contribute to a shared public feeling. She writes of encounters, daydreams, and sensations that “catch people up in something that feels like something.”

this way, the animal agents in the film appear as co-producers of knowledge on the state of the urban ecosystem. We make history together through our ever-evolving entanglements.

When Haraway refers to “abiotic actors,” she means nonliving things like air, humidity, temperature, minerals, et cetera. She’s applying liveliness to what many may consider without agency (qtd. in Van Dooren, Kirksey, and Münster 4). One methodology of multispecies studies is the consideration of all objects as alive, in the traditional and speculative sense, when mapping out a network of agencies. While filming on the beach, I became very aware of the sand under my feet, the wind vibrating the capsule of my onboard microphone, and the sun warming my neck. In my case, I was affected by the wind and the sand, and it, in turn, was affected by me.

For Lisa Jean Moore’s study of New York City’s horseshoe crabs, this means relating with her human and nonhuman animal subjects, but also Plumb Beach *itself* (the sand, the wind, the surf) and the infrastructure adjacent to it (concrete, car exhaust, the Belt Parkway, and JFK Airport). These conditions are part of our everyday life that we take for granted, but they are also very much a part of the lives of horseshoe crabs. As a sociologist in the field, her approach requires a self-reflexivity in which we humans “resist thinking of ourselves as static, bounded, and permanently fixed entities” but rather “we need to see all—ourselves, crabs, scientists, and other objects—as bodies that are in the world,” in the process of becoming with each other (23). We are not outside of the network, in the sense of Latour’s actor-network theory, but a shifting assemblage that remakes itself as frequently as the sea remakes the beachscape. This shift in perception was crucial to how I wanted to operate as a filmmaker in the environment. It also became a specific sequence in the film in which I focused on the marsh grasses, sand embankments, and the roots that hold it all together.

Thom van Dooren, Eben Kirksey, and Ursula Münster describe this methodology as “passionate immersion,” or becoming curious and so entangled that we “learn to be affected” and perhaps care a little differently (6). Outside of multispecies studies, there is a well-established passion for being with and observing shorebirds, but horseshoe crabs are not as well-known to the general public. Some, myself included, find them cute and charismatic. Their relation to spiders, scorpions, and ticks mean many people find them unsettling. Despite this, “immersion in the lives of the awkward, the unloved, or even the loathed is very possible” and necessary in our extinction era (6). *The Whelming Sea* confronts audiences with images of horseshoe crabs that are shocking, beautiful, unnerving, and graceful all at once. The film hopes to join the ranks of artists that “have become core participants in projects that question the conventional approaches to speaking for Nature” (9). Arts that explore the “arts of attentiveness” open the possibilities for immersion in the lives of others. Cinema can visualize multispecies stories. It is an artistic medium with the potential to showcase a “fleshier” and “more lively truth” that draws audiences into a greater sense of new accountabilities to others (Van Dooren 7).

Overall, *The Whelming Sea* tells a brief but lively story. It’s one day in the grand scheme of things. Despite not directly addressing matters of the climate crisis, my hope is that the film’s themes speak to the greater issues. Timothy Morton describes global warming and mass extinction as a *hyperobject*, or a thing that is so massively distributed over time and space that it is easily withdrawn from our everyday apprehension (Moore 142). But my goal, through cinematography and sound design, is to infer the current anxieties of the climate crisis and bring it closer to the forefront. Any image of New York City should be one that’s read as living on borrowed time. The locations in my film could be underwater in a matter of decades. Right now,

we should read any image of a shorebird or horseshoe crab as one that is under threat. As we enter 2020, a report in *Science* just announced that the United States and Canada has lost three billion birds (30% of the total) since 1970 (Rosenberg). Horseshoe crabs and their relatives have existed on the planet for an estimated 450 million years. Having survived the previous five mass extinctions, horseshoe crabs have outlived over 99% of all other organisms on the planet. Yet as of 2016, they were categorized as a “vulnerable” species by the IUCN’s Red List (Smith).

Morton believes that hyperobjects are so unfathomable that we can do nothing but “point to tiny slices of them at a time” (44). A wide angle view would be too difficult to grasp. Much like Brett Story’s documentary *The Hottest August* (2019), which she describes as “a film about climate change, disguised as a portrait of collective anxiety,” my thesis suggests we examine the effects of the climate crisis through a narrow look at the species living in one metropolitan area over the course of one day in May.

Cinematic Approach

The film’s formal approaches to revealing these multispecies entanglements are influenced by contemporary experimental nonfiction like Maeve Brennan’s *Listening in the Dark* (2018) and Sarah Christman’s *Swarm Season* (2019). These works also center indicator species (bats and honey bees respectively) in an investigation of natural history, deep time, technology, and speculative futures. Set in the U.K., Brennan’s essay film probes our ability to fully understand the evolution of bats through scientific study. Much of the film takes place at night or in the darkness of caves as humans slowly traverse the environment using headlamps. We hear an unseen narrator reflecting on his studies of bat echolocation. We return often to images of wind turbines on the coastline which we learn have created new feeding grounds for seals, but

have been killing bats through a drop in pressure created behind the blades. Human intervention into the environment ripples across the species, creating benefits for some and death for others.

The film uses elliptical editing, anonymous narration, and solemn, locked-off cinematography to craft an argument for science to emancipate itself from its anthropocentric past. In his essay on Brennan's film, Nicolas Helm-Grovas writes, "Rather than hierarchical structures and instrumental reason, a different potential in science is highlighted in *Listening in the Dark*: patient, rigorous but flexible, ambitious but humble, tracing interactions between a multiplicity of actors in all their unexpected directions, learning from and with nature rather than dominating it." Indeed, the strength of the film is the way it shows the poetic potential of doing science. In the study of bats, it presents a counter argument to the doctrines of the past.

Christman's *Swarm Season* follows Hawaiian beekeepers who work with wild swarms, indigenous activists resisting the Mauna Kea telescope project, and scientists using the island's lava fields as a testing ground for future Mars exploration. In the process, the film suggests a collapsing of species boundaries between bees, humans, and sea life. We experience colony life, in extreme close-ups, that float with a handheld aesthetics, lending an immersive quality that's unlike traditional close-ups seen in science filmmaking. Furthermore, the sound design is a densely layered, but delicate balance of field recordings, diegetic voices, narration, and music. During a post-screening Q&A I attended at Downtown Community Television (DCTV), Christman was asked about the manner in which human voices came through the sound mix. She described her deliberate work with her sound mixer to resist the prioritization of the human voice in the mix. The resulting technique spreads out the mix across the levels of the various audio tracks, in effect decentering diegetic human speech in the process.

In addition, work by alumni of Harvard's Sensory Ethnography Lab (SEL) was foundational to my cinematic choices. I revisited Ilisa Barbash and Lucien Castaing-Taylor's elegy on sheep herding *Sweetgrass* (2009), and also Vera Paravel and Castaing-Taylor's maritime tone poem *Leviathan* (2012), but I also viewed recent work by J.P. Sniadecki and Joshua Bonnetta (*El Mar La Mar*, 2019) and Stephanie Spray (*Edge of Time*, forthcoming). Compared to the non-verbal approach of the earlier SEL films, these new works employ a multitude of unseen voices that greatly inspired my choices to convey exposition and context through voice-over.

In an interview with Scott MacDonald that appears in *Avant-Doc: Intersections of Documentary and Avant-garde Cinema*, Castaing-Taylor describes a few of the conventions of the documentary tradition that the SEL seeks to subvert, particularly the narrative "predilection for resolution and closure" and the "consecration of a frequently unseeing and unsensing observational aesthetic" (403). When discussing the intense visual and aural approach to documenting deep-sea fishing in *Leviathan*, Castaing-Taylor and Paravel agree that they "weren't hell-bent on creating a new kind of documentary experience," but instead, their style was "borne out of [their] encounter with [their] subject." They note that the traditional conventions of nonfiction filmmaking "seem to go to great pains to render that encounter [with the subject] invisible" (405). My film does this in some ways, but not in others. My personal encounter with horseshoe crabs, as I will describe, was rather complicated for me.

I wanted to withhold showing the images of horseshoe crabs until the very end in order to heighten the visceral reaction to seeing them for the first time. The ending sequence is designed to appear as if the human researchers have left the beach. The last human walks out of the frame

and we enter the water. We see horseshoe crabs gliding under the surface and ascending the slope of the beach. We then spend time with horseshoe crabs as they spawn together. From a phenomenological perspective, this is their *lifeworld*. These sequences pulse between illumination and darkness. Due to the extreme conditions of shooting at night, the depth of field is sometimes only a sliver, which the crab's bodies slide in and out of. Occasionally, sand grains suspended in the water float within that precision field of focus. Peering closely at the horseshoe crabs we see the edges of their carapaces, the joints of their legs, and linger on their compound eyes. The effect is designed to be intimate, tactile, and tender.

Sometimes I filmed these sequences alone and other times I filmed them with an assistant who held a light. So the encounter was one that was dictated by whether or not I had the waterproof housing, and whether or not our battery operated lights were working. Also, the design of the scene is supposed to represent the prehistoric spawns that have happened outside of humanity's intrusion, but of course, a light source was needed to expose the scene. The sequence both plays within the audience's suspension of disbelief, but also makes visible the personal encounter I had as the cinematographer. The camera angle is low, often resting on the sand itself, and in order to achieve these shots, I needed to be lying on the beach or crouching in the water among the swimming crabs.

However, I found myself feeling a breach of ethics in the process of making these specific sequences. At times I suffered under the complexity of what I was trying to explore. I wanted to make a film that asked the human audience to try on the experience of horseshoe crab otherness, but my approach meant that I invaded their lifeworld. With the worst kind of documentary impulse, I stuck my camera in the wrong places at the wrong times. I struggled

with whether or not capturing the immersive sequence I wanted outweighed the ethical breach I felt in extracting it. I found myself, the filmmaker, as entangled as anyone else.

For instance, there was an evening in which I stayed much later than the researchers. They had all left and I continued to film the spawn as the tide receded. All of a sudden, female horseshoe crabs that were burrowed in the sand started excavating themselves out of their nests. It was like watching a slumbering giant awake from inside a mountain. This was behavior that I had not seen before and I prayed my battery would last for me to film it. I remember thinking, what a privilege to watch, just myself alone on the beach. But as the crabs left the shore and returned with the tide, I felt disappointed that I'd seen the experience through the lens of the camera only. It was after 1 o'clock in the morning by the time I left, and upon getting home and taking off my water shoes, I discovered a single, green horseshoe crab egg stuck between my toes. I was struck by the uncanniness of the encounter.

At the start of the project, I assumed the role of the observer of *other* humans interacting with shorebirds, the beach, and the crabs, but by the end, I came to realize how implicated and intertwined I was in their nonhuman worlds, and theirs in mine. It wasn't until I discovered the single egg that I truly understood how the process of making the project further entwined our lives. I came away from that night feeling distraught by complexity, but also eager to explore it. When approaching inquiries into human and nonhuman animal relationships in *The Companion Species Manifesto*, Haraway writes, "I believe that all ethical relating, within or between species, is knit from the silk-strong thread of ongoing alertness to otherness-in-relation" (50). My awareness of *my* otherness to horseshoe crabs developed over the course of production with this

sentiment in mind. My “ongoing alertness” became part of the practice of the art-making specific to this project.

I believe Haraway’s writing about the training involved in human and dog relationships goes both ways and applies across species. She describes the experience as “beautiful, hard, specific, and personal” (52). Yes, it’s messy, uneasy, and unsettling. Taking a cue from Haraway, Van Doreen, Kirksey & Münster write, “staying with the trouble [means holding] onto competing ethical obligations [and] multiplying perspectives on what counts as ‘the good.’ There are no neat and final answers here” (15). But in order to shift the paradigm, we need to start as individuals telling stories. I’m reminded of Lisa Jean Moore’s experience. She describes that through “knowing and being with horseshoe crabs” she has rediscovered her voice as “one co-produced through polyphonic contributions of willing, unwilling, and unknowing others, animal and human” (xii). In this way, my film is an object produced by many authors. My experience was influenced by the biologists, students, volunteers, and even strangers I met on the beach, as well as my unwilling shorebird and horseshoe crab neighbors.

Lucien Castaing-Taylor describes a similar experience while spending time with sheep in the process of making of *Sweetgrass*. He began to notice their aesthetics, and using a term from phenomenology, remembers their *lifeworld* creeping up on him. He began to think about their subjectivities. When prompted by MacDonald in his interview, Castaing-Taylor agrees that *Sweetgrass* seeks to “anthropomorphize sheep, and simultaneously bestialize humanity” (384). The herd’s patterns of color, shape, line, and the collapsing of sound between shepherd and sheep became a significant poetics for the film’s editing. *The Whelming Sea* attempts a similar effect during the scene of the shorebird banding. There is a moment when I frame the hands of

the biologist holding the shorebird in silhouette. While filming, I realized that the boundary between human and bird disappears and becomes form. My intent is that the sequence collapses the difference between the species and, for just a moment, sees them as an intertwined being.

When planning for sound design, I wanted to consider the interiority of the shorebird and horseshoe crabs. The Atlantic horseshoe crab has ten eyes. The two largest are the compound eyes located on the sides of its carapace, or outer shell. Each of these eyes has one thousand photoreceptors, making them one of the most light-sensitive animals. They see at night as if it were day. Knowing this, I became curious how horseshoe crabs would react to our constant and glaring headlamps. Starting in the 1920s, the American physiologist Keffer Hartline studied how horseshoe crab eyes send electrical impulses to their brain in response to light and ever since we owe our understanding of human vision to the unwilling horseshoe crab participants of his experiments (Cramer 91). However, for all their amazing sensitivity to light, horseshoe crabs don't have ears. Instead, they sense sound vibrations in the water through their carapaces. To amplify the subjectivity of the crab's perception of its environment, my sound designer and I used the idea of "electrical impulses" when determining how they would respond to light. During the long take in which we watch alien-looking humans walking toward the flipped and amplexed crabs, we synchronized electrical *crackle* and *pop* sound effects to the moments when the lights would flare the camera lens.

In terms of structuring *Sweetgrass*, Castaing-Taylor notes it wasn't an accident that the film begins in the domain of sheep and humans only gradually enter, and do so largely non-verbally (385). My film takes a similar approach in the sense that humans are relegated to the background for the first five minutes. We only see people in wide shots until the shorebird

catch sequence and even then they are obscured, anonymous, or in shadow. Furthermore, the lack of dialogue in *Sweetgrass* serves to further de-center the humans as the narrators of the experience. When discussing the amazing ability for him to record dialogue with wireless lavaliers, Castaing-Taylor calls the privileging of speech one of “documentary’s greatest failings” (388). I agree with the criticism. Deciding the amount of voice-over in this film has been one of the most difficult issues to explore. Much of my previous work had been non-verbal, but this story needed the proper balance of context in order to allow space to take in the tone. In order to create the opportunity for immersion in the lives of shorebirds and horseshoe crabs, I decided that poetry could serve as a way in.

John Berger notes that animals first entered the imagination of early humans as “messengers and promises” (12). They were seen as oracular. But after the shift to Cartesian dualism, animals were “emptied of experience and secrets” (21). With these concepts in mind, I wondered, what magic do animals contain if we would only listen? In 1995, a male red knot was caught and banded “B-95” while in Argentina’s Tierra de Fuego. Since then, the bird has been re-caught or sighted dozens of times, so much that he’s become a celebrated individual in the international birding community. Estimated to be over 20 years old, he’s the oldest continuously tracked bird of his species. Every year he makes the 20,000 mile round trip migration from one end of the earth to the other. Having logged over 325,000 miles in his life, he has flown the distance to the moon and almost halfway back. For this, he was dubbed Moonbird. Books for young adults have been written about him, a statue was erected in his honor, and he even has his own Wikipedia profile.

In *The Narrow Edge*, science writer Deborah Cramer notes rather beautifully that “red knots speak to us of distant realms” (175). Their ability to migrate, every year, from one end of the earth to the other, if I may speculate, suggests a cosmic knowledge that we cannot fathom. They hold a different sort of “world picture,” one that isn’t enclosed in the boundary of anthropocentric frame, but one that is lived quite precariously. Indulging in what Haraway calls “speculative fabulation,” I began to daydream about Moonbird. I wondered if he was still alive in 2019, and if so, where he might be at any given moment. I let my mind wander into his *lifeworld*.

Imagination is the root of fable, and Haraway calls the fable a place of “wild facts.” Fabulation leads to the possibility of impossible worlds, and that is not insignificant. In the documentary manifesto, *Donna Haraway: Story Telling for Earthly Survival*, Haraway takes speculative fabulation seriously, saying “We need to talk about Speculative Fabulation and Science Fact in the same figure.” To her, S.F. are interchangeable abbreviations. I read this as one of the best examples of the “strategic anthropomorphism” used previously by Rachel Carson and other contemporary artists making work within the realm of multispecies studies (Conte 19). Yes, there has always been danger in prescribing human thoughts and characteristics on nonhuman animals, but when used strategically, it can be a tool for artists and writers to communicate and visualize scientific topics. It has lasting potential for affect. As Berger notes, anthropomorphism is “the residue of the continuous use of animal metaphor” (21). I was curious how *The Whelming Sea* could contribute to the precedent set by others.

I came upon texts about the Roman practice of *augury*, where omens were interpreted from observing the flight patterns of birds. The method involved an individual, the augur, “taking the auspices” which is derived from the Latin *auspex*, literally “one who looks at birds.” My own

experience while filming the migration meant I was spending time tracking birds, driving around, watching, and waiting for the moment when they take flight. It had me asking, what knowledge of the world do birds have? What would they know of the future? What would Moonbird say, if asked, about the future? I asked two artists to collaborate on this fabulation with me. I tasked poet Paolo Javier with embodying Moonbird; flying, eating, and responding to augurs eager to hear what prophetic visions of the future he might hold. I engaged Corinne Spencer, a visual artist, to voice an embodiment of a female horseshoe crab making her way to the beach to spawn. While Moonbird speaks of the future, the Mother Crab speaks of the past. Their voices speak in hushed tones to reflect the interiority of their thoughts. The moments of voiceover are strategically placed between sequences of expository voice by the human researchers, but it is decidedly unclear where these voices are speaking from and to whom. I wanted there to be some inaccessibility to the poetics of the nonhuman animal voice.

Ultimately, the response to the Anthropocene should be to look to animals, to listen, and to learn what we can. As humanities scholar Una Chaudhuri puts it, we should enter into passionate immersions with a “willingness to loosen our ties to our own experience, our value systems that have saddled us, and construct our humanness as a ‘temporary disability’ that we are willing to scrutinize from the perspective of others” (53). I believe this reflects what *The Whelming Sea* aims to do. It does not attempt to moralize, or say one way or the other how humans must manage the environment. Nor does it give us easy answers to the mystery of nonhuman animal consciousness. The film invites us to wonder. To quote Berger one last time, art “does not imitate nature, it imitates a creation, sometimes to propose an alternative world, sometimes simply to amplify, to confirm, to make social the brief hope offered by nature. Art is

an organized response to what nature allows us to glimpse occasionally (60). My film ends almost in silence, as we are privileged to witness the magnitude of the horseshoe crab spawn on a humble beach in Brooklyn.

Audience

With its immersive cinematography, slippery sound design, and use of voice-over, *The Whelming Sea* strikes a balance between documentary and experimental aesthetics. I believe it has the potential to do well in film festivals that aim to program non-fiction that operates beyond the scope of the documentary traditions. Those festivals include CPH:DOX, Art of the Real, the Camden International Film Festival, and the Ann Arbor Film Festival, among others. The film also has the potential to reach audiences at more traditional documentary festivals like the Hot Springs Documentary Film Festival, Hot Docs, and the Big Sky Documentary Film Festival. Aside from the format considerations, I've also targeted environmental and wildlife film festivals. Finally, I've begun planning a tour for the film to art centers and community cinemas in coastal towns along Delaware, New Jersey, Long Island, Connecticut, and Massachusetts. The idea is to organize the screenings between May and June when the migration and spawn are happening in these very communities. I will travel with the film for in-person screenings and share what I've learned. I hope to reach an audience of anyone that might be interested in learning more about our deeply important relationship to the sea.

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