Observe, Submerge, Speculate: Contemporary Art and the Ocean Beyond the Visible

Volume One of Two

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Abstract

This thesis explores the political, conceptual, and epistemological stakes of visibility in contemporary artistic mediations of the ocean. Drawing upon Helen Mayer and Newton Harrison's *Survival Piece III: Portable Fish Farm* (1971), Allan Sekula's *Fish Story* (1989-95), Betty Beaumont's *Ocean Landmark* (1978-80), and Ursula Biemann's *Acoustic Ocean* (2018), a trajectory is traced from the importance of observation in ecological and political systems to the potential of speculation for making connections with oceanic sites beyond visual access. These artistic practices provide a framework of relationality to interrogate connections with the ocean, which is conceived as a site of unseen exploitation in the fishing and shipping industries, a wasteland for industrial pollution, and a means of exploring the sensorial limits of relationality. Adopting a conceptual framework indebted to the blue humanities, posthumanism, materialist feminism, and ecopolitical theory, it oscillates between the scrutiny of global capitalist systems and the desire to find more ethical ways of conceiving relationships between human and oceanic worlds. Through the artistic operations of observation, submergence, and speculation, it demonstrates the political and epistemological consequences of a lack of visibility to challenge assumptions of total sensorial and epistemic access and highlight the limitations of anthropocentric positions. The ocean provides a methodology, or a productive set of metaphors, not only for rethinking subjectivity in the wake of the ecological crisis, and for caring about that which is beyond physical and ontological proximity, but for practising an ecological art history that seeks to outline how art can reconceptualise human relationships to the natural world.

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Declaration

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

Covid-19 Statement

This thesis was written over the course of the Covid-19 pandemic. Due to the nature of this time, there were several limitations to my research process, as travel restrictions meant that access to archives and exhibitions were limited. I was therefore unable to undertake archival research at Betty Beaumont's studio in New York for chapters three and four, site visits and archival research related to Ursula Biemann's work in chapter five, and further archival research related to the work of Helen Mayer and Newton Harrison in chapters one and two. Where possible I have communicated with the artists over email and quoted these throughout the thesis, to supplement my arguments and further knowledge on the works.

Introduction: The Future is Watery

This thesis considers the role and limitations of visibility in contemporary artistic representations of the ocean. Tracing the trajectory from the political and ontological stakes of observation to the logistical challenges of underwater sites and the speculative potential of embracing the invisible, the aim is to acknowledge both the necessity and limitations of making oceanic environments visible. With political and epistemological dimensions, I examine how the ocean challenges the ocularcentrism of knowledge and explore how we can still care about that which extends beyond the visible.

The motivation for doing so lies in thinking how the move beyond visibility in contemporary artworks concerned with the ocean can lead to a reconceptualisation of how we relate to the ocean, and more generally to others in the world. Visibility is not just a question of what we can or cannot see but introduces fundamental questions on how we co-exist – with both the human and more-than-human – in an increasingly damaged world. The ocean provides a significant lens for doing so because it pushes the limitations of what we can easily see; but more than this, it demonstrates the ways in which questions of visibility intersect with the ways in which space is constructed and life is organised by global capitalistic structures of deregulation, financialisation, deterritorialisation and displacement, such that it becomes all too easy to ensure that all violence – environmental, political, social – is kept out of sight and out of mind.

To address these questions, this thesis has been organised around three modalities across five chapters – observe, submerge, and speculate – to offer a trajectory in exploring the ocean through and beyond the visible. Each are brought to light through the discussion of contemporary works of art that take the ocean as a subject in four major artistic movements in European and North American art since 1970: systems art, the photo essay, land art, and the moving image. Each movement will be examined with a focus on their ecological art histories, but the aim of the modalities is to demonstrate how these mediums can significantly contribute to the discourses of art and the ocean, rather than ecology more generally, today. Some artistic practices are perhaps more associated with ecological art than others (as will be demonstrated, land art is commonly cited as its precursor); however, my adoption of these

three modalities seeks to illustrate how the chosen artistic practices can contribute specifically to discourses on the ocean, which is a topic that is often overlooked within their respective art histories. By focusing on visibility through these modalities, as it moves from the importance of observation to different forms of knowledge-gathering and relationship-forming, the aim is to unlock the conceptual potential of each practice, specifically in terms of how they explore sensorial experience in oceanic environments. It is for this reason that the modalities have been chosen.

The first modality, observation, will be discussed in chapters one and two. Beginning with the question of how vision connects with the concept of relationality, I look to the history of systems art in the context of Californian eco-artists Helen Mayer and Newton Harrison's *Survival Piece III: Portable Fish Farm* (1971, fig. 0.1). The controversial gallery-based catfish farm and self-maintaining aquatic ecosystem offers a vital consideration of how developing systems theories create a relationship between systems and observer, and the public execution of fish in the work provides an ethical dimension to the role of observation. Placed in conversation with Allan Sekula's photographic and essayistic documentation of the exploitation of labour in the shipping industry in *Fish Story* (1989-95, fig. 0.2), it asks what it means to observe the systems that organise our lives – and are yet kept hidden – when they are embedded with violence and exploitation.

In exploring the implications of a lack of observation, I turn to Betty Beaumont's artificial reef *Ocean Landmark* (1978-80, fig. 0.3) in chapters three and four through the second modality, submergence. This is to consider what happens when this relationship with the ocean does not take place in the gallery, but between the gallery and a site underwater. With the 17,000 blocks of recycled coal fly-ash that make up *Ocean Landmark* submerged three miles off the coast of Fire Island, New York, the discourse of land art becomes a vital way for thinking through how the observation of artworks beyond proximity demonstrates the limitations of our sensory access and the necessity of the imagination in connecting to these environments. It is a question of how we care about the exploitation of oceanic spaces that are so often mystified without taking visual access for granted, building an ethical model based on both the porosity of subjectivity and connections beyond proximity. Through the lens of contamination, it also demonstrates that these relationships are not automatically positively generative.

Asking what it means to embrace the limitations of our ability to connect to these sites does not lead to worldly ignorance but to an epistemological question, exploring what we can or cannot know about the world as human beings. This is a line of thinking provoked by the third modality, speculation, in chapter five, in relation to Ursula Biemann's *Acoustic Ocean* (2018, fig. 0.4). The single-channel video essay explores the communication habits of cetaceans in the Lofoten Islands of Northern Norway made audible through sonar technology operated by Sámi musician and climate activist Sofia Jannok. As a moving image work of science fiction, it asks what it means to attune to the oceanic world from a position on land, prioritising sound over vision, which becomes an allegory for the importance of listening to others and acknowledging difference in relation. With a specific emphasis on the importance of local knowledge on climate change, it takes seriously visual, sonic, epistemological, and geopolitical questions of access, and asks how we might listen well to amplify the voices of those usually unheard. The ethical and political implications of going beyond vision are manifested in the desire to work towards a more equitable world.

It may come as no surprise that the following examination of the political, conceptual, and epistemological stakes of visibility in contemporary artistic mediations of the ocean requires an interdisciplinary conceptual framework. To interpret the ecological works of art and art histories, I will draw upon a framework that can be defined as a combination of posthumanism, materialist feminism, and theory associated with the blue humanities. A more thorough explanation of these discourses will be detailed later in this introduction; for now, it is worth clarifying that the chosen framework aims firstly to draw connections between contemporary art historical discourses and current theories of the ocean and human relationships to it, and secondly that the focus on the ocean aims to distance itself from more general ecological art history framed by land-based ecocritical theory. As I will demonstrate, the ocean requires a conceptual framework that is distinct, driven by concepts of difference, fluidity, and unknowability that are brought to light specifically through this combination of discourses, which, while distinct in approaches, have an overwhelmingly feminist lineage. This framework will address my research questions by focusing especially on challenges to visibility offered by feminist, posthumanist, and ocean-centred theory, and will be implemented by drawing parallels between artwork/viewer relationships and ocean/human relationships.

By using this framework, my aim is to demonstrate how contemporary artistic representations of the ocean can contribute to what Rosi Braidotti has called the 'critical post-humanities', which, while diverse in their strategies, all offer a concern for more-than-human life and a hybridisation of discourses.[1] Put simply, my approach, combining art histories and their social and political contexts with more current feminist and ocean-centred posthumanist theory, seeks to insert art historical discourse into the debates of the blue humanities today, and vice versa. My contribution to knowledge is thus multifaceted, as the focus on the ocean within the remit of systems art, photography, land art, and the moving image is still relatively new. More broadly speaking, the ways in which this thesis departs from the existing literature on ecological art history, which, as I have mentioned, has been overwhelmingly centred on land environments, offers its own contributions to the field. This is not only to cover new ground, so to speak, but to demonstrate how the ocean also provides new ways of thinking – and new ways of artistic interpretation – that only comes from being specific to the sensorial conditions of oceanic environments.

My motivation isn't purely academic. Rising sea levels, and ocean acidification and pollution are all major concerns within environmental debates on climate change, and yet the idea of the ocean as the site of otherness, of the "forgotten space", and a marker of difference persists. This has a direct impact on the ways in which it is perceived today, environmentally, and socially. This difference can be approached generatively through the framework of visibility because it works to keep these governmental and industrial activities hidden.[2] Offering a critical inquiry into this concept of difference demonstrates how visibility turns from the manifestation of climate change to the corporate and industrial activities that are contributing to it, which within the context of the ocean includes mass fishing, exploitative labour in the shipping industry, extractivism, and industrial pollution. Working through and beyond vision disputes the far too simplistic border between land and water and asks us to think relationally. Becoming more aqueous is certainly catastrophic but rethinking our

[1] Rosi Braidotti, *Posthuman Knowledge* (Cambridge: Polity Press, 2019): 101.

[2] Elspeth Probyn notes that this notion of the ocean as a site of alterity can be found in a footnote to Roland Barthes' *Mythologies,* in which he writes: "here I am, before the sea; it is true that it bears no message." See Roland Barthes, *Mythologies,* trans. Annette Lavers (New York: Hill and Wang, 1972): 112, fn2.; Elspeth Probyn, *Eating the Ocean* (Durham: Duke University Press, 2016): 41.

relationship with water provides a vital way to find alternatives to global systems that instrumentalise and commodify life for economic gain.

Spectacular Water

A major context for this thesis' concern for contemporary art and the ocean is the 58th edition of the Venice Biennale. As it closed its doors in 2019, Venice was struck by the worst flooding in half a century. The acqua alta, or seasonal high tide, reached a dangerous level causing lasting damage to the city and its residents, including the famous St Mark's Basilica, leaving the Biennale organisers no choice but to shut it down.[3] Venice has held a specific relationship with water throughout its history, with the canals that were once essential for transportation and trade now operating as a major draw for tourism – a primary economic contributor to the city. The Venice Biennale, described by Simon Sheikh as the 'Olympic Games of the art world', capitalises on the already touristic emphasis of the city's economy to provide a source of entertainment that draws mass audiences from around the world.[4] Contemporary art and water are major assets in Venice's identity today, but its relationship with water is becoming all the more precarious and many, including Venice Mayor Luigi Brugnaro, point to climate change as a major contributing factor.[5] The catastrophic environmental conditions witnessed at the end of the 58th edition of the international exhibition add significance to this relationship, and indeed the Biennale's title, "May You Live in Interesting Times".

As if anticipating the flooding of the Biennale, many exhibited artworks played upon Venice's vulnerability to environmental disaster, appealing to multiple senses. The Venice pavilion exhibited *Blurry Venice* (2019, fig. 0.5), a plastic tunnel by the firm Plastique Fantastique that distorted the boundaries between architecture and the watery environment as it allowed visitors to walk barefooted on water; Tomás Saraceno exhibited the sound installation *Acqua Alta en clave de Sol,* which takes the warning sirens for the acqua alta currently in place across the city and asks what they might sound like in a hundred years; and

[3] Kate Brown, "In the Wake of Devastating Floods, It's High Time for the Art World to Rethink Its Cherished Relationship to Venice," Artnet, December 18, 2019, https://news.artnet.com/market/acqua-alta-venice-biennale-2021-1728891.

[4] Simon Sheikh, "Marks of Distinction, Vectors of Possibility: Questions for the Biennial," *Open: Cahier on Art and the Public Domain,* no. 16 (2009): 69.; James Voorhies, *Beyond Objecthood: The Exhibition as a Critical Form since 1969* (Cambridge, Mass: MIT Press, 2017): 18.

[5] Nikki Berry, "Venice floods: Climate change behind highest tide in 50 years, says mayor," BBC, accessed September 29, 2021, https://www.bbc.co.uk/news/world-europe-50401308.

the Lithuanian pavilion exhibited *Sun & Sea (Marina)* (2019, fig. 0.6), in which performers relaxed across a sandy beach installed in a warehouse, seemingly doing nothing about the exacerbating environmental conditions. Taking a more general approach, Marina Abramović's virtual reality project *Rising* (2018, fig. 0.7), exhibited alongside the Biennale, seeks to prompt an empathetic response as the viewer watches the artist slowly being submerged in rising water levels, from her waist to her neck, and are then asked to take a pledge to reconsider their environmental impact so that the water levels in the tank can lower, effectively saving the artist. But with the Venice Biennale functioning through what James Voorhies describes as the 'increasing frequency and intensity on staging experiences for the spectator', it is worth questioning whether climate change is being subsumed in an already spectacular exhibition, and a spectacular city, amplified for the sake of creating a visitor experience.[6]

Recent images of tourists and art lovers wading through the flooding (fig. 0.8) have been described by Markus Reymann, director of Venice's TBA21-Academy, as signifying 'the arrival of climate change to Europe', challenging the very Eurocentrism in the ways in which 'we have all been very comfortable with the idea of climate change happening elsewhere'.[7] Certainly, these images have the capacity to concretise climate change as a current, not potential, reality for Europe, but they do so by appealing to a hyper-visual notion of climate change as natural disaster. Environmental discourses have long been concerned with Rob Nixon's notion of slow violence, or the 'violence that occurs gradually out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all', which has become significant for thinking through the challenges of making the crisis meaningful in today's image culture.[8] This is because climate change, as well as rising sea levels and ocean acidification, are considered to be 'slowly unfolding', offering 'formidable representational obstacles that can hinder our efforts to mobilise and act decisively'.[9] But with images like those from the Venice Biennale now

[6] Voorhies, *Beyond Objecthood,* 18.
[7] Brown, "In the Wake of Devastating Floods, It's High Time for the Art World to Rethink Its Cherished Relationship to Venice."
[8] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, Mass.: Harvard University Press, 2011): 2.
[9] Ibid.

dominating mainstream media in Europe, it is difficult to argue that flooding, and natural disaster more generally, support an idea of the climate crisis as slow and out of sight.[10]

What remains to be seen is whether these images do more than merely support the spectacularising of environmental disaster seen within the exhibition itself. Mainstream awareness of climate change is certainly something to aim for, but the stakes of making it visible both in and beyond the Venice Biennale lie in the question of whether it merely becomes part of the tourist experience. Reymann argues that 'one mandate of the arts is to make the invisible visible and provide society with a mirror allowing us to position ourselves in time,' as a response to the TBA21 exhibition *Prospecting Ocean* at CNR-ISMAR, Venice, in 2018.[11] However, when it is so often not until a disaster becomes spectacular – flooding, tsunamis, tornadoes, hurricanes – that it is ever thought about at all, disaster becomes a major aspect of this mirroring.

The flooding of the Biennale offers a particularly pertinent example, as the exhibited projects operate as simulacra for the city's environmental situation. But those exhibited at the Biennale extend much further than the focus of vision alone; emphasising the sonic and phenomenological qualities, they are heavily indebted to a notion of installation art based on what Claire Bishop describes as the 'literal presence' of the artwork, that 'presupposes an *embodied* viewer whose sense of touch, smell and sound are as heightened as their sense of vision'.[12] This is to place a premium of the 'first-hand experience' of the spectator, meaning that even if an artwork is not completely reliant on visual experience, it can act as a simulation, or spectacularisation, of an environmental condition like flooding.[13] In other words, while a concept of art that is not purely visual is certainly not new, the motivation for going beyond vision in the artworks exhibited at the Venice Biennale lies in a consideration of how to creatively make the more intangible aspects of the climate crisis, which are so often heavily data-oriented, a more relatable experience through multiple senses and approaches.

[10] See, for example, *The Guardian's* climate crisis section online: https://www.theguardian.com/environment/climate-crisis.
[11] Markus Reymann, "Preface: Is the Common Heritage of Humankind a Mining Code?" in Stefanie Hessler, *Prospecting Ocean* (Cambridge, Mass.: MIT Press, 2018): 8.
[12] Claire Bishop, *Installation Art: A Critical History* (London: Tate Publishing, 2005): 6.
[13] Ibid.

Bishop's concept of literalness is a useful starting point for thinking through visibility in contemporary art because it demonstrates that vision alone is not the only means of creating a spectacle. The artworks chosen as case studies in this thesis also contest the equation between visibility and spectacle simply by aiming to draw attention to certain environmental conditions of the ocean that are not easily visually accessible. However, while multi-sensory in their approaches, spectacle is not the goal of my interpretation of *Portable Fish Farm, Fish Story, Ocean Landmark,* and *Acoustic Ocean.* This is firstly because a dangerous line exists between spectacle and entertainment in the current cultural economy that hinders any real active response of the audience. Secondly, it is because the chosen artworks do far more than provide a literal presence of a sensory condition. This thesis rather focuses on conceptually driven artworks to consider how can art make any meaningful contribution to the condition of the ecological crisis in all its political complexity. A primary question for this thesis concerns how art can move beyond the attempt to merely experience environmental conditions, whether weighted on the visual or not, to embrace the complexity of visibility in the ocean.

Venice, with its rich history in science and trade, has more to offer than touristic experience. In contrast to many of the works in the Biennale dealing with the city's relationship with water, Hito Steyerl's *Leonardo's Submarine* (2019, fig. 0.9), also exhibited in the Biennale, tackles this history. Projected onto three curved screens that surround its audience, the video makes the connection between a submarine designed by Leonardo da Vinci in 1515 to help defend Venice from attacks by the Ottoman Empire and the Italian tech company Leonardo S.p.A, which is partially owned by the Italian government and has supplied weapons to Turkish armed forces that were used against civilians in Syria.[14] Like Steyerl's approach to Venice as a subject, this thesis too seeks to deal with water not just as an environment to be experienced, but a site of trade, science, and speculation, both past and present.

Yet the sensorial experience of water does also need further investigation. Moving from canals to oceans, like installation art the ocean too requires a decentring of vision. Visibility in the deep ocean is very poor, and while many marine species are visible through

[14] "Virtual Leonardo's Submarine," Esther Schipper, accessed September 27, 2021, https://www.estherschipper.com/exhibitions/951-virtual-leonardos-submarine-hito-steyerl/.

bioluminescence, many, like sharks and cetaceans, rely more heavily on a sense of sound or smell, for example through echolocation.[15] Certainly, seas and shorelines offer an environment for leisure and tourism – a place to swim, surf, dive and explore – but there are also many oceanic environments that are largely inaccessible to humans without technological apparatuses.[16] Sensorial inaccessibility has guided concepts of oceans and seas, exemplified by Rachel Carson's *The Edge of the Sea,* which describes shorelines with a rhetoric that frames it as the edge of the unknown, and continues in the twenty-first century with Stefan Helmreich's *Alien Ocean,* in which marine microbes 'exist at scales unperceived by ordinary human experience' and contribute to the understanding of the alien as 'life forms whose place in our forms of life is yet to be determined'.[17]

Hence, visibility in this thesis' analysis of artistic practice does not to merely to provide the spectacle of literal presence: it is motivated by its ecological and epistemological stakes. Eva Hayward's concept of 'fingeryeyes' provides a lens for doing so, as its discussion of cup corals requires a challenge to discrete relationships between the senses through 'seeing with tact; touching by eye; feeling from vision' to provide an overall 'intrachange of sensations'.[18] This is symptomatic of the new materialist turn, in which sensibility is guided by corporeality, phenomenology, and embodiment rather than cognition and objectivity. The complexities of this will be explored in the next section, but its significance at present lies in the fact that while visibility is a major asset in the ways in which we value and understand life, disembodied and cognitive vision should not determine all meaning.

This is not a divergence from attempts to make the ecological crisis known but contributes to its conceptualisation. Following Nixon, it is about the narratives of this violence that we construct, not necessarily to make them dramatic enough to capture attention but to offer a radical reconceptualisation of the ways in which we conceive and value the ocean today.[19] A major aspect of this thesis' concern for this construction lies in the fact that the

[15] John Durham Peters, *The Marvelous Clouds: Toward a Philosophy of Elemental Media* (Chicago: University of Chicago Press, 2015): 63.
[16] Stefan Helmreich, *Alien Ocean: Anthropological Voyages in Microbial Seas* (California: University of California Press, 2009): 16.
[17] Ibid., 17. See Rachel Carson, *The Edge of the Sea* (Boston: Houghton Mifflin, 1955).
[18] Eva Hayward, "Fingeryeyes: Impressions of Cup Corals," *Cultural Anthropology* 25, no. 4 (November 2010): 581-82.
[19] Nixon, *Slow Violence and the Environmentalism of the Poor,* 3.

ocean has long operated as a site of unintelligibility, alterity, and erasure, with water acting as what Astrida Neimanis terms a 'universal solvent' that erases substances through hydrolysis as much as it acts as an archive for history, pollution, and fantasies of adventure.[20] This juxtaposition between memory and erasure is conceived through the lens of visibility and invisibility.

The choice of phrasing in my title speaks to the dual function of the lack of visibility in the ocean today: both as a major actor in the capitalist construction and resulting exploitation of ocean space, its neighbours, and inhabitants and, through this political and epistemological voyage, a theoretical antidote. As the spectacular nature of the biennial format attests, visibility is key for today's capitalist image culture, demonstrated by the intensifying blend of personal expression and commodification within the attention economy; yet paradoxically, a lack of visibility also works in the interests of capitalism.[21] The question becomes one of how to go beyond the over-emphasis on spectacular experience to show how art can conceptualise ways to still care about that which cannot be seen. As will be demonstrated, the current neoliberal economy has been vital is for developments of technology necessary for hydrography, remote sensing, and marine radar (as chapter five will outline), yet at the same time much exploitation and extraction associated with neoliberalism is wholly dependent on the fact that the ocean is considered separate and "beyond the visible". Examples of such exploitation will be explored within the limits of this thesis through the shipping industry in chapter two, and industrial and governmental water contamination in chapter four.

Ecological Art History: Contexts and Approaches

This thesis is in line with the growing interest in ecology in critical and art historical discourses, which has sought to politicise relationships with the natural world. Major art historical voices within the artistic movements will be used to analyse the chosen case studies, and it is my intention to demonstrate how they can be close companions to the posthumanist, feminist,

[20] Astrida Neimanis, "Held in Suspense: Mustard Gas Legalities in the Gotland Deep," in *Blue Legalities: The Life and Laws of the Sea,* ed. Elizabeth R. Johnson and Irus Braverman (Durham: Duke University Press, 2020): 45-46.

[21] The business model of social media follows this approach of the attention economy, in which the user's attention is a product sold to advertisers with the incentive that more participation will make the user more visible. See Vikram R. Bhargava and Manuel Velaquez, "Ethics of the Attention Economy: The Problem of Social Media Addiction," *Business Ethics Quarterly* 31, no. 3 (2021): 321.

and blue humanities theories that comprise this thesis' conceptual framework. Indeed, the blue humanities are an extension of the environmental humanities, which have a far longer and more established connection to art history, and there are several art historical precedents worth noting for the context of this thesis' development.

Firstly, Andrew Patrizio's aptly titled *The Ecological Eye* also centres vision as a mode of ecological practice, which seeks to rewrite art history's hierarchical ideologies by 'reclaiming the visual ecologically'.[22] Indeed, motivated by the increased prevalence of the environmental humanities, for Patrizio ecology is not merely a subject matter, but an art historical methodology driven by an overlying emphasis on 'nonhierarchy'.[23] I share Patrizio's emphasis on ecology as a way of doing art history, and *The Ecological Eye* operates like a handbook for a range of differing political and cultural means of doing so, including social ecology, anarchism, and posthumanism. Yet while I am taken by the idea of ecology as a way of seeing, I also seek to extend this to the unseen: a true ecological vision is one that also decentres vision as a sensorial experience and grapples with its limitations in the ability to forge relations with the world.

While focused specifically on theory, Patrizio's spanning approach is like several attempts to catalogue key artists and artworks within the growing interest in ecology over the past five decades. This includes Linda Weintraub's *To Life! Eco Art in Pursuit of a Sustainable Planet* from 2012, which is considered to be a major attempt to thoroughly document the artists involved in the ecological art movement from since the 1970s.[24] A key point of this text is to separate ecological art from earlier examples of environmental art, defined in texts such as Alan Sonfist's 1983 text *Art in the Land: A Critical Anthology of Environmental Art.*[25] Instead, like Patrizio's text, artworks are defined by "eco approaches", including social ecology, deep ecology, restoration ecology, human ecology, and ecosystem ecology.[26]

[22] Andrew Patrizio, *The Ecological Eye: Assembling an Ecocritical Art History* (Manchester: Manchester University Press, 2018): 3.
[23] Ibid., 2-3.
[24] Linda Weintraub, *To Life! Eco Art in Pursuit of a Sustainable Planet* (Berkeley: University of California Press, 2012).
[25] Alan Sonfist, *Art in the Land: A Critical Anthology of Environmental Art* (New York: E. P. Dutton, 1983).
[26] Weintraub, *To Life,* xxxv.

This is not to say that earlier examples of artists working with the land aren't considered to be a significant part of the history of ecological art. Claudia Mesch's chapter "Environmental Art" in *Art and Politics* documents how land artists like Robert Smithson, systems artists like Hans Haacke, and ecological artists like Betty Beaumont and Helen Meyer and Newton Harrison led the way to environmentally engaged artists in the early 2000s, including Amy Balkin and Beatriz da Costa.[27] However, the distinction between ecology and environmentalism must be made clear. As early as 1972, Jonathan Benthall argues that concepts of ecology should be considered from a broad inter-disciplinary perspective and should produce a real change in consciousness that is politically motivated.[28] This means that the term ecology is by no means just a subsection of biology, and nor does it merely concern the natural environment: it a concern for the systems that organise life, including and beyond organic systems.

The explicit intention to define ecology and separate the work of ecological artists from environmentalism can also be documented in exhibitions of the late 2000s, including the 2009 Barbican Art Gallery exhibition *Radical Nature: Art and Architecture for a Changing Planet 1969-2009.* Edited by Jonathon Poritt, the exhibition catalogue begins with an overview of artists including Hans Haacke, Robert Smithson, and Joseph Beuys, but does so not to say that they merely work with the land, but that they are useful for defining the shift from environment to ecology, as explained in the introductory essay by Francesco Manacorda, titled "There is No Such Thing as Nature".[29] While provocative in its name (and certainly indebted to Fredric Jameson's contention in the introductory paragraphs of *Postmodernism, or the Cultural Logic of Late-Capitalism* that 'nature is gone for good'), the ideas expressed by this early survey text are still relevant to definitions of ecology explored by Patrizio.[30]

[27] Claudia Mesch, *Art and Politics: A Small History of Art for Social Change Since 1945* (New York: I.B. Taurus, 2013): 148-174.
[28] Jonathan Benthall, *Ecology, The Shaping Enquiry: A Course Given at the Institute of Contemporary Arts* (London: Longman, 1972): ix.
[29] Francesco Manacorda, "There is No Such Thing as Nature," in *Radical Nature: Art and Architecture for a Changing Planet, 1969-2009,* ed. Jonathon Poritt (London, Koenig Books, 2009): 9-16.
[30] Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1992): ix.

This notion of ecology underlines my reasoning for using systems art as a starting point for an investigation into visibility and the ocean. A Jamesonian concept of nature is not the only reason: Benthall's emphasis on interdisciplinarity also parallels the ways in which the term ecology has become synonymous with systemic thinking. Art historian James Nisbet has considered how artists from the 1960s and '70s expressed a concern for energy systems in a way that epitomises ecological thinking based on interconnectivity.[31] In this regard, the refusal to view organisms in isolation paved the way for relational modes of thinking that permeated cybernetics and social biology, for better or for worse, as well as works of art. According to Nisbet, the influence of ecology during this era should be determined 'as a technical concept, a condition of the earth, and a way of imagining the material world'.[32] Nisbet's argument is part of a renewed attention in art history on systemic artistic approaches since the 1960s, which blur the boundaries between biology and technology.

This is especially demonstrated recently by the 2022 publication *Nervous Systems: Art, Systems, and Politics since the 1960s,* by Johanna Gosse and Timothy Stott, which aims to 'reassess the theorisation and implementation of systems and aesthetics by artists and critics since the 1960s'.[33] With a special emphasis on the both the socio-political and subcultural dimensions of systems thinking in art, the collection of texts draws on many artists and thinkers who have been significant for my own research, including Hans Haacke, Jack Burnham, and Luke Skrebowski, all discussed in chapter one. My thesis shares an emphasis on wider understandings of systems as forms of relationality, and the ways in which 'objects, bodies, and structures became communicative and mutable systems in networked complexes with other systems'.[34] The intention is firstly to ground ideas of visibility in systems observation (thus equating it with ideas of knowledge accumulation and environmental influence), and secondly to consider relationality, or systemic interconnections, on both ontological and epistemological grounds through a posthumanist and materialist feminist framework.

[31] James Nisbet, *Ecologies, Environments, and Energy Systems in Art of the 1960s and 1970s* (Cambridge, Mass: MIT Press, 2014): 2-3.
[32] Ibid., 3.
[33] Johanna Gosse and Timothy Stott, "After the Breakdown: Sixty Years of Systems Art," in *Nervous Systems: Art, Systems, and Politics since the 1960s,* ed. Johanna Gosse and Timothy Stott (Durham: Duke University Press, 2022): 6.
[34] Ibid.

These art historical discourses on ecology and systems are companion for ecocritical texts such as Timothy Morton's *Ecology Without Nature,* which has been significant for concepts of eco-aesthetics driven by the need to "denaturalise" nature, and Erich Hörl's concept of general ecology.[35] For Hörl, general ecology regards ecological thought as an alarming product of the wider cybernetisation of existence that has proliferated since the Second World War.[36] In this sense, ecology not only speaks to social and political systems, but to specific methods of governmental regulation and corporate capitalisation produced by the organisation of society through relational technologies.[37] This especially regards what he calls the 'neoliberal-capitalist destruction of the relation, a reduction of relations to calculable, rationalizable, exploitable ratios, in the form forcefully wielded by the mathematics of power'.[38] Ecology investigates the ways in which both the natural and the cultural are entangled within systems seeking to algorithmically control life. This is an especially useful concept of ecology for my analysis of human/ocean relationships in this thesis; following Hörl's concept of 'becoming-environmental', the desire of this thesis is not only to scrutinise how contemporary artworks that deal with the relational speak to these economic, political, and technological systems.[39] It seeks to find a means to uncover how contemporary art navigates a space that both reflects this condition *and* offers a reconceptualisation of relationality that forges a resistance to that which currently stands.

Consequently, while this thesis departs from the aim to define and document the history of ecological art (largely because this work has already been done so thoroughly), it shares with many of the discussed texts the definition of ecology as one that is not separate from the political conditions of today. While politics is a broad and heterogenous term, a working definition for this thesis is the current modes of governance in the Global North that uphold today's neoliberal condition. This means that politics relate to the systems of power within largely Western societies that decide how the natural environment should be used,

[35] Timothy Morton, *Ecology Without Nature: Rethinking Environmental Aesthetics* (Cambridge, Mass.: Harvard University Press, 2009).
[36] Erich Hörl, "The Environmentalisation Situation: Reflections on the Becoming-Environmental of Thinking, Power, and Capital," *Cultural Politics* 14, no. 2 (2018): 155.
[37] Ibid.
[38] Erich Hörl, "Introduction to General Ecology: The Ecologicalisation of Thinking," in *General Ecology: The New Ecological Paradigm,* ed. Erich Hörl and James Edward Burton (London: Bloomsbury, 2017): 8.
[39] Hörl, "The Environmentalisation Situation," 155.

governed, and capitalised, including state and corporate control. This notion of politics is situated within a post-globalised context, in which capitalist activity that operates on an intensely global scale since the internationalisation and decentralisation of trade, finance, media, labour, and migration in 1990s and 2000s is now implicated as a major contributing factor to global environmental violence.

This is especially relevant for thinking through water today. Liquidity has become a term to describe the conditions of today's economic condition: the state of precarity that encompasses the gig economy makes it easy to suggest that there is a distinct lack of solid grounds. The ways in which liquidity symbolises contemporary existence is epitomised by sociologist Zygmunt Bauman's "liquid" series – liquid modernity, love, life, times, fear – all aiming to characterise global societies at the turn of the twenty-first century.[40] Indeed, liquidity, and watery language more generally, has been co-opted by a capitalist vocabulary. For Janine MacLeod, two seas co-exist, the actual sea and the sea of capitalism: 'the invisible current we refer to when we say the word "currency" – literally, "the condition of flowing"'.[41] MacLeod goes on to describe:

> It circles the globe in an instant, pours through stock exchanges and tattered wallets alike. It pauses when assets are frozen and accelerates when investors achieve greater liquidity. Some say that it trickles down to the poor like inconstant rain. Its rising tide is supposed to lift all boats. We survey an economic landscape dotted with pools of resources, poling our little rafts of consumption up greater or lesser tributaries of cash flow, always striving to tap new sources of funding.[42]

The use of water as a metaphor is foregrounded in this description, and for MacLeod, emphasises how this metaphor works to 'naturalise' processes of globalisation and financialisaton.[43] Because of this, the flows of capital are deemed a basic necessity for life while necessities such as food, shelter, and even water, are commodified to greater extents.[44]

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[40] For example, see Zygmunt Bauman, *Liquid Modernity* (Cambridge: Polity Press, 2000).

[41] Janine MacLeod, "Water and the Material Imagination: Reading the Sea of Memory Against the Flows of Capital," in *Thinking with Water,* ed. Cecilia Chen, Janine MacLeod and Astrida Neimanis (Montreal: McGill-Queens University Press, 2013): 40.

[42] Ibid.

[43] Ibid., 42.

[44] Ibid.

The reification of flows of capital, as MacLeod describes it, is a process of abstraction that has culminated in the displacement of the ocean in the public imaginary.[45]

Hence Hörl's definition of ecology heavily intersects with my own, as ecology and political systems are always related. Indeed, the political aspects of ecology have been used to define ecological art over the past fifty years. This not only includes the writing of Nisbet and Gosse and Stott; it also includes Rasheed Araeen's "Ecoaesethics", which calls for an artistic imagination that is fully integrated into that land rather than serving the creation of objects that become 'reified' and 'frozen' in the museum, and Benthall's contention in 1972 that the ecology movement should prompt 'direction action' and 'lobbying through orthodox channels' as well as a return to 'searching theoretical speculation about Culture and Nature'.[46] While my own approach to ecology and politics are indebted to this history, my approach departs from Araeen's through the acknowledgement – which is also shared by Benthall – that a change in consciousness is significant for ecological progress. Yet by drawing upon the theoretical fields of the blue humanities, posthumanism and materialist feminism, my approach also departs from Benthall's by focusing specifically on the conceptual potential of the ocean within today's ecological and political condition, using a theoretical framework that has emerged after Benthall's enquiry into ecology in 1972.

With the history of landscape painting so often reinforcing the separation of "Man" and "Nature", the stakes involved in art history must be framed through a question of how to represent, portray, or mediate the environment in a way that recognises its highly political significance.[47] When capitalism has taxonomized people, plants, and animals, transforming them into what anthropologist Anna Tsing terms assets, weeds, or waste, it is vital to acknowledge the ways in which the natural world is governed by certain capitalist and colonial ideals.[48] Indeed, Tsing is keen to situate cultural and social discourses on ecology within what she calls a "damaged planet" in *Arts of Living on a Damaged Planet,* in which 'our era of human destruction has trained our eyes to only focus on the immediate promises of power

[45] Ibid., 43.
[46] Araeen Rasheed, "Ecoaesthetics: A Manifesto for the Twenty-First Century," *Third Text* 23, no. 5 (2009): 682.; Jonthan Benthall, *Ecology, The Shaping Enquiry,* xiv.
[47] Yates McKee, "Land Art in Parallax: Media, Violence, Political Ecology," in *Nobody's Property: Art, Land, and Space 2000-2010,* ed. Kelly Baum (New Haven: Yale University Press, 2010): 59.
[48] Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015): 5-6.

and profits', and the "ruins of capitalism" in *The Mushroom at the End of the World,* which centres on the 'the dream of alienation [that] inspires landscape modification in which only one stand-alone asset matters'.[49]

Tsing's concept of the damaged planet refers to the context of the Anthropocene, a contested term that was coined by atmospheric chemist Paul J. Crutzen in 2002 as a way of pointing to the geological shift from the Holocene, distinguished by the marks of human industry.[50] While originating as a geological concern, the Anthropocene has come to occupy the humanities with disciplinary significances, as they consider the ways in which the human impact on the planet can be conceived, politicised, and represented. In art history, attempts to define this moment through the array of ecological artists working at the time include Heather Davis and Etienne Turpin's *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environment and Epistemologies*, and Julie Reiss' *Art Theory and Practice in the Anthropocene.*[51]

However, Tsing is also keen to highlight the universalising tendencies of the term Anthropocene, as it has the tendency to 'imagine a homogenous human race'.[52] As Elizabeth DeLoughrey maintains, the term neglects the specificity and difference in positions and subjectivities, as well as postcolonial critiques that suggest that the Anthropocene discourse falsely claims that the crisis is novel at the expense of the historical emphasis of systems of colonialism, dispossession, and exploitation across a complex set of geographies.[53] As DeLoughrey notes, the Anthropocene discourse 'produces a globalisation discourse that misses the globe'.[54] In framing the relationship between human action and the natural world within the systems that organise contemporary life, I am rather indebted to the alternatives created to the Anthropocene, including to Jason Moore's Capitalocene, Jussi Parikka's

[49] Anna Lowenhaupt Tsing, Heather Anne Swanson, Elaine Gan, and Nils Bubandt, *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene* (Minneapolis: University of Minnesota Press, 2017): 2.; Tsing, *The Mushroom at the End of the World,* 6.
[50] Paul J. Crutzen, "Geology of Mankind," *Nature* 415, no. 6867 (2002): 23.
[51] Heather Davis and Etienne Turpin, *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environment and Epistemologies* (London: Open Humanities Press, 2015).; Julie Reiss, *Art, Theory and Practice in the Anthropocene* (Minneapolis: University of Minnesota Press, 2018).
[52] Tsing, *Arts of Living on a Damaged Planet,* 3.
[53] Elizabeth DeLoughrey, *Allegories of the Anthropocene* (Durham: Duke University Press, 2019): 2. See also Donna Haraway's critique of the Anthropocene in Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016).
[54] DeLoughrey, *Allegories of the Anthropocene,* 2.

Anthrobscene, Haraway's Chthulucene, and the Plantationocene, which each foregrounds a different contributing factor to the global condition today: capitalism, multi-species existence, media, and colonialism.[55] These provide a far more multifaceted approach to thinking through the material condition of the natural world, which I seek to further through the lens of invisibility and the epistemological connotations of situatedness. The universalising tendencies involved in the Anthropocene discourse as they have focused on the geological are challenged through the focus on oceanic visibility and its lack thereof as it questions the ease in which the global can be conceived through abstract systems.

In contrast to more generalising approaches to the Anthropocene, T. J. Demos' approach to contemporary art and ecology has been significant for the development of my thesis' conceptual framework. Demos' texts are driven by a commitment to conceiving art not only as a means of visualising environmental disaster or scientific knowledge, but as a worldmaking activity.[56] It is a means to both scrutinise the world as it stands and imagine new world built out of the ruins of capitalism. This scrutiny is framed in his texts *Decolonising Nature, Against the Anthropocene* and *Beyond the World's End* by the aim to 'politicise art's relation to ecology', drawing on the combination of the aesthetic with more activist approaches to the 'social, political and economic forces' that organise the environment today.[57] *Beyond the World's End* is especially devoted to an intersectional and anti-racist commitment to ecology, with attention to climate refugees, afrofuturism and extractivism, and I am indebted to Demos' explicit anti-capitalist approach for thinking through a model of ecology associated with systems of governmentality within a relational view of the world. Such an approach certainly draws out the political impetus for extending beyond that which is seen to a more speculative worldview, as relations become malleable to thinking with epistemological limits and environmental justice.

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[55] See Jason Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2016).; Jussi Parikka, *The Anthrobscene* (Minneapolis: University of Minnesota Press, 2014).; Haraway, *Staying with the Trouble*.; Donna Haraway et al., "Anthropologists Are Talking – About the Anthropocene," *Ethnos* 81, no. 3 (November 2016): https://doi.org/10.1080/00141844.2015.1105838.

[56] T. J. Demos, *Beyond the World's End: Arts of Living at the Crossing* (Durham: Duke University Press, 2020)*:* 5.

[57] T. J. Demos, *Decolonising Nature: Contemporary Art and the Politics of Ecology* (Berlin: Sternberg Press, 2016): 8.; Ibid., 7. See also Demos, *Beyond the World's End*.; T. J. Demos, *Against the Anthropocene: Visual Culture and Environment Today* (Berlin: Sternberg Press, 2017).

These concepts of ecology in art historical and theoretical discourses act as significant precursors to the ecological model of art I seek to build. To further this, I will also engage with art historical models specific to each mode of practice: including Jack Burnham and Luke Skrebowski in systems art; Emily Eliza Scott, Miwon Kwon and Yates McKee in land art; and Joanna Zylinska and Melody Jue in new media. However, by focusing especially on the ocean, this thesis also departs from the context of ecological art history, seeking instead to use a framework that uncovers the conceptual and interpretative potential of the ocean. Ecology is certainly a relational concept; centring posthumanism, materialist feminism, and the blue humanities furthers relationality by pushing its boundaries, exploring its speculative potential and sensory limitations. The aim is not only to highlight the social and political aspects of relationality within *Portable Fish Farm, Fish Story, Ocean Landmark,* and *Acoustic Ocean* from a critical position, but to offer a more affirmative, speculative approach in its place.

Posthuman Oceans

Alongside the need to define ecology and politics, this thesis also recognises that the terms ontology, epistemology, and ethics are frequently used throughout and require further explanation. The use of these terms has been determined less from the ecological or art historical context but is indebted to the posthumanist and materialist feminist concepts that frame this thesis' examination of representations of the ocean. Ontology refers to the study of being, used especially to define human and more-than-human relationships and scrutinise really what it means to be human. Epistemology supplements this ontological discussion by focusing on how and by what means knowledge is gained through these human/more-than human relationships, shaped specifically by how vision leads to knowledge accumulation. While visibility is a major drive of this thesis, the epistemological stakes of the limitations of knowledge will come to the fore in chapter five. Finally, ethics addresses the real-world implications of human/more-than-human relationships: if they are conceived in one way (e.g., through a capitalist ideology), then what moral principles guide our actions as a result? How are acts of exploitation towards the environment or animals justified or challenged?

Diverging from a purely ecocritical framework towards one that is predominantly posthumanist and materialist feminist is necessary for unlocking the specific conceptual qualities of the ocean. This is not to say that land-based ecological studies have not addressed ontological, epistemological, and ethical questions (the field of animal studies is especially

focused on these concerns); rather, the ocean has prompted specific conceptual lines of thinking that have been central in the formulation of this thesis' scope.

For example, curator Stefanie Hessler's exhibition practices with the TBA21-Academy provide a significant contribution to the context of this thesis by centring the ocean as a site of study in contemporary art. Hessler's curation of the exhibitions *Prospecting Ocean* CNR-ISMAR, Venice, 2018 and *Tidalectics* at TBA21-Augarten, Vienna, 2017, take vision as a focus and demonstrate an epistemological drive in asking what it means to try and know the ocean.[58] For Hessler, working with the ocean is a way for art to place a tension on the ease in which the environment appears to be visually available from afar while at the same time so much exploitation within these spaces is kept hidden.[59] Beyond deep-sea mining, this includes radioactivity, colonisation, and resource extraction, and this thesis shares this drive to intersect the political, ontological, and epistemological in thinking through the role of vision in relationality today. Turning to conceptual, research-based, multi-faceted and speculative practices, art has the capacity to do so much more than make environments visually available.

Hence, like ecological art history, Hessler's conceptualisation of the ocean through the lens of visibility also cannot avoid politics, or the ways in which space is used and governed by state and corporate powers. This is because the ocean as a space plays major part in global capitalist systems of production and distribution, territorialisation, and management.[60] To Philip Steinberg, capitalism has constructed all environments so that they can serve the world economy, and the ocean in particular achieves this function through fishing, offshore petroleum extraction, tourism, and genetic, pharmaceutical and marine biological research.[61] The identity of the ocean has come to encompass this, according to Steinberg, whose postmodern ocean has three characteristics: 'the idealisation of the deep sea as a void of distance, suitable for annihilation'; 'the portrayal of specific points in ocean-space as territories, extensions of land that may be developed'; and 'the designation of specific elements or functions as special places of stewardship, suitable for systemic social regulation'.[62] These constructions play a significant part in the ways in which the ocean is

[58] Hessler, *Prospecting Ocean,* 25.
[59] Hessler, *Prospecting Ocean,* 27.
[60] Philip Steinberg, *The Social Construction of the Ocean* (Cambridge: Cambridge University Press, 2001): 9.
[61] Ibid., 163.
[62] Ibid.

discussed throughout this thesis, as it becomes the site of the shipping industry, waste disposal, and submarine warfare and research. All three seek to highlight that ocean space is far from a neutral, naturalised environment, and all three are tied to the parameters of vision within these spaces.

Foregrounding the unknowability and complexity of water as a critical response to the capitalist quantification, abstraction, and commodification of the ocean and its organic and material inhabitants is essential to this task. Posing the question of relationality alongside the emphasis on unknowability aims to provide alternative and more ethical relations to the ocean. This is partly achieved through an acknowledgement that water is intrinsic to all life forms, connecting bodies in what feminist and posthumanist theorist Neimanis terms the 'hydrocommons'.[63] Yet this does not seek to remove all difference, or neutralise or biologically essentialise watery bodies, as they are also 'currents of toxicity, queerness, coloniality, sexual difference, global capitalism, imagination, desire, and multispecies community'.[64] In promoting an ethical response to water, Neimanis seeks to both scrutinise the systems that dominate and unpack alternatives. Thinking specifically with water aims to welcome both kinship and difference, to accept the limitations of our ability to inhabit ocean space and embrace our bodies of water.

Building on the theories of Neimanis and the blue humanities, I focus on how art can mediate a sensorial experience of the ocean that expresses how the potentials and limitations of this experience are intrinsic to the hydrocommons. It embraces thinking with water to, as Hessler frames it, 'imagine and cultivate a much-needed epistemology of unknowability'.[65] This drives my motivation for focusing on the ocean: it is a methodology, an ethics, a way of thinking as much as a subject or environment, making it a unique way to approach an ecological art history that is so often focused on the terrestrial. Water provides its own ontological and epistemological framework that has significance for thinking through relationality in contemporary art today. While certainly not upholding a notion of the ocean as a site of complete alterity, emphasising the unfamiliar becomes a way of holding onto

[63] Astrida Neimanis, *Bodies of Water: Posthuman Feminist Phenomenology* (London: Bloomsbury Academic, 2017): 2.
[64] Ibid., 15.
[65] Hessler, *Prospecting Ocean,* 25.

difference in a discourse that could so easily homogenise subjects and circumstances by placing a premium on commonality in relationships. Hence, the concern for vision in the ocean also lends itself to a question of subjectivity as the relation between subjects and the world is foregrounded. This does not compete with the epistemological parameters of the invisible but seeks to demonstrate how they work in tandem.

To address these concerns, I am indebted to Neimanis' model of posthumanism. In *Bodies of Water,* Neimanis adopts the emphasis on feminist theories of difference and considers how the connection with others through the ocean impacts subjectivity.[66] With this thesis' concern for the limitations in the ability to connect with others, I am particularly indebted to the concern for how these connections with the ocean are stretched by Neimanis through space and time, 'paying attention to the complication of scale, where a familiar deictics of 'here' and 'there', 'mine' and 'ours', even 'local' and 'global', or 'now' and 'then', which might have once seemed relatively securable, are now queerly torqued'.[67] This not only speaks to the logistics of connecting to *Ocean Landmark's* underwater location*,* but also operates temporally through our evolutionary relationship with oceanic life, which will be developed alongside the writing of marine biologist Rachel Carson and *Portable Fish Farm* in chapter two*.* In the fifth chapter's analysis of *Acoustic Ocean,* the implications of this spatial and temporal approach will come to the fore as the politics of difference becomes the focus.

Yet the definition of the posthuman is wildly varied and contested, and thus requires further definition and justification. My own definition is in line with posthumanist theorist Rosi Braidotti's following definition:

> Posthuman thinking is a relational activity that occurs by composing points of contact with a myriad of elements within the complex multiplicity of each subject and across multiple other subjects situated in the world.[68]

As a relational activity, it provides a framework for thinking through the implications of oceanic relationships for subjectivity. However, I recognise the reasons why many scholars within the fields of postcolonialism and environmental justice disregard the term 'posthuman'

[66] Neimanis, *Bodies of Water,* 27.
[67] Ibid.*,* 37.
[68] Braidotti, *Posthuman Knowledge,* 123.

altogether. According to post-colonial and environmental literary theorist Elizabeth DeLoughrey, there are political implications in the posthumanist aim to reconnect the human with the natural for those who have historically been reduced to nature through racialised and colonial hierarchies, and while environmental justice should commit to recognising the more-than-human, the term 'posthuman' only appears to be relevant to those who have been conceived as human in the first place.[69] There is a certain privilege in the exploration of the posthuman condition and in no way speaks to all historical, political and cultural circumstances.

Likewise, I also recognise that while the aim to think of the human as relational may be novel in response to the very specific Western history of humanism, it is far from a new idea. Métis scholar Zoe Todd has illuminated this fact in response to the theories of Bruno Latour and the ontological turn more generally (posthumanism included), arguing that this European 'discovering' of alternative and more relational cosmologies from European theoretical histories ignores the fact this has been at the forefront of many Indigenous knowledge systems for millennia.[70]

Bearing this in mind, I believe it is vital to acknowledge the complexities involved when using the term posthuman and to recognise its specific discursive lineage as a Euro-American concept. Yet I continue to use it because I believe that the fundamental aim of decentring the human does not have to be purely ontological. It can be an epistemological one, which has the capacity to contradict any universalising tendencies within the category of the human. The question is not just how to "be" in the world, but how to understand it. The turn from the invisible to the speculative in this thesis is not merely an exercise in thinking through the human on a purely abstract level, but the concern for Indigeneity placed alongside the turn from vision demonstrates the primacy of knowledge accumulation as a colonial strategy indebted to the power structures of humanism. Decentring vision is a way of decentring the human, and the intention is to demonstrate its capacity to work alongside environmental justice, not override it.

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[69] Elizabeth DeLoughrey, Jill Didur and Anthony Carrigan, "Introduction: A Postcolonial Environmental Humanities," in *Global Ecologies and the Environmental Humanities: Postcolonial Approaches* (London: Routledge, 2015): 11.

[70] Zoe Todd, "An Indigenous Feminist's Take on the Ontological Turn: 'Ontology is Just Another Word for Colonialism," *Journal of Historical Sociology* 29, no. 1 (March 2016): 7-8.

For Braidotti, thinking is a kind of relational activity that builds connections with others in the world. Conceiving the posthuman not only as a subjectivity marker but as a mode of thought, it encourages an ethical concern for epistemology and academic pedagogical practice.[71] I seek to extend this posthuman approach to thinking-as-relating to the ocean: it is not just what we see of it that determines our relationship to it, but how we conceive it, such that the differential sensory experiences need not lead to complete alterity nor transcend this difference. This may sound abstract, but it is a mode of thought that has the potential to lead to very real implications for the ways in which oceans are conceived. Following a posthumanist mode of thought, oceans are not just non-spaces, resources, waste-sites, spaces to be crossed or extracted from; navigating the boundary between land and water that is in constant tension due to the exacerbating health of oceans is in vital need of more ethical approaches that do not merely replicate the capitalist and anthropocentric values that have led to its demise. Contemporary art has the capacity to demonstrate that oceans are posthuman.

Hence, the line drawn between land and water also operates allegorically for dealing with questions of difference, and this thesis is also indebted to this concern as an explicitly feminist line of thinking. Materialist feminism supplements the posthumanist questioning of the boundaries of the body and is explored in this thesis through Stacy Alaimo's concept of trans-corporeality and Karen Barad's inter-activity.[72] Both concepts challenge models of the human as abstract and discrete, and speak to a materialist emphasis of relationality, asking how to relate to others across space and time as embodied subjects. However, perhaps the largest feminist voice enacted in this thesis is that of Donna Haraway. Engaging with the work of Haraway calls for an analysis of multiple strands of feminism, including the cyberfeminism of the notable "Cyborg Manifesto", the examination of "situated knowledges" in feminist science studies, and more recent engagements with science fiction and multispecies justice.[73]

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[71] Braidotti, *Posthuman Knowledge,* 123.

[72] Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington: Indiana University Press, 2010): 2.; Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007): 140.

[73] Donna Haraway, "A Cyborg Manifesto: Science, Technology and Socialist Feminism in the Late Twentieth Century," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (London: Free Association Books, 1991): 149-182.; Donna Haraway, "Situated Knowledges: The Science in Question and the Privilege of Partial Perspective," in *Simians, Cyborgs, and Women,* 183-202.; Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016).

While Haraway does not refer to her work as posthumanist, the evolving trajectory of the concept of kinship, whether with machines, animals, or organisms, acts as a notable lens for the work of Biemann. Existing at an ontological border, a feminist posthumanist line of thinking seeks to highlight the importance of partiality, situatedness, and localised knowledge in relationships across difference. Vision, epistemology, and subjectivity are always tied to relationships of power; using contemporary art to navigate the ocean's ties to these concepts is a means of asking if it is possible for this power to be contested and redistributed. This is the potential that lies in a posthuman approach to an oceanic contemporary art history.

Situated Methodologies

To reiterate, this thesis seeks to examine how the political, conceptual, and epistemological stakes of visibility in contemporary artistic mediations of the ocean. It may come as no surprise to state that my approach to this question is interdisciplinary: drawing on multiple fields from the blue humanities, posthumanism, feminism, ecocriticism and political theory, the art historical analysis of the three major artworks is heavily embedded in the theoretical. However, it is nonetheless still necessary to outline how these theories support each other within the confines of my argument. While artworks are framed within a posthumanist, materialist feminist, and ocean-based conceptual framework, the art historical analyses of each chapter are also largely concerned with the political and, often, with the historiographic.

Chapter one offers what seems to be a diversion from the posthumanist intentions by focusing on post-Marxist factions to the Californian counterculture in which the Harrisons were working at the time of *Portable Fish Farm*'s creation. This is to situate the concept of observation as it emerges within the systems format alongside the concept of consumption – an intrinsic component of *Portable Fish Farm* and the growing consumer culture of the era. This context thus furthers the definition of observation to consider questions of abstraction and alienation from with the Marxist framework in chapter two and, alongside Sekula's *Fish Story,* to consider the politics of exposing conditions of exploitation. While observation in chapter two does grapple with the question of subjectivity, it does so firstly by acknowledging the universalising tendencies of the era, and secondly with the intention of exploring the expressly politicised concepts of labour, production and consumption within the fishing and shipping industries.

It is not until the question of invisibility is raised that the thesis takes an epistemological and ontological turn. But this does not mean that the political is left behind; David Harvey's geopolitics and relational approaches to space and time, Arjun Appadurai's theories of global systems and the imagination, and Jameson's concept of the utopia all play a significant part in chapters three to five.[74] Just as ecocritical approaches to the natural world are in fact indebted to postmodern accounts of spatial construction, so too does this thesis see a continuation between the political and the onto-epistemological, and these theorists offer a vital political addition to the concepts of space, relationality, the imagination and speculation developed through the lens of in/visibility. It is vital because the ocean is also not just one thing but constructed in multiple ways by multiple different voices in this thesis. Oscillating between the political and speculative through interdisciplinarity must be embedded within any study of the ocean.

Consequently, just as this thesis is about relationality, so too is its methodology concerned with the relationship between discourses. Art is especially suited to this task because the relationships forged between the viewers and material objects of any medium have been engrained within its major line of interpretation. The use of art in this thesis is guided by the belief that artworks do not merely speak to the specific art historical conditions of formal interpretation, style, and the categorisation of movements but have the capacity to reach beyond the discourse to make a meaningful contribution to the ways in which we think about the world. Indeed, many of the artworks chosen for this task – a gallery-based fish farm, a submerged pile of coal fly-ash, and, as will be detailed in chapter five, an aquatic vessel for the interspecies communication of dolphins and humans in Ant Farm's *Dolphin Embassy* (1975, fig. 0.10) – seem to defy the categorisation of "art". Their differing relationships with the ocean are often difficult to put into words, as *Portable Fish Farm* and *Ocean Landmark* especially are not simply representations, depictions, or portrayals of the ocean but are, directly and indirectly, part of it. Bridging the gap between nature and culture, they trouble the notion of the ocean as something external and separate to the cultural world.

[74] Herbert Marcuse, *An Essay on Liberation* (London: Penguin, 1969).; Moore, *Capitalism in the Web of Life.*; David Harvey, *Justice, Nature and the Geography of Difference* (Oxford: Blackwell, 1996).; Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalisation* (Minneapolis: University of Minnesota Press, 1996).; Fredric Jameson, *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions* (London: Verso, 2005).

Yet the resistance to the Platonic categories of representation also speaks to my fundamental understanding of what art can do. Like W. T. J. Mitchell's questioning of what images want, based on the belief that pictures are 'vital signs', or 'not merely signs *for* living things but *as* living things', I believe that artworks have agency, a capacity to affect the human.[75] But more than images, I am concerned with art's agency as material objects, not merely in line with the new materialist trend to outline the animacy of the non-human in general, but specifically in terms of how the interpretation of artworks as *both* cultural and material artefacts can lead to a greater understanding of how the material world is conceived, valued, and constructed.[76] I see my job as one that unleashes the potential of each artwork through interpretation, with the intention of being as creative, critical, and conceptual as possible. The space devoted to the primary artworks attests to this motivation to develop a unique understanding of how each can add meaning to contemporary life and the natural world around us. It is not the artworks' relationship between media and audience members that makes them suitable for the theoretical framework of this thesis; I believe that the unique relationships forged with the ocean in each work, whether as a concept, a site, or a mediation, have the power to generate new conceptualisations of how we relate to the world through and beyond vision. Moreover, each artwork's capacity for this task also allows them to build on the others, meaning that this thesis also manifests an argument that is the direct result of the unique dialogue these artworks create.

If both ecology and posthumanism are modes of thought seeking to realign relationships to the natural world, then the artworks in this thesis aim to demonstrate how art is a major and hugely creative vehicle for this kind of thinking. Adding meaning through interpretation attests to the aim to not only demonstrate how we exist in the world, but how we understand it. Central to this methodology is the belief that this interpretation should be both critical and affirmative. This is in line with Braidotti's concept of posthuman knowledge as 'critical and creative', based on the 'co-existence of the actual and the virtual; the status quo and the possible alternatives; what is ending and what is about to come into being'.[77] The

[75] W.T.J. Mitchell, *What Do Images Want? The Lives and Loves of Images* (Chicago: Chicago University Press, 2005): 6.
[76] For the general turn to agency in the new materialisms see Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2009).
[77] Braidotti, *Posthuman Knowledge,* 66.

work of the Harrisons, Sekula, Beaumont and Biemann all offer different but vital ways to scrutinise the world as it is, as well as ways to think of more ethical world paradigms. This is ultimately the trajectory of this thesis' structure; moving from the visible to the invisible, it also moves from a more critical view of systems of production and consumption in the work of the Harrisons, to a more speculative approach to invisibility in the work of Beaumont, and finally to a more direct take on the creation of new sonic paradigms through the work of Biemann.

What this thesis is not, then, is a solely art historical narrative: the aim is not to write a history of ecological art. In line with Patrizio's claim that a study of eco-art does not necessarily lead to an ecological art history, the use of ecology in this thesis does not equate to art that takes the environment as a subject.[78] More specifically, they have not been chosen simply because they centre oceanic environments within this category of eco-art, but because they have something meaningful to offer for the ways in which visibility operates in the ocean with specific ethical, political, and epistemological consequences.

Likewise, when dealing with three distinct time periods in art history (the 1970s, the 1990s and 2010s) it may be tempting to suggest that eco-art is framed as a precursor to later works. There is no doubt a periodic jump between the work of the Harrisons/Beaumont and Sekula/Biemann. Created in 2018, *Acoustic Ocean* is situated within a discourse in which the posthuman and the speculative have become commonplace, and there is the potential to suggest how Biemann as a central case study of the final chapter seeks to draw out these elements in the former artworks. However, it must also be stated that the structure of this thesis does not seek to illustrate that the work of the Harrisons and Beaumont are mere influences or precursors to this work. *Portable Fish Farm* and *Ocean Landmark* are already dealing with questions of speculation and the imagination. It is possible to trace certain histories of these ideas in art historical terms, and indeed in socioeconomic terms through the periodisation of this thesis, from the 1970s to the 2020s. Beginning as neoliberalism starts to dominate in the US and UK, as economic deregulation offered an answer to stagflation under Jimmy Carter's presidency, and later with Ronald Reagan and Margaret Thatcher, the chronological framing encapsulates the history of this economic transformation.[79] But this

[78] Patrizio, *The Ecological Eye,* 13.
[79] David Harvey, *Spaces of Global Capitalism* (New York: Routledge, 2006): 15.

thesis is not about progress, art historically or economically: progress is a concept celebrated by both ideas of capitalist accumulation and technological evolution, and antithetical to the politics of this thesis.[80] History is important to how these artworks are conceived because it supports the fact that art, like people, should be situated; but the goal is to illustrate how these histories contribute to the overall interpretation of art within the parameters of the thesis' exploration of visibility and the ocean.

In other words, while dealing with concepts of history and the future, it does not seek to incite a linear notion of past, present, and future. Rather, often jumping between histories and speculations on alternative futures, it equally sees the past, present, and future in relation. This is much like the ocean itself: often framed as a site of memory, the ocean has often served as a space that counters colonial views of progress.[81] Drawing on the poetry of Kamau Brathwaite, Hessler demonstrates how the cycles and rhythms of the ocean provide a counter to linearity in what she calls 'tidalectics'.[82] Adopting a tidalectic, or oceanic worldview in the spatial and temporal framings of these works seeks to move beyond fixity and linearity to 'think of hybridity, cross-cultural-syncretism, incompleteness, and fragmentation'.[83] Hence, the ocean not only draws these works together thematically, but acts as a metaphor for conceiving the world as both a historical and speculative phenomenon. In doing so, relationality remains specific and differentiated, while allowing space to build partial connections with others.

Interdisciplinarity, creative interpretation, and non-linearity are at the centre of this thesis' methodology. As such, the relational and indeed oceanic themes at the core of its subject are also at the centre of my approach to it. Another aspect worth considering is the importance of situatedness – an idea at the core of thinking through the relationship between land and water – for my own approach. It is vital to situate these artworks geographically as well as temporally. The relational view often takes a global scope within the discourse of capitalist systems and the cyberneticisation of existence, but while focusing on the idea of

[80] Braidotti, *Posthuman Knowledge,* 45.

[81] Elizabeth DeLoughrey, "Revisiting Tidalectics: Irma/José/Maria 2017," in *Tidalectics: Imagining an Oceanic Worldview Through Art and Science*, ed. Stefanie Hessler (Cambridge, Mass: MIT Press, 2018): 94. See also MacLeod, "Water and the Material Imagination," 40-60.; Astrida Neimanis, "Water, A Queer Archive of Feeling," in *Tidalectics,* 189-98.

[82] Stefanie Hessler, "*Tidalectics:* Imagining an Oceanic Worldview through Art and Science," in *Tidalectics,* 31.

[83] Ibid., 33.

the global, this thesis does not claim to speak for everywhere. Geographically, the artists that form the case studies exist within Euro-American contexts and juxtapose their specific local position with the wider systems that organise them. In the work of the Californian artistic duo the Harrisons and Sekula, a dichotomy between the local and global is created through the emphasis on local and transatlantic aquaculture. Likewise, in the work of New York based artist Beaumont, it is created through a spatial juxtaposition of the politics of the site itself and its mediations that extend beyond space and time, both physically and virtually. Finally, in the work of Swiss artist Biemann, it is created through the emphasis on local knowledge production within the Indigenous Sámi community of northern Norway and both global media systems and the global ecological crisis. Hence, it must be stressed that while operating differentially, these works are largely situated within the Western capitalist context and tackling the global does not seek to suggest that these contexts speak for all geographies and situations.

Indeed, my approach to these geographically specific artworks is also borne out of a specifically Euro-American context. This certainly applies to the theoretical framework adopted, whether posthumanist, feminist or political, but it also applies to the ways in which my thinking has emerged. If there is a correlation between the subject and methodology through the framework of relationality, then it can also be stated that my mode of thinking is also just as much a product of the cybernetisation of existence. Born in the mid-1990s in the United Kingdom, I have been situated within the radically increasing digital organisation of life. From the rise of social media to the proliferation of conglomerates such as Apple, Amazon, Google, and Uber throughout the first few decades of my life, corporate technological governmentality as part of what is now referred to as data capitalism has come into fruition alongside my education and upbringing. Perhaps, then, it is no surprise that relational thinking is something that I am in some way predicated to conduct.

Yet at the same time, watching the fallout of the 2007-08 financial crisis and the following thirteen-plus years of austerity maintained by multiple Conservative governments in my personal life has produced a stark awareness of – and major discontentment with – the hyper-neoliberal mode of governmentality of what Ulrich Beck described in the late-

twentieth century as the 'risk society'.[84] Indeed, this not only speaks to my position within the neoliberal academic institution; the dangers of relationality are perhaps most readily epitomised by the fact that a major proportion of this thesis has been written in a pandemic, in which the politics of relations, from bodily proximity to border control, are brought to the fore.[85] Consequently, while I recognise that the theoretical approach is symptomatic of both processes of cybernetisation both inside and outside of academia, it is also, unashamedly, politically and ethically motivated in its scrutiny and desire for disruption.

I state this firstly because I firmly believe that no research is conducted in a vacuum, and secondly because the desire to situate myself as an author coincides with the wider questioning in this thesis on the capacity to see. I do not wish to universalise my approach to artistic interpretation or indeed to oceanic environments; stating how my own questions and frameworks are borne from a specific, Western context serves to support this. The posthuman ecological approach to the ocean does not speak for all cultural histories of water. The move beyond discrete models of land and water resonates especially with the longstanding relationships with water in the Pacific Islands, in which ancestral practice lasting thousands of years has produced a relationship of guardianship and spirituality.[86] As education and art theory scholars, Cresantia Francis Koya Vaka'uta, Lingikoni Vaka'uta, and Rosiana Lagi, argue, relationships are at the forefront of many Indigenous epistemologies and practices within Oceania, based on the premise that 'we [Pacific Islanders] are the people of the sea, and the ocean is in us'.[87] The idea that the ocean can be owned is a colonial idea, and the implications of the colonial view of the ocean will be outlined with regard to the Marshall Islands in chapter four.

In outlining my own methodology, it is vital to acknowledge that like vision, my largely Western scope also has its own limitations and in no way claims to speak for all notions of art, water, and sensory experience. The aim to go beyond the visible only scratches the surface by turning to sound; it does not account for smell, taste, or touch, and would require several more projects to do so meaningfully. Yet the turn from vision within the remit of observation,

[84] See Ulrich Beck, *World Risk Society* (Cambridge: Polity Press, 2009).
[85] Braidotti, *Posthuman Knowledge,* 25-26.
[86] Paul D'Arcy, "Lessons for Humanity from the Ocean Ancestors," in *Tidalectics,* 117.
[87] Cresantia Francis Koya Vaka'uta, Lingikoni Vaka'uta, and Rosiana Lagi, "Reflections from Oceania on Indigenous Epistemology, the Ocean, and Sustainability," in *Tidalectics,* 127.

submergence, and speculation provides a starting point for exploring how contemporary art can break its reliance on visibility, and in doing so, provides an avenue for further explorations of aquatic spaces.

Observe, Submerge, Speculate

Chapter one, "Observing the Ocean in Systems Art," begins this thesis by defining the role of observation within the remit of systems theory. Exploring how the study of biological organisms in relation is co-opted by the cybernetic discourse, it aims to expose how ideas of ecology are tied to systems of mass production and consumption. The central case study for this task is the Harrisons' *Portable Fish Farm,* a catfish farm exhibited at the Hayward Gallery in London that sought to offer a solution to backyard farming by serving slaughtered catfish to gallery visitors as part of a feast. As an intended self-maintaining system, the slippery relationship between ecological and economic systems inadvertently manifested in the work will be explored. In outlining the histories of cybernetics and Californian counterculture, a tension is formed between the utopian desire of the work to forge collective relations that oppose mass industry, and hyper-individualised and techno-utopian visions that anticipate the birth of neoliberalism and global systems of production and consumption. The significance of observation within this context lies in its ability to question the visibility of these systems of production and consumption.

In thinking through what it means to consume another, the power imbalances involved in more-than-human relations come to the fore. The public outcry to the work's initial exhibition in London, largely based on the publicness, or visibility, of the slaughter, indicates how the work outlines the hypocrisies at play in the categorisation and treatment of animals under capitalism. Placing *Portable Fish Farm* in comparison with Sekula's 1989-95 photo and essay collection, *Fish Story,* will further interrogate this idea of invisible exploitation. Following the emphasis of observation in systems art, chapter two, "Observing the Ocean Through Marxism", considers the juxtaposition of alienation and exposure.

Sekula studied at UC San Diego at the time that both Helen Mayer and Newton Harrison were teaching in their visual arts department, yet they have come to exist in vastly different art historical contexts, with the Harrisons largely circulating within discourses of US eco-art, and Sekula heralded as a key figure in Marxist photographic theory. Yet the

comparison of *Portable Fish Farm* and *Fish Story* demonstrates that within systems of exploitation, the dehumanised and so-often racialised working class collide with an abused natural world that, following Moore, also works for capitalism.[88] The ocean as a site for *Fish Story* has implications for the visibility of this exploitation, for constructions of the ocean as a void have so often operated to keep it hidden. Considering the public display of fish slaughter in *Portable Fish Farm* alongside *Fish Story* unveils the former's exposure of exploitation. By evaluating these implications, this chapter seeks on the one hand to expand what exploitative labour conditions may mean within the Marxist scope of Sekula's work, which has largely focused on the human. *Portable Fish Farm* does not merely inadvertently mirror the structure of global capitalism but also, by foregrounding the role of observation within systems theory, critique it. Ultimately, it asks if it is possible for observation to offer a space for counter systems, counter ideologies to take its place. The implications and necessity of visibility in discourses of the ocean are brought to the fore in chapters one and two. When space is constructed in a way to keep exploitation hidden, visibility is a vital way of contesting it.

However, chapter three, "Submerged in the Ocean – From Land Art to Ocean Art", introduces the idea that visibility is not always possible. By analysing the specificity of Beaumont's *Ocean Landmark* within the framework of land art, it asks how we might consider those same systemic relationships between artwork and audience, or system and observer, when the artwork, or environment, is not immediately present. Rather than being available to see in the gallery, Beaumont's *Ocean Landmark* is underwater. As an artificial reef made from blocks of recycled coal fly-ash located off the coast of Fire Island, New York, it foregrounds a discussion of ocean place and placelessness. By framing it through the land art discourse of the site and non-site, questions of relationality will be conceived through a negotiation of the local and the global, or that in visual proximity, and that which is not and must be mediated. Chapter three thus aims to foreground the importance of the ocean for the field of land art, because it is an overlooked environment that has great potential for pushing the boundary of our sensorial experience and conceptual understanding of art in the land.

[88] Moore, *Capitalism in the Web of Life,* 13.

Like *Portable Fish Farm, Ocean Landmark* too enters a political terrain in chapter four, "Submerged in the Ocean – Beyond Proximity". Beaumont's work expresses a direct relationship with the fossil fuel industry, and to the wider discourse of waste imperialism in both industry and the nuclear age associated with land art more generally. With oceanic contamination also going largely unseen and once again taken advantage of by governments and industries, it asks what it means to occupy space with art in this way. A comparison with Jennifer Allora and Guillermo Calzadilla's *Land Mark (Foot Print)* (2001-02, fig. 0.11), a coastal photographic series opposing military occupation in Vieques, Puerto Rico, will provide a generative framework for this. Questions of territorialisation coincide with theories of site-specificity and demonstrate the instability of space – a concept perpetually being reconfigured through the local and global in constant flux. The contestation that systems cannot be considered in isolation is scaled up not only through discourses on water pollution – which often enabled by the myth of discrete spatial boundaries – but through the fact that *Ocean Landmark* is its own system: the site itself is only one facet of the work; it also includes small-scale models, underwater photographs, satellite imagery, a documentary film, and an unrealised virtual software programme to visually manifest the site.

In this way, the geopolitical questions of spatial boundaries are reflected through a consideration of how to access artworks that are beyond visual access. The ocean becomes a marker of invisibility, drawing on how the imagination may be repurposed for a wider exploration of worldmaking. Harvey's relational concept of space becomes a means to intersect the geopolitical with posthuman and materialist feminist questions of how to relate to others, human and more-than-human, across space and time. From Barad's spatial conception of agential realism to Neimanis' posthuman notion of the hydrocommons, bodies are no longer conceived as fixed categories but porous, expanding into connection with others through space and time. Rather than acting as a gallery-based microcosm like *Portable Fish Farm*, *Ocean Landmark's* situatedness highlights the limitations of our ability to comprehend these wider and so often abstract systems that organise contemporary existence. It is about how to navigate the incomprehensibilities of being in the world, and how we might build connections across space and time while maintaining an emphasis on the limitations of this connection, and on difference.

Chapter five, "Oceanic Speculation," expands on this idea of collective existence forged through limitations of visual access by examining Biemann's *Acoustic Ocean,* an 18-minute, single-channel video essay on sonar technology and marine communication of cetaceans in the Lofoten Islands, Norway. Relationality is focused on that between media, as well as between Jannok and technology, with significant epistemological implications. Beginning with chapter four's question of how to connect to an underwater environment, this chapter considers the idea of sensory attunement and analyses how this video moves beyond vision to rather ask its viewer, rather speculatively, how to attune to the acoustic sphere of the ocean through multiple media-based technologies. Operating at the limitations of visual, sonic, and epistemological access, it is framed through the science-fictional notion of cognitive estrangement; in framing the video as a work of science fiction, the question of sensory access becomes a springboard for thinking through speculation as an approach to consider a world in which knowledge dissemination is less extractivist and we learn to listen well to others, as a foundation for more equitable co-existence.

More specifically, the speculative function of *Acoustic Ocean* is outlined through Jameson's concept of utopia. Utopia for Jameson is tied to the history of political ideology and foregrounding it in the post-globalisation era challenges the famous contestation that there are no alternatives to capitalism.[89] Thinking through the relationship between the human and cetacean becomes a means not only to think of the limitations of systems observation, or of how to co-exist spatially within a system, but of how to think of alternatives to that system. This chapter also returns to the countercultural era to examine Ant Farm's *Dolphin Embassy,* a proposal for an aquatic vessel that would act as a means for dolphin and human communication, to on the one hand demonstrate how technologies can be reframed for posthuman relations and on the other question what it means for communication in *Acoustic Ocean* to be non-reciprocal. With *Acoustic Ocean* also speaking to a troubling cybernetic history of militaristic technologies, the comparison builds a utopian model that is both critical of past and present abuses of power, and simultaneously providing alternatives for the future.

[89] Jameson, *Archaeologies of the Future,* xii.

These alternatives are centred on questions drawn from the first four chapters of how to forge posthuman, ecological relations ethically, beyond proximity, without the assumption of access to land, knowledge, and environments, and with a concern for the specificity of circumstances, subjectivities, and contexts. Haraway becomes a central figure for this task, and not only because Jannok literally manifests the cyborg through her entanglement with sonar technology: the epistemological function of situated knowledge is illuminated through the science fictional exploration of the limitations of sensory access. Postcolonial critiques of Haraway's writing on Indigeneity and the speculative turn provide challenges for Jannok's role in the work as an Indigenous woman; yet in returning to ideas of situatedness, the chapter concludes with a return to difference. Specifically, the importance of local knowledges within the climate change discourse is demonstrated by Jannok, which is in urgent need of attention as it so often emphasises the generalised and universal "human" over geographical and political differences. The adoption of sonar to enter the marine world acts as an allegory for a world that listens to others, who exist in differing situations, socially, politically, and ecologically, but also recognises that like vision, listening does not grant a full understanding of different contexts and the limitations to what can be ascertained by doing so should be respected.

The trajectory from observation to submergence and speculation provides a route from visibility as a form of critique to imaginative ways of forging relationships with others, through time, space, and difference. This does not ignore rising sea levels but rather gains urgency because of it; sea levels are not universal but affect regions and communities in different ways, disproportionately affecting those who do not have the infrastructure to protect against disaster. For Nixon, this is what defines slow violence as intrinsically connected to the "environmentalism of the poor", or to the social, political, and economic structures that play a role in determining who and where is most affected by environmental degradation.[90]

The systems that organise our lives are differentially exploitative, and the epistemological stakes of going beyond vision, seeking commonality through difference, becomes a significant means to oppose them. If, as geographer Max Liboiron argues,

[90] Nixon, *Slow Violence and the Environmentalism of the Poor,* 4.

colonialism is (amongst many things) about access, then acknowledging the limitations of sensorial experience speaks to the wider confrontation of mastery upheld by humanist and colonial assumptions that land and water are readily available for possessing, understanding, or polluting.[91] My contribution to knowledge in art histories lies in thinking through the interpretative scope of the ocean, as a sensory phenomenon. Embracing its sensorial limits does not require that you go through life with your eyes closed; on the contrary, accepting the power that comes through seeing and acknowledging its limitations rather develops greater meaning and significance for our relationship to the world's largest ecosystem.

[91] Max Liboiron, *Pollution is Colonialism* (Durham: Duke University Press, 2021): 9.

Chapter One: Observing the Ocean in Systems Art

In 1971, Californian artist duo Helen Mayer and Newton Harrison created a catfish farm for the *11 Los Angeles Artists* exhibition at the Hayward Gallery, London. Entitled *Survival Piece III: Portable Fish Farm* (fig. 0.1, 1.1), it was their third in a series of seven survival-based artworks that incorporated living elements in or around the gallery space. Intended to be a functioning ecosystem, *Portable Fish Farm* was to be more than the exhibition of live fish. There were six metal pastures, each twenty feet long, six feet wide and two feet high, filled with a total of 1400 gallons of water, and each salinized, filtered, and temperature-controlled for the optimum living conditions of their respective inhabitants. Three pastures contained catfish: the first, the brooding pasture, contained eight catfish for mating; the second, the harvesting pasture, contained sixty catfish from a farm in Brawley, California; the third, the growing pasture, contained 250 fry catfish to grow into fingerling, or adult, catfish. The other three pastures contained twenty-five lobsters and five crawfish, one-hundred British oysters, and San Franciscan brine shrimp, respectively.[92]

According to Newton, the premise was that 'each species would grow as a life support for food for the next'.[93] The catfish would grow, mate (creating the next generation of catfish to be farmed), and hence overproduce. The surplus catfish in the second pasture would be harvested: they were slaughtered with an electric probe in an electrocution chamber, gutted and skinned, the heads and entrails fed to the lobsters, and the remaining catfish prepared to be served in a feast for the gallery visitors of the exhibition (fig. 1.2).[94] For the opening, Helen prepared deep fried catfish and hush puppies for 250 visitors – a recipe inspired by military cooking.[95] In each incarnation of this artwork at different exhibitions, the recipe would change depending on its location and the quantities of fish available; they speculated that they would serve paella, curry, bouillabaisse, and zuppa de mare to their gallery visitors,

[92] Newton Harrison, poster of the sketch for *Survival Piece #3: Portable Fish Farm,* 1971, flat file folder 177, Harald Szeemann papers, Getty Research Institute, Los Angeles.
[93] Petrea Kruse and Kai Reschke, *The Time of the Force Majeure: After 45 Years – Counterforce is on the Horizon* (Munich; London: Prestel, 2016): 31.
[94] Harrison, poster for *Survival Piece #3: Portable Fish Farm.*
[95] Ibid.

making the most of their supply of catfish, lobsters, oysters and shrimp. Consumption, in this respect, operates as both a physical act of eating, and an artistic form of entertainment.

Portable Fish Farm was thus planned to be a self-maintaining ecosystem within the gallery space. The work functions as a piece of systems art and speaks to the growing systemic worldview circulating in the US at the time of its making, specifically in the Californian counterculture that the Harrisons were embedded within. From the biological concept of General Systems Theory that negates the study of organisms in isolation to the growing field of cybernetics and the optimisation and standardisation of global capitalism, systems became significant for conceiving the ways in which the world is organised. Considering *Portable Fish Farm* within the framework of systems art introduces a conversation on how this systemic or relational view intersects with concepts of ecology; but more significantly, this chapter seeks to outline the role of observation within this systemic framework. Observation dominates in this interpretation of *Portable Fish Farm* as it centres the relationship between system and observer. It is framed as something integral to the creation of relationships, as those between the fish (artwork) and human (gallery visitor) mirror those with the ocean as a space and a habitat. The ocean in this chapter serves as a point of origin for the species that we eat, and observation becomes a means of connecting, or relating, to these oceanic origins – a connection that is often obscured.

However, the notion of observation is also complicated by *Portable Fish Farm.* Since its installation in 1971, the artwork has been controversial in its treatment of animals, receiving backlash from numerous animal rights activists, primarily because it is a work riddled with violence against animals. While this chapter certainly does not wish to condone this violence or indeed remove a question of ethics, the aim is to move beyond the question of whether it is morally wrong to execute animals for an art installation, and whether the consumption of the fish in some way justifies such an act, to consider what this very publicness of violence suggests about the wider systemic violence enacted on bodies, both human and more-than-human, within international aquacultural industries and systems of production and consumption. The visibility of this violence enacted through the public slaughter of the fish demonstrates that observation is often too much, revealing the

uncomfortable reality of animal exploitation, thus outlining what this chapter refers to as the 'institution of speciesism' after posthumanist theorist Cary Wolfe.[96]

Hence, observation is not only a question of what can or cannot be seen, but a means of engaging with relational models of subjectivity. Posthumanism will guide the unpacking of this concern as it considers the bodily and ontological boundaries between human and non-human animals. The value placed on the fish that are observed also hinges on the fact that they are farmed and consumed – in other words, they are commodities. Yet consumption means more than the physical act of eating: to Jacques Derrida, consumption is always associated with power and authority. Derrida expands on this notion through the concept of carnophallogocentrism, which links the phallogocentric, or the privileging of male authority, with the act of consumption, enacted both literally and figuratively.[97] For Derrida, holding a position of authority is dependent on the consumption of others, either literally or figuratively, as a form of mastery.[98] Existence is predicated on such consumption as it is an integral part of living – it is impossible to exist without interacting with the world. The question for Derrida is not 'should one eat or not eat, eat this and not that, the living or the non-living, man or animal' but of how one should 'eat well'.[99]

Rather than a dismissal of vegetarianism through a literal reading of consumption, Derrida's concept of eating incorporates the physical and the symbolic to infer that even without the physical consumption of animal flesh, animal bodies are still marked by human action. Consumption is far more than biological necessity but a condition of an existence that today is organised through structures of global capitalism. That which we consume as individuals extends beyond flesh to that which we buy, read, watch, and participate in. Acts of consumption draw the human into his surroundings by negating the separation between human and more-than-human, nature and culture. Like observation, in this chapter consumption is a central relational act. As Corine Pelluchon argues, consumption is 'always eating with and through others', and 'eating connects us to other beings, human and non-

[96] W. J. T. Mitchell and Cary Wolfe, *Animal Rites: American Culture, The Discourse of Species, and Posthumanist Theory* (Chicago: University of Chicago Press, 2003): 2.
[97] Jacques Derrida, ""Eating Well," or the Calculation of the Subject: An Interview with Jacques Derrida," in *Who Comes After the Subject?*, ed. Eduardo Cadava, Peter Connor and Jean-Luc Nancy (New York: Routledge, 1991): 113.
[98] Ibid., 114.
[99] Ibid., 115.

human, to the circuits of production and of exchange, to the means of transportation'.[100] Foregrounding the power dynamics at play in acts of consumption illuminates the ways in which bodies are exploited through such consumptive acts.

Asking what it means to observe the systems that organise our lives when they are riddled with exploitation, the question becomes: what should be done when exploitation is observable? The approach taken to this question largely involves an account of the social and art historical context of *Portable Fish Farm,* from systems art to Californian counterculture, to draw out the significance of observation and consumption circulating at the time of the work's creation. Yet while referring heavily to the contextual, the aim is not to simply to provide a history of this work: this context serves to support the wider theoretical aim, firstly to acknowledge the slipperiness of the ecological and the economic in conceiving our relationship to aquatic life, but also to outline the significance of visibility within these relations. With so much of the ocean and the industrial activities operating within it remaining out of sight from the terrestrial position, conceiving the significance of observation through systems art becomes the first key step in thinking through and beyond the visible in contemporary art's conceptualising of human relationships to the ocean.

Survival Piece

Portable Fish Farm is the third in a series of the Harrisons' *Survival Piece* series, each playfully offering a solution to monocultural farming in the United States. Preceding *Portable Fish Farm* in 1971 were the survival pieces *Hog Pasture* (fig. 1.3)*,* exhibited at *Air, Fire, Water: Elements of Art* at the Museum of Fine Arts Boston, and *Brine Shrimp Farm* (fig. 1.4)*,* exhibited at *Art and Technology* at Los Angeles County Museum of Art. These exhibitions are indicative of the ways the work of the Harrisons circulated during the start of their career as an artistic duo: beyond the scope of ecology, they were active in an artistic movement turning away from high Modernist object making to the investigation of systems and processes – both natural and technological.

[100] Corine Pelluchon, *Nourishment: A Philosophy of the Political Body,* trans. Justin E. H. Smith (London: Bloomsbury, 2019): 16.; Ibid. For Pelluchon, consumption is also about geopolitical justice in the distribution of food, as it incorporates hunger and malnutrition within these circuits of production. Ibid., 344.

11 Los Angeles Artists is representative of this transitory moment. The work of the Harrisons was exhibited alongside artists both internationally renowned and then little-known, including Bruce Nauman, Ed Ruscha, Larry Bell, and Robert Irwin (1971, fig. 1.5). The Harrisons' reputation as ecologically-driven artists was yet to be fully established as *Portable Fish Farm* was instead framed by the exhibition's aim to promote the relevancy of Los Angeles as, according to the Arts Council press release, 'a great art centre, rivalling New York in the liveliness of its art activity'.[101] While *Portable Fish Farm* was certainly the most controversial of the exhibited artworks, its methodology was conceived as exemplary of the blossoming developments in Minimal, video, and Conceptual art, each turning away from the autonomous and medium-specific art practices of Modernism.

This backlash to Modernism centred in the Harrisons' work on the role of utility in art and manifests itself throughout the *Survival Pieces*. *Hog Pasture,* a mound of grass growing in a small, well-heated gallery room, is described by the Harrisons as contributing to their resistance to 'vacuous formalisms' and their desire to 'to put the utilitarian aspect back into the form'.[102] The means of doing so – inserting living species into the gallery and examining natural processes – is a method the Harrisons share with artists such as Peter Hutchinson and Hans Haacke.[103] Yet specific to the *Survival Pieces* is the ways in which this method have an explicit environmentalist approach developed within Californian counterculture. *Brine Shrimp Farm,* the second *Survival Piece* and the precursor to this chapter's case study, was framed as a reaction to LACMA's use of algaecide in their exterior ponds, and by using different forms of algae that altered the colour of the water, challenged the aesthetic associations of water with purity.[104] Following *Portable Fish Farm,* the Harrisons went on to examine ethical solutions to snail infestations in *La Jolla Promenade* (1972, fig. 1.6) and the diminishing orchards in California in *Portable Orchard* (1972, fig. 1.7).[105]

Portable Fish Farm is indicative of this artistic turn to utility within an environmentalist framework that was burgeoning within California in the 1960s and 1970s. Exhibited only a

[101] Arts Council, "Press Release for 11 Los Angeles Artists (1971)," Hayward Gallery, accessed July 30, 2019, https://artsandculture.google.com/exhibit/6wJyYJ5OA5oJLQ.
[102] Kruse and Reschke, *The Time of the Force Majeure,* 28.
[103] Nisbet, *Ecologies, Environments, and Energy Systems in Art of the 1960s and 1970s,* 98.; Ibid., 216.
[104] Kruse and Reschke, *The Time of the Force Majeure,* 25-26.
[105] Ibid., 34.; Ibid., 41.

year after the creation of Earth Day, the work speaks to the widespread concern for industrialising farming methods largely influenced by Carson's *Silent Spring*. Published in 1962, Carson's prophetic text warns its readers of the toxic nature of chemicals such as DDT used as pesticides in agricultural industries. Carson speaks of how the use of toxic chemicals for killing weeds, insects, pests, and anything that hinders the optimum production of goods are now commercially available and a common aspect of both domestic and commercial farming.[106] *Brine Shrimp Farm's* challenge to algaecide manifests Carson's concern. Like many environmentalists in California at the time, the Harrisons were deeply engaged with *Silent Spring* and its aim of removing the corporate and profiteering nature of mass-industrial forms of agriculture, focused especially in *Portable Fish Farm* on a concern for industrialised fish farming.[107]

According to Amanda Boetzkes, *Portable Fish Farm* tackles this concern by aiming to 'bring agriculture back into the hands of the public and, correspondingly, to understand the complexity of natural processes', and achieves this with a 'curious mix of primitivism and scientific sophistication'.[108] The integration of counterculture and environmentalism is manifested in *Portable Fish Farm* in a number of ways that will be explored throughout this chapter. The first is the concept of "backyard" farming, which speaks to the act of returning agriculture to the public by seeming to offer a DIY solution that preoccupied communal lifestyles of the countercultural era. Yet the highly technological answer seems to suggest that, despite the artists' contention that the work 'took up the issue of backyard farming in relationship to social rituals and farming behaviours', it does so in a way in which the actual replication of this technique by the environmentally conscious guests of the exhibition seems unfeasible.[109] While the rhetoric of utility is clear within the artist's narrative of the *Survival Pieces,* my interpretation extends beyond replication to consider utility within systems thinking.

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[106] Rachel Carson, *Silent Spring* (London: Penguin Classics, 2000): 24.

[107] Amanda Boetzkes, "Techniques of Survival: The Harrisons and the Environmental Counterculture," in *West of Center: Art and the Counterculture Experiment in America, 1965-77,* ed. Elissa Auther and Adam Lerner (Minneapolis: University of Minnesota Press, 2012): 309.

[108] Ibid.

[109] Helen Mayer and Newton Harrison, "Portable Fish Farm: Survival Piece #3, 1971," The Harrison Studio, accessed October 7, 2021, https://theharrisonstudio.net/portable-fish-farm-survival-piece-3-1971.

I seek to frame *Portable Fish Farm* as an experiment in ecology, focused less on its environmental intentions than how these intentions operate through ecological forms of observational communication. In line with James Nisbet's distinction between ecology and environmentalism in the field of US ecological art of the 1960s and 1970s (with the former concerned with processes of communication, natural or otherwise, and the latter concerned with pollution and sustainability), I am concerned with how the environmentalist intent of the Harrisons' work operates through the ecological methodology, centred on observation within multiple, overlapping, systems of consumption.[110]

The narrative surrounding the Harrisons' wider project centres on its socially engaged, problem-solving methodology that has evolved throughout their career and has continued in the work of Newton since the death of Helen in 2018.[111] The *Survival Pieces* are considered by systems art theorists Jack Burnham and Marga Bijvoet as precursors to the artists' later eco-art projects which extend beyond the gallery space, such as *The Lagoon Cycle* (1974-78, fig. 1.8), the artists' epic 360ft mural over fifty parts telling the story of methods of environmental intervention in the lagoons of Sri Lanka.[112] The latter operates through a line of questioning associated with urban planning, design, and policy that has come to define the artists' environmentalist intent; yet it is my contention that these are not distinct methodologies. Rather, the research method implemented in *The Lagoon Cycle,* described by Anne Whiston Spirn as starting with 'an open mind', looking for 'things amiss' in a place to uncover 'what stories it holds', is observable within the *Survival Pieces*' attempts to solve environmentalist problems of the time, from snail infestations to industrialised aquaculture.[113] While not implementing change outside the gallery space, the *Survival Pieces,* through their experimental research methodology centred on natural processes, are just as ecological.

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[110] Nisbet, *Ecologies, Environments, and Energy Systems in Art of the 1960s and 1970s,* 2.

[111] Most recently, Newton created a film essay, *A Meditation on the Mediterranean,* which was displayed in the exhibition *Artists Need to Create on the Same Scale that Society Has the Capacity to Destroy* for the 2019 Venice Biennale.

[112] Jack Burnham, "Contemporary Ritual: A Search for Meaning in Post-Historical Terms (1973)," in *Great Western Salt Works: Essays on the Meaning of Post-Formalist Art* (New York: George Braziller, 1974): 163-64.; Marga Bijvoet, *Art as Inquiry: Toward New Collaborations Between Art, Science and Technology* (New York: Peter Lang, 1997): 140.

[113] Anne Whiston Spirn, "Helen and Newton Harrison: The Art of Inquiry, Manifestation, and Enactment," in *The Time of the Force Majeure,* 435.

This chapter thus seeks to challenge a linear notion of progression in the Harrisons' career. It is more concerned with the ways in which *Portable Fish Farm* stands against an uncomplicated notion of ecology within the scope of oceanic observation. Framing their work as systems art, rather than environmentalist art, will bring this to the fore. This is not separate from the countercultural context in which the Harrisons were working, but central to it. The replication of ecological processes in *Portable Fish Farm* illustrates of the slippery relationship between complex systems – ecological, technological, and economic – achieved through the small-scale replication of an aquatic farming system. Specifically, my contribution to the discourse on *Portable Fish Farm* lies in the role of observation within this systems format, which, as will be demonstrated throughout this chapter, has major significance for its aquatic subject matter. The work's relationship with the ocean is previously unexplored, yet it has much to offer discourses on how the ocean is socially constructed, achieved through modes of observation. An intention of this chapter is to demonstrate that the social, political and environmentalist contexts in which the work was created are not separate to its systemic structure but integral to it, helping to build a model of ecology that places the human in direct relation to the oceanic world in a way that speaks to the political, economic, and technological changes in the US. *Portable Fish Farm* thus has the capacity to offer a critical response to this political and economic history and allow for a rethinking of the ways in which our relationship to the aquatic life it exhibits is to be conceived.

Systems Observation

The Harrisons have expressed a concern for systems thinking throughout their career. In the conclusion to *The Time of the Force Majeure,* their publication surveying their career, they write:

> Local low-entropy systems, over millennia, have evolved a kind of dynamic equilibrium, most often depending on the sun's energy while drawing on free energy in their environments. Nature's processes manifest themselves by self-organising, self-complicating, self-evolving, and self-stabilising, with resilience as a norm – whereas the productive, creative human race is far along in a contrary process, transforming local low-entropy systems (which we can call

> collectively the ecosystem of the earth) into rising-entropy systems that might well be called Humanity's Preferred Cultural Landscape.[114]

This not only highlights human interaction with ecosystems, but that humanity's place is actively working against the natural equilibrium because of certain cultural values placed upon the landscape. Newton contends that it is a culmination of ideologies, including capitalisms, fascisms, and religions, that are leading to this 'the casual and wanton destruction and disruption of living systems of whose relationships we know so little', and that this 'requires extraordinary hubris'.[115] A 'counterforce' – what the Harrisons refer to as the 'force majeure', a legal term meaning an unavoidable super force – is necessary, and the Harrisons see this as their driving force.[116]

The "counter" of counterforce speaks to the wider trend of anti-establishment modes of living that underpin the Californian countercultural movement and is manifested in *Portable Fish Farm* through the emphasis on DIY, backyard, farming techniques that stand against mainstream modes of industrial aquaculture. Yet the Harrisons' quotation on low-entropy systems is significant for *Portable Fish Farm* in its demonstration of the collision of environmentalism and systemic thinking. The work, as it is exhibited at *11 Los Angeles Artists,* is a showcase of systems art.

Alongside environmental art, Harrisons' fish ecosystem experiment fits firmly within the context of what has been termed the Art and Technology Movement, which Bijvoet characterises through numerous exhibitions and programmes in the United States and Europe concerned with systems, structures, and cybernetics.[117] For Bijvoet, the Harrisons' concern for ecosystems exists as part of a wider collaboration between the arts, sciences and technology motivated by a widening cybernetic consciousness.[118] Burnham's "System Aesthetics", published in the 1968 issue of *Artforum,* was instrumental in theorising this

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[114] Kruse and Reschke, *The Time of the Force Majeure,* 426.

[115] Ibid., 428.; Helen Mayer and Newton Harrison, "Shifting Positions towards the Earth: Art and Environmental Awareness," in *Women, Art & Technology,* ed. Judy Malloy (Cambridge, Mass.: MIT Press, 2003): 161.

[116] Ibid.

[117] This includes Jack Burnham's *Software* at the Jewish Museum, New York (1970); Jasia Reichardt's *Cybernetic Serendipity* at the ICA, London (1970); the *Art and Technology Program* at Los Angeles County Museum of Art (1968-71); the Centre for Advanced Visual Studies at Massachusetts Institute of Technology, founded by György Kepes; and the group Experiments in Art and Technology (E.A.T.), founded by Billy Klüver. Bijvoet, *Art as Inquiry,* 16-17.

[118] Ibid., 18.

artistic movement. His contention that 'we are now in transition from an *object-oriented* to a *systems-oriented culture.* Here change emanates, not from *things,* but from *the way things are done'* (original emphasis) epitomises the relationship between the artistic investigation of mediums and the social, technological context in which they operated.[119] Burnham argued that products were increasingly becoming irrelevant in a systems-oriented culture and artists were looking for a different focus, one which, for Burnham, 'does not reside in material entities, but in relations between people and between people and the components of their environment'.[120]

Consequently, Burnham was largely influenced by the concept of General Systems Theory as it was conceived by the biologist Ludwig von Bertalanffy, who was significant for an interdisciplinary outlook on systems. For Bertalanffy, specialising on living organisms with a causational approach overlooked the relational conditions in which these organisms actually existed.[121] By proposing to investigate these organisms as open rather than closed systems, Bertalanffy created a model of systems centred on a general theory of interaction that could be transferred into a wide variety of disciplines.[122] This is the foundation for the concept of relationality explored throughout this thesis, not only for relationships with the ocean but in the relationship between disciplines in an approach to artistic analysis. *Portable Fish Farm* is a direct manifestation of General Systems Theory, and thus requires to be analysed with the same relational approach to conceive its significance for the ocean.

A systemic interpretation of *Portable Fish Farm* is dependent on both the slippery relationship between the ecological and the technological, and on the relationship between the system and the environment. Regarding the former, this relationship is most evidently detailed in the number of technological apparatuses that were required to maintain the environmental conditions necessary for the fish to survive in the gallery space. Indeed, Bijvoet details how anthropologist Jonathan Benthall maintains that the installation format, which includes a great amount of energy-consuming technology such as water heaters and agitators

[119] Jack Burnham, "Systems Esthetics (1968)," in *Great Western Salt Works,* 15-16.
[120] Ibid., 16. György Kepes offers a similar sentiment when he states that ecological art is dependent on the shift in attention from Marxist perspectives in material objects to processes and systems. György Kepes, "Art and Ecological Consciousness," in *Arts of the Environment* (New York: George Braziller Inc., 1972): 11.
[121] Ludwig von Bertalanffy, *General Systems Theory* (New York: George Braziller, 1969): 30-31.
[122] Ibid., 34.

to maintain it, contradicts any simple environmentalist intent.[123] To Benthall, to be taken seriously *Portable Fish Farm* must operate as a conceptualist piece, rather than as explicit environmental activism. Following this logic, it is my contention that the concept driving *Portable Fish Farm* is the concept of ecology itself, which stretches beyond environmentalism to position the human and aquatic life in relation. Vitally, this is enacted through modes of observation.

While Bertalanffy seeks to emphasise the open system, it may appear in the first instance that *Portable Fish Farm* is closed. Six pastural containers are artificially displayed in the gallery space, leaving little room for interaction between them outside the deliberate actions managed by the artists, such as moving certain fish from one container to another. The catfish, in their liquid habitat, are separated from the human observer by the containers; human and fish hold separate existences on land and in water. Not only are the catfish physically contained, but their movement in water directly contrasts the largely sedentary mode of observation. The viewer thus stands outside this system, with the only physical interaction between them taking place during the act of consumption through the feast.

Yet the viewer's task of observing does not necessarily take place externally to the system. Following the concept of autopoiesis, or the biological form of second-order cybernetics, observation is key. Developed by Humberto Maturana and Francisco Varela, autopoietic systems are organisations of self-producing organisms that operate on a vast variety of levels, from organisms to societies, from the 'cellular' to the 'metacellular'.[124] These levels are not fully translatable, but what they share is an emphasis on 'coherence and harmony in relations and interactions between members' for the system to evolve in complexity.[125] The emphasis of "auto-" of autopoiesis has led to the criticism by Donna Haraway that the term suggests that these systems are independent, well-defined and centrally controlled – hence emphasising that observation exists independently to the system.[126] However, while Maturana and Varela describe the system as autonomous in the sense that it determines its own laws, Haraway's comment emphasises that the organisms or

[123] Bijvoet, *Art as Inquiry,* 138-39.
[124] Humberto Maturana and Francisco Varela, *The Tree of Knowledge: Biological Roots of Human Understanding* (Boston: Shambhala Publications, 1987): 198.
[125] Ibid., 199.
[126] Haraway, *Staying with the Trouble,* 33.

entities within the system are far from autonomous.[127] Organisms in the autopoietic system are intensely interdependent, and the system itself is unpredictable, contingent, and plastic, its homeostasis interruptible by its environment. Essentially, second-order cybernetics concerned itself with the role the observer played in the system, who has the capacity to interrupt the system from their environmental position. Framing *Portable Fish Farm* with autopoiesis thus places a premium on the relationship between the observer and the system, and the exhibition photograph of figure 1.9, foregrounding the visitor observing, illustrates just this.

Considering *Portable Fish Farm* as an ecological experiment through the lens of General Systems Theory introduces the notion of observation that will continue throughout this thesis. Observation is a relational act; in contrast to vision or perception, it is an embodied act, through which the observer receives information (and knowledge), of the environment. It is how information transfers to other parts of the system or other systems entirely. The Harrisons did not exhibit a self-reproducing system as intended in the Hayward Gallery; yet it was designed with the intention of being self-reproducing, or autopoietic. It brings about a new form of relationality between system (catfish ecosystem) and observer (gallery visitor). The system is aquatic, artificially induced, and the observer is terrestrial and human. Significantly, this relationality is as social as it is natural, furthered through the model of the feast, which not only breaches the distance between human and fish on a material level but does so through a communal setting that also facilitates the social relations of gallery visitors and the artists.[128] The artist's intention to not just provide a communal space, but by referring to the meal as a "feast", emphasises the social rituals involved in relationships with food. The ritual of a feast loads the relationships with aquatic life with cultural tradition and significance, asking us to think through the ways in which relationships with food, and fish more generally, are not neutral but socially and culturally constructed. This certainly ties to this thesis' concern for the ways in which oceans are related to and valued in different contexts.

[127] Maturana and Varela, *The Tree of Knowledge,* 47-48.

[128] Sociality is also a key part of systems art from the era, especially in terms of concepts of reproduction and dissemination and ideas of the "art world" as its own system. See Jack Burnham, "Real Time Systems (1969)," in *Great Western Salt Works,* 27-38.; Arthur Danto, "The Artworld," *The Journal of Philosophy* 61, no. 19 (October 1964): 571-584.; Lawrence Alloway, "Art and the Communications Network," in *Imagining the Present,* ed. Richard Kalina (London: Routledge, 2012): 114.

The artificiality and the power dynamics involved within these relations cannot be ignored. This no doubt refers to its location in the gallery space, as the catfishes' habitat has been artificial long before reaching the Hayward Gallery: surrounding the fishes' origins in Brawley – a city in the Californian desert – are a series of artificial freshwater fishponds benefitting off the warm temperature of the water and the vicinity to the Colorado River. As such, this mode of observation also speaks to the wider economic, social, and cultural conditions that allow these species to meet. The relationship between gallery visitors is not the same as that between them and the fish and being in relation is not only a biological or ontological exercise. When the work speaks to fish farming in Californian counterculture, there are political and ethical implications for systems observation.

To Elspeth Probyn, fish complicate the idea of local or "backyard" farming sources. Today it is nearly impossible to eat locally sourced fish, because the structure of international fishing practices, in place because of the need to regulate catch, is increasingly dependent on fishing fleets outside of the Global North.[129] The shipping of fish from California seems to anticipate this trend – while pertaining to the local, it also goes directly against this. Moreover, it demonstrates that thinking with fish as food goes beyond what Probyn calls 'simplistic food politics': rather, the consumption of fish necessitates an understanding of 'how entangled we are as consumers in the geopolitical, economic, cultural, and structural intricacies of the fishing industries'.[130] Consumption, in other words, has a dual meaning. What does it mean to provide a social space where observation and consumption collide?

The Whole Earth Catalog and Eco-consciousness

Consumption manifests itself in multiple ways *Portable Fish Farm.* Figure 1.10 features a blueprint of *Portable Fish Farm* reproduced as a largescale poster located in Harald Szeemann papers in the Getty Research Institute.[131] This poster was designed to visually recall a page from *Popular Mechanics,* which Andrew Kirk describes as a magazine that was 'archived and shared by a do-it-yourself generation', and it was Newton's intention to ensure that the

[129] Probyn, *Eating the Ocean,* 3-4.
[130] Ibid., 4.
[131] Newton Harrison, poster of the sketch for *Survival Piece #3: Portable Fish Farm,* 1971, flat file folder 177, Harald Szeemann papers, Getty Research Institute, Los Angeles.

artwork can be reproduced by anyone that read it.[132] The meticulous detail on measurements, quantities, and step-by-step instructions alongside diagrams drawn with an architectural precision are reminiscent of the instruction-based practice of Conceptual artists. Yet they can also be conceived as the instructions to an experiment, which furthers my interpretation of *Portable Fish Farm* as an experiment in systems thinking, reminiscent of the countercultural era.

The DIY aesthetic of this sketch is also shared by a central countercultural document: *The Whole Earth Catalog.* Figure 1.11 features a page from Brand's *The Last Whole Earth Catalog: Accessed to Tools,* published in 1971, the same year as the exhibition of *Portable Fish Farm.* The page illustrates various methods for indoor gardening, including: a growhole, or a large dome hotbed for growing vegetables in winter; inflatable plastic greenhouses and indoor greeneries 'for those who are still in the city but are attempting an indoor green revolution'; and several hydroponic methods of crop growth for, as Brand annotates, those 'living in a Soleri city, or a floating Fullertown, or a mountaintop, or moon'.[133] This emphasis on its suitability in multiple locations certainly resonates with the portability of *Portable Fish Farm,* which brought an aquatic ecosystem to the unlikely location of the Hayward Gallery.

Aesthetically, the diagrams of the various gardening systems in *The Whole Earth Catalog* echo the detailed sketches created by Newton as both are created with extreme clarity.[134] Yet, while the blueprint of *Portable Fish Farm* is intended to be manually recreated, the designs in the catalogue are to be bought: each product is supplemented with a retail price and a postal address so that they can be ordered directly from the catalogue. Moreover, *The Last Whole Earth Catalog*'s agricultural concerns also extend to the farming of animals, including information and products about the rearing of goats, poultry, cattle, rabbits, and sheep. As figure 1.12 illustrates, this information ranges from forms of veterinary care, pasture advice to different cuts of meat.

The significance of this lies in the fact that counterculture is certainly not oppositional to consumer culture. Unlike Marxist revolutionary formats, counterculture emerged in

[132] Andrew Kirk, *Counterculture Green: The Whole Earth Catalog and American Environmentalism* (Lawrence: University of Kansas, 2008): 5.; Kruse and Reschke, *The Time of the Force Majeure,* 31.
[133] Stewart Brand, *The Last Whole Earth Catalog: Access to Tools* (Menlo Park: Portola Institute, 1971): 59.
[134] Boetzkes also makes this visual connection in "Techniques of Survival," 317.

popular and youth cultures in a way entirely consistent with rising consumer society.[135] For Boetzkes, the excessive and energy-consumptive answer to monocultural farming in *Portable Fish Farm* evidences the technological excess of *The Whole Earth Catalog,* and taking such an approach to environmentalism suggests an ecological model that is not a 'return to nature' but a development of 'technological strategies to create a symbiosis between the natural world and human systems of food and energy production'.[136] This contrasts with what Kirk terms the 'technophobic declensionist narrative' of the environmental movement; instead, the experimental and utopian nature of both *Portable Fish Farm* and *The Whole Earth Catalog* offer a pragmatic response to environmental issues by seeking to 'reconcile consumption and materialism with the principles of ecology'.[137] The significance for this chapter lies in the fact that the fish the audience are placed in relation to through systems theory are not conceived merely as biological species, but as food product.

Farming is only a small proportion of the subject matter *The Whole Earth Catalog* covers; the consumerist focus is entwined with a wider technological focus that came to define Californian counterculture. Diedrich Diederichsen and Anselm Franke describe the catalogue as 'the very first search engine', and 'a collection of objects, tools and ideas' that makes its 'the central document and archive of the Californian counterculture'.[138] This ideology, based on a combination ecological, technological, and consumerist systems, is superimposed onto *Portable Fish Farm* through the lens of systems art in California, which in turn has implications for the work's relationship with oceanic environments.

For Diedrichsen and Franke, the juxtaposition between ecology, technology, and late capitalism is emblematic of the rising environmental movement in the Californian Bay Area at this time as it developed alongside the rising cybernetic culture.[139] With the first issue of *The Whole Earth Catalog* using a photo from the ATS-satellite of the Earth from space, it highlights how the era encompassed a growing environmental concern facilitated through technology. A new planetary awareness emerged, of which the oceans are a vital aspect.

[135] Terry Eagleton, *After Theory* (London: Penguin, 2003): 28.
[136] Boetzkes, "Techniques of Survival," 315.; Ibid., 307.
[137] Kirk, *Counterculture Green,* 6.; Ibid., 9.
[138] Diedrich Diedrichsen and Anselm Franke, "The Whole Earth: California and the Disappearance of the Outside," in *The Whole Earth: California and the Disappearance of the Outside,* ed. Diedrich Diedrichsen and Anselm Franke (Berlin: Sternberg, 2013): 8.
[139] Diedrichsen and Franke, "The Whole Earth," 13.

Important for this were James Lovelock's and Lynn Margulis' Gaia Hypothesis, which posits that Earth, or Gaia, is a total self-organising, self-regulating system, and that all matter – both organic and inorganic – are interconnected and regulated in this system.[140] The satellite images' capacity to make visible a total system led to the idea that territory no longer took the form of physical space because the world was now global.

The act of turning in on itself, turning away from social and political context, also forms the politics of *The Whole Earth Catalog*; for Fred Turner, the texts on systems theory in *The Whole Earth Catalog* provide 'readers glimpses of their place on their planet and so, in theory at least, a rationale for making new political choices'.[141] The *Survival Pieces'* aim to tackle ecological issues in and around the gallery space epitomises the turn to making political choices on an individual level. As Felicity Scott argues, the desire to seek alternative modes of living, or to become what Brand termed "better outlaws", was driven by a growing sense of environmental and political insecurity during the Cold War.[142] Finding new modes of living was a way to create new mechanisms 'under the rubric of maintaining "peace"', and the emphasis on survival in the Harrisons' work can be regarded as a similar response to this form of turmoil.[143] *Portable Fish Farm's* emphasis on portability lends itself to the creation of communities outside main cities as a way of acting upon these political choices.

However, this emphasis on non-conformity and alternative lifestyles also presents a dilemma for *Portable Fish Farm*'s systemic nature. Charissa Terranova's review of the 2015 exhibition, *Hippie Modernism,* at Walker Art Centre offers a significant insight for the relationship between countercultural non-conformity and systems thinking. The exhibition centres on Timothy Leary's phrase "Turn On, Tune In, Drop Out" – a phrase that glamourises the use of psychedelic drugs in the transformation of consciousness by countercultural thinkers such as Theodore Roszak who aspired to broadcast consciousness on a planetary scale.[144] Roszak's psychological theories are emblematic of a wider concern in ecological art

[140] See James E. Lovelock and Lynn Margulis, "Atmospheric Homeostasis by and for the Biosphere: The Gaia Hypothesis," *Tellus* 26, issue 1-2 (February 1974): 2-10.; James Lovelock, *Gaia: A New Look at Life on Earth* (Oxford: Oxford University Press, 2000).
[141] Fred Turner, "The Politics of the Whole Circa 1968 – And Now," in *The Whole Earth,* 45.
[142] Felicity Scott, *Outlaw Territories: Environmental Insecurity / Architecture of Counterinsurgency* (Princeton: Princeton University Press, 2016): 32-33.
[143] Ibid.
[144] Theodore Roszak, *Making of a Counter Culture: Reflections on the Technocratic Society and its Youthful Opposition* (Garden City: Doubleday, 1969): 240.

on the energy systems that draw subjects into relation, both cerebrally and corporeally; the relationality of systems art outlined above sits alongside this concern for energy as a means of understanding the communication flows between environments.[145] But as Terranova argues, the concept of "dropping out", either through communal living or LSD, is impossible within this relational worldview, and the systems art exhibited in *Hippie Modernism*.[146] It is my contention that this also applies to *Portable Fish Farm:* despite its associations to counterculture, its manifestation of General Systems Theory and system/observer relations make it impossible to not conform, because it is impossible to exist outside of the system. Even if you are the observer, autopoiesis demonstrates that you are still implicated within it.

If *Portable Fish Farm* is an experiment in ecology that highlights these relationships, then it is of great importance that the earlier work ultimately fails. The catfish did not reproduce, and therefore point to the impossibility of a self-maintaining, autonomous system. The significance of this lies in the fact that while *Portable Fish Farm's* social context epitomises countercultural nonconformity, the lens of systems art suggests that no matter how much it may try to avoid industrialised aquaculture, the work cannot exist outside dominant systems of production and consumption. Nisbet has framed the *Survival Pieces* through the lens of the miniaturisation associated with Haacke and Hutchinson but argues that the Harrisons' creation of ecosystems demonstrate that the ecological system is not separates by the social, political, and economic systems that also organise the natural world.[147] As a failure, it represents how vulnerable ecological systems are to environmental influence. Observation is far more than an act of seeing; it means existing within the system. The observer of *Portable Fish Farm* has no choice but to make a political choice based on what they observe, which has major consequences for the value of the aquatic species exhibited, and the ocean's place within capitalist systems.

Rewriting Systems Art

Systems art is a short-lived phenomenon in art history. The techno-utopianism of the era contributed to the unfulfilled potential of Burnham's systems aesthetic, according to Caroline

[145] Nisbet, *Ecologies, Environments, and Energy Systems in Art of the 1960s and 1970s,* 166.
[146] Charissa Terranova, "Dropping Out Is Impossible in a Cybernetic World: Hippie Modernism at the Walker Art Center", *Art Journal* 75, no. 2 (2016): 99.
[147] Nisbet, *Ecologies, Environments, and Energy Systems in Art of the 1960s and 1970s,* 101.

A. Jones; its associations appeared unfavourable to his leftist audience in the Vietnam era.[148] Systems aesthetics has repeatedly been denounced as technocratic by prominent voices such as Robert Smithson and Rosalind Krauss.[149] However, systems theory has certainly taken on a new life within ecological and relational theories that inform the ways in which art history is conducted. This not only concerns the relationship between art and ecology, but the relationship between disciplines in general, as art history also no longer exists in isolation but works alongside others to comment on the nature of culture and society today. Such a revival is necessary for tackling the current environmental climate; in the geological epoch known as the Anthropocene, it is vital to reconsider both the impact of capitalism on the environment and, on a more philosophical level, humanity's place within the world. Systems theory's logic of decentralised networks provides a model to be adopted by theorists aiming to conceive more ecocentric ontologies.

As Diedrichsen and Franke maintain, the Californian model of ecology still resonates in contemporary discourses seeking to align society and nature through models of cybernetic relationality.[150] While *Portable Fish Farm* may unravel the fraught political tensions within the culture of *The Whole Earth Catalog*, it also unveils many of the ways that ecological theory operates today. Within the system theory framework, there is potential to find a model for *Portable Fish Farm's* system by turning away from the technophilic utopianisms of the era and thinking through new, more ethical relations forged through the mode of observation.

Burnham's theory has seen multiple revivals since the 1990s, not just in the work of art scholars such as Jones in the anniversary edition of *Artforum* devoted to "Systems Aesthetics," but by Bijvoet, Edward Shanken and Luke Skrebowski, who realise its potential for a conceptualisation of art directly relational to science, technology, politics, and the environment.[151] Skrebowski's approach to Hans Haacke's system art provides a significant

[148] Caroline A. Jones, "Systems Symptoms: Jack Burnham's 'Systems Aesthetics'," *Artforum* 51, no. 1 (September 2012): https://www.artforum.com/print/201207/caroline-a-jones-on-jack-burnham-s-systems-esthetics-32014.

[149] Patricia Norvell, "Interview with Robert Smithson, June 20, 1969," in *Recording Conceptual Art*, ed. Alexander Alberro and Patricia Norvell (Berkeley and Los Angeles: University of California Press, 2001): 133.; Rosalind Krauss, *Passages in Modern Sculpture* (Cambridge, Mass.: MIT Press, 1981): 212.

[150] Diedrichsen and Franke, "The Whole Earth," 17.

[151] See Bijvoet, *Art as Inquiry.*; Edward Shanken, *Systems: Documents of Contemporary Art* (London: Whitechapel, 2015): 12-19, 120-29.; Luke Skrebowski, "After Hans Haacke: Tue Greenfort and Eco-Institutional Critique," *Third Text* 27, no. 1 (2013): 115-30.; Luke Skrebowski, "All Systems Go: Recovering Hans Haacke's

lens for navigating this history in relation to *Portable Fish Farm.* Rather than avoiding the contradictions between the ecology and capital, Skrebowski takes this as a central premise. In "After Hans Haacke," the author regards Tue Greenfort's *Römerquelle Condensation Cube: After Hans Haacke 1963-65* (2007, fig. 1.13) as a commentary on how Haacke's *Condensation Cube* (1965, fig. 1.14), a foundational work of systems art, must acknowledge the social and material conditions of its making.[152] In Greenfort's appropriation of this work, he highlights how in a neoliberal society, not even the water of *Condensation Cube* can be seen as "natural", as existing outside the systems of commodification.[153] This certainly resonates with my own contention that the ocean, too, is not outside these systems of commodification, and *Portable Fish Farm* attests to this.

But Skrebowski does not consider Haacke's work as ignorant to these socio-economic issues. Rather, he challenges Benjamin Buchloh's contention that there is a distinct rift in Haacke's earlier work with natural systems, such as *Condensation Cube* and *Grass Grows* (1967-69, fig. 1.15), and his later, more socio-politically driven artworks, such as *MOMA Poll* (1970, fig. 1.16) or *Shapolsky et al. Manhattan Real Estate Holdings, A Real-Time Social System, as of May 1, 1971* (1971, fig. 1.17).[154] To Skrebowski, Haacke's associations with Burnham and his concept of systems aesthetic are overwritten by his later works' attention by Buchloh.[155] But the binary distinction between the ecological and the political in Haacke's career indicates a significant misunderstanding of systems theory and Haacke's own conception of his work, as both saw no such division between the natural and the social.[156] Precisely because the systems approach is open-ended, it can offer a critical inquiry into multiple spheres, such as the natural, political, and social, at once. The distinction between

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Systems Art," *Grey Room* 30 (January 2008): 54-83.; Luke Skrebowski, "Jack Burnham Redux: The Obsolete in Reverse?" *Grey Room* 65 (December 2016): 88-113.

[152] Skrebowski, "After Hans Haacke," 117.

[153] Ibid., 116. For an analysis on the commodification of water in digital art, see Cadence Kinsey's analysis of Helen Marten's *Evian Disease* (2012) in "Fluid Dynamics: On the Representation of Water and Discourses of the Digital," *Art History* 43, no. 3 (June 2020): https://doi.org/10.1111/1467-8365.12483.

[154] Skrebowski, "All Systems Go," 59-60. Buchloh dismisses Haacke's earlier work as an entwinement of Modernism's 'European techno-scientific' and the American 'empirico-transcendental', combining to form a kind of 'positivist-scientism'. Benjamin H. D. Buchloh, "Hans Haacke: The Entwinement of Myth and Enlightenment," in *"Obra Social": Hans Haacke,* ed. Fundació Antoni Tàpies (Barcelona: Fundació Antoni Tàpies, 1995): 48.; Benjamin H. D. Buchloh, *Neo-Avantgarde and Culture Industry* (Cambridge: MIT Press, 2000): 215.

[155] Skrebowski, "All Systems Go," 62.

[156] Ibid., 74-75.; Ibid., 61.

the environmental and ecological approaches to *Portable Fish Farm* comes to the fore in this argument; the former seeks to separate the environment from capitalist systems, whereas the latter – through the context of *The Whole Earth Catalog* – sees them as intrinsically entwined.

The slippery relationship between systems in systems art makes it vital for my interpretation of *Portable Fish Farm* today. When acknowledging the relationship between human and fish within what is defined as a farm in it its title, systems of production and consumption are equally as important to the work as ecological systems. This, in turn, illuminates the role of observation as a relational act within contemporary artistic depictions of the ocean, as such relationality becomes layered in multiple, entangled, contexts. *Condensation Cube* is a pertinent example for highlighting the relevance of systems art because it demonstrates that water is far from neutral. The water related to *Portable Fish Farm* is not necessarily a commodity as it is in Greenfort's work, but a manifestation two bodies of water: the Californian fish farm from which the catfish were sourced, and the Atlantic Ocean over which the fish were shipped to their exhibition in the Hayward Gallery in London. Both these points position water in relation to systems of production and consumption, with the latter especially demonstrating the transatlantic dialogue created in these processes. As Probyn notes, each species implicated within the systems of globalisation tell their own stories with different narratives of relations, capital, and cultures, and the species included in *Portable Fish Farm* are no exception.[157] It is through such stories that the significance of observation as a relational mode will come to the fore; and it is my contention that it can lead to a posthumanist line of questioning, highlighting the injustices in these relationships between subjects, species, and systems.

Institution of Speciesism

Portable Fish Farm was by far the most controversial artwork exhibited at *11 Los Angeles Artists,* and arguably the most controversial artwork of the Harrisons' extensive career. After the sketch of the electrocution chamber that was intended to be on display to the public was published, articles questioning its ethics as well as its art-worthiness appeared in numerous regional and national newspapers in the UK, including *The Evening Standard, The Sunday*

[157] Probyn, *Eating the Ocean,* 15.

Times, The Daily Telegraph, and *The Daily Mail*.[158] These articles, now archived in the Southbank Centre's collections, are extensive in number and while differing in emphasis, capture a sense of the outrage surrounding the work. For example, Figure 1.18 depicts cartoon by Paul Rigby published in *The Sun,* which ridicules the event by depicting various out of control marine creatures at a regal dinner table. By contrast, *The Evening Standard, The Liverpool Post* and *Oldham Evening Chronicle* particularly concentrated on the public outcry of both the RSPCA and comic Spike Milligan, who broke a window of the Hayward Gallery in protest.

Alongside the documentation of public outrage, the reports in the Southbank Centre's archives also weigh in on the ethical dilemma provoked by *Portable Fish Farm.* Lord Goodman, chairman of the Arts Council, told *The Evening Standard* that he had no awareness of public slaughtering of catfish, and after weighing up the fact that, in the United States, electrocution was considered the most humane way of slaughtering fish, he came to the conclusion that this public display was a 'grotesque and horrible symbolism'.[159] Similar sentiments were echoed in *The Liverpool Post* and *Oldham Evening Chronicle,* who objected not so much to the slaughter of fish for food but the spectacle of it in the art gallery, available for all to see.[160] Despite Edward Lucie-Smith in the *Sunday Times* insisting that the Harrisons are merely highlighting the fact of life, the Arts Council were nevertheless encouraged to take action.[161] It was decided that the art project could go ahead, but the slaughter must be completed in private.

The tension between the North American artists and its audience in the UK is tied to the politics of aquaculture at the time. Yet simultaneously, it manifests a wider ethical concern for the treatment of animals within these industries as they intersect with increasing

[158] "Londoner's Diary: Catfish 'kill' called off by the Arts Council", *The Evening Standard*, September 30, 1971.; John Rydon, "Suffering Catfish," *The Express,* September 30, 1971.; Gerda Paul, "Fish to be Killed in Public at Arts Council Exhibition," *The Daily Telegraph,* September 30, 1971.; John Webb, "Slaughter of the Catfish in the Name of Art," *The Daily Mail,* September 30, 1971.; "Who Calls it Art?" *Liverpool Post,* October 1, 1971.; "Art and catfish," *Oldham Evening Chronicle,* October 1, 1971.; Edward Lucie-Smith, "Catfish Row." *Sunday Times,* October 3, 1971.; Gerda Paul, "Condemned Catfish in Art Exhibition Gain Reprieve," *Morning Telegraph,* October 4, 1971.; Caroline Tisdall, "Los Angeles Artists at the Hayward." *Manchester Guardian,* October 21, 1971. All from *11 Los Angeles Artists,* Hayward Gallery, London, 30th September – 7 November 1971, Hayward Gallery Archives, Southbank Centre.

[159] "Londoner's Diary."

[160] "Who Calls it Art?"; "Art and catfish."

[161] Lucie-Smith, "Catfish Row."

uses of technology and chemical treatments, and questions what is and is not socially acceptable to make visible. As Boetzkes argues, what began as a 'grassroots appropriation of marine agriculture that emphasised a small-scale, self-sustaining ecosystem, and the ritualization of food production and consumption', soon began to signify 'the inevitable barbarism of human progress' that was no longer a liberational act but a 'sadistic and punitive action that was disturbingly complicit with the insidious forms of technological intervention'.[162] The act of making this visible thus complicates the concept of observation at the heart of its systems aesthetic.

In many ways, it was this same technological intervention that environmentalists like Carson were explicitly against. Newton contends that the scale of the public outrage was largely due to the fact that at this time in Britain, catfish were popular pets for household aquariums, and the public assumed that the breed of catfish being slaughtered were the same as their pets.[163] Implicit in the public reaction to *Portable Fish Farm* is the categorisation of animals according to the acceptability of their extermination, which echoes Carson's description of how species are determined as 'good' or 'bad' (the latter categorised as pests) according to the level of their inconvenience for industrial agricultural methods.[164]

This is also in line with a critique of a similar sentiment offered by Gilles Deleuze and Félix Guattari, who maintain three kinds of animals have been distinguished by late capitalism: those we call pets, or the 'Oedipal animal'; animals considered by classification or attribution (and thus generally acceptable to eat); and 'demonic animals', or affective animals that incite fear.[165] They argue that one animal may be multiple of these categories, but *Portable Fish Farm* created an uncomfortable cross-categorisation in the eyes of the British public, in which the fish we love is also considered the one we eat. Even when it's difficult to argue that catfish have been domesticated in the same way as dogs or cats because they don't share the same environment – one in water, the other on land – even attempts to claim ownership of the fish for their use as pets was enough to spark outrage.

[162] Boetzkes, "Techniques of Survival," 317.
[163] Kruse and Reschke, *The Time of the Force Majeure,* 31.
[164] Carson, *Silent Spring,* 24-25.
[165] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia,* trans. Brian Massumi (London: Continuum, 2000): 240-41.

Portable Fish Farm's brutality questions the validity of these categories as it forces you to consider why it is acceptable to treat one as a food product and the other a familial member. This is further complicated by the fact that brine shrimp and oysters were included alongside lobsters and catfish, as there are differing levels of sentience exist across the species and while all are considered commodities, the catfish provoke an ethical response in a way that the other species do not. This is demonstrated by the fact that the second *Survival Piece, Brine Shrimp Farm,* produced in the same year, did not produce the same public reaction.

Hence the relationship formed through the mode of observation is not only loaded with the economic and aquacultural systems; the very intervention of the biological and economic determines the status of animal and human life and the ways in which they are valued. The treatment of the catfish, or any animal deemed acceptable to eat, is predicated on the severing of humanity from the notion of animality. For Derrida, this severing even manifests itself in the word "animal", as it is 'an appellation that men have instituted, a name they have given themselves the right and the authority to give to the living other'.[166] To use the general term "the animal" fails to recognise the vast complexities and agencies of the living world – not least the specific and differential characteristics of aquatic life that makes them so unique in comparison with land-based species – and only considers animals in from humanistic terms, perpetually the generalised "Other" in relation to exceptional "Man".[167] Derrida puts into question the ways in which the human has historicised this relationship on its terms, thus excusing the violent subjection of animals through its very conception of subjectivity.[168] For Derrida, this is manifest in "thou shalt not kill", the most elementary of ethical commandments, as it is generally assumed that this can only apply to the human.[169]

By creating a space for the public slaughter and consumption of catfish, *Portable Fish Farm* provokes an examination of the ways in which the commodification of animals enters a biopolitical terrain. While the intention of backyard farming was to avoid the industrialised mode of extermination that existed within the farming industry during the start of the

[166] Jacques Derrida, *The Animal That Therefore I Am,* ed. Marie-Louise Mallet, trans. David Wills (New York: Fordham University Press, 2008): 23.
[167] Ibid., 34.
[168] Ibid., 24.
[169] Ibid., 48.

Harrisons' career, by shipping the fish from a farm in California, the work is nevertheless still in direct conversation with the ethics of production and consumption in this industry. Vitally, through systems observation it foregrounds the relationship between human and fish but does so by emphasising the distinctness of their positions, both spatially and ontologically. The relationship between human and fish is certainly distinct from non-aquatic mammals, seemingly exacerbating the sense of otherness that is afforded to Derrida's category of animal because of the sheer difference in both body and habitat. The relational modes of observation and consumption produced by systems art, while bringing the bodies together, only seems to reinforce the distance between the human and the fish.

However, the reaction to the work, premised not so much on the slaughter of fish as such but on its publicness, provides an insight into the instability of – and discomfort with – the distinctiveness of these categories. Certainly, Harrisons' slaughter of fish for the sake of an art project is ethically questionable, and much of the criticism is justified. Yet the Arts Council's decision that the slaughter of fish in *Portable Fish Farm* is acceptable so long as it takes place in private undermines this ethical stance. It epitomises Derrida's contention that 'men do all they can in order to dissimulate this cruelty or to hide it from themselves', culminating in a form of mass-forgetting.[170] As Burnham argues, what the Harrisons really achieved with *Portable Fish Farm* is the unveiling of the suppressed knowledge that 'the most critical aspects of the life chain' are enabled by 'modern mechanised existence'.[171] In doing so, *Portable Fish Farm* creates a space to question the relationship between the human and fish forged through the observation mode, and it is my contention that this line of thinking is posthumanist, as the instabilities of the categorisation of animals is challenged by system/observer relationships.

Posthumanist theorist Wolfe brings this to light. Following Derrida's conceit that human subjectivity is achieved through the repression of the animal other, Wolfe has defined this post-anthropocentrism in terms of 'the institution of speciesism'.[172] This other need not be conceived literally as an animal species – it equally applies to humans marked as animal.[173]

[170] Ibid., 26.
[171] Burnham, "Contemporary Ritual," 164.
[172] Mitchell and Wolfe, *Animal Rites,* 2. Ibid., 2-3.
[173] Ibid., 6.

It applies to those disadvantaged in capitalist society, both human and more-than-human. The very instability of the borders of human subjectivity is not automatically a positive and generative mode of thinking. Yet this very act of exposure originally planned by the Harrisons, questioning the preconceived boundaries between the human and fish within Western capitalist thought, can be formulated as a posthumanist act. When life exists under capitalism, this instability is ultimately a biopolitical concern, drawing the labour of human and more-than-human together through the unnerving commodification of life.

By making visible the processes of food production, the Harrisons have the potential to outline the violence of the institution of speciesism, enforced on both human and more-than-humans, to varying degrees. The replication of capitalist systems in *Portable Fish Farm* need not automatically be construed as an affirmation. Rather, the emphasis on observation as a form of relationality within the systems format leads to a wider question of what it means to observe the systems that allow us to consume others; its very publicness leads to the exposure of those who are exploited, or consumed, for the maintenance of that system. Certainly, this includes catfish, but extends way beyond this, to include every living entity that are joined together through multiple, overlapping systems.

For Wolfe, posthumanism is tied to autopoietic theory that lies at the heart of systems thinking, as it speaks to the ways in which the human subject, while socially and theoretically constructed (i.e. within a system), is also embedded in, and influenced by, the material world.[174] The relationship between system and observer within autopoiesis resonates with the influence the human has on the environment, for Wolfe; this does not merely take place like an 'input-output' machine in which the system 'picks up information', as impact from the environment significantly alters the system and changes its very nature.[175] The importance of this lies in the fact that humanity is now considered to have altered the planet to such an extent that it is recognised as a new geological era. The concept of the Anthropocene is hinged on the contention that humanity is not separate to the natural world.

Following a commitment offered by posthumanist theorists to the ethical reconfiguration of relational thinking, observation in *Portable Fish Farm* becomes the locus to

[174] Cary Wolfe, *Critical Environments: Postmodern Theory and the Pragmatics of the "Outside"* (Minneapolis: University of Minnesota Press, 1998): xv-xvi.
[175] Ibid., 65.

consider what the system could be. An expanded relational self in the work is physically enacted when the gallery visitor becomes the observer, the external influence that on the one hand eventually leads to the fishes' extermination, and on the other unleashes the hypocrisies of the institution of speciesism. But before the event of their slaughter and consumption, is it possible that the encounter provokes a human-fish relationship on a more ontological level, that can provide a way of conceiving it beyond exploitation and speciesism? Or, with the knowledge that the fish will in the future be slaughtered for the gallery visitors' benefit, can a form of discomfort lead to the revaluation of their existence, beyond the scope of exploitation and commodification?

Conclusion: Observing Exploitation

This chapter has sought to insert the importance of observation for an ecological approach to *Portable Fish Farm,* and to highlight its implications for the power dynamics of consumption at the heart of the work. Observation has not only provided a means to approach the relation between the human and fish and thus build a decentred model of human subjectivity, but it has also served to explore the exposure of modes of exploitation that come to the fore when this relational act is based on the consumption of another. As a microcosm, this exposes the ways in which acts of consumption, both literal and metaphorical, saturate the actions that individuals take within capitalist systems. But vitally, this consumptive activity is dependent on the specific construction of the ocean as the void, beyond direct visibility, separated from land by a hard line.

This has been achieved through a dive into the political and social context in which *Portable Fish Farm* was created. The ideologies that circulated around counterculture may feel like a detour from this thesis' conceptual approach to visibility in seeking relations to the ocean, but it serves a significant role in this chapter as it demonstrates how models of ecology or relational systems are historically situated. My contribution to the literature on *Portable Fish Farm* lies in the role of observation within the systems art function. The Harrisons' systems art as a product of this counterculture demonstrates how observational relations are inescapably tied to the economic and technological systems that were developing within California in the 1960s and '70s. Certainly, this context does not speak to all models of ecology, including many of the conceptions explored later in this thesis, but it does seek to be specific to this context.

The refusal to see the biological system in *Portable Fish Farm* in isolation and turning towards the social context in which the work was exhibited foregrounds the power dynamics involved within the act of relation. Systems art thus offers a major introduction to this thesis' aim to examine the role of visibility in contemporary artistic portrayals of the ocean, as observation is framed through the inseparability of economic and ecological systems, and observation as a form of knowledge. The very publicness of slaughter in *Portable Fish Farm* becomes a means of exposing the ways in which this construction of the ocean and the industries that take place in it operate through exploitative means.

The implications of its publicness within its oceanic context will be examined in the next chapter, in which a comparison with Allan Sekula's photographic and essay series *Fish Story* (1989-95, fig. 0.2), will provide a valuable insight. The comparison with *Fish Story* will highlight the significance of exposure, demonstrating that this model of observation-as-relation is intrinsically tied to exploitation in ocean spaces. Introducing a Marxist approach foregrounds the legacy of much Marxist thinking from within the New Left in Sekula's project and plays a vital role in demonstrating how capitalism is constructed to deny visibility, hinging instead on abstraction and alienation.

Such an approach will begin to question the ease in which observation is possible, so that the need to go beyond the visible is conceived. There are philosophical implications of the assumption to total visibility that will be addressed at length in chapter five, when I turn to the epistemological stakes of vision in building knowledges of the world. It may come as no surprise that vision is tied to questions of power, predicated on the apparently objective, un-situated and universalised observer. As such, it is all the more vital to refute the idea of universalism associated with the countercultural era. It has already been stated that any distance between observer and system is broken through the idea of environmental influence. For Varela, the 'microworlds' of the autopoietic system do not merely add up to a total, whole system and they are not determined by a total pattern.[176] In this context he is discussing the jump between systems of different scales, so that the total system is not merely comprising a series of smaller, connected systems. Earth is not Gaia, or a total world system that can be comprehended with totality by simply viewing a smaller form. *Portable Fish Farm*

[176] Francisco Varela, "The Reenchantment of the Concrete," in *Incorporations,* ed. Jonathan Crary and Sanford Kwinter (New York: Zone Books, 1992): 336.

certainly acts as a microcosm for global systems but it cannot, and should not, speak for the whole planet. *Fish Story* and its oceanic context will bring this to light.

Chapter Two: Observing the Ocean Through Marxism

The observation of fish slaughter in Helen Mayer and Newton Harrison's *Portable Fish Farm* (1971, fig. 0.1) introduces questions of exposure that lead to an investigation of systems exploitation in ocean space. In this chapter, the work of the Harrisons will be placed in conversation with Allan Sekula's *Fish Story* (1989-95, fig. 0.2), a photographic and essay series examining the structures and operations of the shipping industry during the era of globalisation. Sekula foregrounds the exploitation that underpins this industry and, while existing in a differing art historical context to *Portable Fish Farm* (in contrast to the realm of countercultural ecological art discussed in chapter one, Sekula's work is heralded as a significant contribution to Marxist contemporary photography), *Fish Story* provides a vital account of exploitation within the shipping and agricultural industries. Just as there are visual associations between *Portable Fish Farm* and products of the Californian counterculture – notably, Stewart Brand's *The Whole Earth Catalog* – there are also links between the work and *Fish Story,* centred in my analysis on the role of the container. From fish tanks to shipping containers, the very material structure of *Portable Fish Farm* is in conversation with the structures at the heart of the shipping industry and perpetuate the idea that it is something that must be kept hidden.

It is no accident that *Portable Fish Farm's* relationship with observation and exposure collide with its aquatic subject. Philip Steinberg's notion of the social construction of the ocean as a 'void of distance' discussed in the introduction is explored through Sekula's work, from the exploitation of labour in the shipping industry to the heterotopic associations of the ship, which sets out the significance of this specific construction of the ocean through the lens of in/visibility for an interpretation of *Portable Fish Farm.*[177] The ocean will also be pictured as a space of exploitation in this chapter, and the notion of the oceanic void, which seeks to keep exploitation at bay from the public imagination, allows for parallels to be drawn between the shipping and agricultural industries.

In this chapter, observation is conceived through a Marxist approach as it relates to ideas of abstraction in containerisation, and the alienation of both labour and animal

[177] Steinberg, *The Social Construction of the Ocean,* 163.

slaughter within ocean spaces. Yet with Sekula's focus on the exploitative labour in the shipping industry, hence largely concerned with the human, the similarities between these works may not initially be apparent. However, the discomfort provoked in the audience's reaction outlined in the previous chapter rather challenges the rigid distinction between human and fish and offers a negative form of post-anthropocentrism in the systems that organise and govern contemporary life. This parallel allows for a non-anthropocentric account of exploitation that builds upon the institution of speciesism. It will further the notion of consumption-as-power by also turning to the role of observation in exposing the exploitation of labour involved within systems of both production and consumption.

Achieved through the comparison with *Fish Story,* it extends the category of the exploited body to both the human and more-than-human in a negative form of post-anthropocentrism. It builds upon Jason Moore's eco-Marxist contention that nature works for capitalism to conceive the political stakes of the ocean's invisibility. Hence consumption and observation are in dialogue in this chapter through power relations, as the power to see and consume both the human and more-than-human presents ethical challenges for concepts of relationality. Sekula's work is yet to be conceived through an oceanic posthumanist lens and doing so offers a significant account for the ways in which the ocean is framed in the artist's work.

Taking a Marxist approach may appear to depart from the overlying conceptual framework of this thesis, but by drawing on political paradigms alongside the blue humanities, the ocean also offers new, vital ways of conceiving post-anthropocentric relationships beyond hidden exploitation. This chapter centres the value of real bodies, human and fish, as means of addressing the complex entanglement of the natural, political, and socio-economic, and looks towards the writing of two major voices on the ocean, Astrida Neimanis and Rachel Carson, to rethink the mode of observation beyond the notion that human and fish are two distinct ontological categories.[178] Thinking through how relationships are forged with the ocean through models of observation, Sekula's work demonstrates the political necessity of

[178] Neimanis, *Bodies of Water.*; Rachel Carson, *The Sea Around Us,* revised edition (New York: Oxford University Press, 1961).

doing so, while at the same time introduces a key line of questioning based on what happens when this is not possible.

Ocean Voids and Mass Forgetting

Despite its title, the photographic series and essays that make up Sekula's *Fish Story* often appear to have little to do with fish as species. Rather, it takes the people and places that make up the shipping routes for the transportation of commodities, of which fish are just one, as its subject. Between 1989 and 1995, Sekula photographed harbours and port cities from around the world, from California, to Korea, Scotland, and Poland. He made journeys across oceans following multiple migrations of workers, commodities, and capital. *Fish Story,* comprising 105 colour photographs and seven chapters, is the product of this journey. It was first shown between 1995 and 1996 in a series of port cities, such as Rotterdam, Calais, Glasgow and Stockholm.[179] Two slide projections, each with approximately eighty photographs, were added to this culmination, although they were not included in the publication of the initial photographs and texts in a book form in 1995.[180] The aim of this culmination of photographs and texts is to provide a social and material account for the systems and industries located in the ocean that are usually left hidden.

Sekula's photographic practice is largely indebted to the historical materialist Walter Benjamin. In the introduction to *Photography Against the Grain,* Sekula's collection of essays and photo works from 1973-83, he writes:

> We do stand to gain in understanding from a materialist social history of photography, a history that takes the interplay of economic and technological considerations into account. Thus we need to develop a history writing in accord with Walter Benjamin's challenge to bourgeois cultural historicism, a challenge influenced by Georg Lukács' philosophical investigation of the effects of the commodity-form on both material conditions and the subjective culture of capitalist society.[181]

[179] Bill Roberts, "Production in View: Allan Sekula's *Fish Story* and the Thawing of Postmodernism," *Tate Papers,* no. 18 (Autumn 2012): https://www.tate.org.uk/research/publications/tate-papers/18/production-in-view-allan-sekulas-fish-story-and-the-thawing-of-postmodernism.
[180] Ibid.
[181] Allan Sekula, "Introduction," in *Photography Against the Grain: Essays and Photo Works, 1973-1983* (London: MACK, 2016): xvi.

Sekula follows Benjamin in arguing for the importance of art's social significance and, like the Harrisons, sees this as a backlash to the autonomy of Modernist art.[182] Sekula's practice rather considers how photographic production and dissemination exists within a society organised around commodity production, distribution and consumption.[183] By focusing on the social and material, it is a form of critique that diverged from the dominance of postmodernism and post-structuralism at the end of the twentieth century preoccupied with the simulacrum and language.[184]

Sekula's integration of text with the photographs of *Fish Story* is less a way of providing an overarching and comprehensible narrative or description of his journey along these shipping routes, than an interrogation of these discourses. Describing his photo works as 'ensembles', the culmination of text and image is a means of moving emphasis away from 'the formal or semantic success or failure of the single image'.[185] The publication of the photobook is equally a means of resisting his work's sole existence in the art institution; the book format allows for the dissemination of his critique of the violence of global industry to wider societal audiences.[186]

There is a relationality in the photobook format of *Fish Story* created by the multiplicity of images and texts working together, which alludes to a systems aesthetic. *Fish Story* may be regarded as a tangential form of systems art; as a commodity, the photobook circulates in a broader systems of art distribution. Hence, within the photobook format, Sekula contains an assemblage taking neoliberalism as its subject, and circulates within one. The significant link between systems theory and the development of neoliberalism has already been made explicit. This, however, does not mean that the systems format of *Fish Story* is complicit; rather, the very systematicity of the artwork offers a self-reflexive inquiry into the structures of these systems.

[182] For Benjamin, a lack of social concern creates art for entertainment, that is 'enjoyed without criticism'. Walter Benjamin, *The Work of Art in the Age of Mechanical Reproduction* (London: Penguin, 2008).
[183] Benjamin H. D. Buchloh, "Allan Sekula: Photograph between Discourse and Document," in *Fish Story,* ed. Allan Sekula (London: MACK, 2018): 191.; Sekula, "Introduction," xvii.
[184] Buchloh, "Allan Sekula," 191.
[185] Sekula, "Introduction," xiii.
[186] Ibid.

Yet *Fish Story's* resonance with *Portable Fish Farm* extends beyond systems. Evidently, both works are in direct conversation with the ocean, both as a habitat for aquatic life (while the catfish were shipped from a commercial fish farm, overall, the species included were a combination of freshwater and saltwater) and a space to be crossed in global shipping routes. In this chapter, the ocean as a space will come to the fore through *Fish Story,* adding significance to the focus on visibility through the partial exposure of labour conditions usually out of sight. The significance for *Portable Fish Farm* lies in the fact that, while observation is a key part of systems theory, the consumerist context of *The Whole Earth Catalog* has actively worked against the idea of making things visible. The ocean becomes a very different environment to that which is portrayed in the ATS-3 satellite photograph.

In other words, while I have outlined the importance of observation for the functioning of a system, this does not automatically translate to all systems. As Probyn notes, the move from inshore fishing resulting from overfishing means that you cannot see your local dock and 'look the fisherman in the eye', nor can you see the fish as they are caught – fish are often flash frozen at sea, then immediately transferred to locations around the international fishing market.[187] But it is not incidental that these systems are no longer visible; rather, a lack of transparency is now an active part of global production and consumption.

This opacity is also the narrative that Sekula works against, as he opposes the instantaneous communication networks and the 'bourgeois cosmopolitanism' of air travel, which, for Sekula, allow for a mass 'forgetting' of the slowness and brutality of the sea.[188] Visibility is key for Sekula's practice but works through partial and limited vision: *Fish Story* is not a transparent form of documentary predicated on the myth of objectivity, but functions through 'critical realism', based on what Buchloh terms the 'instability of photographic meaning' as it alternates between the contextual and the referential.[189] Questions of what can be determined by individual images, or what they can actually record, and how their interpretations are guided by certain discourses is at the core of Sekula's practice. Arguably, if isolating any one image from *Fish Story*, it would be very difficult to understand the intention of the project: they are full of empty spaces, traces of former action. While exposing

[187] Probyn, *Eating the Ocean,* 4.
[188] Sekula, *Fish Story*, 51.
[189] Buchloh, "Allan Sekula," 194-95.

the conditions of the shipping industry, it is done with a repeated but partial vision that eventually culminates in a story.

Sekula's emphasis on exposing the labour conditions that have previously been hidden speaks to the ways in which the ocean has been constructed as a void. To Steinberg, capitalism in the postmodern era constructs places that 'serve necessary functions for the capitalist world-economy'.[190] Indeed, Steinberg's three characteristics of the postmodern ocean outlined in the introduction – a void, a territory, and a site of stewardship – speaks to the role of the ocean within Sekula's work primarily through the first characteristic, as the artist seeks to challenge a sense of placelessness.[191] The ocean has not been constructed as a place or environment in its own right but exists as the space between, or extension of territory.[192] In other words, it is what Sekula terms "the forgotten space". Sekula's material grounding in *Fish Story* places the ocean as the locus of the mode of inquiry in a way that illuminates the oceanic logic of capitalism itself. This framework in turn prompts a fundamental analysis of *Portable Fish Farm*'s relationship with the ocean, the shipping industry, and the rhetoric of capitalist flows.

Containerisation

A primary visual point of comparison between *Portable Fish Farm* and *Fish Story* is the use of containers – from water tanks to shipping containers. Visually, the installation of *Portable Fish Farm* may appear more utilitarian than aesthetic. The six containers, ordered in a 3x2 grid (see fig. 0.2), are organised to foreground the ecosystem process by which the species in each container are placed in relation to the others. It may also be tempting to place this grid arrangement within the legacy of Minimalism. As a common motif in Minimalist sculpture, artists like Robert Morris and Sol LeWitt have commented on the ways in which the cube or rectangle support their aims in evoking an aesthetic of industrial and cultural production through simple geometric forms.[193] The cube for LeWitt is an instantly recognisable building

[190] Steinberg, *The Social Construction of the Ocean,* 161.
[191] Ibid.*,* 163.
[192] Ibid.*,* 165-66.
[193] For Morris, the cube, rectangle, and grid 'offers a kind of 'morpheme' and 'syntax' which are central to the cultural premise of forming'; their inorganic form places it in direct contrast with the organicity of the human and natural forms. Robert Morris, "Notes on Sculpture 1-3," in *Art in Theory 1900-1990: An Anthology of Changing Ideas,* ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishing, 1992): 820-21.

block that 'lacks any aggressive force, implies no motion, and is least emotive'.[194] Because of these factors, Mark Godfrey has noted that the cube in the Minimalist tradition of the 1970s was 'utterly malleable', allowing it to fit into a number of contexts, from the North American work of LeWitt, to the socially-driven practices of Brazilian artist Hélio Oiticica.[195]

Yet it would be a mistake to look no further than the legacy of Minimalist theories of the cube as a grammatical device and a neutral building block to account for the structure of *Portable Fish Farm.* It is certainly true that this argument generates a visual consistency between the Harrisons' work and other exhibited works at *11 Los Angeles Artists,* most notably Bell's *Untitled,* 1971 (fig. 1.5), which has much in common with Morris' *Mirror Cubes,* from 1965/71. But there is a fundamental difference between *Portable Fish Farm* and Minimalist sculpture: the former is less a closed cube than a hollow, rectangular container. Like Haacke's *Condensation Cube,* the containers of *Portable Fish Farm* serve a purpose external to their geometric being: they facilitate dynamic, organic systems.[196] For Haacke, the choice in cube is merely functional; the Plexiglas cube is not to convey a sense of stasis but create the necessary conditions for the water evaporation process.[197] However, the containers of *Portable Fish Farm,* which are cuboid and metal rather than cube and Plexiglas, cannot carry the same neutrality when placed in comparison with Sekula's photographic account of the shipping industry.

Figure 0.2 depicts Sekula's cover image of *Fish Story,* the panoramic photograph of the shipping containers in the Atlantic. In many respects, *Fish Story* introduces the photographer's preoccupation with theories of containerisation and the shipping industry that has spanned his career and is evidenced most recently in his 2010 film with Noël Burch, *The Forgotten Space.* Sekula's photograph, which uses symmetrical framing and a perspective that extends into the horizon and suggests that the load is limitless, is highly enlightening of Sekula's position toward this industry. But more significantly, it provides a visual comparison with *Portable Fish Farm* and an interpretative framework that regards the containers not as purely

[194] Sol LeWitt, "The Cube," in *Sol LeWitt: The Museum of Modern Art, New York,* ed. Alicia Legg (New York: The Museum of Modern Art, 1978): 172.
[195] Mark Godfrey, "From Box to Street and Back Again: An Inadequate Descriptive System for the Seventies," in *Open Systems: Rethinking Art c.1970,* ed. Donna De Salvo (London: Tate Publishing, 2005): 31.
[196] Jeanne Siegel and Hans Haacke, "An Interview with Hans Haacke, 1971" in *Working Conditions: The Writings of Hans Haacke,* ed. Alexander Alberro (Cambridge, Mass.: MIT Press, 2016): 36.
[197] Ibid., 35.

functional or a reflection of Minimalist aesthetics, but an allusion to global shipping industries. As Jaimey Hamilton Faris argues, the container exists within the development of the readymade in contemporary art of global capital, epitomising the Deleuzian notion of flows, or 'the continual deterritorialising impulses of capital's mobility and its symbolic excess'.[198]

To Thomas Birchnell and John Urry, the containerisation of the shipping industry in the post-war era has four key factors: 'standardised handling, faster movements between terminals, faster transfers at terminals and a control system'.[199] The standardised, stackable container changed the nature not just of the shipping industry, but industry in general, as shipping costs were severely reduced by the improvements in speed and the vast reduction in labour costs.[200] The network infrastructure that developed alongside this standardisation, including changes to ports and communications networks, have all influenced what is now a global industry that deals primarily in the shipment of raw resources and product parts.[201]

The development of the shipping container was vital for processes of globalisation. It supports what is termed the 'just-in-time' concept of shipping culture; developed by the Toyota Motor Company, just-in-time refers to the last-minute, international shipping of intermediate goods that are required at the time.[202] It not only illustrates the logistical nature of the shipping industry today that has made bulk orders redundant, but the way in which international trade rests on the lengthy global supply chains that determine production.[203] Because of the reliability and low costs of container shipping, products are no longer made in one place, but shipped internationally throughout the process depending on the cost-efficiency of outsourcing material and labour.[204] As *Portable Fish Farm* evidences a transatlantic aquacultural dialogue, the artwork evidences just-in-time culture: the shipping of the fish from California means that they have merely been transferred from one container to another.

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[198] Jaimey Hamilton Faris, *Uncommon Grounds: Global Dimensions of the Readymade* (Bristol: Intellect Books, 2013): 50.
[199] Thomas Birtchnell and John Urry," The Mobilities and Post-Mobilities of Cargo," *Consumption Market & Culture* 18, no. 1 (2015): 28.
[200] Marc Levinson, *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger* (Princeton: Princeton University Press, 2006): 268.
[201] Birtchnell and Urry, "The Mobilities and Post-Mobilities of Cargo," 26.
[202] Levinson, *The Box,* 265.
[203] Ibid.
[204] Ibid., 268.

For Sekula, the container is the embodiment of 'the transnational bourgeoise's fantasy of a world of wealth without workers'.[205] The automation of labour by containerisation offered the promise of reducing the harsh and ill-paid labour of dockers; as Martin Parker notes, workers in theory 'would be able to watch the machines working' as they 'fished in the afternoon and philosophised in the evening'.[206] But in reality, containerisation has merely contributed to the outsourcing of exploitative labour in lower-wage countries and the Global North/South divide.[207] Symbols of exploited labour forces are scattered throughout the photographs of *Fish Story;* Bill Roberts regards the photograph of the 'neglected spanner' (fig. 2.1) not just as an allusion to 'the marginalisation of manual labour at today's automated container ports', but to 'the disappearance of labour and production from the social imaginary'.[208] The container, as a key component of this simultaneous reorganisation and "forgetting" of labour, becomes what Sekula terms 'the very coffin of remote labour power'.[209]

The implications for observation and its lack are twofold. It is firstly manifested in the seeming obsolescence of port towns, now empty due to the displacement of labour to remote, and visually inaccessible, areas. The desolate port towns that Sekula photographs, such as the Los Angeles harbour in figure 2.2, illustrate just this. A lack of observation is also manifested through the standardisation of the shipping container itself, as the fragments of fraught history are not explicit in the seemingly neutral shape of the container. The very simplicity of the rectangular shape evoked by LeWitt only operates to convey a sense of neutrality that disguises not only social context, but even its contents.

Parker notes how the logic of the container, which is not to be opened until it has arrived at its destination, operates by a condition of opacity that is meant to protect the contents from theft.[210] This has major implications as the possibilities of entities to be shipped, legal and illegal, is completely deregulated. From fake products to drugs, migrants, weapons and toxins, the container epitomises the logic of neoliberalism that prioritises

[205] Sekula, *Fish Story,* 137.
[206] Martin Parker, "Containerisation: Moving Things and Boxing Ideas," *Mobilities* 8, no. 3 (2013): 381.
[207] Birtchnell and Urry, "The Mobilities and Post-Mobilities of Cargo," 25.
[208] Roberts, "Production in View."
[209] Sekula, *Fish Story,* 137.
[210] Parker "Containerisation," 381.

market over security and ethics.[211] Contents are anonymised, and the container becomes a global icon of standardisation that foregrounds neutrality to distract attention from the system of exploitation it enables. Perhaps by opening the lid of the container and making its contents available for observation, *Portable Fish Farm* can begin to provide an alternative narrative that brings social relations and exploitation to the fore.

One way in which this standardisation manifests itself is through company branding. In *Fish Story,* Sekula writes:

> The boxes, viewed in vertical elevation, have the proportions of slightly elongated banknotes. The contents anonymous: electronic components, the worldly belongings of military dependents, cocaine, scrap paper (who could know?) hidden behind corrugated sheet steel walls emblazoned with the logos of the global shipping corporations: Evergreen, Matson, American President, Mitsui, Hanjin, Hyundai.[212]

Jean Baudrillard maintains in *Systems of Objects* that consumption, far from a 'material practice', is 'an activity consisting of the systematic manipulation of signs'.[213] In order to be consumed, an object must be turned into a sign, or the "idea" of that which it signifies, to exist in a system of sign-objects. The neutrality and opacity of the shipping container means, as Sekula suggests in the above quotation, that containers become distinguishable by their corporate logos. These logos become the sign or idea of their material goods. This has severe implications for the ways in which aquatic life is regarded, as it is considered an idea, or sign, at the expense of its own materiality and living existence. Indeed, the Harrisons' wider critique of the supermarket, defined by them as a 'utopian simplifier', supports this idea, as it severs the link between the animal as its product and its original living existence.[214]

The container has thus historically operated to conceal the actual conditions of production and distribution, and *Fish Story* is a direct challenge to this act of forgetting. Sekula takes the ocean as a space not only deserving of attention, but as a space at the forefront of, and socially constructed by, late-capitalist logics.[215] Yet it is also implicit in the form of

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[211] Ibid., 377-78.
[212] Sekula, *Fish Story,* 12.
[213] Jean Baudrillard, *The System of Objects* (London: Verso, 1996): 218.
[214] From a letter by Newton Harrison dated November 28, 1972, quoted in Burnham, "Contemporary Ritual," 166.
[215] Steinberg, *The Social Construction of the Ocean*, 194.

Portable Fish Farm: if the geometric, neutral form of the container refers to the wider social context of containerisation, then the water and the inhabitants it contains also cannot be assumed to be neutral. This water, salinized and heated artificially to replicate the conditions of the catfish habitat, is far from natural.

Today, the global fishing industry appears to be a long way from the Harrisons' model of countercultural, backyard farming, even if the route is not entirely incongruous. Containerisation, in its creation of pure exchange-value and removal of context, has severe implications for the value of fish treated as commodities today. As a result, the work's emphasis on the visibility of the slaughter stands in stark contrast with the container and its symbolisation of abstraction. If the container serves to support the institution of speciesism, then by opening the container and facilitating a system/observer encounter *Portable Fish Farm* actively works against it.

Fish as Worker

Certainly, there are key differences in the approaches of the Harrisons and Sekula, not least in the fact that the latter is focused on purely human exploitation. Sekula's Marxist approach stands in stark contrast to the countercultural context in which *Portable Fish Farm* was created, in which the Marxist concern for labour was overridden by the contention that the working class as Marx understood it no longer exists.[216] As Herbert Marcuse, a prominent political theorist of the New Left, argues, the rise of white-collar and the fall of blue-collar labour changed the needs of the political Left as the traditional forms of pain and exploitation usually inflicted by physical, material labour would eventually diminish.[217] This dream of automated labour is manifested within the standardisation of the shipping industry and Sekula's Marxist approach two decades later reveals it as just that: an unrealised dream.

[216] See Marcuse, *An Essay on Liberation*. Significantly, this was written in 1969 while he was teaching at the University of California, San Diego, the same institution in which the Harrisons were teaching at this time. For Eagleton the dissent of Marxism in the 1970s in the West is marked by the fall of trade unions and mass employment in the Thatcher-Reagan era, and the inconceivability of socialism in the light of the genocides under Stalinism and the Soviet Union. Eagleton, *After Theory,* 29.; Ibid., 37. Wolfe also suggests that Marxism is not relevant to a posthumanist approach to systems theory when he states that within Marxism, human freedom from exploitation is 'purchased at the expense of its brutal objectification of nature and the non-human'. Wolfe, *Critical Environments.* 42.

[217] Marcuse, *An Essay on Liberation,* 55.; Herbert Marcuse, *One Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (London: Routledge, 1964): 24-25.

Yet considering Wolfe's institution of speciesism, it would be a mistake to believe that *Portable Fish Farm* and its exploitation of the fish's body does not concern itself with a question of labour. Indeed, the term "proletariat" originates from "proles" (children), and references those who did not own property so served the economy by producing children: as Eagleton explains, 'they are those who have nothing to give but their bodies […] The ultimate poverty or less of being is to be left with nothing but yourself. It is to work directly with your body, like other animals'.[218] Within the vocabulary underpinning capitalist production there is a breakdown between human and animal as both are considered *zoē.* Consequently, if the basic role of the catfish in *Portable Fish Farm* is to reproduce, might they not be considered proletariats, or a subset of the exploited working class?

This exploitation of the body is not confined to their existence within the gallery but extends to the process of the installation's making. As the catfish were shipping from a Californian fish farm, they endured traumatic conditions for the creation of the installation, as they were starved for eight days prior and tempered during so that they would not eat for the thirty hours of transit.[219] Certainly, mobility is built into the very nature of the fish: catfish, unlike humans, whose existence is largely stationary and situated, not only swim continuously for long periods of time but also undergo extreme migratory processes. For example, the life migration distance of the *Branchyplatystoma rousseauxii,* a species of Amazonian goliath catfish, is the longest of that of any freshwater fish in the world.[220] But the mobility of the fish undergone during the creation of *Portable Fish Farm* is in stark contrast to the natural mobility of the species, not least in the fact that they are confined in a small space for the duration. They become symbols of another kind of mobility: it is not just an indication of the species' migratory patterns but recognises economic mobility as a fundamental characteristic of neoliberal labour structures, epitomised by the exploitation of others.

Conceiving the catfish alongside the proletariat is not just a novel exercise of inclusivity, but is situated alongside a wider, systemic view of the ways in which capitalism works upon the bodies of certain people, species, and organisms. It works alongside Moore's

[218] Eagleton, *After Theory,* 42.
[219] Harrison, poster for *Survival Piece #3: Portable Fish Farm.*
[220] Ronaldo B. Barthem et al., "Goliath catfish spawning in the far western Amazon confirmed by the distribution of mature adults, drifting larvae and migrating juveniles," *Scientific Reports,* 7 (2017): https://doi.org/10.1038/srep41784.

contention that rather than being worked *upon* by capitalism, the natural world works *for* capitalism.[221] Moore states:

> Capitalism has survived not by destroying nature (whatever this might mean), but through projects that compel nature-as-*oikeios* to work harder and harder – for free, or at a very low cost.[222]

The definite boundary between human and more-than-human worker is not clear cut as both are incorporated in the laws of the 'four cheaps', which Moore defines as 'labour-power, food, energy and raw materials'.[223] It is clear in these categories that bodies of both Sekula's worker and the Harrisons' fish are co-opted for capitalist systems of production and consumption.

When the Harrisons make the slaughter of catfish visible in *Portable Fish Farm* they oppose – and expose – the alienation inherent in processes of production and consumption not only in terms of the fishing industry, but of all industry, for which both the human and more-than-human work. This reading of the Harrisons' work creates a new dimension for the relational interactions that take place between the gallery visitors and the fish. This should not be a distraction from the principal moment of observation-as-relation but an extension of it: through consumption, the visitor not only enters the gallery ecosystem but is implicated within wider aquacultural systems of production and distribution and, as the reaction to the installation suggests, made starkly aware of it.

Following this logic, the role of observation within *Portable Fish Farm* is not too dissimilar to Sekula's exposure of exploitative labour conditions in *Fish Story.* While this is not a directly stated intention of the Harrisons, by providing a space where observation and consumption collide, the conceptual potential of these terms come to the fore, especially when placed alongside *Fish Story.* Yet *Portable Fish Farm* works upon *Fish Story* too: with the term "fish" always assumed to stand as a metaphor for mobility, reading Sekula against the grain and inserting a deliberate literalness in the interpretation of the term opens the scope of exploitation beyond the anthropocentric. Both works provide a space, whether in the gallery or in a photobook, that makes exploitation visible. If Sekula deliberately works against

[221] Moore, *Capitalism in the Web of Life,* 12.
[222] Ibid., 13.
[223] Ibid., 17.

the processes of abstraction that seek to hide this exploitation, then the Arts Council's insistence that the slaughter of the fish take place in private develops dangerous implications in comparison.

Spaces of Exploitation

Picturing the ocean as a space of exploitation certainly operates differently in *Fish Story* and *Portable Fish Farm.* If the work of Sekula is to offer a direct link between exploitation and the seeming placelessness of the ocean that allows it to take place, the focus on the exploitation of fish within the gallery space, rather than on what they endured in the process of transportation, only seems to support the concept of the oceanic void in *Portable Fish Farm*. In picturing the ocean less as a habitat for the fish but as a space that needs to be crossed, it alludes to the ways in which it still carries a nineteenth-century legacy of exoticism and the sublime.[224] Alongside Steinberg, Cesare Casarino challenges this narrative by examining that which gets ignored by these conceptions of the ocean and focuses on the ship as a means of addressing its relationship to capitalism. Central to Casarino's argument is Foucault's concept of the 'heterotopia': or a place that exists today that is 'outside of all places', an 'effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted'.[225] Acting like a mirror to society, the heterotopia is both a lived space that also has the capacity to expose the logics of such a society.

Hence, by focusing on the perception of spaces outside of the popular imagination, Sekula's project is heterotopic in its exposure of exploitation within the shipping industry. The ship, for Foucault, is 'the heterotopia par excellence' because it is a place that 'exists by itself, that is closed in on itself and at the same time is given over to the infinity of the sea'.[226] It is this autonomy that Casarino addresses in his analysis of modern sea narratives, but unlike Foucault, who sees the ship as a site of 'espionage' and 'adventure', Casarino shares with Sekula a critical inquiry of the complex entanglement of ocean space and capitalism.[227]

[224] Cesare Casarino, *Modernity at Sea: Melville, Marx, Conrad in Crisis* (Minneapolis: University of Minnesota Press, 2002): 9.
[225] Michel Foucault, "Of Other Spaces," trans. Jay Miskowiec, *Diacritics* 16, no. 1 (Spring 1986): 24.
[226] Ibid., 27.
[227] Ibid.

Fish Story's heterotopic function is evident within the ways in which it has been described in terms of the ship; yet *Portable Fish Farm*'s relationship with the heterotopia may not be as clear. The countercultural context of the Harrisons' work appears to appeal more the utopia, described by Foucault in the following:

> Utopias are sites with no real place. They are sites that have a general relation of direct or inverted analogy with the real space of Society. They present society itself in a perfected form, or else society turned upside down, but in any case these utopias are fundamentally unreal spaces.[228]

While grounded within consumer culture but seeking to stand outside of established society, the dreams of consumer culture, technological revolution, and the transformation of consciousness that permeated the New Communalism of *The Whole Earth Catalog* era transport the real spaces of the Californian commune into a dimension that did not yet exist. This is not to say that the concept of the utopia has no significance, and chapter five will offer a major challenge to the contention that the utopia has no bearing on real space. However, it is my contention that *Portable Fish Farm* also operates with a heterotopic function as it speaks to the real spaces of industrial aquaculture that appear to operate outside of established society. In holding a mirror to the exploitative conditions within these spaces, the oceanic element of the work supports the exposure of the power dynamics involved within consumption, and in turn adds new meaning and significance to the role of observation within the system.

The ways in which the Harrisons sought to demystify animal slaughter, and were overridden by the Arts Council, speaks to the ways in which the slaughterhouse operates, which has for a long time functioned through a logic of "out of sight, out of mind". Significantly, the slaughterhouse also manifests a space in which the Marxist concerns for labour by Sekula collide with an environmentalist and ethical concern for industrial agriculture. Such negative post-anthropocentrism, outlined above regarding the conceptual implications of consumption in *Portable Fish Farm,* resonates with journalist Charlie LeDuff's examination of the brutality of the world's largest pork production plant, Smithfield Packing Company in "At the Slaughterhouse, Some Things Never Die". This plant epitomises the

[228] Ibid., 24.

industrial agriculture that the countercultural, ecological consciousness of the Harrisons' project sought to oppose. LeDuff correlates the violent treatment of the animals as flesh and the brutal conditions for workers within the Fordist assembly line, not only commenting on the intensity of the work but on how the workforce is treated as subhuman with comments such as 'they don't kill pigs in the plant, they kill people'.[229] A comparison with Sekula foregrounds the necessity of exploitative labour by humans, animals, and the environment to take place beyond the limits of visibility.

This context creates a sinister undertone for post-anthropocentric labour as this act of dehumanisation in both the slaughterhouse and shipping industry is also highly racialised.[230] Sekula speaks to link between the Atlantic Ocean and the history of slavery throughout *Fish Story,* including the title of third chapter*,* "The Middle Passage," and the photograph of ear protective gear of an engine room wiper with the inscription "I can not be fired slaves are sold" (fig. 2.3). The allusions to the slave trade are exacerbated by the sense of confinement produced by another photograph in figure 2.4 of the workers in the engine room while underway their voyage in the Mid-Atlantic. While the engineer is centred, his face and body are obscured by pipes and machinery which cut across the already tight frame. This not only creates a feeling of claustrophobia in the ship but anonymises the worker. Sekula puts forward for questioning the dire working conditions for workers on cargo ships, suggesting a complete lapse of human rights.

In making these historical associations, Sekula is not placing an equivalence on labour in the global shipping industry and the transatlantic slave trade. What these approaches suggest is that exploitation manifests itself in different ways across history, and across species, in a way that is tied to certain heterotopias, or spaces that are deliberately masked or forgotten. By making these comparisons, the aim is to point to the racialised undertones of *Portable Fish Farm's* transatlanticism, not in a way that crassly reduces slavery to the transportation of catfish (these are certainly very different contexts and doing so would hugely problematic) but in a way that highlights the role of labour within the institution of speciesism. The marked bodies who do not fit into the ideal of humanism have been made

[229] Charlie LeDuff, "At the Slaughterhouse, Some Things Never Die," in *Zoontologies: The Question of the Animal,* ed. Cary Wolfe (Minneapolis: University of Minnesota Press, 2003): 185.
[230] Ibid., 184.

expendable throughout the history of capitalism and put to work; the contemporary eco-Marxist position of Moore which places labour in conversation with ecology is merely a continued exposure of this trend. It is vital that the specificity of these histories and contexts are maintained; yet a comparison between the work of Sekula and the Harrisons nevertheless points to the fact that the global capitalist system requires the exploitations of bodies to operate.

This leads to the question, however, of whether the sole point of the heterotopia is to expose conditions, or whether it can be productive in changing the conditions it makes visible. What good is exposure if it is powerless to do anything about it? Certainly, the heterotopia does not focus on the desire to imagine a different world as the utopia: as Steinberg argues, the heterotopia's replication of real conditions means that is not certain to prompt drastic, social change.[231] But it is not simply a repeat of the existing order, either.[232] Rather, Steinberg's notion of the heterotopia focuses on the intricate relationship of the actual and the potential and how to provoke change from within the very lived condition it aims to change. This change can be reformulated by reconsidering the relationship between humans and the ocean in the work of both the Harrisons and Sekula through a posthumanist lens.

Posthuman Fish

It is my contention that there is a potential for change at the core of the Harrisons' project. While not specific to *Portable Fish Farm,* Michel de Certeau writes that the artists' use of maps throughout their practice joins 'what *is* to what *could be*' characteristic of their wider aim to 'assure passage from one place to another'.[233] In this description, de Certeau not only incites the heterotopia's entanglement of present and imaginary conditions but conceptualises the Harrisons' practice as loaded with potential for different modes of being. *Portable Fish Farm* operates as a metaphor for systems of production and consumption as the fish stand for more than their physical bodies but all that are exploited within these systems. Yet in thinking about beyond what is and turning to what could be, it is vital to return to the principal act of observation to consider how this could be reformulated within a more ethical framework.

[231] Steinberg, *The Social Construction of the Ocean,* 192.
[232] Ibid.*,* 193.
[233] Michel de Certeau, "Paying Attention: To Make Art," in *The Lagoon Cycle,* ed. Helen Mayer and Newton Harrison (New York: Herbert F. Johnson Museum of Art, Cornell University, 1985): 17.; Ibid., 18.

The relation between human and fish (and for all that "fish" stands) is certainly loaded with power imbalance and separation. It is pertinent that the Harrisons chose catfish as the species for their system because they are a species that do not generally provoke a sympathetic response. For Probyn, the fact that humans cannot live in water has meant that the concern for human-animal relationships have generally focused on land animals, simply because it is arguably easier to care for them than aquatic animals.[234] But more specifically, while catfish are a species that generally have good vision that supplements their excellent senses of taste and smell, because they do not possess binocular vision (their eyes are on the side of their head), the human/fish relationship is impaired by a lack of observational reciprocity. This hinders Emmanuel Lévinas' conception of face-to-face encounter, which subjectifies the Other and installs a sense of ethical responsibility.[235] Yet simultaneously, because of their commonplace existence within consumer culture, it would be unfitting to suggest that they are completely alien or unfamiliar. Sitting somewhere between the familiar, loyal companions and the strange, unknown alien, the catfish is reduced to a status of livestock or commodity, remaining objectified in Levinas' face-to-face encounter. The question becomes one of how to provide an alternative to this relationship paradigm without merely overriding the conditions that artists like Sekula, and indeed the previous chapter's interpretation of *Portable Fish Farm,* have worked so hard to expose.

Considering the negative forms of post-anthropocentrism that have been unveiled by *Portable Fish Farm* and *Fish Story,* it may seem frankly quite dangerous to turn to posthumanism as a means of finding a more positive approach to the model of systems observation produced by the Harrisons' work. Posthumanism is, after all, a space where post-anthropocentrism and anti-humanism collide. Yet it is my contention that it has the potential to offer a far more affirmative approach to post-anthropocentrism that acts as a direct challenge to the systems of exploitation that instrumentalise and commodify life forms. In short, rather than lowering the value of the human to that of an animal, it is about seeking value in *both* the human and more-than-human world beyond a capitalist axiology.

[234] Probyn, *Eating the Ocean,* 25.

[235] See Emmanuel Lévinas, *Totality and Infinity: An Essay on Exteriority* (Berlin: Springer Science and Business Media, 1979).

Perhaps these questions feel a long way from the original intention of *Portable Fish Farm* concerning backyard farming. However, they are not too dissimilar from the ways in which the ocean features in the work of Carson, who, to reiterate, was a prominent voice for both the Harrisons' and the US environmentalist movement. Much of Carson's writing on the ocean speaks to the posthumanist writing of Neimanis, a key figure in the blue humanities, who maintains that water is vital for all life – past, present, and future – and so by 'attuning to our own fishiness', as Neimanis terms it, it is possible to traverse species difference.[236]

Carson speaks to this evolutionary view of water in *The Sea Around Us,* published in the 1950s. According to Carson, the liquid origins of the earth as the 'ball of whirling gases', cooled and liquified into a 'molten mass', eventually organised itself into the habitable earth.[237] All life on earth originates from the ocean before the first organism, a scorpion-like creature, entered land during the Silurian era.[238] Fish, as we know them today with streamlined bodies, swim bladders and gills, evolved during this era and largely predate land-inhabiting animals.[239] Because of this, Carson sees a common ancestry in mammals, fish, birds, amphibians and reptiles:

> …each of us carried in our veins a salty stream in which the elements sodium, potassium, and calcium are combined in almost the same proportions as in sea water. This is our inheritance from the sea, untold millions of years ago, when a remote ancestor, having progressed from the one-celled to the many-celled stage, first developed a circulatory system in which the fluid was merely the water of the sea.[240]

For this evolutionary reading of relationality, of finding commonality across ancestry, Carson singles in on the significance of the womb for vitality to make the connection between water and life.[241] The womb is the individual's ocean, an internal habitat for the creation of life.

Likewise, Neimanis also discusses this non-normative temporality of water and describes the human body as a carrier bag, carrying life not only for direct descendants but

[236] Neimanis, *Bodies of Water,* 137.
[237] Carson, *The Sea Around Us,* 4.
[238] Ibid., 12.
[239] Ibid., 60.
[240] Ibid., 14.
[241] Ibid.

also those of different and distant species.[242] Discussing amniotic fluid, Neimanis aims to foreground the fact that 'we owe ourselves to others, and in various ways, eventually pass our watery selves on'.[243] Significantly, this is not separate to the idea of consumption in *Portable Fish Farm* but, through Neimanis' alternative model of the hydrological cycle, integral to it:

> …human bodies ingest reservoir bodies, while reservoir bodies are slaked by rain bodies, rain bodies absorb ocean bodies, ocean bodies aspirate fish bodies, fish bodies are consumed by whale bodies – which then sink to the seafloor to rot and be swallowed up again by the ocean's dark belly.[244]

Within each interaction with water, we are in contact with a substance that for Neimanis acts as an archive for fragmented and partially erased material legacies that destabilise the categories of past, present and future.[245] Water carries the markers of human action (chemicals, bodies, waste) just as much as it erases it through hydrolysis.[246] An anti-chrononormative approach to water denies the neat categorisation of bodies across time as we are all submerged, albeit differentially, within this watery archive – including audience viewer and catfish. This is what is at stake when the viewer observes the fish in the gallery.

Vitally, this posthuman concept of time is determined by what Rosi Braidotti describes as an ability to grasp both 'what we are ceasing to be and what we are in the process of becoming'.[247] This certainly leads to the idea that observation can lead to trans-species relationality within *Portable Fish Farm*: with the fish open to being seen, the relationship formed between the fish and human questions any sense of humanist autonomy and embeds the human within a world that has only hosted humanity as it is conceived today for a minor period of time. This is an idea central to the social context in which the Harrisons were working through Carson's writing, and today, through the theories of Neimanis. But the significance of this temporal approach does not end there; for Braidotti, the double approach of examining what we are ceasing to be and what we are becoming can lead to an address of

[242] Neimanis, *Bodies of Water,* 123.
[243] Ibid., 111.
[244] Ibid., 3.
[245] Neimanis, "Water, A Queer Archive of Feeling," 195.
[246] Ibid.
[247] Braidotti, *Posthuman Knowledge,* 64.

the multiple injustices occurring throughout time alongside the desire for this critique to feed into self-actualisation of subjects in the future.[248]

This perhaps feels a long way from the Marxist context in which Sekula's work exists. Yet through a comparison with *Portable Fish Farm* and the critique of exploitation that takes place in the fine line between the posthuman and inhumane within the post-anthropocentric condition, *Fish Story* can comment on the ethical treatment of aquatic life.[249] In *Fish Story,* there are not many photographs that include fish, but Sekula's photograph of the "fugitive eel" (fig. 2.5) from the Chagalchi fish market in Pusan is highly illuminating for a consideration of the fish's relationship to capitalism. The title "fugitive" personifies the eel and reflects Moore's contention that the more-than-human world works for, and is in some way captive to, capitalist systems. This critical approach has brought to light the critical value of *Portable Fish Farm,* as its response to mass-industrial agriculture is of value to art history, and the environmental humanities more generally, not as a genuine solution provided through backyard farming but in the critical potential of its observational mode.

There are certainly artworks being created today that seek to challenge the nature of the fishing industry – Cooking Sections' exhibition *Salmon: A Red Herring* (2020-21, fig. 2.6) at Tate Britain is a recent example, as it offers a critical investigation into the artificiality of salmon's colouring. However, the complexity of the viewer's relationship to the aquatic life of *Portable Fish Farm* is unique. Asking what it means to acknowledge the genealogical links with ocean-life while simultaneously regarding them as commodities, it becomes a question of how to acknowledge the aquatic world as a material entity without reducing it as such. This is what it means to operate simultaneously through the creative and the critical, according to Braidotti; within the scope of this chapter, it is about the importance of observation and the necessity of acting upon it.[250]

Neimanis is not ignorant to the socio-economic conditions driving perspectives of the natural world. She goes on to argue that a consideration of the ways in which our 'fishy beginning echo through our own flesh' prompts us to 'reflect on the ways in which we echo

[248] Ibid., 64-65.
[249] Rosi Braidotti, *The Posthuman* (Cambridge: Polity Press, 2012): 65.
[250] Braidotti, *Posthuman Knowledge,* 65.

through them – literally whales-becoming-the-detritus-of-late-capitalism'.[251] This statement can be taken literally if we consider the impact that pollution of all kinds has had on oceans, and the ways in which it contaminates the bodies of marine life, which in turn is often consumed by humans. But it also speaks to the social relations driving a construction of the ocean: as a void, it is space maximised for exploitation to take place through labour, pollution, and extraction without accountability. An oceanic posthumanism for Neimanis thus not only aims to illustrate the biological and ecological relationships between species through water, but also aims to draw out the cultural and discursive implications of this posthuman view.[252]

Acknowledging the temporal complexities outlined by Neimanis and Carson within ocean spaces is in line with Janine MacLeod, who argues that it is a way to remember that different relationships with water and time are available than the abstractions of capitalism, which, despite focusing on progress, seems perpetually focused on the present and immediacy of just-in-time culture.[253] This conception of time is also increasingly being questioned by the Anthropocene not only through its expanded focus on Deep Time but, as Neimanis states, through the dual focus on human impact in the past and the impending sense that humanity is becoming extinct because of its own actions, leaving us 'temporally flummoxed'.[254] Consequently, the intention is to offer models of subjectivity that are also historically and politically situated, and both Neimanis and Braidotti provide a framework for doing so.

Hence the posthumanist reading of *Portable Fish Farm* can support the role of exposure within the works: any ethical response gauged from finding ancestral commonality between human and fish only serves to raise the value of the fish in a way that has the potential to problematise their status as commodities. As previously stated, the role of consumption depends on the view that the human and animal are separate. By de-centring the human, it supports a wider critique of the commodification and instrumentalization of life under capitalism, and significantly, seeks to provide another paradigm by which to view the ecological systems that organise life. It is forging a kind of relationality based on empathy for

[251] Neimanis, *Bodies of Water,* 150.
[252] Ibid., 1.
[253] MacLeod, "Water and the Material Imagination," 57. Neimanis also makes this point in "Water, A Queer Archive of Feeling," 194.
[254] Ibid., 190.

the more-than-human, in a way that can have a direct impact on the observer's actions. Perhaps, after seeing the fish and being exposed to the fact of their impending extermination, the observer refuses to participate in the consumption of the fish. This mirrors the wider turn away from meat and dairy in today's consumer culture; but veganism need not only be perceived as a diet or lifestyle (although it unquestionably also serves these functions today). Much like the role of empathy within the posthumanist relation, Pelluchon argues that veganism is often guided by pity, based on an experience in which 'the Other, who is not understood relate to myself, is encountered in its naked presence, in its vulnerability'.[255] For Pelluchon, pity is the 'suffering from animals suffering', which extends beyond ethics to a 'pathic moment' which 'enables us to get out ourselves, to be truly concerned with the Other'.[256]

Yet perhaps this raises more ethical questions about the work itself. If this interpretation is dependent on seeing *Portable Fish Farm* as means to think through the exposure of the commodification of life and seeks to find in it a critique based on raising the value of this life through posthumanism, then what are the ethical implications of replicating exploitation just to make it visible?

By comparison, *Fish Story,* while addressing the need to uncover sites of exploitation under global capitalism through a form of critical realism, leaves room for speculation. If my interpretation of these two works in comparison seeks to highlight the ethical treatment of aquatic life through a posthumanist lens, then it is worth paying closer attention to the role of visibility in provoking this response. *Portable Fish Farm* places in the gallery a total system that appears to suggest that the exploitation of ocean life uncovered through a comparison with Sekula is essentially available to see in full. However, it has been established that this is far from the case in Sekula's work: Sekula's critical realist approach is full of traces but does not seek to expose exploitation directly.

Hence in conceiving the ethical response to the artists' work, it is worth highlighting that their approach to observation is entirely different. Observation has been tied to visibility

[255] Pelluchon, *Nourishment,* 139. Equally, Robert Jones argues that it is an aspirational form of politics that confronts and rejects the institutionalised violence and exploitation of all life forms in late capitalism, perpetuated by consumer culture. Robert Jones, "Veganisms," in *Critical Perspectives on Veganism,* ed. Jodey Castricano and Rasmus R. Simonsen (London: Palgrave Macmillan, 2016): 29-32.
[256] Pelluchon, *Nourishment,* 140.

and exposure, but as this thesis continues, it is also far more than this – it is a question of the values that are placed on the natural environments both seen and unseen. As MacLeod argues, acknowledging the existence of the natural world outside of capitalism is a means of opposing the narratives that disallow the evolutionary memory of life as an emergent force and instead propose that it only has instrumental value, that it exists purely for human consumption.[257] Acknowledging these values are far easier when exploitation is placed directly in view, but as Sekula's work shows, telling stories of that which occurs in the "forgotten space" of the ocean is just as important.

Conclusion: The Limitations of Observation

The aim of this chapter has been to highlight how the model of observation introduced in chapter one is both furthered and troubled through Sekula's *Fish Story.* Observation and exposure necessitate a Marxist approach in their opposition to abstraction and alienation. The contexts of the following chapters, while moving beyond Marxism and speaking to the specific geopolitical, technopolitical, anti-colonial and epistemological associations of their respective artworks, will continue this approach of examining how visibility's function in forging relations with the ocean is in direct conversation with multi-layered, socio-political histories and ideologies.

Yet the juxtaposition of systems theory and Marxist approaches to observation provides solid foundations to this thesis' line of questioning: how to make the conditions of the ocean known when they are not entirely visible. Beginning with observation for a systems theory approach, a connection has been made between observation and knowledge, conceived through the experimental model of the *Survival Pieces.* Observation through Marxism has furthered the political impetus of the works and stretched the limits of visibility as the globality of systems work to keep much of ocean activity hidden.

The link between visibility and the politics of knowledge accumulation will be explored in more detail in chapter five, but it is worth introducing these questions within the scope of the Harrisons and Sekula and the potential of posthuman relations. It is important to relay a complex and multifarious account of what these relations can and should be. According to Braidotti, posthumanist subjectivity is 'a structural *relational* capacity, coupled with the

[257] MacLeod, "Water and the Material Imagination," 50.

specific degree of force or power that one entity is endowed with: their ability to extend towards and in proximity with others'.[258] There are three elements of this quotation worth unpacking: firstly, the use of "others" as a plural is predicated on the idea that the relationships are beyond the binary of self-other and see the subject as embedded in multiple, heterogenous others in the world – thus antithetical to universality. The second element is the framing of this relational capacity as a "force or power". With power existing at the core of this chapter's focus on exploitation, conceiving posthumanist approaches to relational subjectivity as a power or force suggests how this specific approach can be generative in finding the "counterforce" against the commodification and instrumentalization of the subject in capitalism.

The third term worth unpacking is "proximity". Indeed, the power or force of relational subjectivity is guided by a questioning of the ontological distance between subjects and entities, but this is not just an ontological concern. While extending beyond it, as it turns conceptually to international systems of production and consumption, *Portable Fish Farm* is predicated on proximity. It is about the immediate connection between system and observer. There is a logistical question that is uncovered by the conclusion of this chapter and its emphasis on the non-existence of the system: what happens when the system isn't within the vicinity to observe? This not only applies to the fact that *Portable Fish Farm* emerged into non-existence; it concerns the fact that when our relations to the ocean extend beyond that which is immediately before our eyes, observation becomes a problem. The next chapter will explore how the nature of the ocean uncovers the fact that the world is not readily available to observe from any position. As figure 1.9 demonstrates, you need a closer view to see through the surface of the water, but this does not mean that relationships beyond the visible do not exist.

[258] Braidotti, *Posthuman Knowledge,* 42.

Chapter Three: Submerged in the Ocean – From Land Art to Ocean Art

There is a finite quantity of water on the planet. If spread evenly across the surface, it would reach a height of 2.7 kilometres, but it is far from evenly distributed: over 97 percent of this water is sea water; two thirds of the remaining three percent of fresh water consists of glaciers and icecaps, and most of the remaining third is locked underground.[259] Only roughly 0.3 percent of the world's fresh water is found in the lakes and rivers that consist of the human water supply, which is supplemented annually by the precipitation of water evaporated from oceans.[260] The distribution of available water sources varies drastically across continents, with Asia and South America accounting for more than half of the global run off, Europe accounting for seven percent, and Australia only one percent.[261] There are also highly contrasting rates of distribution within each continent, as areas with abundant water supply are contrasted with desert or arid land.

This data has several implications. Firstly, it is symptomatic of the ways in which water has been turned into a 'quantifiable substance'.[262] Following geographer Jamie Linton's concept of 'modern water', the treatment of water through quantity alone concurs with the discourses of hydraulic engineering that overturned local knowledges and experiences of water in search for a global concept common to all areas of the world.[263] Such a trend coincided with the emergence of deterritorialisation, for Linton, who argues that modern water as a global phenomenon has been constructed as placeless, epitomised by the ways in which water is made both common and readily available by the tap.[264]

Yet simultaneously, the ways in which global water is unevenly distributed demonstrates that water is far from merely an abstract, quantifiable substance. For international relations scholar Leif Ohlsson, to consider water on a global level alone ignores the ways in which the problems and conflicts around water manifest themselves on a local

[259] Leif Ohlsson, *Hydropolitics: Conflict over Water as a Development Constraint* (Dhaka: University Press Limited, 1995): 5.
[260] Ibid.
[261] Ibid.
[262] Jamie Linton, *What is Water? A History of Modern Abstraction* (Vancouver: UBC Press, 2010): 15.
[263] Ibid., 14.
[264] Ibid., 18.

level.[265] However, it is equally false to consider the nature of water from a local position alone: the abundance of water in one area is subject to an existence in the total hydrological cycle that has distributed water differently, hence the condition of water in one localised area cannot merely be scaled up to a global level as this leads to what has been termed 'water blindness'.[266] It is within the dichotomy been local and global, place and placelessness, that I situate this chapter's examination of the connections forged with the ocean through land art to ask the primary question: what role does visibility and its limitations play in our relationships to sites underwater, sites that are both specific and fluid?

The ways in which water is made abstract and quantifiable when its lived experience is entirely different coincides with its mystification and construction as a void. In chapters one and two, the ocean was conceived as a space that aided global capitalist production, distribution and consumption, and the notions of placelessness and the heterotopia were integral to upholding the capitalist system. This chapter furthers this previous investigation by considering the nature of global water in spatio-temporal terms. As such, we move from an examination of systems art as an inquiry into ocean space's role within global capitalist systems to an examination of land art, as a form of site-specific art, to further emphasise how ocean space itself is constructed within paradigms of global capitalism and, vitally, how we relate to it.

North American artist Betty Beaumont's *Ocean Landmark* (1978-80, fig. 0.3) provides a generative framework for thinking through these ideas. As the artist's foundational environmental artwork, *Ocean Landmark* is an artificial reef on the Continental Shelf, three miles off the coast of Fire Island National Seashore, New York. Consisting of 17,000 rectangular blocks constructed from five hundred tons of recycled coal ash, *Ocean Landmark* is a piece of underwater, site-specific sculpture.[267] But the artwork also operated as a research project dependent on collaborations with divers, chemists, marine biologists and engineers at the Lamont Doherty Geological Observatory of Columbia University, the Marine Science Research Centre at State University of New York at Stony Brook, and Bell Laboratories in New

[265] Ohlsson, *Hydropolitics,* 6.
[266] Ibid., 5.
[267] Barbara Matilsky, *Fragile Ecologies: Contemporary Artist' Interpretations and Solutions* (New York: Rizzoli International Publications, 1992): 98-99.

Jersey.[268] It is an artwork with ecological intent, aiming to combat the damaging effects of overfishing and the dumping of toxic waste in the area, by stabilising the water and creating what has now been acknowledged as a "Fish Haven" by the National Oceanographic and Atmospheric Administration.[269]

Hence, in this chapter we return to the context of the 1970s North America, with a focus on the East Coast. Like the Harrisons, Beaumont's work also coincided with the growing environmentalist movement in the US, with land art especially recognised as running alongside these environmental concerns. In chapter one we witnessed the relationship between environmentalism and the growth of consumerism, with individualism rooted in the countercultural movement construing place as a means of grounding the self, and self-sufficiency as a means of becoming autonomous on individual and community levels.[270] However, the aim of this chapter is not to return to that context to examine the implications of an individualist mode of environmentalism for the global system of production and consumption. Rather, I challenge purely localised or grounded notions of space, and consider the key question of what happens when observation – a significant relational mode – fails.

As the site itself is largely inaccessible – and invisible – to the public, Beaumont relies on a series of material forms to exhibit the project in the gallery space. Beaumont has stated that its 'integrity resided in its invisibility', meaning that it operates as a means of provoking a response to a site within the gallery audience's imagination.[271] It is my contention that this response is achieved through multiple manifestations of the work. These are not mere documentary representations of the *Ocean Landmark* project – Beaumont has expressed reservations about relying solely on photography to document the site – but an assemblage of visual and literary media culminating in a supplementary new media project titled *Decompression,* which was conceptualised in the early 2000s after the twentieth anniversary of *Ocean Landmark* but never realised.[272] It was intended to be a virtual combination of

[268] Betty Beaumont, correspondence with author, March 15, 2020.
[269] John K. Grande, *Art Nature Dialogues: Interviews with Environmental Artists* (Albany: SUNY Press, 2012): 152.
[270] Ursula K. Heise, *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* (Oxford: Oxford University Press, 2008): 30-31.
[271] Betty Beaumont, "Artist's Statement," in *A Natural Order: The Experience of Landscape in Contemporary Sculpture,* ed. Barbara Bloemink (New York: Hudson River Museum, 1990): 25.
[272] Amanda Boetzkes, *The Ethics of Earth Art* (Minneapolis: University of Minnesota Press, 2010): 33.

underwater photography (1980, fig. 3.1), global positioning satellite imagery (1980, fig. 3.2), and audio recordings of 'biological growth, water tones, sonic fish noises, and the timbre of breathing with compressed air', which would develop into the *Living Laboratory,* a 'thriving information-system in cyberspace'.[273] Beaumont's intention of this project was to educate its users not just of the sculpture itself, but about its wider connection to the politics of the ocean, environmental contamination, and feminism.

Beaumont has also created a film titled *The Journey* (1980, fig. 3.3; fig. 3.4) to document the installation of the work, and object-based artworks for the gallery space, including *Ocean Landmark Installation* (1980, fig. 3.5; 1992, fig. 3.6), a to-scale replication of the block pile, exhibited at *Fragile Ecologies* in 1992. Yet *Decompression,* and later, *Living Laboratory,* far exceed that which is usually exhibited in the gallery space for traditional land art practices. Hence, when dealing with *Ocean Landmark,* it must be recognised that it is not and never has been only one thing: existing across space, time, and mediums, it pushes the boundaries of monolithic and discrete notions of art, space, and visual access, embracing fluidity and complexity instead.

By furthering chapter one's consideration of artwork/audience relations with Beaumont's multifaceted work, my aim is to not only consider what is meant by "site" within the parameters of land art, but also how we connect to it in partial and heterogenous ways. It is through this that I continue this thesis' investigation of the visibility and its lack in relational terms. Following anthropologist Anna Tsing's notion of global connection, these relationships are not a universal truth or a singular grand narrative, but a series of messy and unpredictable 'encounters across difference'.[274] Tsing describes such interconnections as 'friction' based on the idea that events occur through two entities, such as a wheel and the road surface.[275] Friction puts into question the ease of motion evoked by the concept of the flows of money, goods and people within the dominant notion of globalisation, as it foregrounds the acts of damage and violence that have been excluded and yet allow for the

[273] Betty Beaumont, "Decompression: A Living Laboratory in Cyberspace," *MULTIMEDIA '00 Proceedings of the 2000 ACM Workshops on Multimedia* (2000): 10.
[274] Anna Lowenhaupt Tsing, *Friction: An Ethnography of Global Connection* (Princeton: Princeton University Press, 2005): 3-4.
[275] Ibid., 5.

freedom of movement.[276] This model of global connection is integral to this chapter's interpretation of *Ocean Landmark,* as it interrogates a universal narrative of global capitalism upheld by methods of space construction that are exploitative in their territorial power dynamics, once again enacted by the construction of the ocean as placeless – out of sight and out of mind. Friction as a metaphor incites the necessary tension that allows for progress and movement to function, and following Tsing, I see this tension as a way of conceiving the exploitative actions, focused explicitly in this chapter on the colonial associations of waste removal, that have been deemed necessary for global systems to operate.

Such new spatial arrangements can be glimpsed in *Ocean Landmark*'s relationship to land art as a placemaking activity. The site/non-site paradigm, enacted in its oceanic location and partial realisation, presents a unique opportunity to conceive both the necessity and impossibility of vision for an interrogation into the ways in which we understand what ocean space is. The ethical approach of chapters one and two is furthered not necessarily by considering our relationships to aquatic species but to the spaces and boundaries of the ocean themselves. Conceiving such encounters through limited visual access, it seeks a worldview that is not dominated by the economic, but advocates one that acknowledges that spaces, communities, species, and ecosystems don't exist purely for us.

Land Art Submerged

Ocean Landmark is not an artwork confined to the time of its creation. The ecological imperative of Beaumont's practice has resonated in her reception in the twenty-first century, from Patricia Philip's 2006 article in *Art Journal* defining Beaumont's aim as 'to cultivate an open-minded attentiveness that may lead to meaningful, ethical, and responsible connections between human beings and the natural world', to the inclusion of *Ocean Landmark* in the 2019 *Dazed Digital* article, "The Artist-Activists who Predicted the Climate Crisis".[277] Focusing on the positive effect that *Ocean Landmark* has had on the aquatic ecosystem in the Continental Shelf and the attention to the disasters of industrial waste in the ocean, Beaumont's work primarily exists in a trend seeking to confirm how artists can be

[276] Ibid., 6.

[277] Patricia Philips, "Beaumont: Who Survives?" *Art Journal* 65, no. 1 (Spring 2006): 57.; Lydia Figes, "The Artist-Activists who Predicted the Climate Crisis," *Dazed Digital,* November 12, 2019, https://www.dazeddigital.com/art-photography/article/46719/1/the-artist-activists-who-predicted-the-climate-crisis.

"useful" to the contemporary environmental condition, in a way that sees the remediation methodology as a core practice alongside the aim of transforming social values.[278]

The Dazed article is symptomatic of the ways in which popular interest in land art in the past few decades. As Mark Cheetham argues, this renewed attention coincides with theoretical developments through the concept of 'geoaesthetics', or the 'many speculations on the earth and the human relationship to nature found in the Western philosophical tradition, science and technology studies (STS), and cognate fields, as these intersect with art practices'.[279] Thinkers such as Gilles Deleuze, Bruno Latour, Timothy Morton, and Michael Serres, as they intersect with the growing interest in planetary scales of the Anthropocene, have prompted frequent discussion of artistic uses and responses to the land, with land art becoming a primary focus of investigation.[280] This is a reception that Beaumont shares with the Harrisons, as both artists have been framed around concepts of utility, and both have received significant attention by environmentally-engaged art historians influenced by the geo-centred turn.

However, this chapter also approaches *Ocean Landmark* by considers its conceptual potential as a work of land art submerged underwater. While Cheetham's focus on geoaesthetics certainly does not exclude the ocean, the implications of *Ocean Landmark's* existence underwater are vastly under-examined and thinking through the work's spatial relations – between land and water – offers a significant contribution to this thesis' aim to examine the political, conceptual, and epistemological stakes of visibility in contemporary artistic explorations of the ocean.

Diverging from utility manifests the rift that emerged within the literature of environmental art between earlier land art practices and what has been termed ecological art. Curator Barbara Matilsky's 1992 *Fragile Ecologies* exhibition is acknowledged to be the first that focuses solely on the ecological, as it attempted to separate these artists, such as Beaumont and the Harrisons, from the land art genre, which had been broadly grouped together under the term "environmental art" in the 1960s and '70s.[281] For Matilsky, the

[278] Ibid.
[279] Mark Cheetham, *Landscape into Eco Art: Articulations of Nature Since the '60s* (Pennsylvania: The Pennsylvania State University Press, 2018): 123-24.
[280] Ibid., 124.
[281] Sue Spaid, *Ecovention: Current Art to Transform Ecologies* (California: Contemporary Arts Centre, 2002): 15.

difference lies in the approach to the natural environment: ecological artists not only remediated damaged land, but did so by acknowledging 'life-support systems or the transformation of these sites into viable spaces for plants and animals'.[282] In short, while early land art maintained an emphasis on post-Minimalist sculpture and the treatment of the environment as "material", ecological art approached site-specificity through a concern for ecosystems and problem solving.[283] Conceived on a literal level, the work of the Harrisons and Beaumont certainly manifest this problem solving trend.

Exhibited alongside artists such as the Harrisons, Mel Chin, Alan Sonfist, Agnes Denes, and Mierle Laderman Ukeles, Beaumont's *Ocean Landmark* has been historicised firmly as one of the first projects of the ecological art movement.[284] Indeed, Beaumont has acknowledged that her body of work since 1968 has 'helped define Ecological Art', and sees a parallel with the work of Joseph Beuys, whose social art practice works 'toward contributing to the redesign of the world'.[285] However, by playing closer attention to the floor plan of *Fragile Ecologies* exhibition located within the Queens Museum archives, the ease in which Beaumont's work can be placed firmly within this category can be challenged.

Figure 3.7 depicts the ground floor of the exhibition, where the work of the Harrisons (including *Portable Orchard* (1972, fig. 1.7)), Mel Chin, and Alan Sonfist are located.[286] These works can be defined as what Emma Marris describes as 'novel ecosystems', or 'new, human-influenced combinations of species that can function as well or better than native ecosystems and provide for humans with ecosystem services of various kinds'.[287] As Marris argues, novel ecosystems can be controversial to ecologists because of their anthropogenic emphasis, and can lead to homogenisation and extinction.[288] But artists within the remit of ecological art have been experimenting with their own novel ecosystems, and the Harrisons, Chin, and

[282] Matilsky, *Fragile Ecologies,* 47.
[283] Ibid.
[284] Boetzkes, *The Ethics of Earth Art,* 31. This movement developed momentum in the 1990s and 2000s in the United States with exhibitions such as: *Ecovention: Current Art to Transform Ecologies* at Cincinnati Contemporary Arts Centre, 2002 curated by Sue Spaid; *Beyond Green: Toward a Sustainable Art* at Chicago's Smart Museum of Art, 2006, curated by Stephanie Smith; and *Weather Report: Art and Climate Change* at Boulder Museum of Contemporary Art, 2007, curated by Lucy Lippard.
[285] Beaumont, "Decompression," 9.; Grande, *Art Nature Dialogues,* 162.
[286] Barbara Matilsky, ground floor plan for *Fragile Ecologies: Contemporary Artist' Interpretations and Solutions,* Queens Museum archives, 1992, accessed July 5, 2019.
[287] Emma Marris, *Rambunctious Garden: Saving Nature in a Post-Wild World* (London: Bloomsbury, 2011) 112.
[288] Ibid., 122.

Sonfist are some of the most prominent examples created within the US. For example, Chin's *Revival Field* (1991-ongoing, fig. 3.8) was created in collaboration with Dr Rufus Chaney, a senior research agronomist at USDA, and sought to rectify a landfill site in St. Paul, Minnesota, by using hyperaccumulator plants to remove heavy metals from the soil. Like the Harrisons' *Survival Pieces,* it is considered to be an ecological experiment, anthropogenically improving an environment to increase biodiversity and help it thrive.

The politics of such an approach will be discussed in more detail towards the end of this chapter through the lens of another environmental art movement circulating at the time: reclamation art. But for now, it is worth acknowledging that *Ocean Landmark* can also be conceived as a novel ecosystem within the ocean. However, in *Fragile Ecologies,* Beaumont's work was not exhibited alongside these other examples, but on the second floor (fig. 3.9), in between photographs of Nancy Holt's *Sun Tunnels* (1973-76)*, Dark Star Park, Roselyn, Virginia* (1977-84), and *Sky Mound* (1985), and Mierle Laderman Ukeles' *Sidewalk Washing Performance* (1974), *The Social Mirror* (1983), *Flow City* (1983-93), and *Passage Ramp Diptych* (1992).[289] This layout on the one hand suggests that the works on this floor have been grouped under the remit of ecological art by women, which is a key insight that will be explored in more detail in the following chapter; but when placed specifically next to Holt, who is more firmly associated with land art and her partnership with Robert Smithson, and Ukeles' strong use of media in *Flow City,* once again it must be argued that Beaumont's work moves beyond utility. It is my contention that Beaumont's work is not only ecological because it in some way seeks to reuse material from the fossil fuel industry in a more sustainable way. It is ecological because it is site-specific, requiring an investigation into both its relationship to its oceanic environment and the audience's relationship to the site outside the confines of the gallery walls.

This examination of artistic negotiations of place has multiple prominent art historical precedents. In *The Lure of the Local,* Lucy Lippard formulates a case for a newfound situatedness in the natural environment in the face of a 'multicentred society' that has alienated the citizens of big cities from a sense of place.[290] Published in 1997, it is symptomatic

[289] Barbara Matilsky, first floor plan for *Fragile Ecologies: Contemporary Artist' Interpretations and Solutions,* Queens Museum archives, 1992, accessed July 5, 2019.
[290] Lucy Lippard, *The Lure of the Local: Senses of Place in a Multicentred Society* (New York: New Press, 1997): 10.

of the insurgence of interest, both optimistic and distrustful, in heightened mobility resulting from processes of social, cultural, and economic globalisation. Yet what drives *The Lure of the Local* is a nostalgic account of the natural world determined by pantheism, which associates a sense of place with divine experience.[291] In her conceptualising of *Fragile Ecologies,* Matilsky shares Lippard's spiritualistic nostalgia for 'nature's balance' and harmony with humanity as an oppositional paradigm for late-capitalism's alienation of humanity from nature.[292]

The significance of this for the present argument lies in the ways in which the ocean is to be conceived. Lippard was aware of Beaumont's work and included her in articles in the 1980s, which can easily sway an interpretation of *Ocean Landmark* according to these spiritual ideals.[293] Yet from chapter one and two we are aware that oceanic environments are far from romantic or nostalgic but a major space within the global industry. If I were to construct an interpretation of *Ocean Landmark* following the dominant discourses surrounding US ecological art, the ways in which the audience are to relate to the space in which the artificial reef is located would be less focused on the work's relationship to industry than on its positive impact on ecological health and the restoration of "nature's balance".

The nostalgic rhetoric has also been widely criticised by art historians such as T. J. Demos and Yates McKee, who work towards a more politicised notion of ecology following a wider turn in art history in the early 2000s away from models of space and nature as neutral concepts. While Demos argues that Matilsky voices an 'ideal essentialist conception of nature' that depoliticises the environmentalist intent of many of the works exhibited in *Fragile Ecologies,* McKee argues that Lippard's romanticisation has meant that many of the artists that she supported (many of which, including the Harrisons, Denes, and Sonfist, were exhibited in *Fragile Ecologies*) have fallen outside of dominant strands of art criticism, despite the growing interest in the environmental humanities and geoaesthetics.[294] Lippard's idealisation of nature is not only nostalgic, but outmoded for an interpretation of *Ocean Landmark*'s relationship to the ocean today.

[291] Ibid., 14.
[292] Matilsky, *Fragile Ecologies,* 5.
[293] Betty Beaumont, email correspondence with author, November 6, 2021.
[294] Demos, *Decolonising Nature,* 45.; McKee, "Land Art in Parallax," 59.

Indeed, land artist Robert Smithson aimed to separate his work from the concept of ecology. Writing that 'modern day ecologists with a metaphysical turn of mind still see the operations of industry as Satan's work', for Smithson, ecologists – particularly those of the North American environmentalist movement of Smithson's time – do not see a dialectical relationship between contemporary human existence and nature but mourn the loss of the garden of Eden.[295] Demos notes that Matilsky's dismissal of Smithson's practice supports this notion as it evidences the curator's failure to see the potential in the site/non-site dialectic for an ecological art situated in the contemporary condition.[296] It is my intention to demonstrate that, while maintaining its specificity, *Ocean Landmark* has much in common with the work of Smithson and framing Beaumont's practice within the tradition of land art has never been given proper attention. It has great potential for thinking through the central question of this chapter: how to relate to sites underwater, at the limits of our visual access. As will be demonstrated, negating the romanticism of ecological art speaks to a wider understanding of what these sites are, and the implications of the myth of placelessness aided by the limitations of vision.

The concept of romanticism concerns only one definition of ecology that, as chapter one's cybernetic emphasis demonstrates, wildly differs from other more technological and political definitions that have proliferated over the past fifty years. Indeed, with Beaumont graduating from California State in 1969 and from Berkeley in 1972 with a master's degree in environmental design, the artist's social and educational experiences are just as easily contextualised within the Californian countercultural movement before the artist moved to New York in the 1970s – a movement that, while offering a similarly romanticising tendency, also troubled this tendency with its highly technological worldview. Nevertheless, my move away from the ecological art framework is intended to separate my interpretation from the ecological romanticism that has clouded the movement and is still notable today.

Driven by a concern for ecological politics, my approach to *Ocean Landmark* believes that the framework of ecological art, as it is conceived by Matilsky and Lippard, not only undermines its explicit environmental politics but actively misrepresents the work and

[295] Robert Smithson, "Frederick Law Olmsted and the Dialectical Landscape," in *Robert Smithson: The Collected Writings,* ed. Jack Flam (Berkeley: University of California Press, 1996): 161.
[296] Demos, *Decolonising Nature,* 44-45.

ignores its technological and industrial associations. The political and industrial aspects of *Ocean Landmark* are wholly tied to the construction of ocean space – a space used and abused by these political and industrial systems – as a territory and site of waste disposal. Land art's negotiation of space place provides a vital avenue for bringing these aspects of *Ocean Landmark* to the fore, making visible the dynamics of contamination that choose to pollute some oceanic spaces and not others.

The Site/Non-site Paradigm

An early example of land art's negotiation of sites outside the gallery is evidenced on a small scale in the 1969 *Earth Art* exhibition at the Herbert F. Johnson Museum at Cornell University, New York. This exhibition manifested the early concerns of land art, described in the exhibition catalogue by Willoughby Sharp, a long-time acquaintance of Beaumont's, as the 'radical realignment of our natural environment […] mitigating man's alienation from nature':

> While the new sculptor is still thinking aesthetically, his concerns and techniques are increasingly becoming those of the environmental manager, the urban planner, the architect, the civil engineer, and the cultural anthropologist. Art can no longer be viewed primarily as a self-sufficient entity. The iconic content of the work has been eliminated, and art is gradually entered into a more significant relationship with the view and the component parts of his environment.[297]

By exhibiting site-specific artworks inside the gallery, such as Hans Haacke's *Grass Grows* (1967-69, fig. 1.15), and outside, such as Dennis Oppenheim's *Beebe Lake Ice Cut* (1969, 3.10), the exhibition created a dialogue between the art gallery and the natural world. It is primarily Smithson who exhibited work in both sites and created a dialectical relationship between them, illustrated in *Earth Art* by his *Mirror Displacements* (1969, fig. 3.11), through what is known as the site/non-site dialectic. The site is the artwork situated outside the gallery space, and the non-site is what Smithson defines as 'a three-dimensional logical picture that is abstract, yet it represents the actual site', but 'does not resemble it'. [298] This relationship between the two has been foundational for land art's conceptualisation in art history. While largely associated with Smithson's practice, a continuity between the differing sites is created

[297] Beaumont, email correspondence with author, November 6, 2021.; Willoughby Sharp, "Notes Toward an Understanding of Earth Art," in *Earth Art,* ed. Nita Jager (Ithaca: Cornell University, 1970): 13-14.; Ibid.
[298] Robert Smithson, "A Provisional Theory of Non-Sites (1968)," in *Robert Smithson,* 364.

by an overarching treatment of the natural environment as artistic material. Oppenheim states in the exhibition's associated symposium, that he sees 'the earth as a sculpture'.[299]

Despite the stated intention to reignite a relationship between humanity and the natural environment, the focus on the neutral concept of exterior site and natural material that led to larger-scale earthworks such as Smithson's *Spiral Jetty* (1970, fig. 3.12) and Michael Heizer's *Double Negative* (1969, fig. 3.13) has been widely criticised for its lack of concern for environmental issues.[300] Indeed, Matilsky especially associates Smithson's work with an 'environmental insensitivity' that fails in its understanding of 'how nature works'.[301] Yet my intention is to demonstrate how this basic principle of the site/non-site dialectic can in fact provide a greater understanding of our experience of oceanic environments from a position on land, in complex and politically-engaged terms.

The aim is not to merely place *Ocean Landmark* into the land art canon, or to realign the land art movement with an ecological paradigm belonging to the twenty-first century – this work has been achieved by writers such as Amanda Boetzkes in *The Ethics of Earth Art.* Rather, it is my intention to unlock the potential of *Ocean Landmark* through the conceptual richness of the land art movement that has been laboured over since the 1960s, to offer a thorough investigation of the ability to relate to the ocean through and beyond the visual realm from an altogether different environmental position. The site/non-site paradigm has a methodological capacity that can not only develop the unique characteristics of *Ocean Landmark* as a multifaceted artwork but can also generate new ways of thinking through spatial relations that are highly enlightening to the work's liquid subject. It is about how to connect to an artwork submerged in the ocean.

Conceived through the site/non-site paradigm, land art is a relational medium. This is not a new concept – Krauss' description of post-minimalist environmental art in *Passages of Modern Sculpture* is key for a model of relationality, as she states:

> The abstractness of minimalism makes it less easy to recognise the human body in those works and therefore less easy to project ourselves into the space of that sculpture with all our settled

[299] Dennis Oppenheim, Robert Smithson, Neil Jenney, Günther Uecker, Hans Haacke and Richard Long, "The Symposium," in *Earth Art,* 57.
[300] See Andrew Brown, *Art & Ecology Now* (London: Thames & Hudson, 2014): 11.; Spaid, *Ecovention,* 11.
[301] Matilsky, *Fragile Ecologies,* 47.

> prejudices left intact. Yet our bodies and our experience of our bodies continue to be the subject of this sculpture – even when the work is made of several tons of earth.[302]

For Krauss, the legacy of minimalism for land art extends further than the concern for geometrical shapes as it evidences a phenomenological turn in art.

According to Boetzkes, Maurice Merleau-Ponty's notion of phenomenology was paramount for early earthworks as they interrogated the full sensorial experience of the natural environment.[303] This was in sharp contrast to the discipline of landscape painting, which focused on turning the landscape into a 'picture' to be consumed only visually; earthworks for Boetzkes 'disclose the failure of images and words to capture natural phenomena and the fullness of sensation when the body comes into contact with them'.[304] This, for Boetzkes, is central to a move from a purely aesthetic treatment of the land, to a more ethical dimension of land art, concerned with the relationship between humanity and the natural world. Fundamental to such an ethical association is the move from the idealised notions of nature evoked by Lippard and Matilsky.

Unlike Lippard's interpretation of the land art genre, Krauss sees a correlation between postmodernism and land art through the concept of decentralisation: such a phenomenological turn in post-minimalist art for Krauss evidences an act of 'decentring': from the body's 'inner core to its surface'.[305] This evidences a move away from Greenbergian art autonomy and the nomadism of the modernist art object and toward a corporeal and temporal experience of art that no longer treats the art object and the observer as discrete entities.[306] Certainly, this decentralised phenomenological model is easy to apply to monumental earthworks such as Smithson's *Spiral Jetty*, the spiral earthwork in the Great Salt Lake, Utah. Yet the oceanic existence of *Ocean Landmark* poses potential problems for this approach. While a significant number of earthworks are difficult to access, as they are often located in far-reaching places, *Ocean Landmark* far surpasses this as it can only be reached with the necessary diving equipment and training. Any phenomenological experience of the

[302] Krauss, *Passages in Modern Sculpture*, 279.
[303] Boetzkes, *The Ethics of Earth Art,* 19.
[304] Ibid., 17-18.
[305] Krauss, *Passages in Modern Sculpture,* 279.
[306] Rosalind Krauss, "Sculpture in the Expanded Field," *October* 8 (1979): 34.

site is to be mediated, or imagined, through the work's multiple non-sites, whether the sculpture, the film, or the intended new media project, *Decompression.*

For Lippard, it is the reliance on non-site documentation that diminishes the potential of land art for reinstating a sense of place; the mediation through photography in magazines becomes the dominant experience or becomes the means through which we read the site in person.[307] In this sense, it is because such documentation is too glamorous, too spectacular, for Lippard; but the exhibition of *Ocean Landmark* in *Fragile Ecologies* was also criticised by *The New York Times* for not being glamorous enough: 'Beaumont's project may be sound environmental policy, but it doesn't make for dazzling visuals'.[308] Including a small-scale replica, a presentation of *The Journey* on a video monitor, and a series of maps and satellite imagery, the display is arguably more informational than an attempt to provide a spectacular experience of the site. At the same time, such reliance on documentation also led to the speculation by Nancy Princenthal in *Heresies* that its highly technological approach in Beaumont's software-based practice may produce discomfort in their audiences because of its associations to a techno-utopian worldview.[309] Both responses to Beaumont's non-sites infer that without the potential to experience the site in person, the reception of the project diminishes somewhat, and as Princenthal has argued, so has her place in the land art discourse.[310] However, it is my contention that it is precisely these non-sites that have the potential to offer a meaningful investigation into the ways in which we connect to the ocean, centred on the potential and limitations of vision, the role of the imagination in conceiving that which is beyond proximity, and its ethical implications for questions of difference. It is an act of bridging.

Ocean Landmark must not be conceived from the purely localised perspective often created by phenomenological experience of the site. Its complexity as an artwork is brought to light when it is framed as *both* material – corporeal and political – and structural: in short, when it is framed, like *Portable Fish Farm,* as its own ecosystem. Conceiving *Ocean Landmark* as an ecological artwork thus not only applies to the site itself, which functions as a flourishing

[307] Lippard, *The Lure of the Local,* 189.
[308] Michael Kimmelman, "Art in Review," *The New York Times,* November 27, 1992, 23.
[309] Princenthal writes specifically about Beaumont's *Algorithms of the Mind Project* from the 1980s. Nancy Princenthal, "Synthesising Art, Nature and Technology," *Heresies* 6, no. 2 (1987): 68.
[310] Ibid.

ecosystem for aquatic life, but to its assembled, multifaceted, and relational nature. This not only formulates the greatest tensions between the local and the global, but a way of conceiving the complexities of lived experience in space and time.

Water, with all its leaky and contaminating qualities, becomes vital for this renegotiation of site-specificity. Through water, there is no such thing as a closed ecological or economic system. This raises multiple geopolitical and ecopolitical concerns that will be addressed in section two's consideration of waste disposal and contamination. The wateriness of *Ocean Landmark* requires a renegotiation the boundaries between artwork and audience, site and non-site, body and environment, and land and ocean. It demands a view of localised space that does not exist in isolation, yet still offers a capacity for relations while still upholding differential positions. These relations provide a vital lens for working through the limitations of visibility.

From Site-Specificity to Flows

Ocean Landmark has been negotiating spatial relations since its very conception. In discussion with Beaumont, the artist explained a major inspiration behind the work:

> When I turned on a light switch in New York City, I was interested in where my electricity came from and in tracing the energy (electricity) source supplied to NYC. Power plants in Ohio are the source of power for New York City. Visiting was a surreal experience in that fly ash was dumped in vast expanses around the plant making the landscape incapable of growing anything and appearing to me much like an immense moon scape. This is where I imagined putting a team together that could potentially use this by-product as a new building material. Through research I found scientists experimenting with the material. It was from a power plant in Ohio that 500 tons of the coal waste was shipped to the concrete block making factory in Pennsylvania.[311]

Here Beaumont suggests that *Ocean Landmark* is not just a question of site-specificity but concerns the connection of sites that uphold the conditions of production in today's globalised society. By sourcing the coal fly ash blocks from Ohio (fig. 3.14), lines are drawn from the site of *Ocean Landmark* on the Continental Shelf to Pennsylvania (fig. 3.15), and by extension, the original location of the coal. The travel undertaken throughout the realisation

[311] Beaumont, correspondence with author, March 15, 2020.

of the project is documented by Beaumont in a series of photographs tracking the coal from Ohio, Pennsylvania, the Jersey shore (fig. 3.16), to the ocean floor. Beaumont traces the decentralised operations of production and distribution examined in chapter one, which, since the turn of the millennium, have continued to become more dispersed and untraceable.

Such decentralisation is further complicated when considering all non-site artworks associated with the project. Further lines would be drawn to the locations of the *Ocean Landmark Installation* – comprising video, satellite photography, underwater photography, a collage of sound imagery and a replica sculpture – as well as *The Journey* and *Decompression.* Yet the comprehensibility of such connections is hindered in multiple ways. Both the film and the installation are not on permanent display and indeed the nature of the installation is altered from exhibition to exhibition; but while these elements are mutable in space and time, at least they have existed at some point in a specific location and therefore a tangible network can be traced through exhibition history (for example, the installation has been exhibited in various forms in New York, California, Cincinnati, Munich, Tokyo, Cameroon and Paris since 1988). *Decompression,* on the other hand, is a far more complicated story. This is not purely because it is designed as a new media project, with connections made between the physical and the virtual, but because the project was never realised: as a project conceptualised in the 1990s, it was first funded and supported by a dot com company in New York and, while media-ready, the project was never realised after the collapse of dot coms in 2000. Hence, it is a project that not only cannot be seen but exists only in the minds of every person who is aware of its intended existence.

Decompression was intended to image *Ocean Landmark* through visual forms including photography, sonograms, and side-scan sonar imagery.[312] From this, *Decompression* would develop into the *Living Laboratory,* and as such the ecosystem would be extended into a 'thriving information-system in cyberspace'.[313] Beaumont described the project as such:

> Modelled on virtual environments in which the user's perception and spatial position affects their experience of the space, Living Laboratory will be a dynamically changing art space with an architecture that combines technologically mediated images and virtual diverse perceptual displays. The realized Ocean Landmark, a model for ecological equilibrium in the invisible

[312] Beaumont, "Decompression," 9.
[313] Ibid.

> underwater world, is an interdisciplinary project that for two decades has resided in the domain of the imagination. By visualizing Ocean Landmark's invisible realm, Living Laboratory will elucidate and elaborate virtual perceptual models of different ways of experiencing information within a contemporaneous context. This Living Laboratory will grow, develop and evolve into a mature and provocative discursive community.[314]

The first steps towards this project were *Imagining Imaging* and *Ocean Landmark vrmlWorld* (2000, fig. 3.17). *Imagining Imaging* comprises fifty-two colour images produced by side-scan sonar and lunar imagery and its title no doubt anticipates the importance of the imagination for *Ocean Landmark,* which will be foregrounded towards the end of this chapter. Equally, *Ocean Landmark vrmlWorld* was an Art & Technology Collaboration realised in February 2000 using Virtual Reality Modelling Language technology to reconstruct the pile of blocks. It begins with an aerial view of the project with the blocks falling onto what Beaumont terms 'an invisible stage for imagining the lush underwater garden', and it would then be up to the participant to navigate the space around the blocks.[315] Both projects were to be included in the total *Living Laboratory* project, and both evidence Beaumont's aim to situate *Ocean Landmark* with non-sites that are far more elaborate than that usually credited with the land art movement.

Yet it is Smithson who usually comes to mind within the parameters of land art non-sites, and the non-site has been significant for the artist's reception as a dominant actor in the land art movement. Indeed, asking 'why do so many pieces of writing about art and land […] begin with Robert Smithson?', Jeffrey Kastner argues that it is the dialectical approach to sites through a 'quintessentially postmodern practice', that conceptualises, fractures, and destabilises the modernist autonomous object that has earnt Smithson's place within the contemporary art discourse.[316] Despite the fact that Smithson was by no means the only artist working in this way, the discourse that his practice encouraged does have a lot to offer the spatial dimensions of Beaumont's work for thinking in relationships between the audience and oceanic site. My application of this paradigm to *Ocean Landmark* demonstrates that the

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[314] Ibid.

[315] Grande, *Art Nature Dialogues,* 153-56.

[316] Jeffrey Kastner, "There, Now: From Robert Smithson to Guantanamo," in *Land, Art: A Cultural Ecology Handbook,* ed. Max Andrews (London: RSA in Partnership with Arts Council, 2006): 23.

work's unique in its relationship with water can contribute to the ways in which spatial relations have previously been understood in the land art discourse.

Far from a mere concern with the natural world, Smithson's dialectic emerged within a postmodern linguistic turn in art, preoccupied by post-structuralism and Derridian deconstruction. Smithson's dialectic, in which the site holds a 'metonymic' relationship to the non-site, became the focus of Craig Owens' "Earthwords", which maintains the writerly quality of Smithson's art in relation to his literature.[317] Owens echoes Krauss' emphasis on decentring from a post-structural perspective, arguing:

> Whenever Smithson invokes the notion of the centre, however, it is to describe its loss […] Paradoxically, the concept of a centre can only occur within language; at the same time, language, which proposes the potentially infinite substitution of elements *at the centre,* destroys all possibility of securely locating any centre whatsoever.[318]

Owens' notion of decentring applies to the assemblage of media and objects, or sites and non-sites, culminating in the single notion of an artwork. This is most readily evidenced in his description of *Spiral Jetty* as 'a link of signifiers which summon and refer to one another in a dizzying spiral'.[319] This dizziness is encapsulated in the film *Spiral Jetty* (1970, fig. 3.18), in which the camera traces a spiral from an aerial position in a helicopter, with the artist running evoking a sense of vertigo. The overall premise of "Earthwords", however, is not just Smithson's destabilisation of the autonomous art object, or what Alloway terms the creation of a 'geological network' as part of a '"post-studio" system of operation'.[320] Owens ultimately sees *Spiral Jetty* as a piece of writing, a conceptual approach created seemingly at the expense of the corporeality of land art, evoked by Krauss and Boetzkes.

Owens was significant in framing the non-site as a quintessentially postmodern concept. However, the significance of decentralisation is not only linguistic or, in Krauss' terms, corporeal, but mirrors the processes of decentralisation rapidly emerging in the

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[317] Jennifer Gonzalez, "Landing in California," in *Art/Women/California: Parallels and Intersections 1950-2000,* ed. Diana Burgess Fuller and Daniela Salvioni (Berkeley: University of California Press, 2002): 220-221.; Craig Owens, "Earthwords," in *Beyond Recognition: Representation, Power and Culture,* ed. Scott Bryson, Barbara Kruger, Lynne Tillman and Jane Weinstock (Berkeley: University of California Press, 1992): 42.
[318] Ibid., 41.
[319] Ibid., 47.
[320] Lawrence Alloway, "Robert Smithson's Development," in *Topics of American Art Since 1945* (New York: W. W. Norton Company Inc., 1975): 223.; Ibid., 232.

technological, industrial, and economic reorganisation of space in the late twentieth century. Because of the connections made between the multiple artworks in a land artwork – for example, the site, film, photographs, and text that culminate in *Spiral Jetty* – land artworks often operate as global connectivity, as multiple iterations of the work are dispersed around the world.

Unlike *Spiral Jetty, Ocean Landmark* has an intentioned virtual reach created through the computer technologies of the 1990s and early 2000s, such as the early *Decompression* website and the later *Living Laboratory* project, sited in a gallery as an interactive media installation. This not only provides *Ocean Landmark* an altogether different aesthetic, as the heavy, industrial technologies that fascinated Smithson have been replaced with cleaner, software-based media, evidenced clearly through a comparison between the documentary photographs of figures 3.14, 3.15 and 3.16 and *Ocean Landmark vrmlWorld,* in which the blocks are removed from their dirty and industrialised existence and abstracted into clean, geometric shapes, against a smooth, blue background. The blocks we see in this software technology are also vastly different from their current existence, dirtied by their integration with the aquatic ecosystem. Yet *Ocean Landmark's* concern for software technology also changes the relationship between local and global as it operates through the same Internet-based technology that allowed the escalation of globalisation processes.

Ocean Landmark achieves through the site/non-site dialectic a systemic concept of space that, while resonating Owens' post-structural approach, also extends beyond language to speak to the socio-political and environmental conditions of its time of making. In many ways, it is a similar systemic concept of art that is expressed by the aquatic ecosystem of *Portable Fish Farm,* operating on a broader scale: beginning with the phenomenological relationship between artwork and viewer, the ease of this relation and all its posthuman connotations are put into question when the artwork is no longer in the gallery but submerged underwater. As a fish haven it is its own ecosystem, but the assemblage of non-sites required to formulate any kind of relationship with this work is also its own system.[321] Like *Portable Fish Farm,* then, the systemic function of *Ocean Landmark* puts into question

[321] I connect ecology to the term assemblage following Gilles Deleuze and Félix Guattari, who argue that the assemblage is a group of things formed by a rhizome, or lines of connectivity in an 'acentred, nonhierarchical, nonsignifying system without a General and without an organising memory or central automation'. Deleuze and Guattari, *A Thousand Plateaus,* 22.

the idea of representation, moving to a more relational, networked methodology incorporating the site as it actually exists.[322] The question of representation certainly speaks to art's capacity to make certain sites visible, but this is not simply an abstract concept of visibility: it concerns the broader ways in which we experience and connect with others in world systems. While the non-sites are vast, they are all limited and partial. Hence the model of relationality I find in *Ocean Landmark* is significant this thesis' investigation of in/visibility in artistic explorations of the ocean because it demonstrates how to relate to sites that cannot be seen or understood in their totality.

With its systemic outlook and international circulation, *Ocean Landmark* expands beyond the art historical confines of land art and speaks to the later concept of site-specificity that emerged in the late 1990s and 2000s to conceive artistic negotiations of space within the rapidly globalising world that too put total visual access into question. Kwon's *One Place After Another* offers a significant insight into the development of site-specificity in contemporary art. Published in 2002, the text emerged among the influx of theories in social, political and cultural discourses at the turn of the century debating and contextualising the global condition, from communication networks and international free trade agreements, to the fall of the Berlin Wall, the "end of history", and George W. Bush's "new world order".[323] Kwon, too, is preoccupied with the intensifying, deterritorialising globalisation processes of the period and this informs her notion of site-specificity in the global art world.[324]

Negating Lippard's 'nostalgic impulse', Kwon posits a notion of site-specificity that counters both the 'desire for a retrieval of rooted, place-bound identities' and the 'antinostalgic embrace of a nomadic fluidity of subjectivity, identity, and spatiality'.[325] In other words, Kwon seeks to update the notion of space in art along the lines of the continual negotiation of the local and the global. Writing on the decentralisation of the art world

[322] Niklas Luhmann makes this aim clear when he uses a cybernetic model of the art system to move beyond representation in Niklas Luhmann, *Art as a Social System,* trans. Eva M. Knodt. (Stanford: Stanford University Press, 2000):7.

[323] Frank Lechner and John Boli, "Debating Globalisation: Introduction," in *The Globalisation Reader,* ed. Frank Lechner and John Boli (Oxford: Blackwell Publishing, 2003): 7. See also Francis Fukuyama, "The End of History?," *The National Interest,* no.16 (1989): 3-18.

[324] Miwon Kwon, *One Place After Another: Site-Specific Art and Locational Identity* (Cambridge, Mass.: MIT Press, 2002): 3-4.

[325] Ibid., 159.; Ibid., 8. It is also important to note that Kwon has been criticised by Boetzkes and McKee for seeming to offer false dichotomies between the material and discursive in relation to its analysis of land art. Boetzkes, *The Ethics of Earth Art,* 11-12.; McKee, "Land Art in Parallax," 46.

produced by a network of artworks, exhibitions, biennials, and media circulating on a global scale, Kwon situates site-specificity as a reaction to deterritorialisation, or what she terms the 'intensifying conditions of spatial indifferentiation and departicularisation' resulting from the late-capitalist homogenisation and capitalisation of society and culture.[326]

Kwon's notion of space is thus dependent on how it has been altered by processes of capitalist globalisation. This is much like David Harvey's concept of 'space-time compression', in which space has been destroyed by time over the history of capitalism and has reached a point of intensity in postmodernity.[327] Such intensity is achieved through post-Fordist instantaneity, or the acceleration of turnover time in production and the rise of fast consumption of disposable commodities, and ephemerality, perpetuated by the rise in image production and the advertisement industry.[328] The space to which Kwon's site-specificity responds is that of the world of flows – the flows of people, technology, money, images, and ideas – and asks how to negate the ephemerality and abstraction of permanent and localised space while not ignoring the highly systemic and interdependent nature of contemporary life.[329] Site-specific art, existing outside the gallery and offering a politicised negotiation of space, becomes a means of tackling a sense of belonging within these scales.

The significance of this is twofold. Conceiving *Ocean Landmark* as site-specific regards it as a placemaking activity. The reef of *Ocean Landmark* acts quite literally as a permanence submerged in a world of flows, and offers a sense of solidity for an increasingly liquid society, a solidity that for Harvey helps 'give meaning to our lives'.[330] With the promises of instantaneous connection of the globalisation era now certainly acknowledged to be oversold, *Ocean Landmark* has been submerged at the bottom of the ocean throughout this period and becomes an interesting model for negotiating these changing concepts of space, art historical and socio-political, throughout this timeframe. While *Ocean Landmark* has never conscribed to the nostalgic and purely localised notions of space outlined by Lippard, the significance of both fluidity and liquidity as metaphors for the capitalist renegotiation of space

[326] Kwon, *One Place After Another,* 8.
[327] David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Oxford: Blackwell Publishing, 1990): 260.
[328] Ibid., 306.
[329] Arjun Appadurai writes on these five flows in his writing on the five "scapes": ethnoscape, technoscape, financescape, mediascape and ideoscape. See Appadurai, *Modernity at Large,* 33-35.
[330] Harvey, *Justice, Nature and the Geography of Difference,* 8.

has certainly intensified over the past forty years. This prompts the second significance of Kwon's site-specificity: *Ocean Landmark* cannot be separated from the social and political contexts of the ocean that have determined how the ocean should be used and valued. This will come to light in this chapter in due course, along the lines of waste disposal and contamination.

Fluidity thus has multiple connotations for *Ocean Landmark.* For Kwon and Harvey, it manifests the condition of global capital; for Boetzkes, it suggests the decentralised nature of the artwork, where fluidity becomes a metaphor for the dialectics of site and non-site, which can in turn be constructed as a rhetoric of postmodern nomadism.[331] Hence while the site itself offers a sense of permanence, when the entirety of *Ocean Landmark* is taken into consideration the question becomes: how do we connect to sites beyond our reach in a meaningful way? As I will demonstrate, increasing liquidity (as an oceanic environment, as a factor of artwork decentralisation, and a metaphor for an increasingly globalised society) tests the ability to comprehend these sites as visual access is challenged at every turn. If site-specificity really is a placemaking activity, then the fact that these places exist at the edges of visual access and comprehension yet are deeply implicated within spatial systems once again has deeply political implications. As in chapter two, the connections that are made to oceanic environments are heavily impacted by the construction of the ocean as placeless; but more than a concern for hidden labour in production and consumption, this affects the ways in which the ocean is conceived as a space, or territory. A site does not need to be seen for its influence to be felt.

Remediating Environments

Ocean Landmark came to exist within the ocean through a significant number of collaborations with governmental and industrial organisations. Through the planning and realisation of the work, Beaumont consulted: park rangers at Gateway National Park; physicist Dr Donald White at Bell Laboratories; marine scientists at the Marine Science Research Centre; Fizziano Brothers Concrete, the block making factory in Pennsylvania who constructed the 17,000 blocks for the sculpture; McAllistair Brothers, the tug boat company that helped transport the blocks to the site; Dr Dennis Carmichael of Lamont Doherty Earth Observatory

[331] Boetzkes, *The Ethics of Earth Art,* 83.

of Columbia University, who helped create the hydrophone system to record the sounds of marine vegetal growth; the Environmental Protection Agency, who lent Beaumont a helicopter for the filming of the work's installation; and Bruce Stanbury, editor of the National Broadcast Corporation, who helped create *The Journey,* the film of *Ocean Landmark*.[332] Alongside this, *Ocean Landmark* was a $3 million project that received its funding from, among others, the National Endowment for the Arts, the US Department of Energy, and America the Beautiful Fund, a non-profit organisation seeking to preserve the beauty of the natural environment.[333] No doubt, the relationship with government organisations also regards the legal permissions necessary to occupy this space, which illuminates the ways in which ocean space is governed by state and corporate actors. The history of this will be expanded in due course, but at present it is important to note how the work is indebted to the work of researchers, agencies, and industries, who were integral to the conception and realisation of *Ocean Landmark* in multiple of its manifestations.

Indeed, the work is premised on the idea that fly ash, a waste material of the coal industry, can be stabilised and made into a new building material when mixed with concrete and placed underwater. This is based on research undertaken in the late 1970s by researchers at the Marine Science Research Centre, and Beaumont utilises it for the creation of an artificial reef that would become a habitat for aquatic life in an area that was becoming increasingly damaged by overfishing.[334] It also illustrates a wider trend of the period centred on the experimentation with energy systems, from solar systems to aquaculture.[335] For Beaumont, it participates in a growing interest in 'industrial ecology', or the 'social nature and complexity of (and within) industrial materials', which at the same time was put to use in the building of new, more sustainable industrial processes as well as the revitalisation of the Long Island coastal fishing industry.[336]

More than manifesting the spatial relations of land art, *Ocean Landmark* is also in dialogue with another aspect of the environmental art movement, referred to as "reclamation art". Emerging within land art in the 1970s, artists sought to use their site-

[332] Beaumont, correspondence with author, March 15, 2020.
[333] Ibid.
[334] Ibid.
[335] Ibid.
[336] Ibid.

specific practices to revive exhausted sites damaged by industry.[337] Alongside the later works of Smithson, which were often located in mining sites (the most famous example being *Spiral Jetty*), a prominent example of this can be seen in the *Earthworks: Land Reclamation as Sculpture* exhibited at Seattle Art Museum, 1979. This exhibition featured a series of proposals for reclamation projects alongside Morris' realised project, *Johnson Pit #30* (1979, fig. 3.19), situated in an abandoned gravel pit in South King County. Developed between 1978-80 in dialogue with governmental industries to reconcile fossil fuel damage, it is easy to place *Ocean Landmark* within this remediation art movement.

Reclamation art coincides with wider conservationist projects developing in the US across the late twentieth century. Indeed, *Ocean Landmark* anticipates the renovation of the Fresh Kills Landfill, which was once the largest landfill in the world before it closed and converted into Freshkills Park, described on their website as a 'place for wildlife, recreation, science, education, and art'.[338] However, Beaumont opposes the association between her work and remediation art, stating:

> During the decade-long period in which I was creating sites in the landscape, I vehemently rejected any notion of working to remediate sites that were damaged by industry, insisting that it was not the job of artists to clean up after corporations, even though money flowed in that direction.[339]

Certainly, *Ocean Landmark* differs from sites like Freshkills Park and works like *Johnson Pit #30* because the site itself is not being remediated. The site Beaumont chose was one of the only few in the New York Bight Continental Shelf that was not being used as a dumpsite for sewage, munitions, and industrial waste, both hazardous and non-hazardous.[340] The use of the new material created using a by-product of the fossil fuel industry was, for Beaumont, motivated by a belief that it could 'resuscitate' the 'dying coastal fishing industry along Long Island' and develop a thriving aquaculture.[341] For the artist, then, there is more at stake than

[337] Boetzkes, *The Ethics of Earth Art,* 31.
[338] "Freshkills Park: The Freshkills Park Alliance," Freshkills Park, accessed April 22, 2022. https://freshkillspark.org/.
[339] Beaumont, email correspondence with author, October 21, 2021.
[340] Ibid.
[341] Ibid.

the desire to revive an exhausted site and conceiving it as such neglects the specific aquacultural intentions of the work through the development of an ecosystem.

However, it is not so easy to separate aquaculture within the fossil fuel industry. A geological survey of the Atlantic Continental Shelf produced by the US Department of the Interior charts the contributions of knowledge to the area within the fields of navigation, natural science, military and industry, (fig. 3.20). While all areas have significantly increased knowledge in the past one hundred years, it is the oil industry that is anticipated to have contributed the most in the mid twentieth century, suggesting that this is due to the increase of activity in the area.[342] Prior to this, the main industrial use was fishing, which has a history in the Atlantic Continental Shelf for over a thousand years. Yet the chart demonstrates that fishing is still significant for industry and collides with the oil industry in the twentieth century, meaning that the concept of resuscitating aquaculture damaged by the fossil fuel industries is not so clear cut. As the fishing and oil industries come to coexist, Beaumont's return to fishing can be seen as an act of remediation to counter the rapid increase in activity that, as has been stated, also led to significant damage.

It is my contention that *Ocean Landmark* still has the capacity to speak to this remediation tendency in art not least because even if the site isn't remediated, the choice to position it within this history of the Atlantic Continental Shelf, and to use coal fly-ash when doing so, signals the wider trend by remediating a toxic material, turning it into something positive. I agree that the category of remediation is far too limiting for the work's intentions and conceptual scope; however, it is worth unpacking to explore the wider historical relationship between environmentalism, land occupation and industry that permeated the era with significant implications for the ways in which spatial relations are conceived and constructed. Though my own interpretation of *Ocean Landmark'*s relationship to this trend is far more ambivalent, as the work appears to simultaneously replicate and criticise acts of remediation, the motivation for examining it lies in its relevance for invisibility, as these remediational acts work to make contamination invisible.

[342] K. O. Emery, "Atlantic Continental Shelf and Slope of The United States: Geologic Background," *United States Department of the Interior*, Washington (1972): 3.

The relationship between environmental artistic practices and governmental and industrial agencies was closer than often described by land art discourses. Virginia Dwan, a prominent patron of land art, was the heiress of the Minnesota Mining or Manufacturing Company (3M), and Ron Graziani notes how this relationship extends into the work of Smithson, whose reclamation of mining sites was greatly supported by Dwan.[343] Indeed, even *Spiral Jetty,* whose location in the Great Salt Lake of Utah is mostly associated with the unique colouration of the water due to its salinity, is constructed with rocks from a site just north of Rozel Point, which, due to a fault line in the peninsula, was once determined as a point with oil mining potential despite its geological instability.[344]

Likewise, the artistic movement also had to have some influence on government legislation. According to Graziani, the movement coincided with a number of environmental legislative changes: 1965 saw President Johnson's "Special Message to Congress on Conservation and Restoration of Natural Beauty", which provoked an investigation into strip-mining, the Highway Beautification Act, and the Land Water Conservation Act; 1966 saw the National Historic Preservation Act; and 1967 saw the amendment of the 1963 Air Quality Act.[345] In 1970, the National Environmental Policy Act was written into legislation, and illustrates how the growing social and cultural interest in ecology – a formerly specialist branch of biology – changed the priorities of land management policies as issues of pollution, health and sustainability were given increasing importance, sometimes at the expense of GNP.[346] Despite this, the 1960s also saw the continual increase in non-renewable activities of the coal industry, particularly in surface mining, which, while the most ecologically destructive, was the cheapest practice.[347] Graziani argues that the mining industry exemplifies the complexity of land management policy in the 1960s as, while new environmental issues were incorporated into multiple forms of policy making, in the mining industry they had little effect and it continued with its profit-led, expansionist business as usual.[348]

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[343] Ron Graziani, *Robert Smithson and the American Landscape* (Cambridge: University of Cambridge Press, 2004): 68.
[344] Ibid., 113.
[345] Ibid., 61.
[346] Ibid., 66.
[347] Ibid., 68.
[348] Ibid.

This certainly not only concerns terrestrial environments but the oceanic as well, and demonstrates that the environment negotiated by environmental artists, whether in land art, ecological art, or reclamation art, is never a neutral capacity. A consideration of artistic connections to spaces beyond locality must consider the fact that these spaces are tied up with governmental legislation and our access to them is wholly reliant on certain permissions. But more than this, it also demonstrates that land art's construction of space is in dialogue with the ways in which the environment has been constructed by these governments, industries, and agencies, allowing some (and not others) to own, occupy and extract from them. Beaumont's rejection of remediation is certainly warranted as the intention is to support scientific research rather than industries seeking to abuse the environment. Yet to deny that the work is also tied to a multitude of organisations, which can be traced back to the fossil fuel industry, would do a disservice to the complexity of the work. This is not automatically a criticism of *Ocean Landmark* but rather shows its capacity to outline how concepts of oceanic space are too guided by a combination of governmental and industrial actors. Tracing the origins of the work's materials and production mirrors the ways in which the ocean itself can be traced along the lines of occupation, extraction, and exploitation.

Opposing an interpretation of *Ocean Landmark* in terms of remediation focuses purely on the output of the work and denies the opportunity to examine the implications of its material origins. In doing so, this denial supports a construction of the ocean as placeless, guided by a desire to keep industrial and governmental activity hidden. My own emphasis on these origins is a way of putting this placelessness into question. In chapter two, the social construction of the ocean was conceived alongside oceanic voids within rapidly globalising systems of production and consumption. In the current chapter, placelessness speaks to the issue of water contamination, adding greater significance to the concept of submergence as it questions what it means to place a formerly toxic substance underwater. My interpretation of *Ocean Landmark* as an act of remediation will challenge the myths of discrete spatial parameters used to make contamination acceptable, add examine the implications of the work's existence beyond total visual access.

Placelessness

Beaumont argues that the location of *Ocean Landmark* off the coast of Fire Island was determined by a permit given by the Environmental Protection Agency to use a site that was

close enough to the shore that it could be fished. However, its vicinity to the shore of New York – not in the high seas but in the economically exploitable Continental Shelf – has specific consequences for the ways in which this space is conceived. As Steinberg argues, while capitalism works through 'hierarchical spatial differentiation', ocean space is often constructed to be a non-space, 'a formless void between societies'.[349] While this supports the idea of the heterotopia explored in chapter two, it is significant that the ocean is seen, as Steinberg argues, not as '*between* societies', but a 'specifically constructed space *within* society', to highlight how the ocean as *space* is constructed, organised and territorialised.[350] The very concept of time-space compression is dependent on such a placeless ocean space, as it seeks to annihilate the ocean by regarding it merely as the space to be crossed by global modes of networked transportation, communication and finance.

Before describing the consequences of the territorialisation of the seas for the construction of space, it is important to note that the ocean does not usually come to mind when thinking of the spaces or places of the land art canon. Indeed, Kwon's notion of the sites of land art is rather exemplified through the dichotomy of the white cube with the Nevada desert, and it is no accident that Kwon chooses this latter place to epitomise the out-of-gallery site.[351] The monumental scale of the landscape is certainly affective in its liberational and ominous quality, evoking a phenomenological encounter that is almost theatrical in its play with the elements – the dry heat, the silence, the dazzling and endless rolls of landscape. While the ocean and the desert appear to be highly contrasting environments, they share an emphasis on placelessness, wastelands and abstraction, which I contend has significance for the visibility of the territorialisation and exploitation of ocean space today. Placelessness and invisibility in this context are synonymous. The ocean has much to contribute to the land art discourse, with its own history of territorialisation that has largely been neglected by contemporary art history. My interpretation of *Ocean Landmark* brings to light the complexity of this environmental and political history for site-specific artworks at the time.

It is because of this sense of placelessness that the desert of the American West captured the imagination of land artists of the Cold War, according to Scott in her essay

[349] Steinberg, *The Social Construction of the Ocean,* 23.
[350] Ibid.
[351] Ibid.

"Desert Ends". For Scott, Jean Tinguely's *Study for an End of the World, No. 2* (1962, fig. 3.21), a film created for an episode NBC's news report *David Brinkley's Journal* featuring the explosion of one of the artist's kinetic sculptures just outside of the Nevada Testing Site (NTS), was the first in a set of artworks epitomising the fascination of the desert as the wasteland, or laboratory, of the atomic era.[352] As the title of Tinguely's work suggests, what inspired artists working in the Nevada desert was the looming threat of nuclear apocalypse that had entered the cultural imaginary in the 1960s, as outlined in chapter one through the apocalyptic warnings of Rachel Carson. The NTS, established in 1951, six years after the catastrophic atomic bombings of Hiroshima and Nagasaki, was construed as an 'extension' of the Atomic Energy Commission's (AEC) indoor laboratories in Scott's terms, and came to signify a place in which technologies were being developed that were capable of the complete ecological annihilation of a world that was already spinning out of control.[353]

Arguably, artists such as Tinguely and Heizer, who has built multiple works, such as *Double Negative* and *45°, 90°, 180°, City* (1972, fig. 3.22), in the Nevada desert, viewed the atomic desert less with apocalyptic environmental concern than with fascination. Indeed, Scott's reference to the AEC's "extension" of the laboratory into the desert certainly parallels land art's intention to extend contemporary art outside of the gallery space. But what makes the Nevada desert such an applicable pairing to both the laboratory and the white cube is what Scott calls 'its apparent blankness' that leaves it open to both 'abstraction and projection'.[354] Compared to the surface of the moon, it acted as a stage set, accommodating whatever monumental mark-making earthwork projects that took the artist's fantasy, from Tinguely's kinetic explosions to the 457-metre long trench that forms *Double Negative.*[355]

These cultural associations of the desert demonstrate the dangers in construing an environment as placeless, providing a lens for thinking through the concept of the ocean that *Ocean Landmark,* as a site-specific work, conveys. The work of Heizer especially makes this

[352] Emily Eliza Scott, "Desert Ends," *Ends of the Earth: Land Art to 1974,* ed. Philipp Kaiser and Miwon Kwon (Los Angeles: The Museum of Contemporary Art, 2012): 68-69.
[353] Ibid., 78.
[354] Ibid., 69.
[355] Scott writes: 'when astronaut Neil Armstrong stepped onto the surface of the moon in 1969, proclaiming to the world that it looked remarkably "like much of the high desert of the United States".' Ibid. Joy Sleeman has also written on the relationship between land art the Apollo Missions, in "Land Art and the Moon Landing," *Journal of Visual Culture* 8, no. 3 (2009): 299-328.

clear. According to Heizer, while encompassing the contemporary technological imaginary, the Nevada desert suspends time; it is prehistorical in its seeming absence of civilisation and life.[356] But, as McKee notes, the prehistory narrative of Heizer's desert fails to account for the violent expropriation of Indigenous communities from these sites in nineteenth century, and many of his sites are directly tied to this history, such as Massacre Dry Lake – the site of a 1863 attack by Euro-American settlers on the Shoshone tribe, who were said to have been buried in an unmarked mass grave – which became the site of *Rift #1* (1968, fig. 3.23), the first of Heizer's *Nine Nevada Depressions,* created between 1968 and 1972.[357] McKee's emphasis on the site's historical context mirrors my own emphasis on *Ocean Landmark*'s material and organisational origins – context is key for avoiding neutrality in spatial and material conceptions.

Blankness, placelessness, "the end of the world" – these have dangerous consequences from a post-colonialist perspective according to Scott, who argues that these constructs of place are essential for nuclear testing and depend upon 'the deeply rooted mythology that American national identity was forged in and against a wild Western frontier'.[358] But the desert is not a blank tabula rasa and certainly was not before testing began; the laboratory aesthetic was only one that the desert became *through the destruction of the site through nuclear testing,* as the vegetation that once inhabited the place now ceased to be.[359] Lifelessness was constructed as a pregiven so that there are no apparent consequences of immense destructive action, whether that is through nuclear technology or monumental earthworks.

This historical context is vital for situating *Ocean Landmark* within environmental artistic practices of the era and demonstrates the dangers of not examining the processes, histories, materials that underpin these projects – much can be lost through art historical framing when prioritising formal elements or certain theories and contexts over others. Beaumont's work does differ from the work of monumental land artists, not least because it

[356] McKee, "Land Art in Parallax," 49.
[357] Ibid., 50-51. The arguments of Scott and McKee are concurrent with the spatialisation of art that occurred at the turn of the millennium which, alongside Kwon, sought a politicised notion of space construction epitomised by the prominence of Marxist geographers such as Harvey.
[358] Scott, "Desert Ends," 78.
[359] Ibid.

functions as an ecosystem that has a positive environmental effect and because it is situated underwater. Yet this history provides a starting point for contextualising the politics of Beaumont's work as a work of US land art, which is a quintessentially US project, tied to US notions of land, frontiers, and apocalypse. This is not to say that *Ocean Landmark* falls neatly in line with this trope; rather, it is the ways in which it stands apart, opposing spatial abstraction and the mystification of its making, that makes it a generative case study for thinking through the potentials and politics of land art's spatial relationships.

Yet challenging mystification within the context of the ocean is certainly easier said than done: the legal permissions in accessing ocean space are far from transparent. Elizabeth R. Johnson and Irus Braverman have argued that like the ocean, legal procedures 'make invisible certain ideological assumptions and obscure the labour undertaken for their construction'.[360] Like the neutrality of the desert acting as obscurity, the juridical notion of the ocean values it 'as mineral stockpile, oil reserve, fish tank and food pantry, cabinet of potential pharmaceuticals, and endless supplier of minerals in the service of the human project', such that these values become standardised in the knowledge production and juridical procedures.[361] Yet if these values are contentious because of their direct support of neoliberalism, then mystification serves to hinder a clear opposition to capitalist gain on the basis of ecological and geographical research, as knowledge on sustainable and ethical operations in the ocean is deliberately ignored to prioritise the seamless exploitation of cheap nature.[362] It is not just that space is constructed according to certain cultural or nationalistic imaginaries, but that it directly impacts the ways in which this space is governed. *Ocean Landmark*'s permission to occupy the Continental Shelf, an economically exploitable territory of the Atlantic Ocean, makes us aware of these processes as we question how it is that the work came to occupy this location.

This not only applies to *Ocean Landmark* at the time of its creation in the late-twentieth century but, as it is still in situ, to understandings of the ocean today. Elizabeth DeLoughrey argues that the ocean is the 'new space of empire' in the Anthropocene.[363] The

[360] Johnson and Braverman, "Blue Legalities," 3.
[361] Ibid., 27.
[362] Ibid., 5.
[363] DeLoughrey, *Allegories of the Anthropocene,* 140.

offshore mining of oil, gas, and minerals is becoming increasingly significant and has led to the Pacific Ocean being termed the new 'El Dorado' as less economically developed countries such as Papua New Guinea have faced pressures from transnational corporations of mineral mining rights.[364] This narrative is far from new: DeLoughrey has argued that the militarisation of the oceans dates back to World War II and President Truman's violation of the Freedom-of-the-Seas doctrine by the extension of the US jurisdiction by two hundred miles in response to interest by domestic oil corporations, which led to the rapid territorialisation of the seas and eventually to the United Nations Convention on the Law of the Sea, or the expansion of all coastal nations by two hundred miles.[365] To DeLoughrey, this was the 'most radical remapping of the globe in modern history', yet there still persists a legacy of the colonialist narrative in which the ocean is an empty space to be crossed through maritime expedition and adventure.[366] In other words, while heavily marked by human activity, the concept of placelessness remains, making the emphasis on *Ocean Landmark's* relationship to legal and industrial processes all the more important. This adds meaning to the fact that the site itself cannot be seen, as invisibility signals a broader juridical and political lack of transparency.

Recently, Steinberg has stated that the ocean has not been fully territorialised and divided like land because there remains a need for the free flow of water molecules across land, air and sea.[367] Despite this, ocean space has been categorised into areas such as the high seas, the territorial sea, the exclusive economic zones, and the international seabed.[368] Yet because of the inability to fully bracket areas of ocean space, such as the high seas, it holds onto what Steinberg terms the 'rhetoric of the frontier' – a relic of 'colonial expansion and celestial exploration' – which presents the space as an 'opportunity'.[369] Thus, we learn from both Steinberg and the narrative of the desert in land art that capitalism, as a means of spatial organisation, even constructs spaces that seem outside of construction. It does so hierarchically to serve the desired function of the global capitalist economy.[370] Whether that's for nuclear testing, offshore resource extraction or site-specific art, all space is constructed

[364] Ibid.
[365] Elizabeth DeLoughrey, "Heavy Waters: Waste and Atlantic Modernity," *PMLA* 125, no. 3 (2010): 705.
[366] Ibid.
[367] Philip Steinberg, "The Ocean as Frontier," *International Social Science Journal* 68 (September 2018): 238-39.
[368] Ibid., 239.
[369] Ibid., 237.
[370] Steinberg, *The Social Construction of the Ocean,* 23.

and any sense of placelessness equally serves a particular function. The question becomes: if *Ocean Landmark* has the potential to challenge the notions of placelessness that permeate the land art discourse, what specific context – historical, political, environmental – does it seek to foreground?

Conclusion: Connecting to the Ocean

This chapter has sought to demonstrate that framing *Ocean Landmark* by the site/non-site dialectic developed through the land art movement moves the work beyond utilitarian and "back-to-nature" rhetoric of ecological art. While it has much in common with tropes such as the novel ecosystem and remediation art, it is my contention that these terms are valuable for thinking through the ways in which we relate to space on a broader, international level. The significance of remediation lies not in what good the work can do physically but in what it can highlight about the uses and valuations of the environments it works in. By placing *Ocean Landmark* within the site/non-site paradigm that has been foundational to its art historical conceptualisation, I have distanced *Ocean Landmark* from the purely utilitarian view of ecological art as I interrogate the phenomenological and systemic theories that have captured the attention of land art writing since its conception.

Yet it is the ways in which *Ocean Landmark* also departs from this tradition that drives my contention that the work requires more art historical attention. With the field of the blue humanities developing rapidly within post-colonial, socio-political, feminist and posthumanist dimensions, *Ocean Landmark* demonstrates how art has the capacity think through the ocean today in all its complexity. Art has long questioned our relationships to space, and *Ocean Landmark* exemplifies this by interrogating the seeming neutrality of space in the North American land art movement's fascination with the desert, and the simultaneous territorialisation of the ocean and construction of the ocean as placeless.

The next chapter will build upon this notion of placelessness to consider the role of visibility for connecting to oceanic spaces. The land art discourse has provided both the methodology and motivation for doing so, as the site/non-site paradigm demonstrates how artistic relationality can extend beyond proximity, and its connections to both remediation projects and nuclear history offers a politicised account for the ways in which land is constructed and why. Chapter four will begin with the relationship between placelessness

and visibility to uncover the significance of the ocean for land art: it is not just that it shares an emphasis on placelessness, but the ocean draws out the liquidity of land art relations to demonstrate how to build connections with sites beyond proximity. It is my contention that it is these liquid relations that define *Ocean Landmark* as ecological, not its association with the ecological art movement of the US.

Chapter Four: Submerged in the Ocean – Beyond Proximity

Land art's spatial emphasis has much to offer the ways in which spaces constructed as placeless can be seen, known, or cared about. It is not just that exploitation takes place within the ocean, but building on the notion of placelessness, the construction of oceanic spatial relations is significant for the spatial distribution of exploitative acts. Building upon chapters one and two's focus on systems thinking, considering the relationship between disparate spaces as part of land art exhibition practices is in many ways a continuation of the systems art methodology, albeit on a larger scale as it extends beyond the gallery space. The importance of this lies in the fact that a change of scale alters the nature of systems art relationality, intensifying the limitations of observation and requiring a more conceptual and imaginative approach to these connections without overriding the fluidity, complexity, and unknown parameters of oceanic worlds. To put it simply, when the full system cannot be observed in the gallery space, new lines of interpretation are required, with new ethical and political implications.

These ideas will be at the centre of my approach to my analysis of Betty Beaumont's *Ocean Landmark* (1978-80, fig. 0.3) in this chapter. Land art's relational capacity will be conceived first in political terms to challenge the idea that space – especially ocean space – can be isolated or placeless. It will then see a continuation of chapter two's posthumanist reading of the ocean, as one again it begins to offer a solution to the chapter's conceptual and political quandaries. Examining the land art discourse since its conception opens key political questions about spatial construction that not only necessitate a consideration of land art's political dimension, but a dive into post-colonial examinations of ocean territorialisation. Within the framework of waste imperialism, corporate environmentalism, and the myth of isolation that enabled the contamination of island communities, *Ocean Landmark*'s relationship to the fossil fuel industry is approached in such a way that both invisibility and relationality are conceived as dangerous: with instability a marker of political, economic, and environmental existence, materialist feminism and posthumanism become a means to reconsider the full implications of situated and trans-corporeal existence.

Observation is built upon in this chapter by separating visibility or perception from knowledge. In chapter one, observation was defined within the remit of systems theory, whereby it was considered a means of knowledge accumulation through the observation of a system and thus far more than a sensory experience. *Ocean Landmark's* lack of visibility demonstrates that knowledge can still by acquired, and relationships with systems can still be formed, even if it cannot be perceived. Hence the approach I implement in this chapter demonstrates how we can care about the world beyond sensorial limits using the imagination. This approach is implemented in a way that is both political and conceptual and is in line with the thesis' overall aim to be both critical and affirmative, exposing the inequalities in the world and thinking how to go beyond them. This sees a continuation of chapter two's posthumanist reading of the ocean alongside an interrogation into how these connections have already been determined in political and economic terms. With the posthumanist dimension once again beginning to offer a solution to the chapter's conceptual and political quandaries, we begin the chapter by outlining how relationality manifests itself within the spatial concerns of the land art movement.

A major influence of this methodology is Cecilia Chen's question: 'how do the ways in which we think and map with water predetermine, limit, enable the way we then construct our relations to place, to others, to environments, to shores, and to communities?'.[371] Framing *Ocean Landmark* not merely as a piece of remediational, ecological art, but as an artwork deeply invested in the concept of ocean space in late-capitalism, will uncover the artwork's ecological potential not just in that which it actually fixes, but in how it shapes an understanding of how we relate to each other and how these relations 'joins us to other locations, other beings, or other events and spacetimes'.[372] My divergence from the ecological art movement opens an avenue for more ethical concerns for the violence of capitalism's construction of space, determined by what can and cannot be seen, which in fact deepens the fluid and ecological connotations of the work way beyond the ecological art category. By doing so, I also find in *Ocean Landmark* the potential for a global encounter that leads to 'new arrangements of culture and power'.[373]

[371] Cecilia Chen, "Mapping Waters: Thinking with Watery Places," in *Thinking With Water,* 274.
[372] Ibid., 275.
[373] Tsing, *Friction,* 5.

The In/Visibility of Corporate Environmentalism

Beaumont's non-site *Ocean Landmark Installation* (fig. 3.5), a pile of blocks manifesting the reef made of coal fly-ash and submerged in water, resembles Robert Smithson's non-sites, which also often feature piles of organic and industrial material (fig. 3.11). But more than this visual connection, and perhaps because of it, the installation also resembles a pile of waste. This is a visual interpretation that the artist opposes, stating that it denies the work's 'interaction with nature, erasing it'.[374] Indeed, Beaumont has maintained in correspondence with myself that she has never supported the fossil fuel industry and *Ocean Landmark* is not meant to encourage the use of fossil fuels. Rather, to the artist the work is a pragmatic response based on the creation of something sustainable with the waste that already exists in search of a future organised around renewable energy.[375] As such, her response diverts from that of other artists of the land art movement who are seemingly ambivalent. For example, while Smithson is well known to be opposed to the aestheticization or beautification of industry through ecological art projects, Smithson's work is easily construed as too ambivalent, especially through works such as *Glue Pour* (1970, fig. 4.1), on which information about its clean-up is notably absent.[376]

Yet it my contention that conceiving the work as a pile of waste does not deny its function as an ecosystem; rather it invites a discussion into the ways in which ecology interacts with the politics of water contamination – something that is aided by the construction of the ocean of placelessness. Certainly, *Ocean Landmark* does not contain hazardous material, as a year was dedicated in research to make sure that it was stable and not harmful to the organisms that inhabited it.[377] Yet when the new material is created from a formerly toxic substance, it prompts a discussion into the ways in which materials that have not been stabilised, from the fossil fuel industry or otherwise, are placed in the ocean without the same ecological intent. With the site of *Ocean Landmark* in the Continental Shelf one of the few that did not contain a form of waste material, it requires an examination of waste distribution even if it does not actively contribute to it. It has the potential to bring awareness

[374] Beaumont, email correspondence with author, October 21, 2021.
[375] Beaumont, correspondence with author, March 15, 2020. See also Grande, *Art Nature Dialogues,* 151-52.
[376] Ibid., 94-95.
[377] Beaumont, email correspondence with author, October 21, 2021.

to the operations in place that do actively conceive of the ocean as a dumping ground, benefitting from the view of the ocean as placeless or a void.

Ocean Landmark is not Beaumont's only investigation into water contamination. Beaumont's photographic series, *Steam Cleaning Santa Barbara Shore* (1969, fig. 4.2), was created while the artist was a student in California and documents the clean-up process of the Santa Barbara oil spill through high-pressure steam hosing.[378] Unlike the seeming complicity between Smithson and the mining industry, Beaumont's work rather makes visible the ecological damage caused by both the oil spill and the clean-up damage. Her resistance to this damage is supplemented by her later writing "Cleaning….", which demonstrates the long duration, arduousness, and ineffectiveness of the clean-up process in contrast to the dominance of clean-up operations in the global environmental industries:

> fragile along the edge of the sea · life in the margin · cleaning · killing cleaning · knowing steam-cleaning kills · washing the shoreline of Santa Barbara in 1968, in 1969 · killing cleaning another spill, then another · cleaning for a decade · cleaning the Esso Bernica spill in 1979 · cleaning for two decades · washing 400 million liters from the shorelines on Latouche Island after the Exxon Valdez spill in 1989 · cleaning · cleaning for a quarter century · on Shetland Island the Braer spill in 1993 · ruptured · torn · spilling in San Francisco in 1996 · and now the Russian Nakhodka spilling, killing in Mikuni, on the western coast of Japan · washing up · the excess · the waste · the abject[379]

Ocean Landmark departs from the documentary practice of *Steam Cleaning Santa Barbara Shore* in its active role in waste removal, focusing less on the arduousness of the process and turning to the creation of new materials.

Beaumont is explicit in her contention that *Ocean Landmark* does not clean up after corporations. Yet it must be considered whether, by recycling the waste materials of a coal plant in Ohio and placing them in the ocean off the coast of New York, the work has the potential to be complicit in what environmentalist Joshua Karliner has termed 'corporate environmentalism'. Karliner's *The Corporate Planet,* published in 1997 by the environmental organisation the Sierra Club, is a prominent text on the ways in which environmentalism operates within the structures of globalisation. For Karliner, corporate environmentalism

[378] Gonzalez, "Landing in California," 229.
[379] Ibid., 230.

peaked during the 1992 Earth Summit in Rio de Janeiro, as ecological concerns were incorporated by transnational corporations reconciling their profit-driven ideologies in line with the realities of ecological destruction.[380] This was a continuation of the 1960s and '70s land management policies, but by the end of the millennium the environmental industry had become 'a group of toxics-hauling, wastewater-cleaning, air pollution-scrubbing corporations', that is a 'global giant in its own right'.[381] Hence, what epitomises corporate environmentalism is the emphasis, not on building clean materials in themselves, but on 'end-of-the-pipe strategies to contain hazardous waste' which do not 'eliminate the problem but rather displace it', and profit from it as a result.[382]

Beaumont does seek to build a clean material, but the movement of these coal fly-ash blocks is also an act of displacement, meaning that the work's relationship to the term is certainly complex. Despite the artist's intentions, the work is not wholly separate from the processes of land management operating at the time. Displacement is key for considering *Ocean Landmark*'s relationship to the politics of place: it is a place in which the simultaneous territorialisation of the ocean and its construction as placeless plays into the logic of end-of-the-pipe corporate environmental practice. But through the logic of displacement, it also exists within a wider political context which would see, only a decade or so later, environmental regulations tighten in northern industrial countries. Displacement practices became a geopolitical matter in the 1990s as these countries looked to alternative locations in the Global South, such as the Caribbean countries, to store their waste in exchange for debt relief.[383]

Waste imperialism is a specific function of neoliberal policies of the US according to Elizabeth DeLoughrey, and it is most readily epitomised in the leaked memo of former World Bank chief economist Lawrence Summers stating that 'the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable'.[384] It manifests what David Harvey has termed 'uneven geographical development': arguing that 'capitalist activity is

[380] Joshua Karliner, *The Corporate Planet: Ecology and Politics in the Age of Globalisation* (San Francisco: The Sierra Club, 1997): 31.
[381] Ibid., 34-35.
[382] Ibid., 36-37.
[383] Ibid., 148.; DeLoughrey, *Allegories of the Anthropocene,* 115.
[384] Ibid., 116.; Lawrence H. Summers, World Bank office memorandum, December 12, 1991. Quoted in Karliner, *The Corporate Planet,* 148.

always grounded somewhere', Harvey warns that the focus on the logic of capital in its abstract form of flows disembodies capital from 'the web of life' and all its social and ecological processes and structures.[385] As such, the spatial configuration outlined at the start of this chapter concerned with the dichotomy between localised and ephemeral space within site-specific art is not only a concern for the ways in which we connect with this space; a focus on permanences is a political opposition to the ways in which the abstraction and disembodiment of space seeks to mystify – make invisible, make placeless – acts of colonial and geopolitical exploitation.

The act of cleaning up is also a process of mystification, and it removes the evidence of pollution. Hence the very fact that the site of *Ocean Landmark* still exists in the same location in which it was placed over forty years ago negates the sense of removal – it is very much permanent and through our knowledge of the work it *makes visible* the acts of corporate environmentalism, and by extension, waste imperialism, that permeate the legal and governmental control of the oceans. Despite the artist's reservations towards remediation and *Ocean Landmark*'s relationship to waste, this act of making visible would not be possible without it, and would deny a key political line of questioning seen throughout this thesis based on the need to make contexts and processes known, including the materials from which artworks are made, the art historical contexts they exist in, and, like Allan Sekula's historical materialist approach, the wider social and historical systems of exploitation from which the general public are so often alienated.

Yet this is where the political complexity of *Ocean Landmark* comes to the fore: regarding the work as an act of visibility may highlight this geopolitical terrain but it does so by conceiving it as a *permanence,* which, as will be demonstrated, has consequences within the framework of contamination. It is the very permanence of waste that makes it dangerous. One reason for this is its negation of the fluidity of water, but the significance of this framework also impacts the very construction of *Ocean Landmark* as oceanic land art and solely based on the limitations of visibility. The primary political mode of interpretation cannot rely on visibility if our connection to the artwork is premised on the *limitations* of our sensory access, but this is where context is key: *Ocean Landmark* demonstrates how to make

[385] Harvey, *Spaces of Global Capitalism,* 78.; Ibid., 81.

contexts and processes known without pertaining to visual totality. Notably, when much pollution is also invisible, this also has significance for the work's relationship to contamination.

Toxic Relationality

Today, it is difficult to come across conversations on the ocean that do not include at least some emphasis on pollution. Plastic pollution has become an especially prominent element, with the material historically surrounded by the myth that disposability simply means that waste will go away – a myth that is increasingly being renounced by the microplastics that now saturate material bodies in and beyond the ocean. Yet as Max Liboiron notes, it is important to recognise that the distribution and maintenance of this pollution is wholly tied to colonialism.[386] For example, the governmental policies of the Canadian context in which Liboiron speaks is driven by a 'permission-to-pollute system', based on the premise that the environment can metabolise a limited amount of pollution before it becomes contaminating, with bodies of water especially operating by an 'assimilative capacity' that turns them into carefully managed sinks for waste disposal.[387] This is a manifestation of waste imperialism and superimposes a neoliberal view of ocean spaces based on resource management in a way that removes the capacity for other cosmological worldviews; but more than this, it is premised on the fact that this ocean space is completely accessible to both polluters and conservators.[388] With the removal of land from Indigenous communities in Canada and the US making it easier to store waste, pollution has always been tied to colonialism; but this unquestioned colonial assumption of total environmental access also resonates with the history of water contamination.

Beaumont's rejection of the work as a remediation project and any associations with waste refuses a discussion on the work's relationship with the geopolitics of water contamination. Certainly, the work is more than a waste pile, and it does a disservice to merely construe it as such because it functions as an ecosystem that does not contaminate and actively serves the aquatic life of the Continental Shelf. Yet on the other hand, the artist's rejection of remediation and *Ocean Landmark's* relationship to waste politics denies a vital

[386] Liboiron, *Pollution is Colonialism*, 5-7.
[387] Ibid., 39.
[388] Ibid., 40.; Ibid., 9.

line of interpretation for the work based on the politics of ocean occupation and contamination. This is not to simply state that the *Ocean Landmark* is guilty of waste imperialism – it can just as easily be argued that its very existence can criticise these tendencies by making them known – but that the relationship between a formerly toxic substance and the aquatic environment highlights the ways in which water contamination has previously been understood. Understanding the work as an ecosystem should not only concern what is positive: toxicity is a major element of ecological thinking because the boundaries between object and environment are not clear cut. Consequently, focusing on the work as a pile of waste is not a denial of its ecosystem function, but deals with ecology with complexity.

Interpreting the work as waste is one way of highlighting the politics of its material origins and the associations with waste imperialism, but *Ocean Landmark* can also be conceived through other visual associations. On a larger scale, the work can be conceived as a submerged island, and doing so draws connections between land art's nuclear history and its dangerous fascination with isolation and apocalypse with the social construction of the ocean that allow for large-scale water contamination to take place. As such, *Ocean Landmark* has the capacity to bring attention to the history of governmental waste disposal as well as industrial, which not only furthers an awareness of the colonial implications of displacement, but also develops the meaning of the work's ecological nature beyond the mere fact that it is an ecosystem.

The Nevada desert, which captured the attention of many land artists of the 1960s and '70s, was by no means the only location used by the US for nuclear testing. Between 1948 and 1958, the US detonated sixty-seven atomic and thermonuclear bombs in United Nations Territory in the Marshall Islands: twenty-three on or above Bikini Atoll; forty-three on or above Enewetak Atoll; and one eighty-five miles from Enewetak Atoll.[389] This culminated in a nuclear yield that environmental theorist Barbara Rose Johnston relativizes as 'equivalent to over seven-thousand Hiroshima bombs'.[390] The levels of Iodine-131 released, which made up only an estimated two percent of the total radioactive fallout, totalled at around eight billion

[389] Barbara Rose Johnston, "Nuclear Disaster: The Marshall Islands Experience and Lessons for a Post-Fukushima World," in *Global Ecologies and the Environmental Humanities,* 140.
[390] Ibid., 144.

curies: forty-two times greater than the testing in Nevada, and 150 times greater than the fallout of the Chernobyl disaster.[391]

Johnston outlines these statistics as a means of confirming the 'nuclear colonialism' that took place in the atomic era.[392] Significantly, the extent of the operations on the Marshall Islands was premised on the idea that, as an island, its geography would provide 'temporal distance buffers' for the colonisers from the 'mutagenic and potentially deadly forces birthed and unleashed upon host communities'.[393] As a result, for Johnston these operations evidenced a gross ethnocentrism in governmental decision-making, shaped by their ideas of whose lives were worth contaminating.[394] Accountability must be held not just on the physical act of contamination in all its militaristic manifestations, but on the deliberate lack of transparency in communications with the Marshallese communities; radioecology reports demonstrated alarming levels of radiation across the food chain but such reports remained classified and were not shared with the Marshallese communities until the 1990s.[395] These reports demonstrated that severe health effects were expected to affect those exposed for multiple generations, long after the decolonisation of the islands.[396] Yet, because of Marshall Islands' lack of economic resources to treat the ongoing health conditions, in 2012 the islands declared a state of health emergency, and the US expressed no interest in offering reparations for the ecological and humanitarian damage they had caused for over sixty years.[397]

Hence, the mystification of exploitation is once again enabled by a specific spatial configuration: with the ocean operating as a void, the island surrounded by it becomes isolated and thus, like the desert, get transformed into what DeLoughrey has termed a nuclear 'laboratory'.[398] The 'myth of isolates', according to DeLoughrey, was merely a means of justification for the atrocities they caused, just as the placelessness of the NTS served as a

[391] Ibid.
[392] Ibid., 140.
[393] Ibid.
[394] Ibid.
[395] Ibid., 145.
[396] Ibid., 146.
[397] Ibid., 150.
[398] Elizabeth DeLoughrey, "The Myth of Isolates: Ecosystem Ecologies in the Nuclear Pacific," *Cultural Geographies* 20, no.2 (April 2013): 168.

distraction from the annihilation in Hiroshima and Nagasaki only a few years before its conception.[399]

Moreover, the isolation myth forms a crucial link between nuclear testing and ecology within the Cold War. The development of ecology was deeply involved with such testing as the AEC was a major funder of American ecological research; ecologists, such as the infamous Eugene and Howard Odum, were sent to islands in the Pacific to conduct research into the effects of such testing.[400] Their work on radiation on Enewetak Atoll had a significant impact on the field as the notion of radiation ecology culminated in the development of systems ecology, the history of which was explored in chapter one.[401] But this research was premised on the idea of the island as a closed system, not in all its complexity, but isolated artificially for the sake of empirical research.[402] Placing *Ocean Landmark* within this context creates a radically different connotation of ecological art: far from simplistic acts of remediation or a means of reconnecting people with nature, both ecology and land are tied to the colonial history of contamination.

From the examination of autopoiesis and environmental influence on systems in chapter one, we are aware that systems are far from isolated and closed. But the work of the Odums was nevertheless of great significance for implementing isolation within the parameters of ecological research, and Eugene Odum was significant for the growing attention of the discipline and its emphasis on interaction to atomic energy.[403] It wasn't long until the isolated island construct fell short, however; further research conducted by Howard Odum on the El Verde rainforest of Puerto Rico in 1962 led to its falsification, as while treating the rainforest as its own laboratory, they found traces from nuclear testing from the Pacific Islands. Writing that 'thanks to their irradiation, we all carry a small piece of that island world in our bones', for DeLoughrey the notion of isolated islands has always been a colonial concept of space, but nuclear testing demonstrated its own failings.[404] This is in contrast to the philosophies of Pacific Islanders, who do not see such a division between land and ocean;

[399] Ibid.
[400] Ibid., 172.
[401] Ibid.
[402] Ibid.
[403] Eugene Odum, "Ecology and the Atomic Age," *ASB Bulletin* 4, no. 2 (1957): 27.
[404] DeLoughrey, "The Myth of Isolates," 173.

as Epeli Hau'ofa notes, the view of island life is based on the ancestral tradition that 'viewed their world as a "sea of islands" rather than "islands in the sea"'.[405]

Beaumont is correct to emphasise the ecological nature of the work and not erase its 'interaction with nature' by focusing purely on its connection to remediation.[406] Yet I wish to further this statement by inquiring into exactly what this 'interaction' entails beyond the connection to the organisms that inhabit it, and its importance for the politics of contamination, both historically and art historically. A prominent artistic example for furthering the island's political significance for land art can be found within Jennifer Allora and Guillermo Calzadilla's *Land Mark (Foot Prints)* series (2001-02, fig. 0.11). This collection of photographs has been used by the likes of McKee and Kelly Baum who, like Kwon, were invested in what is known as the "spatial turn" in art, and the work has been used to put into question the neutralising and expansionist qualities of land art.[407] Yet the significance of this specific series extends beyond this, as it speaks directly to the ways in which site-specific art can interrogate the colonial contamination of island communities. Visibility becomes a concern when placelessness is challenged, not necessarily by directly making the context visible, but making visual allusions to a broader situation happening elsewhere.

The island in question is that of Vieques, an island of Puerto Rico that had been used by the US Navy as storage and a weapons-testing site since the end of World War II. The effects on the local ecosystems and communities were devastating to the extent that a civil disobedience group was established in 1976 in response to growing issues of contamination.[408] These protests continued throughout the rest of the century and consisted largely of trespassing tactics as they would enter restricted territory to prevent bombs in the area from falling. In 2001-02, Allora and Calzadilla participated in a series of these interventions with the local group by entering the restricted site in customised shoes, and the results of this intervention was documented in a series of twelve photographs otherwise known as *Land Mark*. The rubber soles worn by protestors were imprinted with the demands

[405] Epeli Hau'ofa, "Our Sea of Islands," in *Tidalectics*, 107.
[406] Beaumont, email correspondence with author, October 21, 2021.
[407] See Kelly Baum, "Jennifer Allora and Guillermo Calzadilla, *Land Mark (Foot Prints),* 2001-02," in *Nobody's Property,* 82-83.; Yates McKee, "Wake, Vestige, Survival: Sustainability and the Politics of the Trace in Allora and Calzadilla's 'Landmark'," *October* 133 (Summer 2010): 20-48.
[408] Baum, "Jennifer Allora and Guillermo Calzadilla, *Land Mark (Foot Prints),* 2001-02," 82.

and complaints of the group, either in words or in image, many of which contradicted or erased others. As a result of these ongoing protests, the US Navy withdrew their occupancy in 2003; but rather than returning control to local authorities, it was placed in the hands of the US Fish and Wildlife Service, and since 2005, has been deemed the Vieques National Wildlife Refuge and a superfund site of the US Environmental Protection Agency.[409]

One of the rubber sole imprints included the images from the Apollo 11 mission, which put the first man on the moon.[410] Yet the implications of walking or stepping conjures vastly different connotations in these two contexts, or at least they are two sides of the same coin; the colonisation of space by the US coexists with an attempt to use occupancy as a means of regaining control from the US. Indeed, this also implicates the genre of land art associated with the phenomenological act of walking, such as Walter de Maria or Richard Long, in which walking is used to make a temporary trace into the earth and made permanent by photographic documentation.[411] To McKee, Allora and Calzadilla follow in this historical relationship between traces in the earth and photography – both of which share an indexical form of signification – canonised by Rosalind Krauss in "Notes on the Index, Part 1," in which she exemplifies the index with 'physical traces (like footprints), shadows, and photographs'. [412] But what differentiates these two artistic practices is that the work of Allora and Calzadilla use the trace as politicised, as a direct opposition to the ways in which land is conceived as *unmarked* by its occupiers – something that the earlier art practices unfortunately often share with various colonising organisations and governments.

There are also several resonances with *Ocean Landmark.* Most obvious is the similarity of the title "landmark", but it is the different use of this term rather than its similarities that is most consequential for an interpretation of Beaumont's work. As one word, landmark is a noun that can be defined as an object, sculpture, landscape, site, or place with significance or worth, whether cultural, historical, or natural. In this sense, "landmark" evokes the monumentality of the earthworks that still exist today, such as Smithson's *Spiral Jetty* or

[409] Ibid.
[410] Ibid.
[411] Ibid.
[412] McKee, "Wake, Vestige, Survival:," 31-32.; Rosalind Krauss, *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Mass.: MIT Press, 1985): 203.

Michael Heizer's *Double Negative.* But when the word is split into two, into "land" and "mark", by Allora and Calzadilla, it gains new meaning. Calzadilla states:

> We cut the word in half, as if it was a sculpture, separated, divided it. The word "mark" now becomes a verb, something that marks the land, and in that marking the term means how the land is used, how a land differentiates itself from another land by the way it is being and has been marked—land marked by colonization, land marked by war, by millions of reasons. These marking processes are what constitutes and defines the changing status of a land.[413]

Splitting the word in two makes the act of marking, both in the colonial and historical context of land art, explicitly politicised. Photographing this act of mark-making is a means of making permanent the traces of trespassers to reclaim their land; thus 'interaction with nature' means something very different in this context. While the footprints are ephemeral, due to be washed away by the ocean, the photographs aim to make these traces visible.

Once again, the ocean appears to act as an instigator of invisibility, which reinforces a notion of the ocean as a remover of marks and traces, whether that of occupancy or of contamination. *Ocean Landmark* is seemingly complicit with this idea of removal as it is water that stabilises the fly-ash (thus removing its contaminating tendencies), but it is not ambivalent to the act of mark making. This argument is not only founded on the linguistic similarities between *Ocean Landmark* and *Land Mark (Foot Prints*), but in the fact that when Beaumont describes *Ocean Landmark* as 'a slack line or mark of 17,000 coal waste blocks' in email correspondence with myself, she evokes a long line of questioning the meaning of mark-making not only in the artistic tradition, but in its post-colonial and environmental associations.[414] In framing it as an island – a site where contamination, occupancy, and water are entangled – *Ocean Landmark* demonstrates that water is not isolated from land or solid matter but wholly part of it: it requires an interaction with water to function. Water may serve to remove contamination in a way that is not accurate to the reality of contamination in both Puerto Rico and the Marshall Islands, but it nevertheless demonstrates that islands are far from isolated laboratories. Once again, the dynamics of visibility (or making known) and

[413] Jennifer Allora, Guillermo Calzadilla, and Hans Ulrich Obrist, "Interview with Hans Ulrich Obrist," in *Allora & Calzadilla,* ed. Beatrix Ruf (Zurich: J.R.P. Ringier, 2010): 14.
[414] Beaumont, correspondence with author, March 15, 2020.

invisibility (or forgetting/making abstract) are at play as we consider the work's ecological function in water.

Unstable Spatial Relations

Just as the idea of purely localised space is challenged by the relational mode of the site/non-site dialectic of land art, so too is the idea of discrete boundaries by *Ocean Landmark*'s use of contaminating materials in water. However, if the former is produced as a concern for how we relate to others in an increasingly globalised world and is rather politically ambivalent in its questioning of how spatial connections are formed, then the context of waste disposal and contamination does not allow for a neutral or abstract reading of these relations. Invisibility, formulated here abstractly under the guise of placelessness and mystification, is vital in the dominance of spatial relations that uphold certain myths about the consequences of colonial contamination that have had disastrous consequences for small islands over the twentieth and twenty-first centuries. While land art has been indirectly tied to multiple of these consequences, *Ocean Landmark's* existence in the ocean for much of this history provokes a thorough investigation into contamination and its implications for the movement. Even though its oceanic location makes it difficult to visually access, it does in fact work to make a lot visible.

Returning to the opening discussions of this chapter, water contamination has major implications for how we conceive *Ocean Landmark* as a form of placemaking. This not only concerns local and global scale through and after processes of globalisation but is in line with what Ursula K. Heise has called a 'sense of planet', or 'a sense of how political, economic, technological, social, cultural, and ecological networks shape daily routines'.[415] In a recent conversation with Beaumont, the artist offered me a similar definition of the global as a motivation for *Ocean Landmark:*

> I was interested in addressing urgent global concerns with a project that goes beyond cultural matters into political, anthropological, scientific, technological, and philosophical territory. Globalism enables us to cooperate on solutions for issues that challenge us today such as the oceans, climate change and global warming submerging islands (see my Teddy Bear Island, 1973 sitework), destruction of habitat, migration, overuse of pesticides and of plastics, carbon

[415] Heise, *Sense of Place and Sense of Planet,* 55.

> dioxide elimination/capture, and pandemics, such as the coronavirus, which interrupt events, commerce, our supply chain, and travel.[416]

This furthers the notion of land art and its spatial relations not only way beyond the phenomenological approaches to land art, but also beyond abstract notions of space. Framing the work within the politics of territory and water contamination is not only in line with this more recent, politicised reading of the work by the artist, but also explicitly demonstrates that these relations are not automatically positive. Consequently, the instability of *Ocean Landmark's* partially realised totality begins to have significance. In the instability of a site that, while safe, deals with toxic substances in a location not too far away, we witness the precarity of the environment subjected to weapons testing or capitalist waste imperialism. In the instability of the assemblage, we witness an escalation of such precarity to a global ecological crisis, in which ecological disaster and capitalist environmental exploitation affect each other in a feedback loop. Spatial relations determine the world we live in, but they also make this dangerously unstable.

Toxicity has come to define a major line of thinking on how we are connected to other spaces and bodies. Plastic pollution, nuclear waste, and the disposal of industrial by-products put us into relation with each other with increasing risk. The ocean plays a significant part in putting these contaminants in flux. As materialist feminist Stacy Alaimo notes, the toxic materials from pesticides, fossil fuels, and other industrial chemicals that now saturate the oceans threaten marine life; but ironically, it is because of this that certain species are now rescued from slaughter, with those who eat dolphins especially carrying high levels of dangerous metals in them.[417] This demonstrates my contention that *Ocean Landmark* must be conceived as *both* an act of remediation and an interaction with nature, because denying the former neglects the potential for the work to bring awareness to the meaning of interaction today as a spatial relation, from contamination, to financial precarity.

With the ocean existing at the edge of visual access, it becomes a question of how to gain true accountability for exploitation within this space: how can you be certain of who and what are to blame when boundaries are fluid and incomplete, and bodies and environments

[416] Beaumont, correspondence with author, March 15, 2020.

[417] Stacy Alaimo, "States of Suspension: Trans-Corporeality at Sea," *Interdisciplinary Studies in Literature and Environment* 19, no. 3 (2012): 488-89.

are so entangled? In other words, how can you find ways of seeing, knowing, and remembering without falling into the trap of artificially claiming to see and know the ocean – divided into discrete boundaries? Placelessness is certainly complicit in its removal of accountability; yet full visibility is not true for *Ocean Landmark,* and both the ocean and contaminants continually refuse it as well.[418] In light of this, is it possible to relate ethically to the ocean through instability?

Watery Imaginations

The discussion on placelessness and contamination certainly foreground the negative implications of invisibility, as much of this chapter has been dedicated to the importance of bringing awareness to industrial and governmental uses and abuses of ocean space. Yet when *Ocean Landmark* is beyond total visual access, it is important to take these limitations seriously for thinking through its political implications. It is my contention that invisibility is not necessarily synonymous with ignorance, and the remainder of this chapter will consider how the instability of *Ocean Landmark's* spatial relations (from the site/non-site paradigm to its association with waste disposal and island contamination) can be rethought to comment on the ways in which connections can be made through precarity, severing the link between knowledge and visibility. This is in line with the dual aim of this thesis to be critical and affirmational, and once again turns to the posthuman and a way of conceiving the latter. Contrary to any associations between invisibility and a lack of awareness, a greater understanding of how we connect to the ocean can be conceived, beyond proximity, and beyond the myth of total knowledge and visual access. Beaumont achieves this through the work of the imagination, as *Ocean Landmark* turns our attention to what we cannot know as a way of decentring the human.

Ocean Landmark is not the only work by Beaumont to consider the politics of invisibility. Beaumont transitioned to underwater sculpture in her creation of *Teddy Bear Island* (1973, fig. 4.3)*,* a ring of plastic cables around the island in the West Hill Pond in Connecticut that had been submerged to build a dam. Beaumont seeks exposure of that which has been made invisible as the cables serve as a reminder of the lost ecological life of

[418] Astrida Neimanis poses this question in "Held in Suspense," 59.

the island caused by the dam.[419] This builds upon the logic of exposure offered by her earlier *Steam Cleaning Santa Barbara Shore,* which made visible the cleaning process making the oil spill invisible. *Ocean Landmark* is a logical extension of both these practices – not only because of their concern for issues of submersion and contamination – but because they create a dialogue between visibility and invisibility. As the works evolve, they become increasingly invisible, such that the site of *Ocean Landmark* must rely on non-site documentation for any visual connection. But Beaumont has never laid claim for total visibility: invisibility or partial visibility is always considered central to contemporary existence through her work.

Significantly, Beaumont argues that the non-sites of *Ocean Landmark* are not merely meant to be representations of the site, but 'surrogate[s]'.[420] While their intangibility may have detrimental effects on the comprehensibility of the site itself, when discussing the potential of *Decompression*, Beaumont maintains that 'by visualising *Ocean Landmark*'s invisible realm, *Living Laboratory* will elucidate and elaborate on virtual perceptual models of different ways of experiencing information within a contemporaneous context'.[421] With the nonexistence of these works, *Ocean Landmark* is in many ways most active in the imaginative realm. Indeed, Beaumont's statement that the site's 'integrity resided in its invisibility – it could only be imagined' has frequently been quoted as a key theme of the work as it has the potential to 'question "the real"'.[422]

In thinking through the "real," it is important to note that there is a political precedent for concepts of the imagination. The imagination is central to Arjun Appadurai's concept of globalisation developed in *Modernity at Large* and, far from being an individualistic activity of aestheticisation or fantasy, the 'work of imagination' is a collective action defining local experience in a globalised world.[423] As a collective form, the imagination is that which 'creates ideas of neighbourhood and nationhood, of moral economies and unjust rule, of higher wages and foreign labour projects'.[424] It is 'a faculty that informs the daily lives of ordinary people' in a twofold manner: one which sees the imagination as upholding the conditions of control

[419] Grande, *Art Nature Dialogues,* 156-57.
[420] Beaumont, "Decompression," 10.
[421] Grande, *Art Nature Dialogues,* 152.
[422] Barbara Bloemink, "*Ocean Landmark Installation",* in *A Natural Order,* 25. Also quoted in Matilsky, *Fragile Ecologies,* 101.; Boetzkes, *An Ethics of Earth Art,* 33.
[423] Appadurai, *Modernity at Large,* 7.
[424] Ibid.

and power enforced by the state on such people; and one which sees the imagination as a counterforce to such control through its potential to create new forms of collective life.[425] As such, the imagination not only allows us to conceive the world around us – to think bigger than ourselves – but can become 'fuel for action'.[426] A key element of such imaginative processes is what Appadurai terms the 'mediascape', as media technologies allow us to imagine the lives of others of which we may not otherwise be aware.[427] The mediational processes of *Ocean Landmark* certainly has much in common with Appadurai's mediascape, as facilitator of imaginative processes that allow us to begin to comprehend a world beyond us.

Returning to the spatial dimensions enacted through the site/non-site paradigm, the imagination is key for conceptualising scale. By highlighting invisibility, *Ocean Landmark* avoids what Tsing terms the 'universal appeal' claimed by 'contemporary masters of finance' seeking 'global scale deployment'.[428] This is achieved by holding onto site-specificity but furthered through an emphasis on the limitations of making such a site known to a wider audience. A comparison with the Harrisons' *Portable Fish Farm* makes this transparent: as a work of systems art, it is predicated on a mode of system observation that highlights the immediacy of the fish – as commodities, they are instantly available to us consumable by us in that brief timeframe in which the work is realised. By contrast, the ecosystem of *Ocean Landmark* is never ours, while we can attempt to conceive it in its multiple manifestations, we cannot claim this world for our own.

By instead emphasising the imagination, my interpretation contends that *Ocean Landmark* forms its own paradigms of global connection. It is what Anna Tsing describes as a 'scale-making project': it operates as a performance, the most successful being that which becomes hegemonic by drawing connections across scales.[429] Financial capitalism may be the most hegemonic of these projects at present, but Tsing's argument also suggests that multiple globalisms exist that have the potential to become oppositional to dominant paradigms.[430]

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[425] Arjun Appadurai, "Grassroots Globalisation and the Research Imagination," in *Globalisation,* ed. Arjun Appadurai (Durham: Duke University Press, 2001): 6-7.; Ibid.
[426] Ibid.
[427] Ibid., 35.
[428] Tsing, *Friction,* 76.
[429] Ibid., 77.
[430] Ibid.

The significance lies in the fact that globalisms are essentially creative, and it is within the potential of art to construct alternative models.

The imagination thus not only provides a means to consider how we comprehend *Ocean Landmark* in all its manifestations but, as a creative process, demonstrates that the ways we regard space and our connections to it are not fixed. With relationality marked by contaminating relations and invisibility marked by the mystifying concept of placelessness, the imagination provides a means to consider how both these terms can be renegotiated. Before outlining how *Ocean Landmark*'s watery existence achieves just this, it is first worth addressing a potential pitfall of the imagination. As in chapters one and two, post-anthropocentrism once again becomes a sticking point for the argument; but in this case it is a result of its lack.

Mental Frontiers

Beaumont traces her preoccupation with the ocean to her experience as a scuba diver for the Underwater Motion Picture Society, for which she tested equipment for the James Bond film franchise in kelp beds off Catalina Island and the Channel Islands off the coast of California.[431] According to Matilsky, it is through such experience that Beaumont developed an admiration for the ocean's 'physical beauty and the dream state it induces'.[432] The focus on natural beauty and the appreciation for natural phenomena's influence on the human condition has a strong correlation to the entertainment industry in which Beaumont started her career. Not only seeking to make the oceanic world visible, the James Bond franchise constructs the ocean as a background to a human narrative, a space to play out idealised and humanistic fictions by tying the aesthetic qualities of the ocean with the required atmospheric conditions for entertainment. Indeed, water has long been a site of dreams, as its psychoanalytic dimension prevails from Sigmund Freud's notion of 'oceanic feeling' to Carl Jung's contention that water is a symbolisation of the unconscious.[433] This is an association that Beaumont was certainly aware of when making *Ocean Landmark,* as she states in *The Journey*, 'what is cognition, the poetics of space? I can look at the sea, infinite and immense; it holds certain metaphors,

[431] Matilsky, *Fragile Ecologies,* 96.
[432] Ibid.
[433] See Veronica Strang, *The Meaning of Water* (Oxford: Berg Publishers, 2004): 67.; Sigmund Freud, *Civilisation & Its Discontents,* trans. Joan Riviere and James Stratchey (Minneapolis: Martino Fine Books, 2010): 8-9.; Carl Jung, *Man and His Symbols* (London: Aldus Books, 1964).

mental space, the subconscious mind, the dream state, the invisible'.[434] The danger of this lies in the ease in which the imagination can turn real environmental spaces into ideas.

The discussion of natural beauty certainly resonates with the rhetoric of the ecological art movement that, following Lippard, has emphasised this quality. Yet the implications of the dreamscape also extend into multiple aspects of *Ocean Landmark.* Notably, it concerns the phenomenological model of interpretation, which has the tendency to frame the natural world in increasingly human terms. Krauss' model of land art falls into the anthropocentric scope of phenomenology, from Descartes, Husserl, and Heidegger, driven by humanistic vision of subject/object relations based on intentionality, or the explicit *human* perception and experience of the environment as a means of defining what such an environment is.[435] This not only concerns the site, but speaks to the ways in which the non-sites seek to encourage us to make mental connections with the site itself.

For example, in the 1980s, Beaumont conceived a project titled *Algorithms of the Mind Project* (*AMP*) which can be regarded as a precursor to the later *Decompression* project. The aim was, rather ambitiously, to create a system using artificial intelligence that allowed its participants to visualise the creative processes behind *Ocean Landmark.* Alongside the underwater photography included elsewhere, *AMP* provided a whole host of information and sources, from Marshall McLuhan to the *National Geographic,* organised in themes such as "cultural anthropology" and "ecological concerns" for the participant to navigate.[436] Operating either via joystick or touchscreen, the participant would make their own choices and the software would tailor the subsequent choices based on their user history and biographical information.[437] The participant would then be able to view their progress and it was logged on the screen in what is called a "cognitive map".[438]

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[434] Betty Beaumont, "Ocean Landmark – The Journey," Vimeo Video, 7:20, 2014, https://vimeo.com/80762084.

[435] Charles S. Brown and Ted Toadvine, *Eco-Phenomenology: Back to the Earth Itself* (New York: State University of New York Press, 2003): xiv. Such criticism of phenomenology has also been voiced by ecocritical thinkers such as Morton, who regards the field as a continuation of the Cartesian legacy that separates the body from the subject. Morton, *Ecology Without Nature,* 105-6.

[436] Princenthal, "Synthesising Art, Nature and Technology," 69.

[437] Ibid., 70.

[438] Ibid., 69.

The term “cognitive map” is most readily associated with the geopolitical theory of Fredric Jameson, who argues that to combat the sense of alienation produced by capitalism, one must be able to ‘map (in their minds) either their own positions or the urban totality in which they find themselves’.[439] This is not merely a return to purely local or national scales, but a call to adapt such disalienation processes to a sense of place in a global system.[440] Hence, Beaumont’s use of the term “cognitive mapping” is not only about placemaking in the local and global spheres, but evokes an act of grounding, a deliberate search for coherency in the contemporary condition. This coherence is solely based on a mental capacity to map the space, suggesting that relationality is wholly determined by the mind.

Beaumont’s reasoning behind both *AMP* and *Decompression* was ultimately educational, reconciling the intangibility of the underwater site work by supporting it with multiple tools providing a far more comprehensive context than a photograph alone ever could. *Living Laboratory,* as the info-ecosystem made available through *Decompression,* was premised on knowledge accumulation as it intended to include information pages on debates from multiple disciplines, from Gender Studies, Natural Science and Marine Science Research, to place environmental concerns for the ocean with theoretical concepts such as ecofeminism.[441] The wide breadth of subjects evokes the intended scale of knowledge distribution to a broad, international audience beyond the artworld, from environmentalists, urban planners and ethicists.[442]

When Beaumont describes *Decompression* as a ‘public space’ and recites John Cage’s famous contention that “the public completes the work”, the artist not only comments on the post-structural tradition and the rise of participation in contemporary art forms, but suggests that the reasoning for such participation, and perhaps the reason for creating art in the first place, is to learn and adjust perspectives on world systems based on acquired knowledge.[443] This drive is implicit in the site of *Ocean Landmark* as it raises questions of remediation and waste imperialism, but would be fully realised in the virtual projects aiming for global reach. However, it is this educational and knowledge-based drive that has also led to critiques of

[439] Jameson, *Postmodernism,* 59.
[440] Ibid.
[441] Beaumont, “Decompression,” 11.
[442] Ibid., 11-12.
[443] Ibid., 9.

Beaumont's virtual works, based on the attempt to recreate the act of mentally structuring the world, however partial.

The pedagogical intention is in stark contrast to the ways in which early computer technology was adopted by artworks of the postmodernist inclination. In 1987, Princenthal contrasts Beaumont's *AMP* to François Lyotard's *Les Immatériaux* exhibition at the Pompidou Centre, Paris, in 1985. While Lyotard's exhibition epitomised the 'postmodern revision of our understanding of technology, whereby the self is decentred, upstaged and even regulated by collusive social and technological forces', for Princenthal, Beaumont's work reinforced a sense of humanism guided by the modernist notion of artistic creativity, 'my medium is my mind'.[444] While it is certainly valid to correlate this latter notion with the early *AMP* project, it is less coherent in response to the later *Decompression* work aimed at visualising the site in multiple mediational tools rather than the artistic process. It stands to reason, however, that there is a distinct opposition between Beaumont's and the postmodernist projects, as the former seeks coherency, knowledge distribution, and connectedness, while the latter acknowledges an altogether chaotic and unstable subject.

It is at this point that Beaumont's work departs from both Smithson and postmodernism. The distinction in methodology between Beaumont and Smithson is most readily seen in the associated films of *Ocean Landmark* (fig. 3.3) and *Spiral Jetty* (fig. 3.18). Both use a helicopter to capture their works in aerial form, but while Beaumont uses this view to accurately document the process of submerging the coal fly-ash blocks and further contextualise it with her own voice-over narration, the *Spiral Jetty* film is notoriously an attempt at disorientation and an artwork in itself, rather than purely documentation. As the helicopter spirals, it traces the shape of the spiral that has been the source of decentring evoked by Krauss and Craig Owens and signifies Smithson's wider concern for entropy in geological systems.[445] In many ways, entropy evidences a destabilising and a fracturing associated with the postmodern subject, as deterritorialisation becomes a form of aggressive subject dissolution.

[444] Princenthal, "Synthesising Art, Nature and Technology," 71.
[445] Owens, "Earthwords," 42.; Krauss, *Passages in Modern Sculpture,* 279.

However, it is my contention that Beaumont's emphasis on pedagogy is less a modernist practice than a continuation of this form of connectivity – a connectivity that has the capacity to bring awareness to the political, environmental, and colonial climate marked by waste imperialism rather than descend into a postmodernist state of incomprehension. As Christopher Payne describes in *Utopian Studies, Ocean Landmark* is a means of 'building a series of bonds between ideas and people'.[446] But with the imagination playing a major role in this task, it is vital to consider the fact that within the mind, that which is imagined – namely, the site of *Ocean Landmark* – becomes less a material place in its own right, than what both Steinberg and Tsing describe as a 'frontier': a 'conjuring act' that 'asks participants to see a landscape that doesn't exist, at least not yet'.[447] In short, in the imagination, the site has the potential to perpetuate the myth of placelessness outlined in this chapter as so dangerous – a danger that within the parameters of the imagination manifests itself in the disregarding of the actuality of the site in order to claim it for our own.

However, the emphasis on pedagogy, coherency, and knowledge distribution is hinged on a version of *Ocean Landmark* that is itself coherent and fully realised. Despite all the pedagogical attempts to bring further clarification to the invisible, I write this without ever having seen the site itself and while speculating on the nature of these virtual projects if fully realised. Far from being bad art historical practice on my part, or a failure of the artwork on Beaumont's, I maintain that it is within the very speculative nature of the project that lies the work's greatest strength. The imagination need not be an exercise of dominance if it embraces the fact that our knowledge of the site itself remains largely unknown; rather, knowledge is to be found elsewhere in the political issues at stake, from waste imperialism to feminism and environmental politics more generally. *Ocean Landmark,* despite its intentions towards knowledge distribution and connectivity, is an assemblage with holes, and it is this that makes it potentially the most unstable site-non/site dialectic of them all.

Instability is thus engrained within the work in more ways than one; but by making this known, it has the capacity to bring vital awareness to the political issues at the core of the work's existence, including the abuses of ocean spaces facilitated by its construction as

[446] Christopher S. Payne, "the Work of Betty Beaumont: Creative Vision Through Dialogue and Connection," *Utopian Studies* 9, no. 1 (1988): 161.
[447] Tsing, *Friction,* 88-89.

placeless. The imagination has a great theoretical capacity that should not be outweighed by its humanistic associations. Appadurai's concern for the imagination as a form of community building can expanded to include the nonhuman world, such that we no longer conceive through proximity, but possibility. *Ocean Landmark* may have far more to offer than the term 'ecological art' suggests, but alongside the relationship between ecology, contamination and material origins, the work also provokes a key question: how does one imagine ecologically?

The Hydrocommons: Here/Now, Everywhere/Always

A relational, or indeed ecological, notion of space has been supported since the start of this chapter. From its operational capacity within the land art discourse to concepts of contamination, the ways in which water especially connects us to the bodies of others spatially – for better or for worse – has been explored within the parameters of *Ocean Landmark.* If the realm of the visible aims to highlight that which is especially dangerous about these relations, then it is within the imaginative capacity of the invisible that lies the potential to rethink these relations. The emphasis on the imaginative capacity of the invisible can not only highlight this power but lead to greater understanding of how communities co-exist through the limitations of their situations. This does not deny the dangers of instability and contamination but acknowledges the complexity of these relations.

Thinking ecologically demands a restructure of what we consider space to be. Central to *Ocean Landmark's* relational framework of oceanic space is an avoidance of what materialist feminist Karen Barad calls a sense of the 'immediately given-ness' of the world.[448] The emphasis on invisibility has done much to put this into question with reference to the work of Beaumont, but Barad takes this further, by opposing a Euclidean geometric concept of space, or space 'as a container/context for matter in motion', which has dominated Western philosophy.[449] As such, Barad argues against a causal, deterministic view of space through her notion of agential realism – or the intra-actions of agencies that allow objects to come into being.[450]

[448] Karen Barad, "Re(con)figuring Space, Time and Matter," in *Feminist Locations: Global and Local, Theory and Practice,* ed. Marianne DeKoven (New Brunswick: Rutgers University Press, 2001): 101.
[449] Ibid., 76.
[450] Ibid., 91-92.

For Barad, 'spatiality is an ongoing process of (re)structuring through the (re)marking of boundaries which depends upon and plays a productive role in the materialisation of phenomena'.[451] There is a constant negotiation between boundaries of interiority and exteriority and therefore cannot remain a constant, but an ongoing, dynamic process.[452] This idea of space alters how we conceive of the local and global:

> The relationship between the local, the regional, the national, and the global is not a geometrical nesting. "Local," "regional," "national," "global" are all topological matters, intra-actively produced through one another, so that an increase in the flow of information and goods across national boundaries does not in and of itself constitute the obsolescence of the nation-state.[453]

While conceived through the dimension of quantum physics, it is possible to trace the language of liquidity in the dynamic boundaries and flows of space.

The history of water contamination, nuclear politics, and waste displacement have already made this evident as all dispute a discrete notion of space. Indeed, this goes much further than Beaumont's contention that *Ocean Landmark* is an 'interaction with nature' as it unveils not only the political fragility of interaction, but through the theories of Barad, the work's conceptual potential that lies in its ability to rethink spatial relations. These are not isolated categories – both offer a relational notion of space – but the concluding parts of this chapter aim to demonstrate how these fluid boundaries between objects and scales that are so integral to both the site/non-site paradigm and water contamination can provide a key means of interpretation for the work. This interpretation is based on the premise that the works limitations of visibility and reliance on the imagination demonstrate how we can still gain awareness of – and still care about – political issues beyond proximity, and beyond total visual access. This is achieved through a notion of *Ocean Landmark* as both material and conceptual, with its site-specificity and dispersed assemblage nature working in tandem to produce this.

Ocean Landmark has always been an artwork with an intended audience. That audience is somewhat indeterminate because it does not refer to those who have an in-situ

[451] Ibid.
[452] Ibid., 92.
[453] Ibid., 103.

experience of the work itself, but those who have experienced its non-sites, and indeed, potentially all those who are aware of the unrealised new media project as they now exist on a conceptual level. In theory, such an audience has a global reach, and all participate within an assemblage that is testing the boundaries of space and time through an intensely relational form of spatio-temporal production. As such, it must follow that the anti-geometric, anti-Cartesian approach to space extends to those that participate in it, human and more-than-human. The spatial relations of *Ocean Landmark* return to a key mode of interpretation for both systems art and land art, the relationship between audience and artwork.

Hence a relational notion of space is also posthuman, and Stacy Alaimo's concept of 'trans-corporeality' draws out the political and ethical implications of such an, which does not seek to dissolve the subject so much as draw out its ethical and political implications. Trans-corporeality is described as such:

> By emphasizing the movement across bodies, trans-corporeality reveals the interchanges and interconnections between various bodily natures. But by underscoring that trans indicates movement across different sites, trans-corporeality also opens up a mobile space that acknowledges the often unpredictable and unwanted actions of human bodies, nonhuman creatures, ecological systems, chemical agents, and other actors.[454]

Significantly, trans-corporeality stands in opposition to what Alaimo terms the 'medical body' of the late-twentieth and early twenty-first century, which is formed by 'bracketing' it from its material, or environmental conditions.[455] Not only does this create a false separation of nature and culture; for Alaimo, the medical body is purported to uphold the dominance of the pharmaceutical industry.[456] Arguing that a focus on the ways in which the human body is subject to environmental contamination would have detrimental effects on the economic success of chemical companies, Alaimo echoes DeLoughrey's argument that the isolation myth was used to justify the contamination of the Marshall Islands. Yet through the discourse of contamination, it is not just the ecosystem that evades the idea of the closed system; the

[454] Alaimo, *Bodily Natures,* 2.
[455] Ibid., 3.
[456] Ibid., 90.

human body too is a sponge with dynamic boundaries.[457] As such, it is decentred, ecological, and posthuman, and for Alaimo this is especially true in the late twentieth and twenty-first centuries: the purity of the human body is evaded – for better or for worse – with the rise of xenobiotic chemicals that on the one hand have allowed for more agency in gender construction (through testosterone and xenoestrogen) but also have caused extreme environmental illnesses (through compounds such as DDT and PCB).[458]

This posthuman concept of spatial relations offers a radical way of conceiving spectatorship. Reading *Ocean Landmark* and all its partial iterations in terms of trans-corporeality illuminates the ways in which an audience can be connected to a site without being in its visual proximity: how can we oppose mystification and ocean placelessness by having awareness of ocean space activity without occupying it? It is here that the significance of water for the land art discourse comes into fruition. Just as the discourse on water exposes isolationism as a myth as it pervades fixed spatial boundaries, water also highlights the spectator's body's own leakiness. It is not just that the body is open to contamination; the trans-corporeal audience is situated within a wider watery community known as the hydrocommons.

Returning to the theories of Astrida Neimanis brings this sense of community to the fore. Our connections to the bodies of others through water is not only achieved temporally, as it is outlined in chapter two, but spatially as well. Neimanis' trans-corporeal and posthumanist reading of water draws connection between space and subjectivity, human and water ontologies. Arguing that 'our wet matters are in constant process of intake, transformation, and exchange – drinking, peeing, sweating, sponging, weeping', Neimanis reclaims the concept of the flow from its capitalist and financial connotations and returns it to a strongly materialist, embodied existence.[459] The wateriness of the body not only connects humans to other humans – 'a kissable lover, a blood transfused stranger, a nursing infant' – but to a world beyond the human, or a 'more-than-human hydrocommons'.[460] Of course such

[457] See also Mel Y. Chen, *Animacies: Biopolitics, Racial Mattering, and Queer Affect* (Duke: Duke University Press, 2012). Chen argues that narratives on contamination have significance for narratives on race, sexuality and disability as they as they relate to preconceived ideas of purity, life and death.
[458] Alaimo, *Bodily Natures,* 114.
[459] Neimanis, *Bodies of Water*, 2.
[460] Ibid.

a concept of the flow does not ignore the socio-political conditions in which water exists today, from the capitalist, colonial and toxic; what it adds is a non-hierarchical acknowledgement of multiple planes of existence, joined together through water in unlikely ways.

Neimanis offers a radical reimagining of the phenomenological concepts of space that blossomed through Krauss' interpretation of the land art tradition. Certainly, Neimanis is not the only one to offer an ecological reimagining of Merleau-Pontian phenomenology beyond its humanistic tendencies, including the feminist theorists of Irigaray and Elizabeth Grosz and new materialist theorists such as Jane Bennett.[461] Yet Neimanis' approach is significant because it outlines how water challenges preconceived ideas of embodied encounter through proximity, or 'human-scaled experience'.[462] Neimanis argues that 'a body of water also extends, trans-corporeally, into other assemblages, watershed, cistern, sea; and other bodies that are human, vegetable, animal and hydrogeological'.[463] As such, we connect to bodies that are in seemingly disparate locations. This is what it means to have an interaction with nature: it is not just a role adopted by the artificial reef, but by the audience as they connect to the site beyond visual proximity, through the site/non-site paradigm.

Certainly, this feels a long way from the ways in which the land art tradition has sought to build connections between the artwork and viewer beyond proximity. Yet by existing within water, *Ocean Landmark* lends itself to fluid negotiations of space. Despite existing in a specific location in the Continental Shelf, it is no means beyond embodied experience because the very waters that surround the blocks are connected to the body of every living thing within the hydrocommons. Through water, the spectator is bonded to the work not only conceptually (as they form an idea of the work in the imagination), but materially, through a shared watery existence. The water in my body shares its existence with the water in my tap, the water of the polar of the ice caps, and the water that surrounds *Ocean Landmark.* This does not remove the specificity of its location with its own political, territorial associations,

[461] Luce Irigaray, "The Invisible of the Flesh: A Reading of Merleau-Ponty, *The Visible and the Invisible,* The Intertwining – The Chiasm," in *An Ethics of Sexual Difference,* trans. Carolyn Burke and Gillian C. Gill (London: Anthlone Press, 1993): 180-184.; Elizabeth Grosz, *Volatile Bodies: Toward a Corporeal Feminism* (Bloomington: Indiana University Press, 1994): 86-104.; Bennett, *Vibrant Matter,* 29-30.
[462] Neimanis, *Bodies of Water,* 45.
[463] Ibid., 47.

but it rather reformulates spatio-temporality to hold onto both the "here and now" as well as the "everywhere and always". In short, the watery body shares with *Ocean Landmark* a simultaneous locality and globality, for better or for worse.

Consequently, what is at stake when we seek to imagine our connection to *Ocean Landmark* in this way? Firstly, it has significance for the ways in which we conduct art historical analysis. *Ocean Landmark* necessitates an art historical approach that does not consider the existence of an artwork in one space, or indeed one time, but acknowledges a more complex concept of space as well as the artwork's past and potential to change in the future. In many ways, this has been achieved in this chapter by considering how an understanding of the work is altered by different contexts, such as the remediation of ecological art, the placelessness of land art narratives, the politics of corporate environmentalism and waste imperialism, and the decentring of the body in posthumanism and materialist feminism. By conceiving the work through different spaces and times, we can view the work in multiplicity, and we can consider which narratives have been included and why, and which narratives matter today. This is intrinsically tied to the question of which concept of world relations we wish to uphold and carry with us into the future. Again, the imagination has a revolutionary capacity.

Building upon this, a posthuman, oceanic concept of space also has an ethical dimension that extends beyond the question how we connect to art beyond the visible, but of how we connect to others more generally. The lack of visual access that enables an imaginative capacity becomes a means of conceiving what Boetzkes has called, in relation to the land art discourse, an 'ethics of place'. Boetzkes argues:

> An ethics of place is an explicit disruption of the homogenising force of modernity that would mechanise all natural energies for human purposes, because the power of ethical feeling lies in the excess that transcends self-interest and refuses to force nature to fit into categories of one's own symbolic order.[464]

As such, an ethics of place is invested in an alternative worldview to the capitalist forces that conceive the ocean as a well of resources to be extracted, but it is also a worldview that does not claim that the world exists for humanity alone. The relational dimension that *Ocean*

[464] Boetzkes *An Ethics of Earth Art,* 56.

Landmark supports is certainly complex, but within that complexity lies a potential to conceive the ocean, and the world more generally, in ethical terms. Visibility and its limitations play a vital role in this ethical response.

Conclusion: Ethics at Sea

This chapter has aimed to explore the geopolitical and posthuman dimensions of land art's spatial relations, as they are stretched and made porous through the liquidity of Beaumont's *Ocean Landmark.* Observational relations are put to the test, but it is my contention that ethical responses to today's geopolitical challenges can still be forged because visibility does not have to mean knowability. Such a highly politicised notion of space disregards any myth of isolation, or an artificial concept of the local and global as discrete entities, which *Ocean Landmark* brings awareness to through its position in the ocean, its relation to discourses on ecology and water contamination, and its non-site assemblage. Most significant for this chapter's negotiation of space, however, is the idea that *Ocean Landmark* allows us to recognise the reality of oceanic spaces without assuming total visual access. It allows us to care for the construction and mystification of the ocean without claiming full knowability of the spaces that repeatedly evade it.

Ursula Heise argues that the environment has historically been concerned with an 'ethic of proximity', or a model of ethics developed by philosophers such as Zygmunt Bauman and Emmanuel Lévinas that links ethics to a phenomenological philosophy, or an ethics of human experience.[465] Environmentalism has taken from this tradition a correlation between 'spatial closeness, cognitive understanding, emotional attachment, and an ethic of responsibility and "care"', and it is from this understanding that the emphasis on a localised sense of place develops.[466] Such an idea no doubt appears insular and short-sighted in today's global context, when life events are produced and disrupted by actions across the world; thus, Heise offers an ethics of eco-cosmopolitanism that extends the notion of space that underpins the ethics of responsibility to a global level.[467] This is how we feel affective ties to those who are not immediately next to us, and it is how we feel compelled to act with care to those different to us – of a different gender, sexuality, race, ethnicity, species – on a global level. As

[465] Heise, *Sense of Place and Sense of Planet,* 33. See also Lévinas, *Totality and Infinity.*
[466] Heise, *Sense of Place and Sense of Planet,* 61-62.
[467] Neimanis, *Bodies of Water,* 68.

such, Heise offers an altogether different model of globalisation that is witnessed today through the dominant language of finance and risk analysis. It is this ethically driven global model that I identify in *Ocean Landmark,* as it provides a model for more ethical ways of connecting to the world.

Existing in water, *Ocean Landmark* draws connections through space and time in what Neimanis calls the hydrocommons. For Neimanis, such connections also have phenomenological ethical implications by holding onto an 'ethics in the body, in corporeal sensibility' indebted to Lévinas, but Neimanis reformulates it for a watery sensibility that confuses a discrete concept of location, and indeed, of species.[468] Chapter two examined how narratives of the ocean can bridge connections between the human and nonhuman through an emphasis on how all life on earth evolved from marine organisms; the current chapter develops this idea by examining how such a connection can be bridged on a potentially global level. The significance is twofold: it illustrates how art is capable of developing paradigms that are oppositional to the dominant paradigm of global capitalism by challenging the ways in which we think of how bodies, objects and matter exist, and are produced, spatio-temporally; and it demonstrates how such a concept can achieve ecological ends, changing the ways in which we ethically respond to the lives of others in ways that disrupts the idea that the world exists for humanity alone.

In line with this thinking, Beaumont has stated that her new media projects, in which the invisible world can be conceived as 'physical or psychological space' that encompasses gender and environmental politics, operate as 'a virtual landscape in which people can explore their own, and others', ways of seeing', thus compiling 'worldviews' in a 'dynamic, collaborative cyberworld'.[469] Part of this ethical dimension is the recognition that new paradigms must involve the democratic exchange of knowledge and acknowledge the voices of those considered other to the hegemony of white, masculine discourse, whether of different gender, sexuality, race, ethnicity, or species.[470] The democratic potential lives on in *Decompression* conceptually, but it also exists in Beaumont's feminist reading of the site's

[468] Ibid., 79.

[469] Beaumont, "Decompression," 10-11.

[470] Alaimo states that the post-structural lineage of new materialism leads to imaginaries that 'proffer no solid foundations', thus embracing multiplicity and non-aligning perspectives and emphases. See Stacy Alaimo, "Afterword: Adequate Imaginaries for Anthropocene Seas," in *Blue Legalities,* 321.

invisibility and its 'conceptually cognitive' existence.[471] The refusal of the grand narratives of globalisation, instead emphasising partiality and the limitations of vision, furthers the ethical dimension of the work within the parameters of epistemology. Chapter five will build upon the epistemological stakes of partial – or oceanic – seeing and thinking in its analysis of Ursula Biemann's *Acoustic Ocean* (2018, fig. 0.4). By embracing invisibility and attuning the sensorial conditions of the underwater world, I will consider how these worldviews interact the epistemological stakes of situatedness to conceive, in line with the hydrocommons, a model of coexistence through difference.

Consequently, the ethical potential of *Ocean Landmark* far exceeds that which is associated with the practical recycling of coal waste material. *Ocean Landmark* raises significant questions about the purpose of artistic practice regarding the ecological crisis today. Certainly, it is not a problem that is going to be solved through art and culture alone, but art, as material objects open to conceptual interpretation and an embodied dialogue with the spectator, can interrogate the ways in which the relationship between humanity and the ocean has historically been constructed and is upheld by global capitalism today. The question of the art historian is not how art can be used to mask and uphold the ecologically destructive actions of capitalist industries; it is to uncover the narrational and structural potential of artworks with ethical, political, ontological, and epistemological significance. *Ocean Landmark,* in its appeal to the politics of space in the local, global, physical, virtual, and conceptual, offers ample opportunity for these narratives. Yet most simply, as a material object that exists in space but cannot be seen, its unleashing of the imagination for methods of worldmaking is its greatest gift to an ecological art history for today.

[471] Beaumont, correspondence with author, March 15, 2020.

Chapter Five: Oceanic Speculation

Set within the vast coastal landscapes of the Lofoten Islands of Northern Norway, *Acoustic Ocean* (2018, fig. 0.4) is an 18-minute, single-channel video essay that explores cetacean communication through sonar technology. Tracing the actions of Sofia Jannok (fig. 5.1), a musician and climate activist from the Sámi community of Northern Scandinavia performing the role of a 'biologist-diver', we witness the preparation of hydrophones, parabolic microphones and recording devices that make audible the sounds of marine communication beyond the visual scope of the video.[472] As she works on the coast, Jannok grants us access to this marine life through technology that, while embedded in militaristic, capitalist, and colonialist histories, push the sensorial boundaries of the human. The aim of this chapter is to explore how *Acoustic Ocean* appeals to speculation in these sensory modes with specific epistemological and political stakes for the ecological crisis faced by the Sámi community today.

For Ursula Biemann, Jannok's performance of the scientist acts an 'important mediator of the contemporary understanding of our planetary ecosystems'.[473] This understanding is made explicit when Jannok outlines the significance of ecological destruction on her community, based upon the implications of global warming on reindeer population. Reindeer husbandry is a central aspect of what has defined the traditional Indigenous identity of the Sámi community, and with Sámi land being increasingly damaged by a multitude of environmental and colonial forces, Jannok's emphasis on the significance of the reindeer population is positioned as a fight for environmental justice.

The politics of Jannok's position is explored allegorically using sonar, in which listening to her vocalisation of the effects of climate change on the local environment correlates to the underwater sounds that she makes audible using sonic technology. The terrestrial and oceanic ecosystems collide to explore the acoustic in all its technological and political dimensions. As a moving-image work, however, this does not mean that the turn to the acoustic removes the visual altogether; rather, in *Acoustic Ocean,* vision also plays an

[472] Ursula Biemann, "Acoustic Ocean," Geobodies, accessed October 1, 2020, https://www.geobodies.org/art-and-videos/acoustic-ocean.
[473] Ibid.

essential part. It is difficult not to become entranced by the sublime coastal landscapes rendered in 4K digital video (fig. 0.4), as well as high-resolution 3-D scans of the Andøya Canyon seafloor captured by a research unit in Tromsø (fig. 5.2), and close-up shots of pteropods created by Christian Sardet of the Centre National de la Recherche Scientifique (CNRS) in Paris (fig. 5.3).[474] *Acoustic Ocean* is no doubt an exploration of visual representations of oceanic life; yet when Biemann describes the intention of sonar as to 'sense the submarine space for acoustic and other biological forms of expression', the artist frames the work as a video that extends beyond vision.[475] Section one of this chapter takes the concept of invisibility introduced in chapter two as its focus, which in turn acts as a springboard to construct an idea of speculation as a force utilised for both ecological and Indigenous politics today.

If chapters one and two demonstrated the necessity of visibility for the exposure of exploitation in oceanic spaces, and chapters three and four built upon this by asking how we can make known the exploitation of spaces that truly cannot be seen, then this chapter turns to the idea of speculation to address the epistemological and political stakes of this lack of sensory access. As has been shown through the parameters of the exploitation of labour and the contamination of island communities within the Atlantic and Pacific Oceans, both aided by the abstraction and mystification of ocean space, visibility has never been purely about sensory experience but knowledge production and dissemination. With a lack of scientific knowledge on oceanic ecosystems aiding opportunistic seabed explorations and interventions guided by poorly regulated frameworks, the acceptance of epistemological limitations is certainly not felt by all and, for the deep-sea mining companies operating in economic exclusive zones, it actually advances their freedom to extract without a true concern for the preservation of these ecologies.[476] In light of this, embracing the limitations of our ability to see cannot afford to be an anti-intellectual position, but must stand explicitly against this extractivist value system.

Furthering the imaginative capacities of Betty Beaumont's *Ocean Landmark* (1978-80, fig. 0.3), speculation becomes a means of addressing the fact that to terrestrial beings, ocean

[474] Ursula Biemann, email correspondence with author, July 16, 2020.
[475] Biemann, "Acoustic Ocean."
[476] Susan Reid, "Solwara 1 and the Sessile Ones," in *Blue Legalities,* 29.

life is different and incomprehensible; yet occupying this space of incomprehensibility enables opportunities for imagining different worldviews and value systems to the colonial and extractivist policies that have been explored throughout this thesis. This is, no doubt, a huge task, but this chapter begins the work by addressing the epistemological dimensions of these worldviews. The ocean is not just a space of exploitation, but a means of addressing political and epistemological questions of difference. For Stacy Alaimo, this is a posthumanist task, as the recognition of the limitations of knowledge 'debars us from humanist privilege and keeps us "fixed or lost as in wonder or contemplation"'.[477] This is what Alaimo terms the 'state of suspension', in which the recognition that we do not have total knowledge of the material actors of the world does not excuse us from political action but rather increases it, because trans-corporeal subjectivity means that despite our epistemological limitations, we are still nevertheless tied to others across the world with an ethical responsibility.[478] In other words, speculation occupies this suspended space in which we acknowledge that we do not, and cannot, know it all; but rather than persisting with capitalist activity, through *Acoustic Ocean* we turn to listening to scope out this ethical response. Vitally, this sonic turn also demonstrates that relationality, which has framed so much of this thesis, is not always possible, as listening becomes a means of scoping out partial, incommunicable, and non-reciprocal interactions with others. Through an epistemological investigation, listening, too, has its limitations.

A major voice in this chapter will be Donna Haraway, whose speculative approach will be traced through her theories on feminist science studies, cyberfeminism, and most recently, more posthumanist concepts of multispecies justice. This is not only because Biemann cites Haraway's latest work, *Staying With the Trouble,* as an inspiration in the credits of *Acoustic Ocean.*[479] Haraway's work on Indigeneity and situatedness will provide a framework for thinking through the challenges of essentialism and the political force of epistemology for *Acoustic Ocean* in sections two and four of this chapter. Haraway's voice is important for this chapter because the varied approaches to ontology, storytelling and epistemology demonstrates the complexity in speculative thinking today.

[477] Alaimo, "States of Suspension," 477.
[478] Ibid.
[479] Biemann also cites Neimanis, *Bodies of Water.*; Helmreich, *Alien Ocean*.; Etal Adnan, *Sea and Fog* (New York: Nightboat Books, 2012).

The main source of comparison between Haraway's writing and *Acoustic Ocean* is the exploration of speculation through the genre of science fiction. Biemann encourages an interpretation of *Acoustic Ocean* in terms of this genre when she defines it as a 'science fictional quest into an amphibian life world'.[480] The artist builds upon the concept of science fiction outlined by Haraway as indebted to the likes of Ursula K. Le Guin, Octavia Butler, and Samuel R. Delaney, as a major tool for speculative worldbuilding.[481] Yet science fiction in *Acoustic Ocean* is more than a nod to Haraway or the speculative turn in general; as it is explored in this chapter through the tropes of first contact and Darko Suvin's principle of 'cognitive estrangement'.[482] Speculating on the ability to listen to the ocean introduces questions of access – both sensory and physical – to other worlds. An examination of the visual dominance of the ocean will begin this chapter, but in asking how we attune to the sensory conditions of the ocean, this is also a concern for the acoustic. With the extraction of knowledge from Indigenous communities operating in both academic and conservational spheres, the epistemological scope of science fiction introduces the political stakes of crossing the border, leading to the question of how we listen well.

To better understand the link between science fiction and speculation, it is necessary to unpack the theories of a second major voice in this chapter: Fredric Jameson. Chapter two explored Foucault's definition of the utopia as a "no place" which, in contrast to the heterotopia, does not speak as directly to the real conditions of the ocean. Yet Foucault's is not the only definition of utopia: in Jameson's *Archaeologies of the Future,* utopia is in no way separate to reality, as it framed as a model of political ideology that has waned since the end of the Cold War and with the rise of the political and economic consolidating force of globalisation.[483] With globalisation, the end of utopias was conceived alongside the end of history, for Jameson, because of the 'universal belief, not only that this tendency is irreversible, but that the historic alternatives to capitalism have been proven unviable and impossible, and that no other socio-economic system is conceivable, let alone practically available'.[484] This certainly echoes the transition from counterculture to neoliberalism

[480] Biemann, "Acoustic Ocean."
[481] Haraway, *Staying With the Trouble,* xiii. See also the chapter "Sowing Worlds" in ibid., 117-125.
[482] Darko Suvin, "On the Poetics of the Science Fiction Genre," *College English* 34, no.3 (December 1972): 372.
[483] Jameson, *Archaeologies of the Future,* xi-xii.
[484] Ibid., xii.

explored in chapter one, and to emphasise utopias within this context is a reinforcement of alternate systemic possibilities and the representation of difference, which is achieved through utopian thinking – or what I call speculation.[485] Utopia is framed as a sub-genre of the literary genre science fiction, and, following the notion of cognitive estrangement, Jameson determines the genre as having an 'essentially epistemological function', with utopia specifically 'devoted to the imagination of alternative social and economic forms'.[486]

It can be argued that since the publication of *Archaeologies of the Future* in 2005 the speculative turn in both theory and literature (most readily seen in the rising prominence of speculative fiction) brings renewed attention to utopian thinking with its focus on worldbuilding.[487] Yet Jameson's concept of utopia as a form of science fiction remains vital both specifically for analysing the speculative function of the relationship between humans and the marine world in *Acoustic Ocean* within the politicised backdrop of Indigenous and environmental justice in the wake of global neoliberal policy, as well as for thinking through the possibilities of the future in the world of anthropogenic ecological breakdown. Hence, the conceptual framework built for *Acoustic Ocean* as a work of science fiction is not only both ontological and political but draws out of the ontological questions of connecting to the marine world a vital political motivation to critique the world as it stands. Globalisation, as an 'imagined global system', is after all its own utopia.[488]

It is within this context that Biemann's video essay practice emerges. As an assemblage of image, sound and text, the video essay is indebted to the film essay, which can be dated back to the 1920s and was first conceived as a genre by filmmaker Hans Richter in his 1940 essay "The Film Essay: A New Form of Documentary Film".[489] Existing at the intersection between art and documentary, it is a medium that adopts such a position to gather political potency.[490] Biemann's adoption of the form two decades before the creation

[485] Ibid.
[486] Ibid., xiv.
[487] E.g. see Jayna Brown, *Black Utopias: Speculative Life and the Music of Other Worlds* (Durham: Duke University Press, 2021). Brown outlines a theory of Black speculation through concepts of mysticism, afrofuturism, and spiritual musical practices.
[488] Jameson, *Archaeologies of the Future,* 221.
[489] Hans Richter, "The Film Essay: A New Type of Documentary Film," in *Essays on the Essay Film,* ed. Nora M. Alter and Timothy Corrigan (New York: Columbia University Press, 2017): 89-92.
[490] Jan-Erik Lundström, "Introduction," in *Mission Reports: Artistic Practice in the Field: Video Works, 1998-2008,* ed. Ursula Biemann (Umeå: Bildmuseet, 2008): 8.

of *Acoustic Ocean* developed from a desire to escape the 'critically detached aesthetics of institutional critique' that prevailed in the late twentieth century through a recognition of the 'politics of location', provoked by her introduction to postcolonial critique in her art training in New York in the late 1980s and early 1990s, as well as a preoccupation with globalisation within European cultural discourses once she left the US.[491] Discouraged by the lingering colonial attitudes of art institutions, Biemann sought to make connections with more broadly cultural institutions with a socio-political focus.[492] At the time, according to Biemann, such work was predominantly being created through film and video activism, and the video essay allowed Biemann to involve herself with the political conditions of the time while still operating within an art context that had a notable impact on cultural discourse.[493]

In this chapter, the video essay will support an investigation into the epistemological stakes of speculation against the hegemonic universalities of the current global system. Specifically, through the lens of listening, plurality dictates the value system as opposed to hegemony. Biemann's early preoccupation with colonial hegemonies through the phenomenon of globalisation is translated in the artist's later practice for a concern for eco-imperialism.[494] This is evidenced by her involvement with World of Matter, the international project seeking to make connections 'between different sites, materials, processes, attitudes, and agencies' at the 'intersection of the social, technological, and natural spheres'.[495] With a specific emphasis on relationships between and narratives of human and more-than-human worlds, Biemann's later concern for the ecological coincides with the research project's investigations into the ways in which the natural world is equally marked by colonial systems – hence working as an extension of her earlier political approach.[496]

For example, *Egyptian Chemistry* (2012, fig. 5.4)*,* which explores the water politics of geoengineering projects of the Nile, contrasts the transformation of Egypt's aquaculture through technological and industrial innovation during the 1990s (enforced by President

[491] Ursula Biemann, *Been There and Back to Nowhere: Gender in Transnational Spaces* (Berlin: B-Books, 2000): 5-7.
[492] Ibid.*,* 7.
[493] Ibid.
[494] Mabe Bethônico et al., "Introduction to the World of Matter Project," in *World of Matter,* edited by Inke Arns (Berlin: Sternberg Press, 2015): 11.
[495] Ibid., 10.
[496] Ibid., 10-11.

Mubarak's aim to move the country to an export-based agroeconomy in line with economic globalisation) with non-anthropocentric narratives of the Nile, including how it has historically been used by 'lazy fish, suspended pollutants, ammonium nitrate, cement factories, and wheat crops'.[497] As Biemann argues, *Egyptian Chemistry* does not merely illustrate a model of globalisation centred on the movement of people, but offers 'an observation of a material constellation – a way of being – in which humans merely play one part among many'.[498] The dialogue between the socio-political and non-anthropocentric is most readily epitomised in *Egyptian Chemistry* when an interview with philosopher Graham Harman at Cairo University discussing the principles of object-oriented-ontology is interrupted by a teargas attack from protesting opposing President Murabak's policies.

Hence *Egyptian Chemistry* supports this thesis' aim to demonstrate that politics and posthumanist or ecocritical theories go hand in hand, and the work especially continues chapter four's juxtaposition of the geopolitics of land use and posthumanist theories of water. As will be demonstrated, *Acoustic Ocean* also explores these dichotomies, but does so especially through ideas of speculation introduced in previous chapters, as the alternative, post-anthropocentric narratives of water that Biemann seeks to create in *Egyptian Chemistry* are realised in *Acoustic Ocean* by going beyond vision.

Speculation in *Acoustic Ocean* becomes a perceptual tool to access the reality of the present, but it does so by drawing on the past as well: through sonar, we are taken back to the militaristic and ecological uses of the technology in the post-war, cybernetic era. This venture provides valuable insights into the operations of utopia within both counterculture and the so-called "golden age" of science fiction. Within the context of *Acoustic Ocean,* the historical emphasis salvages the hope of utopia against the potential for it to uphold a humanist and militarist techno-utopian fantasy so prevalent for today's technocratic condition.

Alongside the past and the present, through the lens of speculation *Acoustic Ocean* no doubt also has much to do with the future as well. Just like Benjamin's view of history, the

[497] T.J. Demos, "Decolonising Nature: Making the World Matter," in *World of Matter,* 21.; Ursula Biemann, "On the Metachemistry of Oil and Water," in *World of Matter,* 37.
[498] Ibid.

model of the future envisioned is, following Jameson, anti-progress.[499] If Benjamin is wary of history being colonised, so too is Jameson wary of the colonisation of the future. Conceiving a notion of 'stockmarket' futures in which life's differences are cleared and made permeable to the predictability of future investment, Jameson writes:

> This is the future prepared by the elimination of historicity, its neutralisation by way of progress and technological evolution: it is the future of globalisation, in which nothing remains in its particularity, and everything is now fair game for profits and the introduction of the wage-labour system.[500]

Speaking of futurity in light of the ecological crisis will no doubt evoke notions of extinction and eco-apocalypse – the ocean especially impacting concepts of the future as it is, as Elizabeth DeLoughrey describes, 'more watery'.[501] Yet for many, including Jannok and her community, the catastrophe of the ecological crisis is a present reality not a mere possibility of the future.[502] Indeed, Indigenous Sámi concepts of time do not subscribe to the abstract and linear temporalities of the Western world but rather revolve around multiple environmental factors, including light and dark seasons and lunar cycles, with the names of months based on significant environmental factors occurring at the time, such as when the saps rise.[503] By following natural cycles of growth and death, the Indigenous Sámi concept of time is also non-linear; while the introduction of the Julian calendar by Christian missionaries will have had some effect on Indigenous temporalities, the Sámi concept of time also refutes the separation of past, present and future.[504] Speculation, as Jameson understands it, exists in a vastly different context to the Sámi tradition, but within the scope of *Acoustic Ocean* it has the capacity to disrupt linear forms of progress – or decline – by seeking alternative temporalities that do not separate the future or the past from the here and now.[505]

Likewise, speculation also speaks to the posthuman concept of time mapped out through Rachel Carson and Astrida Neimanis in the evolutionary reading of Helen Mayer and

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[499] Jameson, *Archaeologies of the Future,* 288.
[500] Ibid.
[501] Elizabeth DeLoughrey, "Ordinary Futures: Interspecies Worldings in the Anthropocene," in *Global Ecologies and the Environmental Humanities,* 353.
[502] Brown, *Black Utopias,* 7.
[503] Ingela Bergman, "Indigenous Time, Colonial History: Sami Conceptions of Time and Ancestry and the Role of Relics in Cultural Reproduction," *Norwegian Archaeological Review* 39, no. 2 (2006): 152-53.
[504] Ibid., 153.
[505] Brown, *Black Utopias,* 15.

Newton Harrison's *Portable Fish Farm* (1971, fig. 0.1) in chapter two. Rosi Braidotti furthers this understanding by arguing that a 'multi-faceted and multi-directional' approach leads to an understanding of 'what we are ceasing to be and what we are in the process of becoming'.[506] The dual approach of this thesis, offering criticality to what is while creating space for the potential of the not-yet, comes to the fore in this chapter through non-linearity. In *Acoustic Ocean,* the epistemological scope of the sonic, offered as a means of decentring vision in sensory experience, becomes a mode of optimistic resistance that demands to see equity now, as well as in life that could be.

Ocean Sensing

Speculation is first and foremost encountered in *Acoustic Ocean* as a sensory tool. As a video aiming to make marine animals known to its audience through sonar, speculation becomes necessary once it is recognised that there are no visual depictions of these animals, or indeed of any of the sources of the sonic traces audible within the video. In this section, the sensorial conditions of *Acoustic Ocean* will be analysed, focusing primarily on vision and sound, with the intention of highlighting the implications of Biemann's attempt to suggest the limitations of what can be determined by vision alone.

While not depicting any marine animals, *Acoustic Ocean* does use a series of technologies, including underwater seabed scans and microscopic imagery, to visually represent the underwater world. This contrasts with video shot on land, which is captured as a 4K digital video using a tripod. Images of pteropods (fig. 5.3), foregrounded in light against the blackness of the sea, rely on the visual apparatus of the microscope to represent that which may evade the human eye, in this case not only determined by light, but by scale. With the sea butterfly usually only a few millimetres in size, the video installation scales the creature's image up to a significant degree and, with the aid of artificial lighting, allows far more detail to be observed than that usually seen by the human eye. Likewise, opening the video is a high-resolution 3-D scan of the Andøya Canyon seafloor (fig. 5.2), which Biemann captured in collaboration with a research unit in Tromsø. Overlaid with introductory text, the image gradually traces the surface of the seafloor from a slightly elevated position. This image presents a view of a seafloor that is beyond what the human eye could see for itself, offering

[506] Braidotti, *Posthuman Knowledge,* 64-65.

what Joanna Zylinska calls 'machinic vision' – a vision created by, and often for, machines – for a scene that would otherwise be shielded by the absolute darkness of the deep ocean.[507]

Within the parameters of the deep ocean, machines have become fundamental for researching spaces that are often inaccessible. According to Jessica Lehman, there are three technological sensory apparatuses that provide alternatives to traditional ship-based sensing: satellites, distributed sensing networks, and remotely operated and autonomous underwater vehicles, which all have a different ability to collect data on terrain, temperature, salinity, and more intricate natural processes.[508] While still relatively new, robots are especially being used for surveying, mapping, collecting data, and even in some cases carrying out restoration projects in the deep sea, meaning that the increased production of images goes hand-in-hand with the management of this space by multiple parties without having to physically occupy it.[509] This is certainly not always negative, as more visibility allows for the mainstream recognition of the damage caused to it by pollutants and climate change.[510] Yet with more visualisations of the sea there are also more opportunities for submarine warfare (the US Navy are the most significant user of Argo, the fleet of drifting robotic instruments) and economic gain, both of which support an imaginary that, through technology, 'leaves nothing out of sight'.[511]

The development of ocean sensing technology coincides with the wider transformation of satellite technology that, to Laura Kurgan, amounted 'to a cataclysmic shift in our ability to navigate, inhabit, and define the spatial realm'.[512] From the development of the Global Positioning System satellites in the early 1990s, and the privatisation of commercial satellites later in the 1990s, to the creation of Google Earth in 2005, the ability map the world has increased significantly in the past few decades, bringing with it new border politics and issues of national security.[513] Yet while the impact software such as Google Earth on technological visualisation, Jennifer Gabrys argues that within the ocean it still has its limitations. When it is used in an attempt to visualise garbage patches of microplastics in the

[507] Joanna Zylinska, *AI Art: Machinic Visions and Warped Dreams* (London: Open Humanities Press, 2020): 13.
[508] Jessica Lehman, "The Technopolitics of Ocean Sensing," in *Blue Legalities,* 169-72.
[509] Irus Braverman, "Robotic Life in the Deep Sea," in *Blue Legalities,* 153.
[510] Ibid., 157.
[511] Lehman, "The Technopolitics of Ocean Sensing," 174.; Braverman, "Robotic Life in the Deep Sea," 157.
[512] Laura Kurgan, *Close Up at a Distance: Mapping, Technology and Politics* (Brooklyn: Zone Books, 2014): 14.
[513] Ibid.

ocean by 'scanning the seas through a conjunction of remote sensing, aerial photography, and online interfaces', because of the size and spread of the microplastic, Google Earth is ultimately unable to detect them.[514] Within the ocean, machinic vision still has its limitations, leading to both mine and Gabrys' question of whether a material such as microplastics has to be seen in order for the environmental concern to be 'actionable'.[515]

With Biemann's technological visualisations of sea creatures and the seabed outsourced to researchers, *Acoustic Ocean* directly correlates with this wider aim to visualise the oceanic frontier that has previously remained unseen. Before contending that the video evades the visual to embrace the speculative qualities of the acoustic, the political implications of *Acoustic Ocean*'s visual scope must be given more attention. In the previous four chapters' analyses of *Portable Fish Farm* and *Ocean Landmark*, visibility has not always been possible, but it has nevertheless played an important role in making political and economic injustices known. With its highly technological mediation of spaces that in the previous chapters have not been visually accessible, *Acoustic Ocean* furthers chapter four's logistical challenge to visibility's limitations by speaking to the political and ethical implications of seeking to transcend these limitations, successful or not.

The most visually striking aspect of *Acoustic Ocean* is its use of 4K resolution. From the miniscule sea creatures to vast coastal landscapes, all aspects of the environment are digitally rendered with the utmost clarity. Yet for Hito Steyerl, there is a 'fetish value' of high resolution that links to the fetish value of visibility within capitalism more generally.[516] This is one reason why moving image artists such as Steyerl see the potential in low resolution, the 'poor image' and glitch aesthetics as means of formal resistance and a way of pointing to the material conditions of the moving image.[517] High resolution is the visual language of capitalism, speaking to what Braidotti terms 'clarity fetishists', who dominate an era that 'has turned

[514] Jenniffer Gabrys, *Program Earth: Environmental Sensing Technology and the Making of a Computational Planet* (Minneapolis: University of Minnesota Press, 2016): 138.
[515] Ibid.
[516] Hito Steyerl, "In Defense of the Poor Image." *E-Flux,* no 10 (November 2009): https://www.e-flux.com/journal/10/61362/in-defense-of-the-poor-image/.
[517] Ibid.

visualisation into the ultimate form of control'.[518] In this light, the high resolution 3-D seafloor scan appears more like a computer screensaver.[519]

Yet it is not just that the high-resolution visual technologies used in *Acoustic Ocean* speak the language of capitalism; in its use of 4K, Biemann uses a visual framework that is increasingly pushing the boundaries of what the human eye can see, much like the research technologies deployed in the deep ocean. While it is possible to discern the difference between 4K and 1080p, the difference is minimal to most human eyes (depending on the quality of vision and the size and distance from the screen), and the progression of resolution may soon reach the point that it transcends human vision completely. 4K pushes the boundaries of vision in a way that wishes to transcend it through technological apparatuses. It is intrinsically linked to human exceptionalism, and to power gained through knowledge accumulation.

For Haraway, vision magnified through technology has the capacity for epistemological transcendence, stating that 'the eyes have been used to signify a perverse capacity – honed in perfection in the history of science tied to militarism, capitalism, colonialism and male supremacy – to distance the knowing subject from everybody and everything in the interests of unfettered power'.[520] As such, Haraway's technological construction of vision suggests that Biemann's use of microscopes and seafloor scanners can lead to what Haraway terms an 'unregulated gluttony' of vision, as 'all perspective gives away to infinitely mobile vision, which no longer seems just mythically about the god-trick of seeing everything from nowhere, but to have put the myth into ordinary practice'.[521] This model of vision has been vital in the development of feminist critiques of science and technology.

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[518] Rosi Braidotti, "Cyberfeminism with a Difference," in *The Feminism and Visual Culture Reader,* ed. Amelia Jones (New York: Routledge, 2003): 532. For Braidotti, there had been multiple attempts within feminist theory to question this ocularcentrism. See also Evelyn Fox Keller and Christine Grontowski, "The Mind's Eye," in *Feminism and Science,* ed. Evelyn Fox Keller and Helen E. Longino, (Oxford: Oxford University Press, 1999): 187.

[519] It is also possible to consider this image in relation to Melody Jue's conception of the computer screen interface as an aquarium, and with it a zoological gaze. See Melody Jue, *Wild Blue Media: Thinking Through Seawater* (Durham: Duke University Press, 2020): 119.; Eva Hayward, "Sensational Jellyfish: Aquarium Affects and the Matter of Immersion," *differences* 23, no. 3 (2012): 164-67.

[520] Haraway, "Situated Knowledges," 188.

[521] Ibid., 189.

From surveillance technology and facial recognition software to self-driving cars, Zylinska asks what it means for a large proportion of imagery today to not only be created by technology, but also viewed and analysed by AI technology.[522] It is possible to suggest that the use of the seafloor scan, as a kind of machinic vision, speaks to the wider 'surveillance capitalism' that arguably could be regarded as an extension of the disembodied human eye.[523] However, for Zylinska, the point is not to merely highlight the conditions of surveillance, but to question who or what this vision serves and, ultimately, to inquire into how these technologies have changed the very nature of vision itself.[524] In doing so, the aim is to both offer a critical response to dominant AI narratives and to suggest how else the technology can be used with different political motivations – something that is already being demonstrated in scientific research on the impact of climate change on ocean environments. It is to 'imagine better ways of seeing the world at a time when it is being reshaped by the discourses and practices of AI'; a narrative that draws on the fact that machinic vision ultimately demonstrates our dependence others – machines and organic non-humans – and that this dependency should lead to ethical response to the material world infected by anthropogenic climate change.[525]

Video Beyond Vision

How can *Acoustic Ocean* 'imagine better ways of seeing the world'? It is my contention that while applying these visual technologies, both our dependence and our sensory limitations are continually made known. The concept of visual transcendence is just as much refuted as it is implied. In both the scenes of pteropods and the underwater seabed scan, there is a tension between what is seen through technology and what would be available in the light conditions that the seabed and pteropods exist in. Light plays a central role in an analysis of vision in *Acoustic Ocean* and extends beyond these two images to the video overall.

Throughout the 18 minutes of the video, time passes at an accelerated rate and the sun quickly descends as Jannok sets up her sonar equipment, depending increasingly on artificial lighting and eventually tracing the sonic communications in the dark (fig. 5.5). Yet

[522] Zylinska offers this argument in relation to Trevor Paglen's *A Study of Invisible Images* (2017). Zylinska, *AI Art,* 88.
[523] Ibid. See Shoshana Zuboff, *The Age of Surveillance Capitalism* (London: Profile Books, 2018).
[524] Zylinska, *AI Art,* 92-94.
[525] Ibid., 109.; Ibid.*,* 152-53.

this natural chronology of day and night is disjointed in the work, as it continually jumps between differing light conditions without apparent order. Such conditions not only speak to the non-linearity of time but lend themselves to questions of what it means to be "in the dark" about the nature of the submarine world, introducing a constant tension between light and its absence, between the familiar visual terrain, and one that is unfamiliar, depending increasingly on technological aids.

Likewise, in the shots of pteropods, the imagery allows their form to be gazed upon for a few seconds, but while the frame is static, the creature moves: for a brief second, the creature's dynamic movements are captured against the blackness of the sea until it swims away, escaping the confines of the frame. There is constant tension between the inside and outside of the frame of vision, alluding to Deleuze's contention that 'all framing determines an out-of-field' because it acts as 'a closed system' that 'is never absolutely closed':

> In one case, the out-of-field designates that which exists elsewhere, to one side or around; in another case, the out-of-field testifies to a more disturbing presence, one which cannot even be said to exist, but 'insist' or 'subsist', a more radical Elsewhere, outside homogenous space and time.[526]

Following this model, the sea butterfly's escape from the frame not only points to an inability to hold down the creature in space and time, but speaks to a more ontological question of otherness, on the boundaries of what humanity knows of the existence of other life forms. With vision tied to knowledge, acknowledging its limitations suggests that humanity does not have absolute access to the world around it.

By contrast, the seafloor scan does not so much point to the "outside" of the frame of vision so much as flatten it. As the opening image of *Acoustic Ocean,* it is arguably not apparent what is being depicted: while easily recognisable as a landscape, it is also easily mistaken for a land-based Arctic environment rather than a seabed. From this position, the landscape is turned into a surface that the camera scans, turning the mode of vision into what Laura Marks defines as haptic vision. Marks contends that while optic visuality 'sees things from enough distance to perceive them as distinct forms in deep space', haptic visuality,

[526] Gilles Deleuze, *Cinema 1: The Movement Image,* trans. Hugh Tomlinson (London: Continuum, 2005): 17-18.; Ibid., 18.

based on the sense of touch, avoids a sense of depth by building 'tactile connections on the surface plane of the image'.[527] It removes the distance between subject and object using different exposures, focuses, sounds, montage and camera movements to create a material and embodied sense of vision: most relevant to *Acoustic Ocean* is Marks' contention that haptic vision is 'more inclined to graze than to gaze'.[528] While putting into question the distanced and coherent nature of vision, it is perhaps going too far to suggest that such an image achieves a full sense of tactility: the mechanical means of creating the image illustrates that this is an artificial vision, not an embodied eye. Yet the haptic sense of grazing nevertheless still supports the culminating trend in *Acoustic Ocean* to place a tension on comfortable, and conventional ways of seeing.

Consequently, it is my contention that *Acoustic Ocean* visually conceals as much as it reveals. The significance of this lies in the fact that it mirrors the sensorial conditions of the ocean, which Biemann outlines in *Acoustic Ocean* when text on screen states: "given the poor visibility in this penumbral liquid universe, the sonic dimension is the primary means of communication, navigation, and survival." Partial and limited vision is a sensory experience faced by many life forms in the ocean as light is poorly conducted underwater, and while cetaceans are not fully blind (and their visual capabilities differ between species), their way of seeing is vastly different to human because of a lack of clarity and binocular vision.[529] *Acoustic Ocean*'s adoption of visual technologies embraces the complexity of technological visualisations in the ocean and does not offer total visual access as a result. It is not an accident that it fails; rather, it continually points to its own limitations and relies on other senses as a means of offering a more realistic portrayal of oceanic sensory conditions that operate entirely differently. In other words, while adopting visualising technologies, it does not claim to see it all.

Furthermore, these technologies work in tandem with sonic technologies that ask us to attune to the sensory conditions of the oceanic world. With the visual aspect of *Acoustic Ocean* continually pointing to the limitations, Biemann turns to the acoustic and parallels the

[527] Laura Marks, *The Skin on Film: Intercultural Cinema, Embodiment, and the Senses* (Durham: Duke University Press, 2000): 162.
[528] Many of these effects are specific to the materiality of analogue video and are thus not applicable to *Acoustic Ocean.* Ibid., 171-72.; Ibid., 162.
[529] Peters, *The Marvelous Clouds,* 63.

sensorial conditions of the ocean which, for cetaceans, revolves around echolocation to track each other, their prey, and their environment.[530] In contrast to vision, sound is omnidirectional – as Stephen Crocker states 'there is no acoustic equivalent of the point of view' – which supports a view that sound also has the haptic and phenomenological qualities that Marks describes.[531] For *Acoustic Ocean,* the significance lies in the fact that omnidirectional sound creates a sense of immersion.

Sound's immersive qualities place it in dialogue with water: according to Stefan Helmreich, the experience of immersion is simultaneously defined 'as a descent into liquid, as absorption in some activity or interest (e.g. music), and as the all-encompassing entry of a person, like an anthropologist, into an unfamiliar cultural medium'.[532] All three definitions can be located within *Acoustic Ocean,* with Jannok's actions acting as a descent into liquid, sound and an unfamiliar oceanic culture all at once. Moreover, the link between water and sound is furthered by Helmreich's note that "sound" has etymological roots in both the Old English "sund", meaning "sea," and "swinn", meaning "melody".[533]

Immersion can also be applied to *Acoustic Ocean* as a single-channel video in a black box gallery space, and Biemann is keen to highlight this as she emphasises that the work is just as much a sonic installation as a video essay (fig. 5.6) However, the role of immersion in the work extends much further than this as it presents a key means of interpreting the ways in which ocean sensorial experience is mediated. But what are the consequences of this sensorial replication? For Eva Hayward, immersion is not only a sensorial experience but a form of consciousness. She writes that the term 'is awareness divided between being conscious enough both to engage an interface and to experience the rapture of the deep. More a somatic trope than the metaphysics of identification, immersion *produces cohabitation rather than mere representation*' (my emphasis).[534] It is my contention that the sensory modes of *Acoustic Ocean,* lending themselves to the qualities of immersion as both a

[530] Ibid.

[531] Stephen Crocker, "Sounds Complicated: What Sixties Audio Experiments Can Teach Us about the New Media Environments," in *Fluid Screens, Expanded Cinema,* ed. Janine Marchessault and Susan Lord (Toronto: University of Toronto Press, 2007): 62. Marks also makes this point when she states: 'when all sounds present themselves to us as undiffferentiated' so that the 'aural boundaries between the body and world may feel indistinct'. Marks, *The Skin on Film,* 182.

[532] Helmreich, *Alien Ocean,* 214.

[533] Ibid.*,* 216-17.

[534] Hayward, "Sensational Jellyfish," 173.

facet of the ocean and the moving image, are a speculative attempt to explore this mode of cohabitation. Mediated through technology, this cohabitation is formed through the ocean itself, by a subtle suggestion of sensory attunement.

Turning to the sonic has a series of implications for the ways in which the sensory experience of *Acoustic Ocean* is understood. While overwhelmingly visual in its technological mediation, it is by no means only a visual exploration of the ocean. With the organisation and application of sonar technology by Jannok taking a central role in *Acoustic Ocean,* Biemann seeks to foreground it as a sensory apparatus for encountering that which is beyond vision. By attuning to the sonic in a moving-image installation, the audience is to be immersed in the sensory conditions of the ocean, in which the sonic and the haptic prevail to oppose the separation of terrestrial and oceanic worlds. Yet despite the decentring of vision, the result is no less technological: the limitations of visual access may oppose the ways in which the ocean is increasingly being surveyed by robotic devices but turning to sound to attune to oceanic spaces also requires significant mediation. This, however, also has epistemological significance, as we consider the ways in which Jannok and the audience are implicated within the processes of mediation that make voices heard.

In *Acoustic Ocean,* this level of mediation is not only enabled by the audiation of underwater sounds but is heavily reliant on the use of textual narration, which seeks to influence the interpretation of the senses in the work. This not only applies to statements such as "given the poor visibility in this penumbral liquid universe, the sonic dimension is the primary means of communication, navigation, and survival", but also to ones like "the hydrophones function as external organs, enabling her to deeply immerse herself in the aquatic habitat" that direct the audience to the significance of immersion as an aquatic and sensory quality. Yet this mediation is not only linguistic but highly technological. For Melody Jue, an understanding of the different sensory conditions of the ocean requires an increased reliance on technology. The deep ocean only becomes understandable to us through 'chains of mediation and remote sensing – measurements that allow us to build up imaginative pictures of what life in the ocean is like'.[535] In *Acoustic Ocean,* mediation not only extends to the mediational technologies, including digital video, seabed scans and microscopic imagery,

[535] Jue, *Wild Blue Media,* 3.

but as the operator of the sonar technology it speaks to Jannok herself. It is not only the audience's body who is implicated within the communicational system, but Jannok's, as her body becomes the mediator of this attunement.

By technology I refer to the use of sonar, 4K digital video, high-resolution 3-D seafloor scans and microscopic imagery in terms of the material and mechanical operations of these forms that are applied to the advancement of industrial and scientific pursuit. Yet at the same time I also regard these forms as media: while not all media operate through technological formats, what defines media is an emphasis on communication and the dissemination of information. Formulating a model of sensory attunement with the oceanic world in *Acoustic Ocean* not only needs an analysis of technology and how it can alter perceptions of oceanic communication; it also needs to be situated within a broader context of media. In doing so, *Acoustic Ocean*'s use of mediating technologies does not have to coincide with purely industrial and governmental surveillance of the deep ocean but can be construed in non-anthropocentric, or ecological terms.

This latter term certainly evokes what has now become known as 'media ecology' which, while associated with Canadian media theorist Marshall McLuhan, has now become a widespread term in more systemic approaches to media. In his 1960s theories of technology, McLuhan opposed the idea that media should be conceived in isolation. Rather, regarding media ecologically led to what McLuhan termed the "global village" in which electronic media offered a spatial dimension to relationality and communication on a global level.[536] In the twenty-first century, the adoption of ecological approaches to media, seeking to move away from the study of individual media technologies, such as cameras, televisions, smartphones and computers, has been adopted by new media scholars to emphasise how such an approach lends itself to a study of what Janine Marchessault terms 'the relationship between things in terms of a broader continuum'.[537]

This relationship not only concerns different media but the interaction between the media and the body. When text states, "the hydrophones function as external organs,

[536] Marshall McLuhan, *Understanding Media: The Extensions of Man* (New York: McGraw-Hill, 1964): 5.
[537] Janine Marchessault, *Ecstatic Worlds: Media, Utopias, Ecologies* (Chicago: University of Chicago Press, 2017): 205. See also Sarah Kember and Joanna Zylinska, *Life After New Media: Mediation as a Vital Process* (Cambridge, Mass.: MIT Press, 2012).

enabling her to deeply immerse herself in the aquatic habitat," Biemann creates a McLuhanian image in which the human body is deeply interconnected with technology. Electronic media is considered an extension of the central nervous system to 'involve us in the whole of mankind and to incorporate the whole of mankind in us'.[538] In this view, a material relationship is drawn between Jannok and the sonar technologies she uses, most notable in the image of her holding a parabolic microphone towards the ocean (fig. 0.4), in which the device appears as an extension of her arm. Likewise, Jannok spends much of her time detangling wires of hydrophones that take over the landscape, firstly on the rocky shore, then extending into the ocean as she throws them into the water (fig. 5.7). These wires often appear to have a life of their own when lights flicker unnecessarily, becoming the tentacles of an alien-like creature. With Jannok inseparable from technological apparatuses, she becomes a very literal manifestation of the cyborg: alongside the video, Jannok's body becomes a mediator for communication.

The cyborg, or the cybernetic organism, is a historical concept intrinsically linked to the development of cybernetic research that was touched upon in chapter one. It can be dated back especially to early space research in the United States, with US biomedical scientists Manfred Clynes' and Nathan Clines' contention that humans would have to depend on apparatuses if they were to adapt to outer space environments in the 1960s.[539] Yet the significance of this association extends well beyond the literal entanglement of human and machine, as the cyborg has also come to signify a model of subjectivity centred on the dissolution of binaries more generally, of which the human/machine boundary is just one.[540] Haraway's renowned "A Cyborg Manifesto" considers the cyborg to be a metaphor for fragmentation, relationality, hybridity and kinship more generally. The significance of this lies in the fact that mediating or seeking to attune the audience to the sonic communications of the marine world not only require the mediation of different senses (in this case making audible that which couldn't otherwise be seen nor heard) but requires the mediation of difference. This is difference within subjectivity itself, described by Haraway as the messy

[538] McLuhan, *Understanding Media,* 4.

[539] See Manfred E. Clynes and Nathan S. Kline, "Cyborgs and Space," in *The Cyborg Handbook,* ed. Chris Gray (New York: Routledge, 1995): 29-33.

[540] Haraway writes: 'We are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs'. Haraway, "A Cyborg Manifesto," 150.

embrace of subjectivity determined by a 'disassembled and reassembled, postmodern collective and personal self'; but in *Acoustic Ocean* it is also about difference in species, in contexts, and in worldview.[541]

No doubt, Biemann has not always offered such a positive view of the cyborg figure. In *Performing the Border* (1999, fig. 5.8) the figure of the 'Mexican female cyborg' working at the maquiladoras of the US electronic industry in Ciudad Juárez offers a critical eye to the entanglement of the female body and technology in the labour dynamics of the US-Mexico border.[542] Yet in *Acoustic Ocean,* the cyborg has the potential to demonstrate that attunement is not just a case of sensory experience, but a question of otherness and difference more generally that, much like the former work, takes place across a border, this time between land and sea.

The ocean becomes a manifestation of otherness, and the limitation of our sensory experience offers a sense in which access is both confirmed and denied. This is the foundation for speculative thought in *Acoustic Ocean,* which is driven by its existence on the border between the seen and unseen, known and unknown. Before addressing the ways in which speculation operates, however, it is first worth considering the significance of Jannok in the communication of this partial and fragmented information from the cetaceans to the audience, especially since they cannot communicate back. Likewise, in light of the question of difference, what is the significance of Jannok's involvement in this act of communication, as a member of the Sámi community seeking to vocalise the local effects of climate change? There are two vocalisations at play in *Acoustic Ocean,* most significantly recognised when Jannok address the camera (fig. 5.9) and states:

> You know, we have seen this for a long time now. Even my Grandmother told us about it. When she was young they suffered from hard winters. A changing climate. Rain falling when it wasn't expected to. In wintertime, the rain becomes ice on the snow. And the reindeer cannot dig down to reach the lichen beneath. And thus, before spring comes, many reindeer have starved to death. The reindeer that makes it through the winter is our guardian. As we are its guardians. The reindeer is the livelihood of my people, all of us.

[541] Ibid., 163.

[542] Ursula Biemann, "Making the Transnational Intelligible: Performing the Border," in *Mission Reports,* 20.

The relationship fostered between Jannok and the marine mammals is also a means of addressing the very real relationship between reindeer and the Sámi community today that is put under increasing pressure by the effects of climate change. Consequently, the emphasis on access and attunement to the sensory conditions of the ocean is a speculative function, but it is one that has implications for the ways in which cultural difference and access to Indigenous knowledge systems are conceived.

The Problem of Essentialism

Haraway's cyborg is not altogether separate from the subject of Indigeneity in *Acoustic Ocean,* albeit speaking to a different context; yet this association also creates complications for conceiving Jannok's role in Biemann's work. For Chela Sandoval, it is no accident that Haraway relies on certain identity markers, such as women of colour, or Native American concepts such as 'mestizaje' or nature as 'coyote' in her articulation of the 'oppositional cyborg'.[543] While Sandoval also relies heavily on a postcolonial approach to the 'Third World Woman' in her thinking through the cyborg, her criticism with Haraway lies in the tendency to fluctuate between these specific subjectivities and a more general contention that "we are all cyborgs".[544] The implication for Sandoval lies in the elision of the contributions of US third world feminist thinkers for theoretical discourses as well as their specific arguments and critiques.[545] While Haraway has recognised the political implications of this shift, this is a problem that is still being examined today, specifically in the uses of Indigeneity in *Staying With the Trouble.* For *Acoustic Ocean,* the implications lie in the generalisations it suggests about Jannok's connection with the natural world, and with the political and epistemological implications of using Jannok as a mediator in this ecological act of attunement, which is fundamentally tied to colonial questions of access.

International relations scholars David Chandler and Julian Reid place Haraway in what has been termed the 'ontological turn' in anthropology – also referred to by the authors as the speculative turn – that relies on ethnographic sources in the construction of models of

[543] Chela Sandoval, "New Sciences: Cyborg Feminism and the Methodology of the Oppressed," in *Cybersexualities: A Reader on Feminist Theory, Cyborgs and Cyberspace,* ed. Jenny Wolmark (Edinburgh: Edinburgh University Press, 1999): 252. For these terms see Donna Haraway, "The Actors Are Cyborg, Nature is Coyote, and Geography is Elsewhere: Postscript to "Cyborgs at Large," in *Technoculture,* ed. Constance Penley and Andrew Ross (Minneapolis: University of Minnesota Press, 1991): 21.
[544] Sandoval, "New Sciences," 255.
[545] Ibid.

the future.[546] This critique shares a point of commonality Métis scholar Zoe Todd's earlier opposition to the ways in which major thinkers of the ontological turn often do not address the lineages of Indigenous knowledge that have stood against Euro-American and anthropocentric worldviews and have been written about in academia for decades.[547] While Todd centres Latour's concept of Gaia and its (unacknowledged) relationship to the Inuit concept of *Sila,* a term that refers to the environment, the climate, the animating life force and knowledge, Chandler and Reid turn their attention to the theories of Haraway.[548]

A specific emphasis is placed on examining the nature/culture relationships central to Indigenous cultures, not so much to undergo anthropological research into these cultures but to apply them to a mode of what Chandler and Reid term 'becoming Indigenous' more generally, or the 'application of Indigenous ways of knowing to speculative knowledge-production per se'.[549] The correlation between Sandoval's approach to Haraway's cyborg and this later model of Indigeneity lies in both the removal of specificity in terms of that which they are discussing, and the general extraction of these identities or ethnographic materials to support theory, either the cyborg as a postmodern construct or speculative thinking more generally. At its worst, this tendency is what Chandler and Reid describe as 'parasitic', the latest form of intellectual colonialism as cultures are appropriated to merely legitimise Western academic trends.[550] But even when undertaken with a commitment to these cultures it is in danger of offering an essentialist interpretation of these cultures, and this concerns not only Haraway, but other more ontological and speculative fields including posthumanism, speculative realism, the new materialisms, and various strands of feminism.[551]

An example of these uncomfortable parasitic associations can be found in Haraway's model of the string figures – a key model of relationality – which is contextualised as an Indigenous pastime.[552] Giving the example of the Navajo string figure *Ma'ii Ats'áá Yílwoí*, or 'coyotes running opposite ways', Haraway builds upon the concept of coyote as 'trickster'

[546] David Chandler and Julian Reid, "Becoming Indigenous: The 'Speculative Turn in Anthropology and the (Re)colonisation of Indigeneity," *Postcolonial Studies* 23, no. 4 (2020): 488.
[547] Todd, "An Indigenous Feminist's Take on the Ontological Turn," 14.
[548] Ibid., 4-10.
[549] Chandler and Reid, "Becoming Indigenous," 488.
[550] Ibid., 499.
[551] Ibid., 489.
[552] Haraway, *Staying With the Trouble,* 2-3.

that she has used elsewhere to evoke 'noninnocent world-making performances of disorder and order'.[553] By framing Navajo string figures as a kind of weaving, they become a model of Indigenous storytelling as they weave together the stories of the Diné, and often interpreted to Haraway as 'restoring *hózhó*', or building 'right relations of the world'.[554] While Haraway does go into the broader context of weaving in the Navajo Nation, speaking specifically about the broader political context of the weavers of Black Mesa and the Churro sheep, the aim is to highlight how weaving as an Indigenous practice is a 'cosmopolitical performance, knotting proper relationality and connectedness into the warp and weft of the fabric' – extending beyond the Diné to speak of how to restore *hózhó* as part of the broader aim to "stay with the trouble".[555] The question becomes one of whether Haraway's model of relationality actually adds anything new to this longstanding belief, and if so, whether it is done at the expense of either colonising Indigenous knowledge, or leaving it behind entirely.

With Biemann citing *Staying With the Trouble* as a source of inspiration for *Acoustic Ocean,* these criticisms of Haraway's negotiation of Indigeneity cannot be ignored and prompt an inquiry into the ways in which the artist constructs an idea of Sámi identity. The idea of relationality-in-general as a Westernised appropriation of Indigenous cosmologies must be considered not only alongside the Sámi cosmological tradition, which is more closely aligned with shamanism, but in terms of the multiple visual signifiers in *Acoustic Ocean* that make Jannok's Sáminess known.[556] For example, the brightly coloured embroidered fabric woven into Jannok's hair which, alongside her reindeer fur collar, are symbolic of Sámi traditional clothing (fig. 5.9). Yet a problem of essentialism emerges when these signifiers are placed within an intrinsic correspondence between women, nature, and Indigeneity. Essentialism for Indigeneity often revolves around the continued exoticising or othering of communities and cultures and the reinforcement of the nature/culture binary as they become the alternative model to modern, industrial society.[557]

[553] Ibid., 13.
[554] Ibid., 14.
[555] Ibid., 89-91.
[556] See Siv Ellen Kraft, "Sami Indigenous Spirituality: Religion and Nation-Building in Norwegian Sapmi," *Temenos – Nordic Journal of Comparative Religion* 45, no. 2 (2009): https://doi.org/10.33356/temenos.7900.
[557] Chandler and Reid, "Becoming Indigenous," 489.

With this in mind, Biemann's choice to focus on a female Indigenous figure to forge connections with the marine world is in danger of providing an essentialist understanding of Sámi traditions that uncomfortably assumes that Jannok – as an Indigenous woman – is somehow closer to the natural world. A tension emerges between the political aim to bring knowledge to the environmental and colonial injustices faced by the Sámi community and the speculative aim of attuning to underwater worlds.

The link between Indigeneity and nature is constructed in *Acoustic Ocean* in the assumption that Jannok can bring us closer to the marine environment through sonar. Thus, continuing with the emphasis on the sonic, it arguably suggests that Jannok is more "attuned" to this environment. However, it is not merely the underwater sonic transmissions to which the audience becomes attuned. The sounds of the video are instead largely comprised of Jannok's singing, that for a non-northern Sámi speaking audience merges and overlaps with the vocalisations of whales, dolphins, and various other marine animals because no translation is given. Immediately, this suggests an affinity between them, especially as the credits list "the voices of Blue Whale, Harbor Seal, Spotted Sea Trout, Sea Urchin, Silver Perch, Black Drum, Midshipman Fish, Right Whale, Fin Whale, Shrimp, Minke Whale, Haddock Hawkins, Humpback Whale, Dolphin, Bowhead Whale" alongside the rest of the video's production team. The capitalisation no doubt seeks to place them all on the same level, and it is not until 12 minutes into the video that Jannok directly addresses the camera with her speech regarding the toll of climate change on the Sámi way of life. Speaking in Northern Sámi, the English translation of her speech merges with the narration that appears silently throughout the work as English text on the screen.

Yet it is not addressed anywhere in *Acoustic Ocean,* nor in the surrounding literature, that Jannok's musical practice is the specific vocal practice of *joik.* The term refers to the Scandinavian practice of storytelling by remembering people, places, animals and the environment; with few lyrics, the *joik* rather repeats specific chords in a free rhythm and it is not such much of a question of what the *joik* is about, than who it is for, as it is customary for *joiks* to be dedicated to people from birth.[558] While the style varies across the Sápmi region, and is even known by different terms (the contents of what one *joiks* is called *luohti* in North

[558] Thomas Hilder, "Repatriation, Revival and Transmission: The Politics of a Sámi Musical Heritage," *Ethnomusicology Forum* 21, no. 2 (August 2012): 163.

Sámi, *vuolle* in Lule Sámi, and *vuelie* in South Sámi) it is nevertheless a significant practice in affirming Sámi culture and tradition.[559] Associated with forms of shamanism dating back to the twelfth century, it is a practice that has since been threatened by assimilation and Christianisation and has in many areas disappeared as a public practice.[560]

Because of the *joik's* shamanistic tendencies, an immediate affinity is drawn with the cetaceans that Jannok amplifies. This extends beyond this Indigenous context and can be traced to the Cold War era in which sonar technology rapidly emerged: the new ability to listen into cetacean communication patterns meant that the dolphin went from being regarded as a source of blubber to, as John Durham Peters terms it, 'sea gurus soulfully singing cosmic peace and harmony, showing humans the higher path of intelligence and coexistence like age-old Yodas'.[561] The glorification of dolphins for their apparent non-aggressive, social and loyal qualities allowed them to be regarded as shamans or 'spiritual healers' on both sides of the Iron Curtain, according to feminist science studies scholars Nina Lykke and Mette Byrld, meaning that they emblemised the potential to restore 'the broken bonds between humans and nature'.[562] Indeed, the US fascination with cetaceans more generally is illustrated in their integration into the imagination of two major organisations: Greenpeace, which adopted the North American Kwakiutl community's symbol of two whales for their Save the Whales campaign; and NASA, whose Apollo missions were named so after the Greek god, who became a dolphin to commandeer a ship.[563]

However, shamanism also led to the general assumption that the Sámi hold a strong affinity to nature.[564] Not only were Sámi populations more likely to be geographically dispersed in wilder areas of the environment such as the forests or mountains, but this affinity has historically been confirmed to the point of suspicion as the ability to express a certain animal was likened to witchcraft, and until at least the 1930s, legends have been documented

[559] Ibid.
[560] Ibid.
[561] Peters, *The Marvellous Clouds,* 69.
[562] Nina Lykke and Mette Bryld, *Cosmodolphins: Feminist Cultural Studies of Technology, Animals and the Sacred* (London: Zed Books, 2000): 181.
[563] Ibid., 207.
[564] See Tina Ramnarine, "Acoustemology, Indigeneity, and Joik in Valkeapää's Symphonic Activism: Views from Europe's Arctic Fringes for Environmental Ethnomusicology," *Ethnomusicology* 53, no. 2 (2009) 187-217.

of Sámi people being able to transform into predators such as wolves or bears.[565] This has not only led to the historic persecution of the Sámi by Christian forces, but has confirmed the separation between the Sámi and Scandinavian population to be based on the differing affinities with nature.[566]

Since the 1980s, a global awareness of Indigenous rights has developed and brought significant attention to the politics of land use and natural resource extraction. Yet for Northern studies scholar Stein R. Mathisen, such conversations by environmentalists often perpetuate the understanding that Indigenous communities must be in some way closer to nature.[567] Not only is this a misleading representation of the Sámi people, who are diverse in their cultures and traditions and very frequently hold occupations in what would be classed as "modern society"; it is a perpetuation of the essentialising view of Indigeneity that has become, according to Chandler and Reid, the foundations Haraway's ontological turn.[568] In this context, Jannok's role as both a performer of the *joik* and the biologist diver requires significant attention to navigate any essentialising tropes.

Essentialism not only lends itself to the context of Indigeneity; there is also a strong correlation between femininity and nature – a central theme in ecofeminist discourse – that must be navigated.[569] This is certainly prevalent in discourses of the ocean, which, as Lykke and Bryld have argued, is also frequently characterised as female, or 'motherly womb'.[570] Compounded with the tendency of New Age mysticism to view cetaceans as a 'noble savage' and the 'ethnic other' to a civilised, white, archetype of human society, it becomes difficult not to address the tendency to evoke a Woman/Native/Nature paradigm in both *Acoustic Ocean*'s navigation of the Sámi community alongside a more ecological aim of bridging human-animal relations through media.[571]

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[565] Stein R. Mathisen, "Hegemonic Representations of Sámi Culture: From Narratives of Noble Savages to Discourses on Ecological Sámi," in *Creating Diversities: Folklore, Religion and the Politics of Heritage,* ed. Anna-Leena Siikala, Barbro Klein and Stein Mathisen (Helsinki: Finnish Literature Society, 2004): 21-22.
[566] Ibid., 22.
[567] Ibid., 17-18.
[568] Ibid., 19-20.
[569] See Val Plumwood, *Feminism and the Mastery of Nature* (London: Routledge, 1993): 21.
[570] Lykke and Bryld, *Cosmodolphins,* 163. For an example of how the link between water, life and femininity exists within science fiction, see concepts of the 'Water of Life' consumed by sisters of the Fremen to turn them into Reverend Mothers in Frank Herbert, *Dune* (Boston: Chilton Company, 1965).
[571] Lykke and Bryld, *Cosmodolphins,* 168.

In the first instance, however, a refutation of this point will arguably arise out of the fact that *Acoustic Ocean* relies so heavily on technology – specifically militaristic and scientific technology – to forge these connections. Certainly, just as the signifiers of Sámi textile tradition collide with a futuristic bright orange diving suit, her cyborgian use of sonar also feels a long way from shamanism. Yet within this context it is also possible to draw out the ways in which ecological approaches to media also heavily rely on a naturalised view of the body. For example, Jue seeks to expand the idea of the 'technical interfaces' of submarine technology to include the human lungs, the most vital interface for survival under water.[572] Compressed air travels to the lungs that become the interface to the bloodstream, as oxygen passes through the walls of alveoli into capillaries that allow it to travel to the heart, then to each cell of the body. Scuba diving brings awareness to this biological interface not only because the submarine environment necessitates a breathing apparatus, but also because the differing pressure conditions of the ocean alter the respiratory process.[573] Hence while dealing with media, Jue emphasises the body as a natural and biological entity.

Such a reorientation of the very idea of media to include the organic body is also central to Peters' project, who aims to expand the definition of communication away from meaning-based notions of sending messages to an ontological condition that is the means of 'providing the conditions of existence', media become 'our infrastructures of being, the habitats and materials through which we act and are' in a way that gives them 'ecological, ethical, and existential import'.[574] The body is certainly an example of such a medium, but for Peters this also extends beyond the body to consider natural elements such as water, fire, the earth and sky.

These arguments are no doubt vital for challenging the anthropocentrism of new media today and in themselves do offer interesting ways of thinking of what we mean by media. Yet in the context of *Acoustic Ocean's* portrayal of Indigeneity, which is in danger of creating an affinity with a pre-modern concept of nature that has been disputed throughout this thesis, it is worth questioning whether an ecological view of media that enables the very concept of attunement rather exacerbates this trend and contributes to an overall

[572] Jue, *Wild Blue Media,* 35.
[573] Ibid.
[574] Peters, *The Marvellous Clouds,* 14.; Ibid., 15.

essentialising tendency. The implication of this lies in the question of whether framing the *Acoustic Ocean* as a work of speculation is problematic from the outset; whether, as an essentialising tendency that refers to an idea of Indigeneity in general, it falls short of truly addressing the politics at stake in addressing the effects of climate change on the Sámi community and becomes speculation for the sake of a theoretical exercise.

Access Politics

The question of essentialism is especially difficult to comprehend for the Sámi community precisely because there is not a singular community to essentialise. Through strict policies of assimilation in the Scandinavian countries from the 1850s to the 1960s, the number of people who practice elements of Sámi culture and identify as Sámi rather than Swedish, Norwegian, Finnish or Russian is difficult to assess.[575] Indeed, the idea of what Sámi-ness means today is a contested subject; yet as Mathisen argues, reindeer herding is significant in its attempts to consolidate an idea of an "authentic" Sámi, especially in the tourism industry, and has contributed to the overall image of the Sámi community as an "ecological" community.[576] In this light, it is possible to suggest that Jannok's reference to the reindeer as central to the Sámi way of life plays on this stereotype of traditional Sámi culture. Yet rather than regarding this as a mere replication of essentialist stereotypes, it must be considered whether, in the face of the history of assimilation, the emphasis on traditional Sámi culture in *Acoustic Ocean,* from reindeer, dress and the *joik,* is rather an affirmation of Indigenous identity as a political project. As such, it is possible to move beyond essentialist conceptualisations of Indigeneity as an ontological project and speak to the broader ecopolitical issues specifically faced by the Sámi today.

This is especially true of the question of technology. The integration of technology into Indigenous communities is often met with an academic sense of novelty or with the assumption that it is automatically met with suspicion or opposition.[577] The latter view is certainly understandable; the adoption of modern technologies across the Sápmi region has been regarded in a recent study to be the result of a series of external, colonial pressures,

[575] Svein Aamold, "Unstable Categories of Art and People," in *Sami Art and Aesthetics: Contemporary Perspectives,* ed. Ulla AngkjAer Jorgensen and Elin Haugdal (Aarhus: Aarhus University Press, 2017): 14.
[576] Mathisen, "Hegemonic Representations of Sámi Culture," 25-26.
[577] Thea Pitman, "Warriors and Weavers: The Poetics and Politics of Indigenous Appropriations of New Media Technologies in Latin America," *Modern Languages Open* 1, no. 14 (2018): 4.

including land fragmentation due to forestry, climate change, racism, and wildlife predators, that threaten the livelihoods of those in the community.[578] It has become necessary for members of the community to adopt the use of GPS, motorised forms of travel, and forms of documentation that were previously unknown not as a simple process of progression, or "Westernisation", but as a coping strategy for external pressures, both social and environmental, that Westernised societies have placed upon them.[579] Jannok's cyborgian use of sonar technology in *Acoustic Ocean,* then, features the ambivalence felt towards modern technologies within the community that on the one hand may help appease their current condition but on the other threaten their traditional ways of life. To repurpose these technologies can become an act of resistance, but it is done so not necessarily out of choice, but often out of necessity.

Yet the adoption of modern technology does not have to challenge Sámi identity; on the contrary, it can be used as a means of reinforcing it. Through self-representation on social media platforms, Indigenous identity can be reinforced (albeit perhaps in a more simplistic way) and lead to awareness of the political challenges faced by the community today.[580] Beyond *Acoustic Ocean,* Jannok demonstrates this in her music career. With a strong digital presence, Jannok's *joik* practice has been combined with genres such as pop and jazz and released on a series of albums, with music videos accessible online. Jannok uses her platform as a musician to raise awareness both of Sámi musical tradition as well as climate change, both of which are integrated into the two TEDx Talks that the artist has given in 2012 and 2013, titled "Our Rights To Earth and Freedom," and "For Future Sisters", respectively. The performance that Jannok gives in *Acoustic Ocean* is only one element of Jannok's wider aim to fight for environmental justice and Indigenous rights, and in turn, these are reflected into Biemann's video through both her *joik* and her speech on climate change.

Jannok's musical practice is situated within a wider trend to develop the modern *joik,* and it has been fused beyond pop and jazz with genres as disparate as classical, rap and jazz.[581] Significantly, a major impetus for this movement has been, according to ethnomusicologist

[578] Erik Löfmarck and Rolf Lidskog, "Coping with Fragmentation: On the Role of Techno-Scientific Knowledge within the Sámi Community," *Society and Natural Resources* 32, no. 11 (2019): 1305.
[579] Ibid., 1300-1304.
[580] Pitman, "Warriors and Weavers," 4.
[581] Hilder, "Repatriation, Revival and Transmission," 162-63.

Thomas Hilder, the provision of a 'vehicle for resisting state assimilation, land dispossession and border creation; assisting the revival of language, identity and a nature-based cosmology; and enabling the Sámi to represent themselves in local, national and international arenas'.[582] In this context, the association between Indigeneity and the 'nature-based cosmology' is rather painted in a positive light. Yet the question of how to interpret the politics of such identity affirmation in *Acoustic Ocean* must contend with the fact that, while this is practiced from within the community and shared with those outside it, in *Acoustic Ocean* it is not only facilitated by an artist outside of the community but exhibited primarily in contemporary art institutions also outside of the Sápmi region. Indeed, the work was commissioned for an exhibition in Portsmouth, UK, and the video makes no attempt to give any context to the *joik* – we have no information on what or to whom the *joik* refers – and its political implications for Indigeneity in the North today.

There are multiple contemporary Sámi artists who navigate the politics of self-identification today from within the scope of the contemporary art institution. Outi Pieski has examined on how traditional textile practices integrate into contemporary culture, from her installations of silk fringes, e.g. *Beavvit / Rising Together* (2019, fig. 5.10), that refer to the brightly-coloured silk fringes in V-formation often worn by the Sámi, as well as her *Gollegákti / Kultatakki / Golden Coat* installation (2006, fig. 5.11), in which she created a *gákti*, a traditional Northern Sámi garment, out of used coffee bags. In contrast to Haraway's navigation of Indigenous textiles, this latter example seeks to illustrate that what counts as a material in Sámi craft is not defined purely by local natural material and reinforces Sámi culture's integration within the global processes of commodity production and consumption.[583] Perhaps this should also extend to the ways Sámi art should be received: as a participant in global systems of cultural dissemination and exhibition.

Following this model, Biemann uses her position not to speak for Jannok, but to collaborate without assimilation and facilitate this mode of self-identification. In addressing Chandler and Reid's notion of ontological anthropology as an essentialising and colonising force, it becomes a question of who the work serves, and who is in its best interests. For these

[582] Ibid., 163-64.

[583] Monika Grini, "Contemporary Sámi Art in the Making of Sámi Art History: The Work of Geir Tore Holm, Outi Pieski and Lena Stenberg," in *Sami Art and Aesthetics,* 311-12.

authors, the critique of this trend lies not so much in its engagement with Indigeneity as such, rather in its use to cultivate an expansion of thought 'not by adding one more cultural perspective, another way of seeing, but by providing a different world after 'the end of the world''.[584] For *Acoustic Ocean,* the answers to these questions revolve around the question of access. Whose sounds are we attuning to, and what are the political implications of this attunement?

Jannok is very generous with her musical practice and the dissemination of knowledge of Sámi tradition in an international context, but when the idea of attunement is centred on the access of other environments and worldviews, the colonising force at the heart of the ontological turn that assumes that Indigenous knowledge is readily available to use for theoretical exercises clouds any notion of attunement as an ethical practice. Just as vision is a dominating force, so too is listening; but it is important that we pay attention to what exactly we are listening to, because the *joik* is just as significant in the soundscape of *Acoustic Ocean* as the underwater sonic transmissions.

If the communicational system of *Acoustic Ocean* is broken because it is non-reciprocal, then the dissemination of knowledge by Jannok is not achieved through a fair exchange. Jannok's speech about the effects of climate change demonstrates the significance of local knowledges for environmentalist debates, which may lead to the conclusion that, because of the ways in which the Sámi community have developed a specialised knowledge of the Sápmi region through their reindeer herding and fishery practices, we should take away from *Acoustic Ocean* the importance of learning from local and Indigenous knowledge sources. In this respect, it would be an advocate for a hybridisation of knowledge – a combining of knowledge sources for the sake of environmental sustainability and biodiversity advancement – which is advocated by organisations such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystems (IPBES).[585] There is no doubt that there is much to learn from the Sámi community about the changes seen within the Arctic environment; that much is made evident in Jannok's statement. There is also no doubt that a polyvocalist approach to environmental knowledge production – a mutual exchange of

[584] Chandler and Reid, "Becoming Indigenous," 491.
[585] "Conceptual Framework," IPBES, accessed November 23, 2020, https://www.ipbes.net/conceptual-framework.

information – certainly appears to be a productive approach both for conservationalist approaches and a decentring of Westernised, modernist epistemologies. Yet when external governmental organisations extract the information necessary to appease an environmental condition the Sámi population didn't create, but of which they are severely facing the consequences, this kind of knowledge dissemination is also colonialist. Jannok disseminates her knowledge of climate change while the Sámi community is treated like a knowledge resource and the land they inhabit is put under increased pressure due to climate change, fragmentation, and industry, leading many to adopt modern technological approaches to cope with these pressures in a way that increasingly alters their own ways of doing things.[586]

Consequently, like vision, listening can be a dangerously extractivist practice. This works on two levels in *Acoustic Ocean,* in both the use of sonar technology to extract the underwater communications from cetaceans, and in Biemann's inclusion of Jannok's musical practice and her speech on climate change. No doubt, suggesting that the latter point is purely a work of extraction denies Jannok's agency as a public figure seeking to use her platform to advocate for change; but within the context of *Acoustic Ocean,* it is worth considering Biemann's role in amplifying Jannok's voice, as well as the nature of research on the Sámi community that is necessary to write about the work. Following these concerns, the question becomes: how do we listen well? This is in line with Liboiron's question on how to read less extractively in academic practice, raised in response to the tendency to appropriate Indigenous knowledges for theoretical and decolonising trends.[587] How can we see listening, not as a means of taking from others, but as a way of making space to accommodate difference? It is my contention that just like the limitations of visual access in *Acoustic Ocean,* there are too limitations to what we can know from listening. Turning to sound as a sensory experience of the ocean does not necessarily grant us full access. It is at this point that the epistemological implications of *Acoustic Ocean*'s science-fictional tropes come to the fore.

And the Dolphin Talked Back

It is significant that a non-Sámi audience of *Acoustic Ocean* does not know anything more about Jannok's *joik* than what they can hear in the video. But the limitations to the

[586] Löfmarck and Lidskog, "Coping with Fragmentation," 1297-98.
[587] Liboiron, *Pollution is Colonialism,* 35.

communication of information in the work also extends beyond this. If the dangers of both verbal and aural communication lie in its extractivist tendencies, then the fact that the nature of this communication is ultimately non-reciprocal must be addressed. While heavily mediated, it focuses on listening to a cetacean communicator that is not even visible within the video. Making a comparison between the two primary communicators – Jannok and the cetaceans – would initially suggest that non-reciprocity exacerbates the extractivist nature, as it appears to take while giving nothing back. However, looking further into how sonar communication operates within *Acoustic Ocean* has the capacity to influence an interpretation on the Indigenous knowledge dissemination at play in the work. Fundamentally, the ecological dreams of media are essentially broken within this model because it does not operate through a feedback loop.

The use of textual narration provides a useful starting point for this analysis. Despite the intention to direct the audience's understanding of sonic communication through textual narration, there is also still a lot that is left unsaid through these tiles. For example, the opening text that overlays the image of the seafloor scan appears as white, static intertitles. Describing the discovery of the SOFAR channel and the military use of sonar technology, it states:

> In the mid-1940s, scientists discovered a deep sound channel where low-frequency sound travels great distances, the so-called SOFAR channel.
>
> To locate enemy submarines operating in the deep channel, arrays of hydrophones were placed on the North Atlantic seabed, connected by cables to listening posts on shore.
>
> The instruments also detected some sounds whose sources were at first unknown, later found to be low-frequency blue and fin whale vocalisations.
>
> Their acoustic range extends across the ocean floor, emitting vast environments.
>
> For a long time, the submarine environment was thought to be a silent place until these spy technologies initiated a new understanding of the ocean as an acoustic and semiotic ecosphere.

In contrast to the narration of Biemann's earlier video essays, in which the narration is communicated orally by the artist, the narration in this work is silent. Transitioning from one to another at a relatively slow pace, the montage leaves ample time for the audience to read

this information and feels deliberate in its choice of phrasing as a result. As a means of conveying the meaning of sonar within the video, it suggests that this militaristic context is not the full story of sonar but that its use within *Acoustic Ocean* should be understood according to these specificities. It is my contention that the limitation of communication not only concerns vision, but language as well. The opening text emphasises listening above all in sonar's application in ocean spaces, especially in a non-intrusive manner.

With its references to 1940s scientific research into these "spy technologies", the video frames the use of sonar not only in the present, but also in the histories of the Second World War and the Cold War, as a time when marine research into cetacean communication and submarine warfare coincided. Sonar was invented in 1906, thus far predating the cybernetic era, but it was used as a wartime strategy to locate the enemy during a time that saw the rapid militarisation of cybernetics, with Weiner's feedback loop becoming central to methods of enemy prediction in US warfare.[588] The vocalisations that Biemann references exist alongside a broader fascination with cetaceans in the cybernetic era, focused on both their communicative abilities through echolocation and their hydrodynamic body movement, which were mirrored in the engineering of torpedoes.[589] Dolphins were actually put into military action by the Soviet Union in a Ukrainian dolphin research centre, in which they worked alongside the Black Sea Fleet to locate and destroy enemy submarines during the Cold War; but the military use of dolphins is by no means isolated to this context as both Russia and the US continue to have military marine mammal programmes, with the US applying their sonic talents from the Vietnam War to the first and second Gulf Wars.[590]

The opening text also does not highlight that the use of echolocation is not isolated to cetaceans but was first acknowledged in bats long before the recognition of the SOFAR channel. The realisation that cetaceans communicate through sonar was suggested in 1947 by cetacean researchers William E. Schevill and Arthur F. McBride when they speculated that because of the importance of the acoustic for porpoises, they might have 'some highly specialised mechanism enabling the porpoise to learn a great deal about his environment

[588] Peters, *The Marvelous Clouds,* 73.
[589] Lykke and Bryld, *Cosmodolphins,* 183.
[590] Ibid., 180-81.

through sound'.[591] Research into sonar is by no means isolated to the military context but also significant for animal behavioural research, and indeed for industry more generally. Just as it wasn't a coincidence that sonar was discovered in the ocean, the primary purpose of sonar also isn't to merely listen to cetacean communication but, like vision, is tied to questions of access, surveillance, and control.

Today, sonar technology is largely used for naval exercises, navigation, mapping, and identifying objects on the ocean floor. While these technologies have been used for decades, these activities have recently been shown to be highly environmentally degrading. According to Shirley Roburn, the mid-range sonar used by the navy have been known to create multiple cetacean deaths, as they find themselves disoriented, with damaged hearing, psychologically damaged, and often dying of decompression sickness.[592] The effects of sonar no doubt depend on the activeness of the technology, and it is possible to use the technology without being so ecologically destructive and it can even have positive benefits: as Roburn notes, learning about how the ocean exists as an acoustic space for a whole ecosystem of creatures can draw out the significance of noise pollution today.[593] There is nothing to suggest that the technology that Jannok employs causes damage, and it can be suggested that the application of such technology is aiming to bring awareness of that which Roburn describes. But with noise pollution in the oceans increasing rapidly over the past few decades, and the quieting of the seas during Covid-19 pandemic allowing for more research into the nature of this pollution and how it is directly tied to the shipping and travel industries, the political and environmental implications of Jannok's use of sonar extends far beyond its use in the Cold War.[594] Listening in this context is vital to understand pollution but also has the ability to contribute to it. Once again, it is a question of how we listen well.

Perhaps Biemann's emphasis on tracing the material origins of sonar technology speaks to the wider need to acknowledge the political and colonial underpinnings of

[591] William E. Schevill and Arthur F. McBride, "Evidence for echolocation by cetaceans," *Deep Sea Research* 3, no.2 (1956): 154.
[592] Shirley Roburn, "Sounding a Sea-Change: Acoustic Ecology and Arctic Ocean Governance," in *Thinking with Water,* 107-108.
[593] Ibid.
[594] Sharon Livermore, "Ocean noise quiets during the COVID-19 pandemic," International Fund for Animal Welfare, December 28, 2020, https://www.ifaw.org/uk/people/opinions/ocean-noise-quiets-covid19-pandemic.

technological devices used today. As Jussi Parikka argues in his notion of the Anthrobscene (the addition of "obscene" signifies the 'unsustainable, politically dubious and ethically suspicious practices that maintain technological culture'), technological origins and infrastructures are made visible and invisible depending on, much like ocean territories explored in this thesis, certain territorial power relations.[595] Pointing to the materiality of media is not only an act of foregrounding the matter that technological culture is dependent on, but its geographical and geological contexts.[596] Creating this narrative of sonar seeks to make technology's contentious origins more concrete, but at the same time seeks to reuse it with more ethical intent. Much like the use of fish farming in *Portable Fish Farm* and coal ash in *Ocean Landmark,* the use of sonar is an act of recuperation, but unlike the former two projects, the intention in *Acoustic Ocean* is not to make something visible, but to make something heard. By creating the happenstance narrative of sonar technology that underplays the active involvement of technology in the ocean by focusing purely on listening, it not only demonstrates that communication is non-reciprocal, but that in terms of its access requirements, it is as non-intrusive as possible. But if listening has the potential to be so extractivist, why must the origins of this technology be framed as non-reciprocal, rather than an engaged and balanced conversation? Delving deeper into the art historical and countercultural context of cetacean research, which overlaps with *The Whole Earth Catalog* era of chapter one, can uncover the implications of this decision, as well as the significance of *Acoustic Ocean's* speculative and science-fictional tropes.

A useful comparison for understanding the particularities of *Acoustic Ocean's* perspective on marine communication is the envisioned project *Dolphin Embassy* (1974, fig. 0.10)*,* by the San Francisco-based architecture collective Ant Farm. As a floating structure that would be located in the ocean (originally intended to be off the coast of Sydney), the aim was to provide a space for humans and cetaceans to 'study each other up close'.[597] The eccentric design features both biomorphic and biomimetic elements, including a triangular pneumatic sail in the centre that resembles a wing or fin and powers the craft, as well as the "brain room" in which a computer system is located that allows for both humans and cetaceans to use

[595] Parikka, *The Anthrobscene,* 6.; Ibid., 8.
[596] Ibid.
[597] Ant Farm, "Embassy to the Dolphins," *Esquire* (March 1975): 83.

technology, including computers, sonar and video recording devices to communicate with each other and cooperatively navigate the craft.[598] While the design of the craft has gone through multiple different manifestations, usually the "brain room" occupies one of three nodes and is accessed by dolphins from the ocean by a helical stairway; the other two nodes of "interspecies living rooms" allowing for the cohabitation of humans and dolphins (fig. 5.12).[599]

Naturally, the project was never realised; much like many of Beaumont's non-sites, the project exists rather as an idea. As such, it is framed purely as a utopian project, or as a work of speculation. The speculative approach of *Dolphin Embassy* turns its attention to a use of electronic media for posthuman communication. In a press conference in Sydney for the project (fig. 5.13), Ant Farm members Doug Michels and Doug Hurr not only sit in front of a series of television sets and use them to explain, very earnestly, their proposals for the project, but Michels also outlines the role that the videotape will play within the embassy. He states that the 'instant feedback potential' of video will act as a 'mirror', allowing the dolphins to 'see themselves in a different way' – and it is through this that they will form 'some kind of nonverbal communication'.[600] When pressed on what kind of communication this will be, Michels states that the videotape will act as a 'visual means to establish a language', a kind of communication for all beings, 'human or nonhuman, posthuman, subhuman that enjoy being with each other, and need a dialogue or language in order to communicate parts of those feelings of the experience of being together'.[601] Despite being termed an embassy, it transcends the role of human-based politics, and rather attempts to speculate a form of coexistence that goes beyond human- and land-based existence.[602]

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[598] Tyler Survant, "Biological Borderlands: Ant Farm's Zoöpolitics," Tyler Survant, accessed October 29, 2020, https://tylersurvant.com/ant-farm. Originally published in *Horizonte* 8 (Fall 2013): 49-64.

[599] Ant Farm, "Embassy to the Dolphins," 83.

[600] Doug Michels, Doug Hurr and Curtis Schreier, "Video Communication Unit," *Media Burn,* July 20, 1976, 32 minutes, U-matic video tape, https://mediaburn.org/video/video-communication-unit/?t=5:00.

[601] Michels, Hurr and Schreier, "Video Communication Unit." *Dolphin Embassy* shares Stan VanDerBeek's aim to imagine global communication through media in *Movie-Drome* (1963-65). The dome theatre with film and slide projections over its surface, designed to be viewed while lying on the floor, manifested what Erika Balsom refers to as a 'universal visual language' of film by conceiving a 'communication network of a "new world language"'. Erika Balsom, *After Uniqueness: A History of Film and Video Art in Circulation* (New York: Columbia University Press, 2017): 221.

[602] Michels, Hurr and Schreier, "Video Communication Unit."

In its use of video technology, Ant Farm's utopia aims to use non-verbal visual communication so that a greater understanding of coexistence can be gained by transcending language difference. Beyond the scope of moving image histories, however, the model of communication determined by Ant Farm is also indebted to developments in marine research then being carried out by physician John C. Lilly into dolphin communication.[603] Lilly's highly controversial experiments into the workings of the dolphin brain were based on the premise that they may have a comparable intelligence to humans, and sought to understand the nature of dolphin communication systems so that interspecies communication could potentially take place.[604] This not only included the differentiation between dolphin sounds, including their alteration of sounds to provoke human responses and their ability to mimic human speech, but also included his notorious 'flooded-house programme' at the Communication Research Institute in the Virgin Islands in 1965 (fig. 5.14).[605] *Dolphin Embassy* is no doubt making reference to this programme in its aim to build a space for cohabitation, but through this reference the posthumanist aims of the project become questionable.

Lilly's research was not only contentious because of the physical exploitation, and often slaughter, of dolphins; within the emphasis on teaching the dolphins English, there is also a colonial suggestion that this is the language of civility. The dolphins become objects of what Lykke and Bryld refer to as 'techno-scientific experiments in humanisation and imprinting of human meaning'.[606] The cultural fascination of the dolphin from a technological perspective, whether through their hydrodynamic form or their sonar communications, never respects the mammals for their own existence, but perpetually measures them in human terms, thinking of how an understanding of them can produce the betterment of humanity. This is in line with the countercultural ideology of *The Whole Earth Catalog* era described in chapter one, in which the New Communialist desire to speak in universals existed at the so-called turning point of history. But it also goes beyond the question of individual psychological and technological advancement, as it reflects the aim of Ant Farm's *Dolphin Embassy,* which

[603] Ant Farm state 'back in the Sixties, John C. Lilly surprised the world with his experiments indicating that dolphins were highly intelligent creatures' in "Embassy to the Dolphins," 83.
[604] John C. Lilly, *Man and Dolphin* (New York: Doubleday, 1961): 13.
[605] Lilly incorporated Margaret Howes into the experiment as they became the parental figures of Peter the dolphin, with Howes attempting to educate Peter in human civilised society while Lilly attempted to become-dolphin by hallucinating on LSD in a water tank. Nina Lykke and Mette Bryld have given an extensive account of the history and ethical implications of Lilly's experiments. Lykke and Bryld, *Cosmodolphins*, 199.
[606] Ibid., 67.

comes with the parodic tagline 'bringing modern technology to the least developed nation of all' and suggests not a symbiotic, egalitarian relationship but rather an elevation of the dolphin to the human (Euro-American) level.

Tyler Survant argues that while *Dolphin Embassy* is loaded with playfulness, humour and utopianism and is difficult to take seriously, there remains an suggestion that its model of interspecies communication works to preserve the 'enlightened aspects of humanity' as well as transcend them, with the aim to 'become-animal while simultaneously becoming-superhuman'.[607] Therefore, with any crossing of the boundaries between human and animal, it is necessary to inquire who exactly such a transgression serves. The posthuman should not be conceived, as Zylinska terms it, as evidence of humanity's advancement to 'the next stage of the evolutionary ladder'.[608] *Dolphin Embassy* thus holds an uncomfortable relationship with animal behavioural research and, while speaking to a different context to that of *Acoustic Ocean,* nevertheless outlines the ethical issues at hand when you try and build a method of communication that is reciprocal and universal. The story of Lilly becomes a narrative of science gone wrong, of a failed utopian experiment, but speaks to the legacy of humanism that insists that the English-speaking human is the centre of the universe.

Utopian Communication

Despite the humanistic associations, *Dolphin Embassy*'s legacy within ecological theory and exhibitions has not suffered. Marchessault finds in the utopian project a McLuhanian quality that is comparative to actor-network theory (ANT), which has held a prominent position in ontological theories throughout the twenty-first century.[609] *Dolphin Embassy* is not a project limited to the 1970s, as it has seen multiple incarnations: in 1987, Michels conceived *Project Bluestar*, which envisioned a craft for human-dolphin communication in space (fig. 5.15); in 2015, Ant Farm worked alongside the architecture firm WORKac to create *3.C.City* (fig. 5.16), another water-based vessel in the form of a 'floating city', for the Chicago Architecture Biennial; in 2019-2020, *3.C.City* was exhibited alongside *Dolphin Embassy* in the Royal Academy of Arts' *Eco-Visionaries: Confronting a Planet in the State of Emergency*

[607] Survant, "Biological Borderlands."
[608] Joanna Zylinska, "'The Future… Is Monstrous': Prosthetics as Ethics," in *The Cyborg Experiments: The Extension of the Body in the Media Age,* ed. Joanna Zylinska (London: Continuum, 2002): 216.
[609] Marchessault, *Ecstatic Worlds,* 224.

exhibition.[610] While a long and diverse history, it is clear that the project has found a new home in contemporary art exhibitions with an environmental focus. Indeed, Biemann's *Forest Law* (2014, fig. 5.17) was exhibited at an earlier incarnation of *Eco-Visionaries* at Matadero Madrid in 2019, and both artists now appear to circulate within the same exhibition circuit aiming to promote ecological modes of thought.

It is my contention that a major reason for *Dolphin Embassy's* continued circulation in ecologically oriented exhibitions lies in the fact that it was never put into practice. While associated with Lilly's research, a fundamental difference exists in the fact that Ant Farm never tried to make dolphin-human communication a reality but instead created a vision of a better world in which humans and dolphins, or even other humans, communicate well with each other. This is essentially a utopian function, demonstrating an ability to speculate on an alternative mode of being, in this case facilitated in the design of a space for human-dolphin communication and cohabitation. It leaves space for the opportunity to wonder what the world could be like – a world in which we listen well to each other.

Yet despite its meaning as "no place", the utopia is not altogether an escape from reality. As Jameson defines it, utopia does not so much begin from a positive position, but as a negative one, standing 'as a clarion to remove and extirpate the specific root of all evil from which all others spring'.[611] Hence, utopia is fundamentally a critical position, motivated by a desire to stand apart from the conditions of the present. Ant Farm were notably a critical collective: known for their utopian ideas and outlandish stunts, they were compared to the likes of futurist Richard Buckminster Fuller and countercultural yippie Abbie Hoffmann; yet art historically they are known for their critique of North American media.[612] Most notably, they adopted guerrilla video tactics with their involvement with Top Value Television (TVTV), the San Francisco-based video collective, and created performances such as *Media Burn* (1975, fig. 5.18), which involved driving a Cadillac into a stack of television sets as a means of satirising North American commercialist lifestyles. Within the parameters of *Dolphin*

[610] Ibid.; Gavin Ruedisueli, "Ant Farm Collective," *Medium,* March 31, 2017, https://medium.com/designscience/1968-2e2b6870d12.; "3.C.City," WORKac, accessed November 11, 2020, https://work.ac/work/3c-city/.
[611] Jameson, *Archaeologies of the Future,* 12.
[612] Ken Johnson, "Doug Michels, Radical Artist and Architect, Dies at 59," *The New York Times,* June 21, 2003. https://www.nytimes.com/2003/06/21/arts/doug-michels-radical-artist-and-architect-dies-at-59.html.

Embassy, it is worth considering whether this critique of dominant media outlets extends to critiques of communication more generally, such that it seeks to find an alternative model in which participants communicate well, by listening to each other.

Utopia as Jameson defines it is also a common theme in science fiction, not only pertaining to the parodic and satirical, but in the building of worlds that stand in relation to the present. For example, Le Guin's *The Word for World is Forest* (1968) tells the story of the fictional planet of Athshe that has been colonised by humans to access wood after the resource runs dry on Earth. In repeated violence enacted by the colonisers, the peaceful Athseans are eventually driven to violent action in retaliation – a concept that they were not aware of until meeting humans. The novel has strong anti-militaristic tones and, in its introduction, Le Guin does not hide its underlying commentary on the Vietnam War. Written in 1968, a notoriously brutal year of the war featuring the Tet Offensive and its aftermath, Le Guin states: 'the victory of the ethic of exploitation, in all societies, seemed as inevitable as it was disastrous. It was from such pressure, internalised, that this story resulted: forced out, in a sense, against my conscious resistance'.[613] The line between fiction and reality becomes blurred in the interpretation of the novel, and this has contributed to Le Guin's longstanding critical attention as a science fiction writer through other works offering allegorical critiques of colonial history, most notably *The Dispossessed* (1974) and *The Left Hand of Darkness* (1969).[614]

Science-fictional utopia is thus a major trope to navigate the central methodology of this thesis: beginning from a critique of "what is", it looks for an ethical position for the relations that "ought to be". Alongside the fusion of cyborgian and Indigenous themes, Haraway's influence on Biemann also extends to the need to 'change the story' to build upon this critique to speculate on new utopias.[615] Science fiction is a major way to rethink our relationships with each other because it provides the speculative tools to do so, relying not purely on the real. Vitally, this is not merely an ontological concern; in dealing with Indigeneity, it is also a question of how the relationships between communities intersect with land use, colonisation, and Indigenous rights, cultures, and traditions. Given this trend, it is

[613] Ursula K. Le Guin, *The Word for World is Forest* (London: Orion, 2015): 7.
[614] Le Guin is not alone in offering socio-ecological critiques through science fiction: see also Herbert, *Dune.*
[615] Haraway, *Staying With the Trouble,* 40.

worth questioning whether *Acoustic Ocean's* science-fictional qualities can share an interest in Ant Farm's communicational dreams and the political and anti-colonial sentiment of science fiction utopias more generally. The focus on sensory attunement may raise significant questions about the politics of mediation, identity, and access, but framing it as a mode of utopia, it has the potential to operate as a model of critique that tackles communicational habits in terms of both species and Indigeneity. It becomes a question of how to build a worldview in which the sensory conditions of others are recognised but the attunement to these conditions does not assume full sensory and epistemological access.

Unlike *Dolphin Embassy,* the model of communication *Acoustic Ocean* builds is one that doesn't require the dolphin to talk back in a "universal" language. It does not ask the cetacean to understand Jannok, or indeed its audience; yet at the same time, the cetacean communication isn't necessarily understood by the audience either, at least not as anything more than that. While seeming to offer a speculative dream of listening, then, it also offers an opposite dream to that of *Dolphin Embassy,* focussed less on the need to find a universal language than on the need to take seriously the assumed physical, visual, and linguistic access at the heart of communication. It matters that the narration is silent while amplifying the sounds of marine communication; it matters that Jannok's *joik* is not explained away; it matters that there are elements, both contextual and sensory, that remain out of reach.

The speculative function of *Acoustic Ocean* is not only a result of the fact that it seeks to attune its audience to the sensory conditions of the ocean; this act of attunement exists within a utopia that seeks to ask how we can listen well to one another, across difference, without assuming access. Yet as a specifically science-fictional work, it speaks to a series of tropes that concern sensory access and highlight the significance of the fact that the attunement to the sonic is not necessarily a means of collecting information but of making strange. It is not just that *Acoustic Ocean* is a video beyond vision, but that it takes the idea of "beyondness" as a central theme. The role of vision can be framed in terms of what Jue terms 'conceptual displacement', that 'involves imaginatively submerging media terms into the ocean to see how they hold up in a liquid milieu of pressure, salinity, and coldness'.[616] As a conceptual strategy of speculation, conceptual displacement is essentially concerned with

[616] Jue, *Wild Blue Media,* 4-5.

the experience of worlds beyond our own, comfortable sensory modes. Science fiction is far more than a nod to Haraway, and not merely inferred by Biemann's reference to Jannok as an "aquanaut", making the connection between what Helmreich calls the "alien ocean" and outer space.[617] The conceptual discomfort of attunement is less about access than about strangeness and difference as a political strategy.

Conceptual displacement is a form of making strange. This latter term is indebted to Mark Fisher's *The Weird and the Eerie,* in which these two titled ideas, while substantially different, share a 'preoccupation with the strange'.[618] By this he means that these concepts share less an enjoyment of the state of being scared, but a 'fascination for the outside, for that which lies beyond standard perception, cognition and experience' in a way that provokes both dread and wonder.[619] I use the term "strange" to acknowledge some distance from Fisher's specific categories of the weird and the eerie (the weird refers to 'that which does not belong', bringing 'to the familiar something which ordinarily lies beyond it'; the eerie, by contrast, involves itself in 'a failure of absence' or 'failure of presence').[620] Yet I share Fisher's tendency to regard strangeness as a skewing of sensory convention as opposed to questions of what does and does not belong.

Acoustic Ocean's pushing of the boundaries of both vision and sound is a way of making the work strange, by way of speculating on conceptual displacement. But it is also important to note that the strange qualities of the work are also more explicit. For example, after an introductory sequence that features the underwater seabed scan cut with a brief shot of a submarine travelling towards the camera, the video fades into a rocky landscape, the title "Acoustic Ocean," drifts forwards in line with the waves of the ocean before disappearing (fig. 5.19), and Jannok appears, in her bright orange diving suit, kneeling with her sonar equipment in a metal container. From the way in which Biemann introduces Jannok, it is made clear that it is not to be interpreted as a naturalistic work, but one that pushes the boundaries of reality.

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[617] Helmreich, *Alien Ocean.*
[618] Mark Fisher, *The Weird and the Eerie* (London: Repeater Books, 2016): 8.
[619] Ibid., 8-9.
[620] Ibid., 10.; Ibid., 62.

Yet the strangeness of the visual is most certainly amplified by Biemann's use of sound. As a sonic installation, the rustling of Biemann's interaction with both her environment and various technological devices, as well as the sound of the waves crashing on the shore, are visceral. Cutting across these more naturalistic sounds, however, are unfamiliar sounds, including the sounds of marine communication detected by sonar. These sounds are affective throughout the video but most disarming in the last few minutes, when there is a crescendo of marine mammals almost shrieking over the background noises of sonic transmissions. This shrieking can be thought of as what Fisher describes as the 'eerie cry': giving the example of the bird's cry, Fisher writes that an animal cry becomes eerie when it seems as if there is something more to the cry than that which is usually involved in the animal's communication – something intentional.[621] Hence, it is not just that the sound provides an unnerving atmosphere; it is as if it has a message, it is intent on communicating something that is just beyond our means of understanding. Biemann hints at this through static intertitles, describing it as a "canto of impermanence" taking place in what is earlier termed a "sea full of intentions".

Equally, the beeping, whirring, and crackling of the underwater sonic detections that do not feature noticeable animal noises are just as jarring. As background noise, they in some ways sound like white noise, in others like the soundtrack to a sci-fi film. Specifically, the sonar pings in *Acoustic Ocean* strongly resonate with the tracking device in Ridley Scott's *Alien* (1979, fig. 5.20), in which a motion detector based on changes of air density is used by the crew on a commercial space tug to locate the Xenomorph, an extra-terrestrial species, that is loose on the ship. While operating differently to sonar as a tracking device, sonically there are correlations that make Scott's film a useful comparison for thinking through the ability of pinging, or beeping, to produce tension, as the increased frequency of the pings acts as an audible cue for the location of the alien species that poses a threat to the survival of the main characters of the film.[622] The more frequent the pings, the closer the Xenomorph is, and the

[621] Ibid., 61-62.

[622] Sonar as a tracking device is more commonly associated with submarine conditions. Transponders are distributed across the sea floor and transmit signals so that the submarine vessel can locate itself in a process of triangulation, which, according to Helmreich, 'secure a sense that the sub is somewhere rather than nowhere'. Helmreich, *Alien Ocean,* 217.

rapid increase of these beeps not only builds to a point of collision in the film but also mirrors the increasing heartbeat of its audience members witnessing this unfold before them.

Allusions to Scott's *Alien* compound the idea that strangeness in *Acoustic Ocean* is what Jue calls a 'science fictional strategy'.[623] When Biemann describes the work as 'a science fictional quest into an amphibian life world that is constituted by an assemblage of human, marine, machinic, organic, climatic and digital elements', the reference to the genre is evidently made clear.[624] Yet Jue also frames the ocean as a way to move beyond terrestrial ways of sensing and understanding through 'cognitive estrangement underwater'.[625] The term 'cognitive estrangement' was coined by Suvin and acts as a literary device in science fiction whereby the plausibility of certain phenomena are determined by the context of the imagined world they inhabit, and thus require a cognitive leap from the context of the world in which the fiction is being received.[626] What is science fictional about the ocean, for Jue, is the requirement for a whole new way of sensing in oceanic conditions that makes speculation and the imagination necessary.[627] Speculation exists in the limitations of comprehension, not in the desire to gather new knowledge by accessing other worlds.

Likewise, by creating a space in which humans and cetaceans meet in this suspended state, *Acoustic Ocean* also manifests what is known in science fiction as the "first contact" trope. This term, especially prevalent in the 1960s and '70s, refers to the first meeting between two communities who have not previously met, and is a staple for dealing with ideas of otherness through the guise of alien creatures.[628] For Jameson, the first contact theme aims to push the boundaries of possibilities of knowledge of other life forms, and it is perhaps not incidental that Stanislaw Lem's *Solaris* (1961) becomes a case study for exploring this idea. In this novel, the planet *Solaris* is almost entirely covered in an ocean that is itself a singular extra-terrestrial life form that is indifferent in its interaction to the humans who wish to make contact.[629] While it can be argued that the ocean uses alternative models of communication (notably, human memory as language) to make this contact, the ocean nevertheless still

[623] Jue, *Wild Blue Media,* 4-5.
[624] Biemann, "Acoustic Ocean."
[625] Jue, *Wild Blue Media,* 9.
[626] Suvin, "On the Poetics of the Science Fiction Genre," 375.
[627] Jue, *Wild Blue Media,* 9.
[628] Jameson, *Archaeologies of the Future,* 140.
[629] See Stanislaw Lem, *Solaris,* trans. Joanna Kilmartin and Steve Cox (London: Faber & Faber, 2002).

stands at the absolute limits of this relation – an idea that still resonates today in the Helmreich's perceived alienness of oceanic microbial life forms.[630]

Certainly, *Dolphin Embassy* can be regarded as a facilitation of this first contact trope by creating a space for a language to be developed; but *Acoustic Ocean* too evokes this trope. In construing *Acoustic Ocean* not only as a technological navigation of relationality, but specifically as a kind of first contact science fiction, it illustrates that we are not dealing with absolute epistemological dominance, but, as in its framing of vision and sound, with the limitations but necessity of relations.

Yet at the same time, if cognitive estrangement tackles difference within the parameters of sensory experience, then first contact demonstrates that this difference is also a geopolitical concern. For *Acoustic Ocean,* this speaks to the politics of Jannok's Indigenous identity as well as the environmental threats that the Sápmi region faces. From chapter four's investigation of water contamination, we are aware that interconnection, or "contact", are not isolated and localised and extend – invisibly, ephemerally – across borders and territories. This puts the idea of contact into question, as the negative environmental actions of one agent can affect those in an entirely different location, in this case, the Sámi community. Access is not only achieved through the senses, but through our actions that do not have to take place at the border but anywhere in the world. Estrangement, or the embrace of epistemological limitations, does not enable a turn to ignorance, however; it is about the fact that actions do not need to be seen, heard, or even experienced for the consequences to be felt. Speculation is not an escape into fantasy but an acknowledgement of how we can gain awareness of others without occupying that space and presuming total knowledge. Vision, sound, and language can all fail, but estrangement is nevertheless political when it is framed in terms of border relations.

Vocalising Situated Knowledges

Above all, *Acoustic Ocean* is a navigation of borders – between land and sea, between identities, species, histories, and cosmologies. Vitally, this is not a new concern for Biemann, as border politics have manifested themselves within the majority of the artist's video essays. Within the context of globalisation, Biemann's focus on borders sought to oppose the

[630] Helmreich, *Alien Ocean,* 15-16.

corporate utopianism of many globalisation narratives that focused on the proliferation of deterritorialising neoliberal policies and the ephemeral flows of global media and corporate trade.[631] But whether through the lens of gender, seen in *Performing the Border* and *Remote Sensing* (2003, fig. 5.21), migration and citizenship, seen in *Contained Mobility* (2004, fig. 5.22) and the *Sahara Chronicle* (2006-2009, fig. 5.23), or environmentalism, in *Deep Weather* (2013, fig. 5.24) and *Egyptian Chemistry* (fig. 5.4), the notion of borders always stands for more than a physical dividing line. It stands as a point of contact on multiple levels.

Biemann is indebted to sociologist Avtar Brah, who defines the border as:

> …arbitrary dividing lines that are simultaneously social, cultural and psychic; territories to be patrolled against those who are constructed as outsiders, aliens, the Others; forms of demarcation where the very act of prohibition inscribes transgression; zones where fear of the other is the fear of the self; places where claims to ownership – claims to "mine," "yours" and "theirs" – are staked out, contested, defended and fought over.[632]

Regarding *Acoustic Ocean,* the reference to "alien" may be both literal and metaphorical. Brah's description and indeed Biemann's earlier practice may feel a long way from the idea of *Acoustic Ocean* as a work of science fiction, but it is not so far away as it may seem. It concerns the social, political, and geographical borders that have shaped the Sámi community, borders that too concern difference, otherness, and tension. Biemann's video essays have always held a critical lens to reality and *Acoustic Ocean* is no different; in its departure into the fictional and conceptual depths of the ocean, it seeks to identify more ethical relationships across borders.[633]

Framing *Acoustic Ocean* in Biemann's earlier questioning of borders emphasises that positionality is key for both the sensory, geopolitical, and epistemological questions of access. Jannok visually manifests this through her position on the coastline, parabolic microphone held out towards the ocean (fig. 0.4). Yet positionality has greater significance than the performer's physical location as it refers to the artist's stance – politically, ethically – that has been a prominent feature of the video essay used throughout Biemann's career.

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[631] See Bauman, *Liquid Modernity.*

[632] Avtar Brah, "Diaspora, Border and Transnational Identities," in *Been There and Back to Nowhere,* 23.

[633] Haraway, *Staying With the Trouble,* 40.

The composite nature of the film or video essay is indebted to the earlier literary essay form. Tracing the essay back to its etymological roots of ''to assay', 'to weigh', as well as 'to attempt'', Nora Alter identifies the essay as an 'open-ended, evaluative search' that is 'haunted and constrained by the presence of individual subjectivity'.[634] Often crossing disciplinary borders and integrating fiction with non-fiction, the literary essay has provided many characteristics for the development of the video essay, which accompanies them with visual manifestations, including the assembled and composite form.[635] Indeed, the combination of text and image furthers the open-ended approach as it allows points of tension and incomprehensibility between that which is seen and how it is narrated. Jörg Huber acknowledges this text-image relationship, or that between 'discursivity and perception' as a key aspect of the video essay mode that allows it to deviate from a documentary form preoccupied with the myth of objectivity.[636] This sense of incomprehensibility not only speaks to concepts of estrangement within *Acoustic Ocean,* but alongside what Huber calls the 'subjective position' and the 'significance of authorship', which are also explicitly unstable categories, the video essay itself demonstrates a concern for what it means to navigate difference from a specific position.[637]

Biemann corroborates these wider characteristics when she states that in her video essay practice she is 'not in search of reality – a notion that has proven to be a fiction in and of itself' but 'in generating an artificial construct'.[638] Such artificiality is inferred in Biemann's use of text and image, in which the naturalness of signifier/signified relationship is put into question, and in the fragmentation of the authorial voice. Indeed, the authorial voice in Biemann's practice is based on the fact that 'the subject need not be presented as a coherent phenomenon explained via linear narration'; instead, the authorial voice exists to tie together different subjectivities from different locations and different points of view.[639] For Angela Dimitrakaki, in the 'subjective "I"' of the video essayist, there is a point of constant tension

[634] Nora M. Alter, "Translating the Essay into Film and Installation," *Journal of Visual Culture* 6, no. 1 (April 2007): 45. Ibid.
[635] Nora M. Alter, "Memory Essays," in *Stuff It: The Video Essay in the Digital Age,* ed. Ursula Biemann (New York: Springer Wien, 2003): 12.
[636] Jörg Huber, "Video-Essayism: On the Theory-Practice of the Transitional," in *Stuff It,* 93.
[637] Huber, "Video-Essayism," 93.
[638] Ursula Biemann, "Going to the Border: An Essayist Project," in *Mission Reports*, 15.
[639] Ibid.

between subjectivity and the '"objective" but dispersed reality it strives to represent'.[640] This reality can be geographical, social, political or environmental, and the video essay format provides the foundations to highlight that just as the artist's position is never neutral, neither is Jannok's, or the audience's. Again, it is a question of what can and should be accessed from where we currently stand.

Not only dependent on the assemblage of image and text, Biemann has repeatedly used multiple screens and different visual effects, such as satellite imagery in *Remote Sensing* (fig. 5.25) and *Contained Mobility* (fig. 5.26). While *Acoustic Ocean* is a single-screen projection and offers a far more minimalist and clean approach to visual representation than many of Biemann's older projects, the use of different modes of recording – digital video, 3-D scans, microscopic imagery, along with text – is still very much consistent with the video essay form the artist has developed over the past two decades. Interpreting *Acoustic Ocean* in line with this model of the video essay necessitates a consideration that it is coming from a specific position, and that in doing so it is also concerning itself with differing perspectives in line with its relational focus and thus has a specific epistemological function.

This has traditionally operated within Biemann's practice through the interview of multiple people coming from different backgrounds with different perspectives, and so it is arguably difficult to find such an approach in *Acoustic Ocean,* which focuses on Jannok with Biemann's voice iterated through text. However, there are multiple ways in which positionality is a central concern. In many ways, *Acoustic Ocean* is also a kind of interview; the subjects may be the sea creatures that are vocalised by sonar and listed in the credits, but Jannok nevertheless still very literally gives them a microphone to speak. To consider the epistemological implications of listening, then, it is necessary to consider that it is achieved not on abstract terms, but from specific positions across the border of difference.

The aim to demonstrate the limitations of vision is a primary way in which *Acoustic Ocean* evokes a sense of positionality. Through the science fictional emphasis on attuning to underwater conditions – and acknowledging the limitations in doing so – the work both reinforces the sensory conditions that uphold land-based species and speaks to the fact that they exist differently. Once again extending beyond the fantastical, the science fictional trope

[640] Angela Dimitrakaki, "Materialist Feminism in the Twenty-First Century," in *Mission Reports,* 122.

offers an epistemological emphasis as well as a critical one. This is because the questions of power and transcendence linked to sensory attunement are contested when the positionality, or situatedness, of knowledge is foregrounded.

Of all the ways in which Haraway's theories can be extracted from *Acoustic Ocean,* it is the appeal to situated knowledges that confirms the political implications for the models of relationality forged elsewhere, for example through cyborgs or string figures. For Haraway, epistemological partiality goes beyond the question of vision and opposes universal knowledge claims by emphasising the grounded context of the subject when knowing and understanding.[641] Such a concept underscores a major theme of feminist science studies, which has sought to critique the epistemological premises of Western technological and scientific cultures in order to formulate a model of scientific pursuit in line with feminist thought.[642] For example, Haraway sits alongside Sandra Harding's concept of 'standpoint epistemology', which challenges universal knowledge claims through the basis that one's experience is guided by positions based upon gender, race, ethnicity, class, and sexuality, as 'one's own social situation enables and sets limits on what one can know'.[643] This not only implies that knowledge is tied to social and political experience and can only ever be partial, but highlights the importance of epistemological practices that speak to, and are for, marginalised communities, rather than the administration of knowledge from above.[644] Situatedness is thus significantly also an intersectional feminist approach.[645]

Acknowledging the limitations of knowledge is not an anti-intellectual position, nor does it seek to build a model of relationality based on complete alterity. Rather, it comes from an understanding that knowledge has power in both its acquisition and application and is never neutral. Situated knowledges is an inquiry into these power dynamics and looks towards more ontologically decentred and equitable ways of understanding. Hence, while Haraway's relationship with Indigeneity certainly has the potential to essentialise and even

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[641] Haraway, "Situated Knowledges," 195.

[642] See Keller and Longino, *Feminism and Science.*; Sandra Harding, *Sciences from Below: Feminisms, Postcolonialities, and Modernities* (Durham: Duke University Press, 2008).

[643] Sandra Harding, "Rethinking Standpoint Epistemology: What is 'Strong Objectivity'?" in *Feminism and Science,* 240.

[644] Ibid., 242.

[645] Patricia Hill Collins has argued for an epistemological paradigm for intersectional feminism based on need for multiple partial voices. Patricia Hill Collins, *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment* (New York: Routledge, 2000): 268-271.

intellectually colonise, the author's earlier theories of situatedness also have the potential to contest these associations because it speaks to power, difference, and specificity in relationships with each other.

Jannok's situated position, speaking specifically about the social and environmental challenges that her community faces, reminds us of the importance of geopolitical differentiation against the universalising tendencies of the Anthropocene. As such, it fits within a wider field of scholars doing just this by correlating environmentalism with capitalism, colonialism, and geopolitics, many of whom have played a key part in this thesis.[646] Particularly pertinent is Kathryn Yusoff's 'Black Anthropocenes', which seeks to rewrite 'the "origin stories" of the Anthropocene' by outlining the 'racial blindness' of its 'universalist geologic commons', which 'neatly erases histories of racism that were incubated through the regulatory structure of geologic relations'.[647] Arguing that the colonial and racialised subjugation of bodies through land dispossession and extraction practices are written into the geological conditions now acknowledged as the Anthropocene, the focus on a post-racial *anthropos* offers a "view from nowhere".[648] In this respect, Yusoff echoes Haraway, but offers an inversion of the 'God's-eye view' to a 'lithic-eye view' to emphasise how the universalist logic permeates the geologic discourse that has come to name our condition, and reinforces the power relations of the status quo.[649]

Biemann has spoken to Yusoff's argument in multiple ways throughout her career.[650] *Forest Law,* created by Biemann and Paulo Tavares, concerns the politics of colonial oil extraction in the Ecuadorian Amazon, and shares *Acoustic Ocean's* concern for Indigenous knowledges as it explores the rights of nature legal case between oil companies and the Sarayaku community in Ecuador. Not only does this subject matter lend itself to the broader acknowledgement of the colonialist practices of the energy industry in Ecuador but speaks to the more fundamental difference in worldviews between capitalism and the Indigenous

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[646] See Jason Moore*, Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism* (Oakland: PM Press, 2016).; Harvey, *Justice, Nature and the Geography of Difference*.; Nixon, *Slow Violence and the Environmentalism of the Poor.*; Dipesh Chakrabarty, "The Climate of History: Four Theses," *Critical Inquiry* 35, no. 2 (Winter 2009): 197-222.

[647] Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018): xiii.; Ibid., 2.

[648] Ibid.; Ibid., 4.

[649] Ibid.

[650] See also Ursula Biemann, *Deep Weather* (2013).

philosophies of Ecuador. The legal recognition of the rights of nature in 2008 is a recognition of Indigenous philosophy that does not coincide with a Eurocentric worldview; specifically this is the "living forest", or a cosmological approach to the environment that does not regard it as a resource but as the intensely interdependent coexistence of all living subjects.[651]

In dealing with Indigeneity in *Forest Law,* Biemann is explicit in her reinforcement that gaining an understanding of different cosmologies is not so much about academic conceptions of life as such, as it associated with the speculative turn; rather, it is about the importance of highlighting multiple knowledges in the face of environmental injustices today. An ethical approach to Indigenous knowledge – based on standpoints and multiple perspectives rather than appropriation – is certainly contestable in academic and conservationist circles assuming access to it, but it is nevertheless still a vital facet in environmental justice today.

This also relates to Biemann's participation in the international multimedia project, *World of Matter,* which was founded by artists and scholars to investigate the ecological today and is ultimately designed to 'highlight the need to acknowledge other voices – including those humans who did not have a voice before, but also nonhuman actors and complex entanglements of humans, technologies, and "natural" artefacts'.[652] In the expansion of the notion of the voice beyond language, the *World of Matter* project not only aims to move beyond anthropocentrism but presents a notion of ecology that is intrinsically tied to the social, political and economic structures that organise the planet in accordance with racial and gendered hierarchies.

In this light, *Acoustic Ocean's* navigation of voices not only speaks to the amplification of marine voices that were largely unknown before sonar, but to the importance of foregrounding Sámi culture, and specifically the voices of the *joik,* in the face of assimilation and discrimination. Listening is not about the access of knowledge to claim it as your own, but about the amplification of voices in general. Knowing the ocean means something very different to various communities, from surfers, and fishermen to deep-sea miners, meaning

[651] Ursula Biemann, "The Cosmo-Political Forest: A Theoretical and Aesthetic Discussion of the Video *Forest Law,*" *GeoHumanities* 1, issue 1 (September 2015): 161.
[652] Mabe Bethônico et al., "Introduction to the World of Matter Project," 10. The emphasis on voice echoes Gayatri Chakravorty Spivak, "Can the Subaltern Speak?" in *Can the Subaltern Speak? Reflections on the History of an Idea,* ed. Rosalind C. Morris (New York: Columbia University Press, 2010): 21-80.

that there is not one singular position nor one singular set of information on what the ocean "is".[653] Expressing the limitations of what we can see and hear is thus not only a science-fictional question on what it means to be human, but an acknowledgement of difference, and an acknowledgement that meaning is not always translatable.

Noisy Multitudes

What does it mean to listen while understanding that the information communicated is never universal and knowable to all recipients? What does it mean to embrace the unknowability of the ocean as an ethical response to a colonial and anthropocentric worldview that assumes access? Unknowability has featured in this thesis through the parameters of the invisible but extending beyond vision in *Acoustic Ocean* has offered a space to also consider the limitations of language, in both written and verbal forms. Certainly, linguistic communication is not altogether unintelligible: both the static intertitles and Jannok's verbal communication play a vital role in making the political and historical context known. Yet in both these cases, there is also a clear sense that there is more to be understood, leaving the land-based human audience on one level, the non-Northern Sámi speaking audience on another, in an outsider's position, across the border without full access.

When considering what the audience of *Acoustic Ocean* are listening to, then, it is important to note that it is not just the communication of language, but of noise in general. In *Acoustic Ocean,* Jannok expresses a stark anger regarding the environmental and discriminatory conditions her community are facing, but this anger is very much amplified by the crescendo of cetacean noises shortly after her speech. If there is a correlation of communicative modes between Jannok and the sea creatures created by the entanglement of her *joik* with the sonar amplifications, then while Jannok's voice appears calm and considered, the crescendo of shrieks expresses a latent frustration. Jannok's speech should not be considered as motivated by a simplistic love of dissemination: it is loaded with ambivalence and exasperation. Considering what this mixing of voices achieves beyond essentialism, the emphasis is less on the dissemination of language but on the acoustic more generally, which has a political motivation that does not contradict, but is at the heart of, the work's science fictional trope. Noise not only demonstrates the limitations of a

[653] Hessler, *Prospecting Ocean,* 24.

comprehension of the "what is", but as a disruptive force, provides an avenue to speculate on the "what ought to be".

Jannok's cyborgian nature has always signified more than the literal entanglement of the human body with the machine, or indeed the cybernetic history of sonar technology, as it introduces questions of difference, fragmentation, and the dissolution of borders for subjectivity. However, for N. Katherine Hayles, the cybernetic discourse also provides a theory of noise that can further the political implications of Haraway's cyborg. With information theory moving from a logic of presence and absence to pattern and randomness, noise is seen as part of the antithesis of information signal patterns: it is disruptive, causes a mutation.[654] While for Hayles there are contrasting schools of thought related to its implications – whether it disrupts the stasis that should be actively sought for, or whether information was itself a differentiating and changing force – noise is determined through cybernetic models based on homeostasis and wholly involved with concepts of systemic rupture and change.[655] To be sure, in many ways this rupture is integrated within the system, as randomness causes the system to evolve in new ways, whether good or bad, and so it is not so easily subverted.[656] Yet reading this cybernetic model of noise metaphorically alongside the historical references to the cyborg, we can observe in this history the potential for noise to be a disruptive force. While Hayles opposes the move away from presence/absence to signal/noise and pattern/randomness for its lack of materiality, within this mode of thought, it is possible to find in noise a political force that ruptures that which currently exists and builds alternative political commons.[657] Like Hayles, it is my contention that this is where the political appeal of the posthuman can be found.

Noise, then, can be a catalyst for speculating on alternative futures, and foregrounding it outlines a motivation for thinking of *Acoustic Ocean* as a work that seeks to be a politically

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[654]N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999): 32.

[655] Hayles discusses the contrasting informational theories of Claude Shannon and David McKay in ibid., 63-64.

[656] Ibid., 104.

[657] Steyerl has also expanded on the politics of signal and noise for digital imaging algorithms, based on questions of what is allowed to become the image once the noise of the image has been cleaned. In Hito Steyerl, *Duty Free Art: Art in the Age of Planetary Civil War* (London: Verso, 2017): 31-46. Lauren Berlant has also argued that noise has a political force, stating that it provides a 'more livable and intimate sociality' that provides an alternate political sphere to that which currently exists. Lauren Berlant, *Cruel Optimism* (Durham: Duke University Press, 2011): 227.

disruptive force. For The Otolith Group's Kodwo Eshun, this is also a fundamental task of the film or video essay, which he describes as having the ability 'to return to the event through the image and thereby to use images to provoke new events', thus echoing Rinaldo Walcott's contention that video art can provoke 'a postcolonial form of seeing' that is 'a radical revisioning and revising of modernity'.[658] The ability to re/imagine events of the past, present and future has been especially put to use to uncover Black histories that have been excluded from the dominant narrative of modernism.[659] Significantly, science fiction becomes a major outlet to do so: one need only think of how Butler's *Kindred* (1979) plays on time travel – a staple of the genre since H.G. Wells' *The Time Machine* (1895) – to offer a reflection on the history of the transatlantic slave trade. This speaks to the ways in which afrofuturism, according to Janya Brown, has distorted linear time as a disruption of Westernised ideas of progressive civilisation.[660]

The Otolith Group's *Hydra Decapita* (2010, fig. 5.27) lends itself to the science fictional in its politicised relationship with history, explored through an afrofuturist approach to mythology. The single-channel colour film that examines the Detroit-based techno group Drexciya and their exploration of the eponymous myth of the underwater country that is home to the unborn children of the pregnant women thrown overboard from slave ships in the Atlantic Ocean. In this work, the Atlantic Ocean is a space of opacity to blend fiction and non-fiction in an investigation of the transatlantic slave trade.[661] This work expresses the need to "change the story" that is at the heart of Haraway's career but is a long way from the view that doing so is a mere ontological exercise. Rather, it values a model of world-building that evokes Brown's concept of Black speculation, based on the contention that the African diaspora has always already existed outside of the category of the human, already existed in a different ontological framework.[662] Utopia for Brown, especially forged through music, is about the embrace of the imagination by those who are already 'dislocated on the planet' to

[658] Kodwo Eshun, "The Art of the Essay Film," *Dot Dot Dot* 8 (October 2004): 58, quoted in Emily Eliza Scott, "Wandering Subjects: Image Ecologies," in *World of Matter,* 83.; Rinaldo Walcott, ""but I don't want to talk about that": Postcolonial and Black Diaspora in Video Art," in *Stuff It,* 58.
[659] Walcott, "but I don't want to talk about that," 60.
[660] See Brown's analysis of John Akomfrah's *The Last Angel in History* (1996) in *Black Utopias,* 15.
[661] Erika Balsom, *An Oceanic Feeling: Cinema and the Sea* (New Plymouth: Govett-Brewster Art Gallery, 2018): 59.
[662] Brown, *Black Utopias,* 7.

'break open the stubborn epistemological logics of human domination'.[663] Following Yusoff, it is also about being attentive to the histories, material relations, and languages that can break with dominant, colonial descriptions and relations.[664] It is born out of a frustration with inequity, with how things are.

This artistic context may not appeal directly to the Indigenous politics of the Sámi population, but it nonetheless addresses the ways in which speculative thought can be mobilised with specifically anti-racist and anti-colonial intentions. It demonstrates how the political appeal of the speculative can be enacted through sensory, or more specifically musical, experience, which sheds light on the ways in which the soundscape of *Acoustic Ocean* has the potential to operate politically. Yet in thinking through the vision of the future that it works towards to disrupt the current environmental and political model, difference and positionality must be foregrounded. Wishing to create noise while emphasising difference means that there can never be only one dominant model of the future. Providing only one would be in danger of contradicting the very epistemological intentions drawn from multiple positions acknowledged through its treatment of the senses, of the video essay and the very concept of the border itself. How could it ever be possible to build on that by prescribing only one concept of what the future will look like?

According to Jameson, utopia should be conceived less as providing a single 'blueprint' for a new world, but the 'commitment to imagining possible Utopias as such, in their greater variety of forms'.[665] In an appeal not to override the future with a new hegemonic system – replacing the old hegemonic system of global capital – the political disruption forged by speculation should be in line with epistemological partiality, relationality, and situatedness. But more than this, it should be forged out of a desire to open the future to new voices beyond the ones that have previously dominated the social, political, and cultural fields.

If this thesis has worked towards a posthuman framework, it must be acknowledged that posthumanism can never be a monolithic counter-paradigm. Rather, the model I propose is in line with that which Braidotti describes as a 'multi-directional opening that allows for

[663] Brown, *Black Utopias,* 7. Brown looks at the musical practice of Alice Coltrane and the influence of Hinduism on the view of jazz as a spiritual practice. Ibid., 59-82.
[664] Yusoff, *A Billion Black Anthropocenes or None*, 21-22.
[665] Jameson, *Archaeologies of the Future,* 217.

multiple possibilities and calls for experimental forms of mobilisation, discussion and even at times resistance'.[666] Beginning with a questioning of 'who 'we' might be', it challenges the terrain of power and knowledge that has come to define what subjectivity is today in the so-called age of the Anthropocene.[667] If humanism has always dealt with universalisms that have sought to exclude on the basis of certain identity markers, then the greatest disruptive act posthumanism can achieve is a radical multiplicity.

In other words, the speculative appeal of *Acoustic Ocean* is about the accommodation of difference in the ways in which we conceive relationships with one another. Vitally, this is where the epistemological appeal of Neimanis' evolutionary conception of space and time, and ethics beyond proximity, comes to the fore. If chapter two demonstrated that the recycling of water through organic bodies connects living creatures across time, and chapter four demonstrated that through contamination bodies are connected spatially in the hydrocommons, then this same trans-corporeal relationship extends into the future as water cycles produce new bodies, and new relationships. Building on a Deleuzian concept of difference, Neimanis argues that the 'finite quality of water on our earth has given rise, and will continue to give rise, to an unfathomable plurality of life forms'.[668] This repetition water never produces the same organisation of life, but leads continually to new iterations, meaning that there is a 'radical unknowability of the "not yet"'.[669] Embracing the unknowable is an oceanic characteristic that exists not for the present, or indeed the past, but must shape the ways in which the future is conceived.

What is politically disruptive about noise, then, is the capacity to recognise there are not only limitations to what we can access – visually, sonically, epistemologically – across borders, but that these limitations dictate the ways in which speculating on the future occurs. *Acoustic Ocean* should not be regarded as an alternative future as such, but as what Jameson describes as the 'break itself': an ethical and posthuman guide to relationality is one that recognises that not all encounters are reciprocal, or indeed positive.[670] Offering a speculative

[666] Braidotti, *Posthuman Knowledge,* 9.
[667] Ibid.*,* 85.
[668] Mielle Chandler and Astrida Neimanis, "Water and Gestationality: What Flows Beneath Ethics," in *Thinking with Water,* 74.
[669] Ibid.
[670] Jameson, *Archaeologies of the Future,* 232.

encounter across the coastline border between land and sea, *Acoustic Ocean* manifests a disruptive model that not only turns from dominant uses of technologies to survey the ocean today in its visual and acoustic spheres, but does so by embracing unknowability, the "state of suspension", that allows different voices, different communities, different subjectivities and even different species to get to decide what that future looks like for them – an opportunity that capitalism so often neglects.

Conclusion: The Cruel Optimism of Speculation

As the sun sets and rises non-chronologically throughout *Acoustic Ocean,* it might be tempting to interpret a hint of apocalypticism in its emphasis on endings that come too soon. Indeed, time does not only pass in the space of a day: Biemann has explained that while most of the filming was done by Lydia Zimmerman in late September (fig. 5.28), film student Jostein Venas returned to the same landscapes in December to capture snowier scenes (fig. 5.29). For Biemann, this shift between seasons 'creates momentary discontinuities in the film which point to the climate issue'.[671] Disrupting expectations of seasonal climate patterns in the Arctic speculates on the material implications of climate change, that are already occurring on a global scale. Yet it is not my intention to conclude this chapter with a narrative of apocalyptic determinism and hopelessness. Rather, it is my contention that *Acoustic Ocean* is more political than nihilistic, coming from a position that has not given up yet: with new sunrises, there are not only new hopes for the future, but new futures beyond linear progress.

This chapter has sought to build upon this thesis' aim to investigate how contemporary art operates through and beyond visibility in its exploration of the ocean. Turning to the acoustic has been a means to expand the possibilities of the ways in which the ocean can be sensorially experienced in art; yet the political questions of access are still nonetheless evident when placed in conversation with the geopolitics of environmental justice and Indigenous rights. Considering how to listen well has involved a turn from the access of information to an embrace of the speculative, strange, and noisy, using science fictional, utopian strategies to consider ways in which this embrace can provide counter worldviews to that which dominate contemporary life. Biemann's video essay practice, with its highly subjective integration of image and language, has become the vehicle to consider

[671] Biemann, email correspondence with author, July 16, 2020.

how the emphasis on positionality and the acceptance of limitations can be mobilised for political disruption.

To conclude this chapter, it must be made explicit that the impetus for conceiving models of futurity is twofold. The first is based on the cultural threat that faces Indigenous communities today, the Sámi included, through the continued threat of assimilation. With Indigenous land not only threatened by colonisation but the ecological crisis, speaking of futurity gains a political function. For example, artist Cannupa Hanska Luger, of Mandan, Hidatsa, Arikara, Lakota and European descent, uses science fiction in his *Future Ancestral Technologies* series of objects, videos and performances (2019-ongoing, 5.30) to illustrate not only how Indigenous cultures can survive, but thrive in the future, using technology to 'influence global consciousness' on the empathetic and ritualistic capacities of humans to build a future based on living with, not living from, land and water.[672]

Yet the futurity of Indigeneity is also tied to the wider issue of futurity related to today's global ecological crisis. This is the very crisis that Jannok addresses from a localised level, and it intersects with the threat to futurity faced by Indigenous communities on both a cultural and environmental level. For Jameson, the longstanding influence of utopian thought lies in the fact that it repeatedly resurfaces in 'moments of need and crisis'.[673] Perhaps the belief that new futures can be sought out of a disruption of a present plagued with an impending crisis, specifically from the field of art history, is an impossible task. Speculation in this sense may always remain as such in the constant oscillation between hope and critique.

Yet this kind of utopian thinking can also be framed in terms of what Lauren Berlant calls 'cruel optimism'. Defined as a relation that 'exists when something you desire is actually an obstacle to your flourishing', what is cruel about *Acoustic Ocean* is its optimistic imagining of possible worlds that may in fact be impossible to strive for.[674] Utopia, as we have known since chapter two, has always been about the "no place". When the ecological condition is systematically exacerbated by today's global economic system, and when environmental policies put in place by many of the world's leaders do not seem to go even nearly far enough,

[672] Cannupa Hanska Luger, "Future Ancestral Technologies," Cannupa Hanska, accessed March 2, 2021, http://www.cannupahanska.com/fat.
[673] Jameson, *Archaeologies of the Future,* 211.
[674] Berlant, *Cruel Optimism,* 1.

what becomes the challenge is not imagining alternative worlds, but in making the rupture, the break with the present, a reality. From the position of art history, it is very easy to regard any optimism for ecopolitical action formulated within the discourse as cruel.

Following Berlant, it is possible to define the present as a time of 'crisis ordinariness', in which the increased precarity in social, environmental and political spheres has led to multiple crisis situations that people now must live through as part of their daily existence, such that it becomes ordinary.[675] Perhaps then, along with the cognitive estrangement of *Acoustic Ocean,* ordinariness is also a central trope in which people 'scramble for modes of living on'.[676] Indeed, as much as there are efforts to make the video strange, or science-fictional, there is also something incredibly banal about a work centred largely on the organisation and application of sonar technology. But in this scrambling, it is possible to locate hope for political optimism. The cruelty does not necessarily lead to giving up but to a recognition of the reality and the attempt to try anyway: 'a stubborn collective refusal to give out, wear out, or admit defeat'.[677]

When this political reality seeks to drown out noise and eliminate the desire to imagine alternatives to capital, art becomes politicised. In conceiving art as the 'pursuit of liberty', for Jameson it is necessary to rethink the term escapism:

> The pursuit of art, then, by artist or audience, is the pursuit of liberty. If you accept that, you see at once why truly serious people reject and mistrust the arts, labelling them as "escapism". The captured soldier tunnelling out of prison, the runaway slave, and Solzhenitsyn in exile, are escapists.[678]

Acoustic Ocean demonstrates that a turn to speculation is not an apolitical stance, or a turn towards an ontological novelisation of the boundaries of the human but situates an escape into potentially more ethical relations as an act of political escapism. With all the optimism of a runaway, the work refuses to give in by asking us to learn to listen well. But as its audience, what are we running towards? In the state of suspension that the ocean provides, we cannot know for sure, but it is important to question who gets to decide, and at what cost.

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[675] Ibid., 10-11.
[676] Ibid., 8.
[677] Ibid., 259.
[678] Jameson, *Archaeologies of the Future,* 6.

Conclusion: The Stakes of Oceanic Unknowability

Observation, submergence, and speculation have provided key frameworks to interpret contemporary artistic explorations of the ocean and their negotiation of in/visibility. In doing so, I have drawn out the political, conceptual, and epistemological stakes not only of the artworks at hand, but of relationships with the ocean more generally. I find in the trajectory of analysis a need to address the tension between the desire to make exploitation known and the dangers of claiming visual and epistemic access when doing so. In concluding this thesis, I seek to demonstrate how its key findings can contribute to a wider discussion on the ethics of academic research today.

Beginning with questions of what it means to observe the systems of exploitation constructed to be kept hidden, the ocean becomes a space in which the exploitation of labour in the shipping industry and in aquaculture collide through the unnerving post-anthropocentric commodification of life. Observation becomes vital to the exposure of that which is usually kept at bay; but through the lens of systems theory, it also demonstrates that we are not separate from these systems but implicated in them. Put simply, observation is a form of relationality, for better or for worse. Yet asking what happens to both these political and relational aspects when observation is not possible, submergence prompts an investigation into the ways in which the ocean is constructed as placeless to aid the colonial exploitation of oceanic environments and territories. When the mystification of space coincides with water contamination, making known the ways in which we relate beyond proximity unlocks toxicity in unstable bodily, ecological, and political systems and the potential of the imagination for more ethical connections. Highlighting the potential of invisibility in the conceptual and geopolitical terrain leads to questions of speculation, in which the political and epistemological stakes of going beyond vision are addressed in terms of questions of access, of who has the right to attune to the worlds of others. Speculation introduces an avenue for utopian thinking, or for imagining of new worldviews based on situatedness and the multiplicity of voices, to oppose the hegemonic systems of exploitation explored throughout the thesis.

My approach to these concepts and questions has required an in-depth analysis of three major artworks exploring the biopolitical, geopolitical and epistemological stakes of their relationship to the world around them. With the in-depth study of three different mediums, namely systems art, land art and the moving image, the histories of these mediums have prompted a consideration of the ways in which the encounter of an artwork can act as a springboard for thinking through ecological relations more generally. Chapter one's analysis of Helen Mayer and Newton Harrison's *Portable Fish Farm* (1971, fig. 0.1) introduced this idea through the parameters of systems theory, in which autopoiesis, or the second order of cybernetics, emphasised the role of the observer in the working of a system. Conceiving the relationship between artwork and observer along these lines, the Harrisons' work prompts an investigation into its countercultural history in economic, technological, and philosophical terms. Yet with *Portable Fish Farm* transgressing the separation of audience and system through the consumption of the fish at the exhibition opening, observation is not a discrete action but placed in conversation with consumption as both a physical act and in line with the consumer culture that was rapidly increasing at the artwork's time of creation. Framed as a backyard farming solution to the mass industrialisation of agriculture, *Portable Fish Farm* speaks to environmentalist movement then burgeoning in the US, and the ideology of *The Whole Earth Catalog* in which universal planetary awareness, techno-utopianism, and consumerism intertwine.

The universalist model of relationality, forged through a focus on the individual's psychological transcendence and consumer habits, exists in the shift from the countercultural era to the so-called "new world order" of global capitalism, the very hegemonic paradigm disputed in both chapters two and three in the emphasis on geopolitical and subjective situatedness. Yet the necessity for an opposition to universalism begins with *Portable Fish Farm* when placed in conversation with Allan Sekula's *Fish Story* (1989-95, fig. 0.2) in chapter two. As has been clear in this thesis, the ocean negates a sense of universalism because it requires an acknowledgement of difference, of the limitations of sensory experience, of being a human body grounded on a terrestrial environment that has different requirements to oceanic spaces. Sekula's *Fish Story* introduces these concerns when it forces an investigation into the ways in which this difference has been utilised by the shipping industry such that exploitation is enabled in the so-called "forgotten space". Observation is not merely a

question of what it means to encounter the body of another, just as consumption is not merely about the physical eating of another: it is about the post-anthropocentric commodification of life, and the abstraction of oceanic spaces within systems of production and consumption. Observation becomes the means to demystify them, to make them visible again, to expose injustice.

However, the comparison between the work of the Harrisons and Sekula introduces questions of partiality that challenge the idea that it is always possible to observe a full system. This provides a conceptual platform for the discussion of submergence through the lens of Betty Beaumont's *Ocean Landmark* (1978-80, fig. 0.3) in chapter three. The concept of site-specificity within the land art discourse, particularly in the ways in which relationships with environments are forged between the gallery and the natural world through the site/non-site dialectic, become a way to expand the scale of the relationship between system and observer seen in chapter one. In doing so, it is acknowledged that despite the necessity of observation, systems are not always totally available to see. With the site of *Ocean Landmark* submerged underwater and beyond total visual access, there is an increased reliance on a series of technological non-sites – film, photography, sculpture, satellite imagery, and unrealised virtual software projects – to make the site comprehensible to an audience.

Chapter four's analysis of *Ocean Landmark* sought to demonstrate that total visual access should not determine that which we care about. Through the geopolitical lens of waste imperialism that the work's relationship with the fossil fuel industry requires, the contamination of the ocean and island communities by governments and industries challenges the discrete boundaries of subjects and systems. Yet with this contamination largely enabled by the construction of environments not only as isolated but as placeless, visibility once again becomes necessary for making exploitation known. Unlike *Portable Fish Farm,* however, *Ocean Landmark's* diasporic and partial existence moves beyond observation as the imagination becomes a vital asset for thinking through the ways in which we connect to others across space, with implications for both geopolitics and subjectivity. *Ocean Landmark's* relationship to space has the potential to demonstrate how to build an ethical response to others beyond proximity.

The imaginative capacities of chapter four provide the foundations for analysing the speculative qualities of Ursula Biemann's *Acoustic Ocean* (2018, fig. 0.4). The video essay's combination of image, text and sound provides a multisensory experience of the coastal environments of the Lofoten Islands. The possibilities of technological media to go beyond the visual are foregrounded in the work's aim to attune to the acoustic sensory conditions of the ocean. The operation of sonar technology by Sofia Jannok, the musician, climate activist, and member of the Sámi community, becomes a metaphor for listening, both to the ocean world and to others more generally. But when the turn to listening begins with the speculative premise that you are tuning to the sensory conditions of another environment or culture, it is by no means an innocent activity. Like vision, listening becomes political in its involvement in questions of access. Chapter three and four's concern for the access to land and oceanic territory is furthered through an investigation into the epistemological stakes of sensory access. With the senses always standing for more than what can be seen, heard, smelled, and touched, it is about the knowledge gained from our experiences of the world and the power dynamics of this knowledge exchange. What are the ethical and epistemological stakes of seeking to attune to another world, to transgress the boundary of difference and extract information? This has major implications not only in the ways in which difference is constructed, suggested in *Acoustic Ocean* through the potentially essentialist characteristics of Jannok's representation, but also for the ways in which we conceive an ethical relational worldview in which we care about those across space and time.

The imaginative appeal of the ocean reaches its potential through an embrace of the unknowability of the ocean, of the partial and non-reciprocal nature of communication that puts into question the ease in which relations are formed with harmony. Rather than framing *Acoustic Ocean* as a work promoting the ease of knowledge extraction from sensory experience, the work's science-fictional qualities that define its speculative nature rather emphasise the strangeness and limitations of this oceanic attunement. Considering the science fiction tropes of cognitive estrangement and first contact, the work becomes less about extraction than about the recognition of difference, of the fact that not everything can be translated. The video essay, as a fragmented, subjective, and composite form, facilitates this, moving beyond the universalisms outlined in chapter one. Speculating becomes less concerned with the success of attunement, than with the fact that highlighting difference is

a political strategy, which understands differentiation not only in species but in identities, cultures, histories, and contexts. Contrary to the hegemonic force of neoliberal capitalism, this is the worldview that this thesis seeks: one that asks how we can listen, and co-exist with others ethically, without extraction or erasure. This may be a utopian aim, but as the conclusion to chapter three attests, it is one borne out of a discontentment with the world as it currently is and believes in the importance of trying anyway.

Consequently, the significance of going beyond vision extends far beyond the problem of the spectacle outlined by Rob Nixon in the introduction of this thesis. It is not merely about how to make people care about that which cannot be seen, but asks why it cannot be seen, and what is at stake when we try and make it knowable. My approach has depended on the juxtaposition of a range of theoretical and historical sources to make these arguments. From the eco-Marxist and biopolitical arguments in chapters one and two, to the geopolitical and postcolonial approaches to water in chapters three and four, to the eco-media, science fiction, and feminist theories in chapter five, the approaches have been diverse. But all have been drawn together in a conceptual framework indebted to the blue humanities and posthumanism, with the end of each chapter seeking to formulate the posthumanist potential for the interpretation of each artwork. Astrida Neimanis has been significant for this task, as the ways in which we connect to others as bodies of water extends through time, space, and through difference. If each chapter seeks to offer both a critical insight into the contexts of the artworks as well as an affirmative take on the conceptual potential of its interpretation, posthumanism has always been the means to formulate the latter.

Despite the strongly interdisciplinary nature of this approach, I also maintain that my thesis has the potential to contribute to the field of art history. This especially centres on ecological art, which has been overwhelmingly concerned with the terrestrial. Extending the discourse on ecological art to the ocean introduces challenges to the ways in which both systems art and land art have been conceived in ecological terms, both spatially and sensorially as questions of access are introduced. The focus on visibility in these terms has sought to bring these challenges to light and demonstrate the conceptual potential of an oceanic ecological art, which blurs the boundaries between national and ecological borders, the real and speculative, the known and unknown. This fluidity is latent within the fields of systems art and land art; the oceanic focus of this chapter draws them to the foreground.

More ambitiously, this thesis has also sought to make a methodological contribution to art history. Art has not merely been instrumentalised for making a wider theoretical point in this thesis but, as a multi-sensory practice, has helped conceptualise the ways in which we understand and experience the world around us through sensorial experience, visually or otherwise. Tracing the history of the relationship between artwork and viewer has developed the potential and limitations of relationality in terms of our access to that which is beyond proximity. The choice to focus on *Portable Fish Farm, Fish Story, Ocean Landmark,* and *Acoustic Ocean,* with all their sensory complications and limitations, provokes questions on our expectations as art historians to fully access and explain artworks.

No doubt, performance and conceptual art have long demonstrated the ephemerality of art and the reliance on artistic documentation, but the epistemological dimension of this thesis also requires a consideration of the stakes for studying artworks from different histories and different cultures. How can we research and interpret art objects through oceanic unknowability, through Stacy Alaimo's 'states of suspension', not as a glorification of ignorance but as a reaction to the extractivist potential for academic research?[679] My contribution to art history – a field still overwhelmingly determined by the visual – lies in the contention that sensorial and epistemic boundaries must be acknowledged to avoid colonial claims of universality and total access. The multisensory experience of art has the capacity to teach us something about limitations and construct a worldview that opposes the view that its inhabitants are purely as vessels from which to extract knowledge. Art can show us how we can still care about it without claiming it as our own, and it is my aim to foreground this as a disciplinary concern.

Within the scope of limitations, it must also be acknowledged that there are multiple elements that this thesis has not achieved. On a more practical level, far more archival research could be done surrounding the work of the Harrisons and Beaumont, which have been prevented by the tumultuous climate of the Covid-19 pandemic, to make contributions to art historical debates around *Portable Fish Farm* and *Ocean Landmark* more original. While I have tried my best to draw upon archival material found either digitally or early in the research process and capitalise on the ability to gain insights directly from artists through

[679] Alaimo, "States of Suspension," 476-93.

email, I am very aware that archives exist that remain untouched. On a more conceptual note, I also acknowledge that my approach has centred on Western artists established within the field of contemporary ecological art, and more could be done to decolonise this approach by featuring artists reflecting on less Eurocentric positions. Equally, as stated in the introduction, going beyond vision by turning to sound only scratches the surface of what can be achieved conceptually: touch, smell, and taste all provide their own conceptual potentials for decentring vision in a way that is not at all distinct from the aim to move beyond Eurocentric philosophies.

Acknowledging authorial situatedness it vital for being self-reflexive in the ways in which art historical and humanities-based research is conducted. This follows Max Liboiron's contention that 'humility with specificity' should be practiced within research, recognising that 'writing and reading come out of different places, connections, obligations and even different worldviews' while still wishing to 'write and read together'.[680] It is my contention that, through art and the ocean, this knowledge extraction and dissemination is also determined by that which we sense – visually, aurally, haptically, olfactorily. The intersection between art and the ocean in *Portable Fish Farm, Ocean Landmark,* and *Acoustic Ocean,* in their desire to make injustices of the world known while pertaining to the partiality and limitations of that which they can communicate sensorially, questions the ease in which these relations with the world are assumed. Once again, this is not an anti-intellectual position – the historical and political dimensions of placelessness have attested that abstraction, mystification, and being "out of sight" are dangerous positions to take – but one that seeks humility and opposes the arrogance of universal subjects and worldviews.

Thinking through the ocean provokes the question, posed by Neimanis: 'how do we account for ourselves and our actions when that self, and the bodies and environments it affects, refuse full knowability, certainty, and boundedness in time and space?'[681] This certainly attests to the ethical parameters of conducting research, in which the ocean acts metaphorically for the fluctuating boundaries between memory and erasure, the known and the unknown, the visible and the invisible; but it also speaks to the political and ecological parameters of the ocean as it exists today, as well as the oceans of the future. Indeed, this is

[680] Liboiron, *Pollution is Colonialism,* 31-32.
[681] Neimanis, "Held in Suspense," 59.

the watery context – the world of flooding, of rising sea levels, of oceanic pollution and degradation – in which this thesis began.

Going beyond vision unleashes the imaginative possibilities of relationships across space, time, and difference to formulate an anti-capitalist, ecological, posthuman worldview that does not believe that the world is simply there for the taking. Observation, submergence, and speculation have built on each other to trace the line between the need to see the world, to understand our existence with others in the past, present, and future, and the need to understand the power that comes with our claims to see. The wateriness of the future should not be taken lightly, but water can also provide a means to configure an ethical response to the dialogue between "what is" and "what ought to be". There is no singular response to this task, but contemporary artistic explorations of the ocean begin by provoking an inquiry into the ways in which this damaged world and its inhabitants are understood, valued, and seen.

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