The Aesthetics of the Swarm in Selected Works by Jorie Graham and the Sensory Ethnography Lab

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Abstract

This thesis explores the aesthetics, ethics and eco-politics of the swarm. In equal parts unsettling and mesmerising, the swarm is a mobile collective characterised by vitality, uncontrollability and alterity. In developing the swarm as a tool to think with, this project contends that artistic representations of the swarm can both register the dangers of our current biopolitical and environmental situation and provide alternative models of subjectivity, collectivity and communal action.

The thesis brings together the ethnographic films of Harvard University's Sensory Ethnography Lab and the lyric poetry of the most eminent poet affiliated with that university: Jorie Graham. These artists' post-millennial films and poems are populated by swarming ants, shoals of fish and colonies of bats—but also swarms of humans and machines. Responding to the swarm as a multi-species phenomenon, the thesis combines scientific understandings of swarms as 'superorganisms' with approaches from posthumanism, ecocriticism and both 'old' and 'new' materialisms.

The swarm carries considerable symbolic freight, yet it remains resolutely material. In a post-millennial context of biopolitical exploitation and environmental degradation, intuitive connotations of the swarm's profusion and incursion are unsettled by a recognition of the 'creaturely' aspects of the swarm's shared bodily vulnerability. In the films and poems under scrutiny, the swarm operates as a marker of beneficent community and inhuman destruction; of inclusion and exclusion; of vulnerability, resilience and uncontrollability. Albeit in markedly different ways, Graham's lyric poetry and the Sensory Ethnography Lab's experimental films both seek to express the swarm's diverse, and at times contradictory, modes through experiments in sensory aesthetics. Navigating between material and symbolic swarms as these appear in the films and poems selected for study, this thesis asks to what extent swarmic representations can engender a compassionate awareness of both social and ecological connectedness in a troubled world.

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Abbreviations

AI: Artificial Intelligence

ANT: Actor-Network Theory

OOO: Object-Oriented Ontology

SEL: Sensory Ethnography Lab

SI: Swarm Intelligence

Introduction

One day in 2011, a scientist saw his cat's food moving across the floor on hundreds of tiny legs: a swarm of 'crazy longhorn ants' was stealing it. Taking a video of this scene into his lab was the first step in years of collaborative research between the Weizmann Institute of Science's Departments of Complex Systems and Chemical Physics. Four years later, the scientists published their findings in the journal, *Nature Communications* (Gelblum, 2015). That this paper, only one of the more recent in decades of scientific research on social insects, attracted international media coverage not only indicates that scientific interest in models of optimisation found in swarming animals continues. It also suggests that there is a certain fascination with the swarm amongst the wider public. How does a group of so many creatures of limited intelligence organise itself so as to achieve such extraordinary feats as the strength of foraging ants, the endurance of migrating geese, the agility of shoals of fish, and the breath-taking beauty of starling murmurations? These feats seem all the more incredible considering the difficulties that humans face in communicating and peacefully organising themselves in groups.

The scientists' findings indicate the central attributes and internal contradictions of the *swarm*. Most clearly, there is the swarm's constant mobility and its ability to amass as an uncountable group. Less obvious is the careful balance between chaos and control and the ambiguous relation of the individual to the collective, both of which raise questions of agency and intentionality. Behind the ants' apparently chaotic movements, the scientists found a careful balance between order and disorder that allowed a small number of scouting ants to direct the group. This idea of hidden order in the swarm may offer comfort. The swarmic model of self-organisation without an overriding hierarchy can also suggest radical political alternatives. But the swarm's organisation also has disconcerting implications. At the optimum ratio, conformism outstripped individuality in the crazy longhorn ants by a factor of nine (Webb, 2015, np).

Contemplating the swarm prompts the human subject to consider what it would mean to conform to the collective to such a degree, which itself raises questions as to whether humans do indeed show greater levels of free will. A critical reader of this news article about research into longhorn ants might also wonder whether, since the scientists can track the ants' movements so closely, human movements might also be monitored through similar methods. Perhaps most enigmatic of all is the mode of communication that the swarm uses. The lead

scientist, Dr Feinerman told BBC News that, for longhorn ants, '[t]he only communication in the system is the forces that they feel through the object' which they are jointly moving (Webb, 2015, np). The swarm then offers a model of non-linguistic, sensory communication. The enigmatic attributes of the swarm enable it to inhabit a range of significations. In challenging ideas of agency, individuality and communication, is the swarm a model of collaboration and compassionate resilience, or does this alien body have more troubling aspects?

This is a project that explores the significations of the swarm—and the uses to which swarmic metaphors are put—in the contemporary moment. To do so, it focuses on a selection of creative works made since the millennium in which diverse swarms perform a broad range of functions. [1] The enigma of the swarm has been taken up not only by scientists but also by critical theorists and cultural producers working in diverse media. The first name that comes to mind within theoretical approaches to the swarm is, of course, Gilles Deleuze. The swarm is at the core of Deleuze and Felix Guattari's concept of 'becoming-animal,' one of the central strategies for challenging Western ontologies and hegemonies outlined in *A Thousand Plateaus* (1988, p.242). [2] The process of 'becoming-animal' holds the potential to 'deterritorialise.' This is a disruption of both calcified individual subjectivities and structures of social life, a rupture that opens up new ways of being. In Deleuze's thought, there are three kinds of animal, but only one of these retains its power to deterritorialise. Domesticated pets, or 'Oedipal animals,' and 'State animals'—those used as 'archetypes' in myth and other symbolic functions—have both lost this power by dint of being incorporated into human society (1988, p.240-41). It is only by encountering the third group that humans might 'become animal': this is the kind of animal that *swarms*.

Deleuze and Guattari describe these as the 'more demonic animals, pack or affect animals that form a multiplicity, a becoming, a population, a tale' (1988, p.241). A 'becoming-animal,' they write, 'always involves a pack, a band, a population, a peopling, in short, a multiplicity' (1988, p.239). First referring to rats and wolves, Deleuze and Guattari go on to

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[1] When I refer to the primary materials studied in this thesis as 'works' it is as a shorthand for creative or artistic works. This allows me to refer to poetry and audiovisual works that include ethnographic, documentary, feature length and short films, as well as installations. In doing so, I am also invoking a sense of the demands placed on the reader or viewer of these artistic objects. Here I draw on Derek Attridge, who 'exploits the double meaning of "work,"'

[2] *A Thousand Plateaus* unfolds according to a 'rhizomatic' model of thought, Deleuze and Guattari's alternative to the hierarchical 'arboreal' structures of knowledge that dominate Western thinking. This approach of thinking without a centre means that Deleuzian concepts are themselves connected rhizomatically, and so ideas such as the rhizome, becoming-animal, the swarm and the herd are adventitiously linked.

argue that 'every animal is fundamentally a band, a pack' insofar as 'it has pack modes, rather than characteristics' (1988, p.239). At the same time, they describe swarming groups as 'a band, a population, a peopling,' suggesting that *human* animals can also inhabit this mode (1988, p.239). The emphasis Deleuze places on behaviour and mode rather than species is a central aspect of this thesis's debt to Deleuze. The contention that the swarm is not an entity but a *state* is foundational to this thesis, which seeks to expand common conceptions of the swarm to include numerous animal, human and machinic groups.

Here, we are faced with the same question that confronted the scientists at the Weizmann Institute: how does the swarm operate? How do its members communicate? Through what means does it have its curious effect on the human who encounters it? Deleuze's answer is clear: the swarm operates through affect. Always a difficult concept to define, affect can be understood in distinction to emotion. Emotion is 'biographical'; it is incorporated into an individual's sense of self (Bristow, 2015, p.124). Affect, meanwhile, is a force that operates on a pre-personal and pre-cognitive level: it is 'biological, innate with the species' (Bristow, 2015, p.124). For Deleuze, affect is a contagious force that travels through 'modes of expansion, propagation, occupation, contagion, peopling' (Deleuze, 1988, p.239). The Deleuzian formulation of affect draws on the longstanding connotations of the swarm, from the contamination of mosquitos to the endless multiplying of ants. Operating as 'a circulation of impersonal affects', the swarm's deterritorialising potential runs as 'an alternative current that disrupts signifying projects as well as subjective feelings' (Deleuze, 1988, p.233).

Inspired by, and in response to, Deleuze's thought, a plethora of theoretical approaches to the swarm have emerged: this is what I term swarm studies. This broad body of scholarship can, in simple terms, be characterised as taking two divergent approaches to the swarm. One, more closely aligned with Deleuze's concept of 'becoming-animal', sees the swarm as a completely alien body. The other approach views the swarm as a freeing model of 'the collaborative efforts of society' (Vehlken, 2013, p.110). The former reifies the swarm as being so completely other as to be impenetrable; the latter is an anthropomorphic vision of the swarm as a reaffirming reflection of human attributes. While diametrically opposed, both, in fact, work to calcify common conceptions of human beings' distinction from their environment.

The implications of such conceptual debates for how we think about collectives— populations of both human and nonhuman others—are at the heart of this thesis. This is the cultural politics of the swarm. That these debates have material consequences is demonstrated by the ways in which the swarm has been reverse engineered by less-than-progressive forces.

Prominent among these are developments within the realm of technology. Contemporaneous with the debates in critical theory that followed Deleuze's model of the swarm were technological developments of 'swarm intelligence' (SI).[3] This is a combined field of biocomputing and biotechnology that abstracts the swarm to lines of connection between its members.[4] As well as benign applications, from the special effects of *101 Dalmatians* (Herek, 1996) to town-planning, SI has been used to develop surveillance and military technologies: the swarm has birthed the drone. This has led to a critical interpretation of the swarm as irredeemably oppressive. Critical analysis of the uses of swarm intelligence is, of course, important. Nevertheless, focussing only on the swarm's co-option by regressive forces becomes merely another formulation of the swarm as the alien enemy. The swarm as technology invites responses of paranoia in the same way as swarmic metaphors of perfectly controlled societies can.

Diverging from earlier contributions to swarm studies, this thesis argues that it is the swarm's capacity to house multiple and contradictory meanings that makes it such a powerful tool to think with. By studying the aesthetics of the swarm as developed in a selection of films and poems, I seek to dispel the straw categories of swarm as model society or alien intruder. Instead, this thesis formulates the swarm as a polysemous figure that shifts between modes of signification: mesmerising and repellent; oppressive and liberating; alien and familiar. Inevitably, Gilles Deleuze's seminal theorisation of the swarm is a touchstone. The Deleuzian swarm as a 'becoming-animal' has inspired this thesis's investigation of the swarm as a cross-species phenomenon, and as a force that operates through affect. It enables my analysis of what I term the 'affective aesthetics' within the artistic works under study.

Whilst this thesis is Deleuzian in inspiration, it is not Deleuzian in implementation. In important ways, the swarm as a force of deterritorialisation is too abstracted from material swarms to respond to the contemporary moment as one wrought through by social and ecological control and operations of power. This is to say, the Deleuzian theorisation of the swarm obscures biopolitics.[5] The swarms that appear in the creative works studied are captured by the human or exposed to ecological degradation. Responding to this requires that I combine

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[3] As previously noted, the term 'swarm intelligence' was coined within cellular robotic systems (Beni, 1989), just two years after the English translation of Deleuze and Guattari's *A Thousand Plateaus* was published in 1987.

[4] Biotechnology applies science and technology to use or 'improve' living organisms for industrial or medical purposes (OED Online, 2014: 'biotechnology', n.1).

[5] As theorised by Michel Foucault, biopolitics is the 'systemic monitoring and regulation of living organisms' through systems of 'governmentality' (Quinan 2018, Para 23.14).

my analysis of affective aesthetics with a broadly materialist approach. Two clusters of questions drive this thesis's analysis of swarmic representations. What are the material consequences of the swarm deployed as metaphor and as figure for human and nonhuman groups that are vulnerable to forces of exclusion, control and violence? In other words, how can swarmic aesthetics illuminate the biopolitics—and necropolitics—of the contemporary moment?[6] Secondly, what can swarms of humans, animals and machines tell us about the individual human subject at the current moment of ecological crisis? Can they offer an ethical model of subjectivity, collectivity and ecological connectedness? In addressing these questions, my analysis comes into contact with material, technological and figurative swarms. In this way, colony collapse disorder, digital surveillance and rhetoric against swarming migrants all figure in this project's analysis of the aesthetics of the swarm.

My thesis attends to contemporary films and poems created in North America since the millennium. As well as being consciously situated in this historical moment and geographical location (more of which later), my research is consciously situated within our current *geological* era: the age of the Anthropocene. Characterised by human activity's presence as 'a significant geological, morphological force,' the Anthropocene is marked by the attendant ecological damage of capitalist production and expansion (Crutzen, 2000, p.17).[7] Despite the clarity of evidence, it remains a significant ontological challenge to comprehend the enormity of humanity's agency as a geological force, and it is harder still to do so without seeing our individual actions as impossibly small.[8] Rosi Braidotti poses an important question in asking 'whether the awareness of a collective sense of ecological, social and affective responsibility' signalled by the Anthropocene 'necessarily enhances ethical agency and political consciousness' (Braidotti, 2018, Para 9.11). It would be easy for the complexity of species-wide responsibility to result in a relinquishment of responsibility, and for the enormity of the implications of

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[6] The paradigm of necropolitics, the converse of biopolitics, analyses 'contemporary forms of subjugation of life to the power of death' (Mbembé, 2003, p.39).

[7] Critiques of the term 'Anthropocene' as paying insufficient attention to the vastly unequal contributions and effects of anthropogenic change and as belying a certain 'species narcissism' (Nixon 2014: np) have spawned numerous related terms seeking to point to specificities lost in the generalising suffix 'anthropos-.' Examples include: the 'Capitalocene' (Haraway, 2018), the 'manthropocene' (Raworth, 2014) and, given the importance of plastics as a stratigraphic marker, the 'plasticene' (Macfarlane, 2016). The risks of the term's universalism are significant, but I will use the term as the most powerful available. See Sam Solnick's astute discussion both of the term's problematic aspects and its usefulness in posing questions about 'the relationships between local and global, individual and collective, economy and ecology, thought and technology' (2016: Paras10.12, 10.8-24).

[8] Margaret Ronda pinpoints the core attribute of the Anthropocene as its being marked by 'a heretofore unknown degree of species-wide agency' (2014, p.103).

irreversible ecological changes to result in nihilism.[9] This thesis argues that the considerations of agency, connectivity and subjectivity raised by the Anthropocene are illuminated particularly powerfully through artistic representations of the haptic body of the swarm.

The arts are uniquely equipped to ponder the implications of the Anthropocene and to engender a more deeply felt sense of how it recalibrates the position of the human. Contending that swarmic aesthetics can generate a visceral understanding of our own ecological connectedness and responsibility, I focus on the selected works of a small group of contemporary North American cultural producers who engage with the possibilities, ambiguities and limitations of the swarm. These are the poet, Jorie Graham (born in 1950), and the ethnographic filmmakers affiliated with Harvard University's Sensory Ethnography Lab (SEL). Of the filmmakers who have been based at the SEL since it opened in 2006, this thesis attends to the works of its founder, Lucien Castaing-Taylor (born in 1966); Véréna Paravel (born in 1971); their collaborators Ernst Karel, Ilisa Barbash, JP Sniadecki; and Joshua Bonnetta, who Sniadecki has collaborated with since leaving the Lab.[10]

Graham's philosophical and linguistically experimental poetry and the Sensory Ethnography Lab's immersive films and installations at first sight make an unlikely pairing. They are indeed undeniably different both aesthetically and ideologically. Bringing ethnographic film and poetry together enables me to compare two forms that are not often discussed together. However, in placing these bodies of work alongside each other, unexpected connections as well as productive differences emerge. Graham's lyrics and the SEL's films are both populated by swarms of humans, animals and machines. In a unique set of confluences, these artists began to produce their most ecological and swarmic works—including Graham's collections *Swarm* (2000), *Never* (2002) and *Fast* (2017), Castaing-Taylor and Barbash's *Sweetgrass* (2009), and Castaing-Taylor and Paravel's *Leviathan* (2012)—soon after taking up teaching posts at the Harvard University.

As well as a shared location and institution, these artists are joined by oeuvres that express their deep interest in sensory experience and in the affective nature of human-animal relations, and by their attention to new models of subjectivity. Like the longhorn ants discussed

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[9] See William Connolly's discussion of 'aggressive' and 'passive' nihilism as responses to environmental crisis (2017, p.165).

[10] Graham, Castaing-Taylor and Barbash continue to hold their positions at Harvard University. Paravel continues to be affiliated with the Lab but is not based there, and Ernst Karel left the university in 2017 (but continues to teach Sonic Ethnography). Sniadecki left Harvard on graduating from the Sensory Ethnography Lab; it is after leaving that he met his collaborator Bonnetta.

above, the swarms present in the films and poems collected in this thesis raise questions around the dyads of chaos and order, individuality and conformism and, most fundamentally, the individual and the communal. Exploring questions of isolation, compassion and community, this thesis asks what insights these representations offer into the complexities of humans' imbrications in a more-than-human world.[11]

Responding to environmental questions and creating aesthetically innovative work are both endeavours that transcend boundaries of discipline and media. The artists that this thesis gathers together are examples, indeed exemplars, of the results that can emerge from disciplinary crossovers. Jorie Graham studied philosophy and film before discovering poetry (Chaisson, 2015). Lucien Castaing-Taylor and Véréna Paravel have backgrounds in theology, and science and technology studies respectively, and began their research in text-based anthropology: only later did they begin to infuse visual anthropology with sensory aesthetics and other influences from contemporary art. Their diverse backgrounds have equipped these artists with the ability to create works that push the limits of representation and subjectivity. While poetry is traditionally invested in the individual, both film and ethnography explore the collective. Through the body of the swarm—an unstable mass entirely composed of individuals—Graham's poems and the SEL's films transcend these two modes of understanding human experience.

This ability to think on the level of the individual and the collective at the same time is vital in a moment of ecological crisis in which individuals can be left feeling helpless in the face of humanity's species-wide agency (see Chakrabarty, 2009).[12] As Guattari argues in his manifesto, *The Three Ecologies*, merely having the resources to resolve social and ecological issues—be those resources in the form of information and rallying calls or techno-scientific innovations and political accords—is not enough to effect change (Guattari, 1989, p.137). Consciousness-raising must be bolstered by 'new modes of production of subjectivity,' or else efforts to change will stagnate into apathy (Guattari, 1989, p.138). Without tethering itself to a transversal methodology, this thesis draws inspiration from Guattari's 'transversal' approach in

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[11] The 'more-than-human' is a term coined by David Abram to signify that the human forms just one part of the world and that the world both sustains and permeates the human (Abram, 1996).

[12] See also Dipesh Chakrabarty's 'Whose Anthropocene? A Response' (2016).

its contention that the swarm offers new modes and models of subjectivity.[13] The hope is that by rejuvenating the human subject, we may be better equipped to face the ecological crisis.

As a project that seeks to rework human subjectivity through the swarm, there are clear valences between my work and posthumanism. Posthumanism itself is far from a unitary discourse, but much of it has been influenced by what Braidotti terms 'Deleuze and Guattari's agenda-setting philosophy' (Braidotti, 2018, Para 9.25; see also Dolphijn, 2012; Braidotti, 2013). As with the legacy of Deleuze's formulation of the swarm, I am both influenced by posthumanism and part company with it. The need to decentre the human ontologically and, by extension, politically, has been thoroughly argued by a broad range of posthumanist theorists, from Rosi Braidotti (2013) and Cary Wolfe (2003) to Bruno Latour (2014). The related field of new materialism—a collection of approaches that draw on scientific understandings of the vitality of matter to develop a vision of the inherent flux and agentive potential of the material world—similarly challenges conceptions of agency and life as being the sole preserve of the human (see Bennett, 2010; Coole, 2010).[14]

In centring my research around the nonhuman body of the swarm, my research aligns with the ethical importance of this shift in emphasis as a means of challenging 'human exceptionalism.'[15] Yet, recognising that it is only human agency that can take steps to address the ongoing ecological crisis, I part company with stands of posthumanism and new materialism that seek to dismiss humanism and 'classical humanity [as] all but obsolete' (Pick, 2011, p.2). Another significant stimulus to these approaches is feminist scholarship, which inspires the posthumanist and new materialist investment in dissolving binaries between the animate and inanimate, and its challenge to notions of an essential subject and to decentre the Western male

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[13] Guattari outlines his 'transversal' approach in *The Three Ecologies*, writing that, 'if we are to understand the interactions between ecosystems, the mechanosphere, and the social and individual universes of reference, we have to learn to think "transversally"' (Guattari, 1989, p.35). Through a transversal logic, he continues, 'what we will engender is a new set of reorganized assemblages which spill out across the existing boundaries of the body, the ego, and the individual' (1989, p.42). Transversal thinking enables Guattari to formulate the three ecologies—the environmental, the social and the mental—as 'disparate domains [that] constantly engage one another' and operate across scales, from 'the fabric of everyday life, [to] large-scale crises, [to] habits of thought' (Genosko, 2009, pp.133, 105). Guattari applies his transversal methodology to both artistic work and socio-political structures.

[14] New materialism combines current scientific developments with a philosophical tradition of immanence, from Spinoza to Deleuze (a counter to the transcendental tradition that argues that experience remains within the subjective mind).

[15] As defined by Donna Haraway, human exceptionalism is 'the premise that humanity alone is not a spatial and temporal web of interspecies dependencies,' and the belief that 'to be human is to be on the opposite side of the Great Divide' between 'what counts as nature and as society, as nonhuman and as human' (Haraway, 2008, p.11, 9).

subject.[16] This thesis's analysis of the swarm joins this challenge to fixed ontological categories, but stops short of cleaving to the conclusions reached by some posthumanist scholars.[17]

In a biological sense, the human and the humanist in a philosophical-conceptual sense have both been used as straw categories. As Martin Halliwell and Andrew Mousley stress, '[i]f humanism cannot escape its 'post-' then 'posthumanism' cannot escape its humanism' (Halliwell, 2003, p.190). This thesis states the need to go *through* the human in order to recentre a more ethically conceived human agency afterwards. In combining humanism and posthumanism in this way, I develop an approach of *critical* humanism. My critical humanist approach is inspired by Halliwell and Mousley's nuanced study, *Critical Humanisms: Humanist/Anti-humanist Debates* (2003). It hopes to bring together humanist and posthumanist perspectives to fully—and *critically*—respond to the aesthetics, eco-politics and ontology of the swarm.

Critical humanism is free of the teleological connotations of posthumanism's prefix. Neil Badmington's interpretation of posthumanism as 'a critical practice that occurs inside humanism, consisting not of the wake but the working-through of humanist discourse' (Badmington, 2003, p.22), suggests precisely the intellectual and ethical debt posthumanism has inherited; as such he is another key inspiration in my approach, if not its terminology. My composite paradigm of critical humanism draws on the critical perspectives of posthumanism at the same time as it observes a continued humanist goal of illuminating the human condition. I use the framework of critical humanism to consider the implications that posthumanist approaches to the swarm have for the human condition. At the same time, critical humanism's abiding humanism allows it to respond to anthropomorphic, as well as zoomorphic, deployments of the swarm. By combining humanism and posthumanism in this way, I hope to formulate a vision of the human that is ethically-expanded and ecologically-conscious rather than disavowed and rejected.

My critical humanist approach reflects, and is reflected in my selection of primary materials. Far from writing humans out of the picture, the films and poems studied in this thesis perform a '*rewriting* of the human and humanism' (Herbrechter, 2018, np: original emphasis).

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[16] Feminist scholarship—yet another internally diverse field—has laboured to expose binaries of gender arranged around the active and passive as culturally constructed.

[17] Certain strands of posthumanism indebted to feminist theory assert that since 'human nature' itself is socially constructed, there are 'no essential features of the human subject' and concludes that knowledge, which is also socially constructed, cannot be grounded in the human subject (Nayar, 2014, p.12).

The SEL's films have been broadly welcomed by posthumanist and new materialist scholars as enacting a 'post-humanist vision' (Leimbacher, 2014, p.39), one that decentralises the human in order to consider the sentience and agencies of nonhuman animals and ecologies. This celebration of the posthumanist aspects of the SEL's films obscures the ways in which their work retains a core interest in the human and in social and material relations. Meanwhile, Graham has received little attention from such areas of criticism, or indeed from the broader field of ecocriticism. Instead, critics who have—rightly—heralded her as one of the preeminent poets of her generation have primarily done so from a humanist perspective. While Graham's recent work, which includes poems such as 'The Post Human' (2017, pp.26-27), clearly engages with posthumanism, at the same time it holds these theories at a critical distance. Bringing these two bodies of work together necessitates an approach flexible enough to combine posthumanism and humanism. Working through an approach of *critical* humanism enables this thesis to respond to the complexities and internal contradictions of the human and nonhuman as constituted by the objects of study. In addition, the primacy of affective aesthetics and environmental concerns in the selected films and poems points to the ways in which a critical humanist approach can reimagine both humanism and posthumanism: as Heather Houser writes, within 'environmental cultural studies, affect is the fulcrum for imagining posthumanism as vulnerability rather than as a state of being "not", "beyond" or "after" humanism' (Houser, 2018, Para10.4).

Placing the swarm in the current biopolitical moment, the poems and films studied across this thesis examine the crushing, taming and gradual collapse of the swarm. Chapter One—which focuses on swarms of the sea—analyses *Leviathan* (Castaing-Taylor, 2012), a disorientating portrait of industrial fishing off the US East Coast. It places this film alongside two poems by Graham, 'Prayer' (Graham, 2002, p.3) and 'Deep Water Trawling' (Graham, 2014, p.41) that, through their focus on shoals of fish, pose searching questions about the position of humanity in the new millennium. Chapter Two studies land-based swarms, beginning with the sheep in *Sweetgrass* (Castaing-Taylor, 2009), a film following the last North American sheep-drive in which sheep variously herd according to instruction and swarm beyond human control.[18] The chapter puts this film in conversation with the machinic swarms of grounded bomber planes in Graham's 'What The End Is For' (1987, pp.26-29) and telephone

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[18] That the sheep only swarm in this way because they are under the duress of human coercion—that humans have actually tamed the sheep into swarming according to their will—adds another level to the frisson that characterises the power dynamics between human and swarm.

communications in 'The Swarm' (2000, pp.57-58). The telephone communications of 'The Swarm' act as markers of lost intimacy at the same time as they invoke the threats of extinction faced by various swarms which act as markers of bereavement in 'Reading To My Father' (Graham, 2017, pp.23-25).

In the third and final chapter, I place two films and two poems in dialogue. The film *Foreign Parts* (Paravel, 2010) shows how political structures of neglect reduce what were previously swarming cars and a bustling community to a pile of spare parts, while *El Mar La Mar* (Bonnetta, 2017) acts as an oblique record of the inhuman and inhumane forces which operate to control the flow of people across the US-Mexican border. Graham's 'High Tide' (2002, pp.100-05) and 'Honeycomb' (2017, pp.4-5)—portraits of women's lives from across the spectrum of privilege and security—bring these questions of political culpability and desertion closer to the individual and the domestic domains. For many of these works, biopolitics is accompanied by its converse, *necropolitics*: this is a paradigm that analyses 'contemporary forms of subjugation of life to the power of death' (Mbembé, 2003, p.39). Here, certain bodies—such as the herd of sheep followed by the film, *Sweetgrass* (Chapter Two)—are 'grown for the purpose of enhancing [human] life,' while others are 'marked for or neglected into death' (Quinan, 2018, Para23.25), like the othered human populations represented in the works collected in Chapter Three. It is with an awareness of the brutalities of this context that I describe the swarms in the films and poems as 'creatures.' This term highlights their materiality and vulnerability by invoking the 'creaturely' as theorised in animal studies.[19]

Given the capacity of the swarm to proliferate, perhaps it is understandable that most studies of the swarm have attempted to restrict themselves either to one species, one medium, or both, be it flies in Western culture or avian presences in lyric poetry (see Connor, 2006; Spiegelman, 2005; Mason, 2013 respectively). Adopting a different strategy, this project seeks to match a plural object with a plural approach. As well as challenging distinctions between species, the swarm's haptic quality of engaging all five senses makes swarmic representations stretch beyond the parameters of a singular medium. Moreover, the cross-fertilisation of media is central to the selected artists' creative genealogy. For these reasons, an interdisciplinary,

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[19] In distinction to semiotic interpretations of the animal as sign, the 'creature' is 'first and foremost a living body—material, temporal, and vulnerable' (Pick, 2011, p.5). Not dependent on 'fulfilling any preliminary criteria of subjectivity and personhood', Anat Pick writes, a 'creaturely ethics' lies in recognising 'the bodily vulnerability—the creatureliness—we share with other animals' (2011, pp.193, 10).

cross-media project is best placed to respond to both the combination of elements and forms in each work and the swarm as polysemous subject.

The swarms in the selected primary materials include shoals of fish comprising numerous species, various flocks of birds and herds of sheep, as well as bomber planes, cars and unhoused people. In their detailed biological study of the behaviours of ants, Bert Hölldobler and E. O. Wilson distinguish between '*social* insects—the colonial bees, wasps, ants, and termites', which act as 'superorganisms' (in my terms, creatures that swarm) and '*solitary* insects, such as cockroaches, grasshoppers, and beetles' (2009, pp.4, 6: my emphasis). This distinction highlights that it is behaviour—cooperative behaviours enabled by sociality—rather than species that determines what is a swarm, thus helping to decouple the ossified association of swarms with insects. My inclusion of humans and machines as swarmic groups, though it may appear more controversial, is a response to the presence of both zoomorphic and anthropomorphic invocations of the swarm within the selected films and poems, as well as to the ways in which, within operations of biopower, the species line has been produced as 'strategically ambivalent rather than absolute' (Shukin, 2009, p.11).

That Castaing-Taylor and Paravel's work is invested in the sensory is announced by the name of the institution at which they both work: the Sensory Ethnography Lab (SEL). The SEL uses visual and aural works, films and installations to highlight 'dimensions of the world […] that may only with difficulty, if at all, be rendered with propositional prose' (Homepage, Sensory Ethnography Lab website, 2015, np). Their works jettison the expository mode in favour of the immersive and the contemplative, and bridge the documentary and the abstract through sensory aesthetics. Stretching the form of documentary film, these works are part of a wider genre identified by Scott MacDonald as the 'avant-doc', which infuses the documentary form with avant-garde aesthetics (MacDonald, 2014).[20] This genre includes the emerging field of sensory ethnography. Based at Harvard University, which has 'the longest continuous history in ethnographic filmmaking of any university in the United States' (Nakamura, 2013, p.133), the SEL is at the vanguard of this field, and is in essence a graduate school. Both producing work and teaching a new generation of ethnographic filmmakers, Castaing-Taylor, Paravel and the sound designer Ernst Karel (who was also Lab manager from 2006 to 2017) are at the forefront

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[20] The term avant-doc highlights 'the increasingly vital liminal zone' between the 'two histories' of documentary and avant-garde film, 'evidenced by the more and more frequent production of films that fit both categories or that function somewhere between them' (MacDonald, 2010, p.50).

of the Lab's work, and collaborated on the most famous work to emerge from the lab, *Leviathan*.

As has long been noted, the question of how to 'give bodily perception its due in thought' and how to match that with language, are major questions of Graham's work (Vendler, 1995, np). The swarm—primarily the flock, with a few machinic swarms—is one tool amongst others in Graham's arsenal to explore this question. As such, the swarm in Graham's poetry is primarily a tool for thinking and sensing human experience, and for questioning poetic expression's ability to capture this. Since animal appearances in Graham's poetry fulfil largely metaphoric, anthropomorphic and linguistic functions, the creatures in her work have rarely been treated as material animals. One contention I make in this thesis is that, in Graham's representations of the swarming animals, humans and machines—as in the SEL's films—both material *and* the symbolic functions are operative.

To argue this, I develop a *contrapuntal* method. In developing 'counterpoint' as a methodology, I am indebted to Edward Said's initial formulation of the contrapuntal as a methodology for postcolonial theory. The hidden theme Said's scholarship seeks to expose is the disavowed reality of colonial exploitation, hidden beneath the veneer of Western civilisation as represented and created in nineteenth-century novels. In this project, I transpose this method onto contemporary ecological films and poems in order to explore the co-presences of diverse—and sometimes irreconcilable—modes, forms and subjects. This enables me to recognise the importance of the human in films that have been primarily interpreted through a posthumanist lens, and of the nonhuman in apparently humanist poems, and, equally, to identify the co-presence of affect and cognition in both bodies of work. I also use counterpoint to analyse the unusual combination of formal modes—from the sublime to the military—that operate in the films and poems studied.

Explaining how counterpoint operates in Western classical music, Said describes the way in which 'various themes play off one another, with only a provisional privilege being given to any particular one' (1994, p.59). This informs my thesis's intellectual juxtaposition of the human and the nonhuman, the affective and the cognitive, the phenomenal and the material, as well as the filmic and the poetic, and the ethnographic and the lyric. These overarching dyads operate across the works studied in my work. In addition, the clusters of pelagic, land-based and political-ecological works analysed in the three chapters deploy further modes—the prominent among these being, in order: the apocalyptic and the sublime; the pastoral and the Western; and activism and advocacy. The 'organized interplay' of multiple 'themes' in musical

counterpoint results in 'polyphony' in which, as Said explains, 'there is concert and order' (1994, p.59).

Within these layers of musical 'lines' or melodies, however, pitches can be included from outside the harmonious chord. This creates 'dissonance,' a form of auditory tension that is equal parts discomfiting and pleasurable. The frisson created is not a place of dissolution, but rather is central to the vibrancy of the whole. In this way, the contrapuntal method reveals the complexities of an organic whole without arguing that its component parts fuse into one. As with the swarm, rather than each component part being subsumed into the greater whole of a 'superorganism' (Hölldobler, 2009)—what we might term a 'super-concept'—the constitutive parts of contrapuntal analysis retain their distinction. This synergy between the thesis's methodological framework and its subject matter undergirds the project's two foundational questions: how to recognise the individuality within the communal; and how to reconcile difference and unity.

Said suggests that counterpoint operates in temporal media and the narrative of prose. But it can also operate within spatial media like photography, and in film and poetry, which combine the two. A parallel inspiration in developing the contrapuntal method is Alex Webb and Rachel Norris Webb's photobook, *Violet Isle* (2009). Webb and Norris Webb explain that they initially began working on 'two separate projects,' but they soon realised that Webb's street photography and Norris Webb's photographs of the island's small domestic bestiaries were complementary aspects of the same subject: accordingly, 'in the spirit of a duet—with its point–counterpoint—we decided to weave our images together to create a multi-layered portrait of this "Violet Isle"' (2009, np). *Violet Isle*'s contrapuntal structure inspires the structure of this thesis. Following Said's use of counterpoint to reveal the layers beneath the leading 'melody' of a work, my thesis also applies a contrapuntal analysis to individual images or scenes. A contrapuntal analysis shows that the human subject, in its vulnerability and resilience, is as central to the SEL's films as the swarming animals on which they ostensibly focus. Similarly, the apparent humanism of Graham's lyric poems is counterpointed with a deep sensitivity to the nonhuman environment and its creatures.

Within a contrapuntal logic of shifting emphasis, ideas and forces that may not clearly seem to 'fit' are recognised as coexisting. I develop counterpoint as an alternative to the most widely used methodology for drawing together contradictory materials and arguments: dialectics. Since Aristotle—and particularly since Hegel's influential formulation of dialectics as a philosophical 'science'—dialectics has assumed, firstly, a progression from a simple argument

to a more complex position, and, secondly, the eventual fusion of synthesis (Maybee, 2016, np). As explained, counterpoint argues for coexistence rather than fusion or synthesis. Just as my formulation of critical humanism challenges teleological assumptions embedded in the 'post' of posthumanism, counterpoint resists the linear paradigm of dialectics. In counterpoint's model of organised complexity, themes are introduced and interact; but they also fade away before the end is reached.

Karl Marx, of course, used dialectics to develop his approach of dialectical materialism ([1867] 1976; see Arthur, 1986). An important figure for this thesis's development of a broadly materialist approach, Marx developed dialectics as a form of analysis that operates through cognition and logic. Dialectical materialism's analysis of the relation of 'man' and nature operates through cognition alone. The theoretical abstractions of Marx's dialectics—as of his thought more broadly—remove the immediacy of the sensory that is central to my study. While dialectical materialism argues for an abstract, cognitivist analysis, the emphasis of Deleuzian thought is on the dissolution of the whole into unstable multiplicities. Standing between these approaches, the contrapuntal method is a form of stability that is able to house internal contradictions and tensions. Counterpoint recognises an interplay of the distinct elements of a more-than-human world without reducing diverse dyads to a wholly constructed—and therefore false—binary.[21] Poststructuralist critiques of discursively produced difference have enabled important challenges to so-called 'common sense' distinctions of race, gender and species. However, their political utility can be hindered by relativism. Such approaches—as has been often argued—risk reaffirming the 'privileged empty point of universality' as a norm (Žižek, 1997, p.44; see Shukin, 2009, p.4). Forces of power—material, structural and discursive—are present across human and nonhuman life and ecological reality. Counterpoint enables my analysis of the swarm to respond to the often hidden but resolutely real material differences and inequalities of power at the same time as it allows us to address the questions of perception, experience and intersubjectivity that are raised by the swarm.

The combination of distinct elements that the contrapuntal denotes requires me to use a correlate term: the *composite*. This term neither limits the number of component parts nor presupposes fusion or blurring: in the composite, as in counterpoint, numerous distinct parts combine to form a single whole. To justify my use of the composite as a term, it is necessary to address the shortcomings of the more obvious options of hybridity and in particular hybridity's

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[21] Deleuze and Guattari's conviction that 'one can never posit a dualism or a dichotomy' (1988, p.9) is both the foundation of Deleuzian philosophy and of poststructuralism more broadly.

most well-known formulation, the 'cyborg.' Canonised in Donna Haraway's manifesto (1991), the cyborg is the merging of two forces: the animal (both human and nonhuman) with the machine. This enables Haraway to argue against the rigidity of identity politics and for a 'response through coalition—affinity, not identity' (1991). My development of the swarm as enabling coalitions across difference sits firmly in the lineage of Haraway's cyborg, and this thesis's interest in the relationship between humans, animals and machines is at least in part a targeted examination of cyborg thought. Despite its hybridity, however, the cyborg remains a unit of *one* and as such is insufficient to respond to the swarmic collectives discussed in this project.

It is not only for the swarm that the cyborg's hybridity is too singular. The decades following Haraway's manifesto have been marked by continual technological innovations: the cyborg is, to quote Katherine Hayles, 'not *networked* enough' for the digital era (2006, p.159, original emphasis). In response to these broader cultural forces, scholarly emphasis has turned to the multiple and multiplicity, emerging in new materialist theory's concepts of assemblages and the multispecies (DeLanda, 2006; Kirksey, 2010) as well as in techno-scientific applications of network theory, including cybernetics and swarm intelligence. Current formulations of the multiple are no more appropriate to this thesis's discussion of the swarm than the singular unit of the cyborg. The flat hierarchies and assumptions of fusion that underlie concepts of the multiple are apposite to my contrapuntal approach, which recognises the shifting emphases between distinct presences. Rather than going back to the cyborg, or joining discussions of multiplicity, I will develop my contrapuntal approach by working with the composite.

It is important at this point to return to the level of intuitive responses to the swarm, lest its insistent immediacy be lost in theorisations. The porous body of the swarm is inherently sensory to the outside observer: an image of the swarm cannot but evoke the aural and tactile.[22] Expanding questions of sensed embodiment to the nonhuman body of the swarm, this project analyses the ways in which the selected creative artists represent the swarm through sensory aesthetics. As such, it both draws on phenomenological methods and brings these into a more-than-human purview.[23] Approaches within phenomenology seek to 'bracket off our familiar, socialised representations and expectations in order to see the world with fresh eyes' (Cubitt,

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[22] James Riley explains that, '[t]he word "swarm" has its origins in the Sanskrit term for "sounds, resounds" hence its common association with insectoid groups and particularly the buzz and hum of bees' (2014, p.45).

[23] Phenomenology locates perceptual experience in the human subject. Other critiques include Michel Serres' critiques that phenomenology is insufficiently sensory (in Connor, 2005), and those levelled by feminist phenomenologists that it suggests a mastery of touch (Young, 2005).

2005, p.46); in other words, to defamiliarise perception. It is a contention of this thesis that the selected films and poems develop defamiliarisation as a strategy through the aesthetics of the swarm. This reworking of perception is central both to the challenge they pose to common conceptions of human subjectivity and to their critical exposure of naturalised relations of exploitation between humans and animals, as well as among human groups.

The Cambridge Turn

Graham's, Paravel's and Castaing-Taylor's works are ecological in the sense of studying 'the relationships between living organisms, including people and social groups, and their environment' (OED 2014: ecology, n. 1a, 1b). Rather than making a direct call to environmental action, however, these works deploy the alien body of the swarm in an attempt to reach an understanding of what it means to be human in a world that we are damaging on an industrial scale. The location of these works draws them together on a literal as well as an ecological level: they emerge from the same location. By nationalities of English, French and American, Castaing-Taylor, Paravel and Graham had upbringings in Europe and beyond. Within a few years of each other, all three of them arrived in Cambridge, Massachusetts to take up teaching positions at Harvard University. The first to arrive was Graham, who since 1999 has been Boylston Professor of Rhetoric and Oratory.[24] Castaing-Taylor has taught at Harvard since 2002, and has been the director of the Sensory Ethnography Lab since he established it in 2006, appointing Ernst Karel as manager. It was at this point that Paravel also came to Cambridge, joining the Lab as a faculty associate.

Graham, Castaing-Taylor and Paravel and their collaborators are artist researchers: their academic and artistic pursuits are mutually-reinforcing. For the Sensory Ethnography Lab, indeed, the two cannot be separated. They seek to fashion ethnographic research into a medium other than the written word of traditional academic work: the films and installations they produce are as much research as art. For Graham, the distinction between her poetry and her academic role is maintained. The influences of her role as Boylston Professor on her poetry are nevertheless palpable. The increasing presence of specifically American biopolitical concerns in Graham's post-millennial works, could in part, as Catherine Karagueuzian has suggested, be traced to the poet's awareness of the historical legacy of the post she holds, once held by the sixth American President, John Quincy Adams (2005, p.195).

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[24] Notably, Graham is the first woman to hold the professorship since it was established in 1772.

The disciplinary bases of these artists go some way to suggesting the humanism that shapes their origins. The humanism of Graham's lyrics bestows them an investment in exploring culture that is as strong as that of the SEL's works of visual ethnography—which has been defined as 'a film which seeks to reveal one culture to another' (MacDougall, 1985, p.278). Although this project focuses on the *ecological* valences of these artists' works, this cannot be disconnected from their interest in *culture*. The two are, of course, interconnected, as Haraway's compound concept of 'naturecultures' is at pains to stress.[25] At the same time as being situated within a specific culture, the ecological consciousness of Graham's works, like those of the Sensory Ethnography Lab, places their North American location within a consciously *global* context, making them conscious investigations of not only nature and culture, but also of politics.

Recognising the productive relationship between the academic institutions of Cambridge, Massachusetts (both Harvard University and MIT, the Massachusetts Institute of Technology) and their history of creative production, Scott MacDonald has noted a 'Cambridge turn' in avant-garde documentary films (2013). This phenomenon builds on a longer history in which the Boston area has been 'the fountainhead of American documentary filmmaking' (MacDonald, 2013a, p.1).[26] The more recent development of ethnographic film is more strongly associated with Cambridge itself, and MIT and Harvard specifically (MacDonald, 2013a, p.3). It is important to situate the innovations of the Sensory Ethnography Lab within this history of both institutional and developments in forms of nonfiction and ethnographic film—histories that too often remain unacknowledged in critical responses that emphasise newness above all else (Landesman, 2015, p.12).[27]

Filmmakers are not alone, though, in being attracted to Cambridge. In placing the Sensory Ethnography Lab's filmmakers alongside Graham, this thesis posits a 'Cambridge turn' in multi-sensory artistic works. Accordingly, I will focus on the works produced by these

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[25] Highlighting complexity and emergence, Donna Haraway's concept 'naturecultures' 'points at the impossibility of separating domains such as history and biology in technoscience and everyday life alike' (Tuin 2018, Para 23.3; see Haraway, 2003).

[26] This history can be traced back to Robert Drew's *Primary* (1960) and the work of the prolific documentarian, Frederick Wiseman, who is perhaps most famous for the controversial film, *Titicut Follies* (1967).

[27] Classic works including John Marshall's *The Hunters* (1957) and Robert Gardner's *Dead Birds* (1963) were produced at Harvard's Film Study Centre. Gardner—who did his undergraduate degree and doctoral studies in Anthropology at Harvard, and became the Founding Director of the Film Study Centre (later directed by Castaing-Taylor)—is a significant influence on the work of the Sensory Ethnography Lab. Of less pertinence to this study, MacDonald also traces the development of the 'personal documentary' in Cambridge (MacDonald, 2013, p.3).

artistic producers following their move to the town, i.e. works produced since the millennium. I have selected poems from three collections of Graham's poetry: *Swarm* (2000), *Never* (2002) and *Fast* (2017). I study these alongside Castaing-Taylor and Ilisa Barbash's *Sweetgrass* (2009) and Castaing-Taylor's 'Hell Roaring Creek' (2010), one of the short films arising from its footage; Castaing-Taylor and Paravel's *Leviathan* (2012); and, lastly, Paravel's feature-length documentary, *Foreign Parts* (2010), codirected with SEL graduate JP Sniadecki, and the film Sniadecki went on to make with Joshua Bonnetta, *El Mar La Mar* (2017).[28]

Many of these films and poems explore the areas surrounding Cambridge. Most clearly, the recurrence of images of the ocean in *Never*, which Graham published three years after she started to work at Harvard, stem, as Karaguezian observes, from Graham's experience of 'having left behind land-locked Iowa for the East Coast' (2005, p.173); while *Leviathan* and *Foreign Parts* explore rarely seen environs of the East Coast that produced them. The earlier works, while completed at Harvard, explore the locations from which their artists came: *Swarm*'s parched landscapes are a response to Graham's prior base in Iowa and Castaing-Taylor and Barbash's elegiac portrait of the American West, *Sweetgrass*, is equally testament to their previous home in Colorado. Meanwhile, the most recent film included in this study, *El Mar La Mar*, travels to the US-Mexican border, where its makers—but also many of its subjects, from migrants to humanitarian workers—are visitors. That this was not produced in affiliation with the SEL but by a graduate of the Lab indicates that, for Sensory Ethnography, the 'Cambridge turn' is only a beginning. Within the span of these selected works, then, Cambridge is figured as a place of arrival and—for the Sensory Ethnography Lab—one of departure as well.

The Disembodied Sensory

A mobile, heterogeneous, trans-individual collective, the swarm is perhaps the opposite of common conceptions of humanity. The swarm profoundly challenges the Enlightenment subject, conceived of as a rational animal, an individual, one who subordinates his (and I use the pronoun advisedly) senses to his mind. In the swarm, subjectivity, as far as it can be conceived, is distributed across the mass: neither intentionality nor intelligence reside within individual swarm members, but rather in the 'hive mind.' This thesis asks whether attending to artistic representations of the non-human collective of the swarm can reveal insights into—and effect transformations in—human experience and subjectivity. The selected films and poems confront

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[28] Whilst made outside of the SEL, *El Mar La Mar* is in unavoidable conversation with the Lab's oeuvre.

their audience with an engagement with the distributed subjectivity of the swarm. [29] I ask: does this hold the potential to stretch the limits of the individual human subject?

The creative artists under study seek to immerse their audience in an encounter with the swarm through their sensory aesthetics. Frequently shifting in perspective, their works move the audience between an external observation of the swarm and an immersive experience of being within it. Caesuras and cuts enact the jumps and disorientations involved in expanding the self and questioning its relation to the world. In this way, they reach toward a swarmic mode of engagement with their audience: that of sensory communication. Like the longhorn ants, who, as discussed above, communicate through 'the forces that they feel through the object,' the artistic works of Graham and the SEL seek a mode of communication that is felt through the forces of the art object (Webb, 2015, np). In Graham's words, the potential of poetry is to act as 'a contagion […] from body to body' (2003, np). Taking on the perspective and mobility of the distributed subjectivity of the swarm through aesthetic strategies, the films and poems, rather than operating primarily through cognition, generate the affective experience of being beyond a unitary, human perspective. I term this, the 'disembodied sensory'. [30] By deploying this affective strategy, the works under study offer an engagement with the swarm that holds its alterity and strange similarity in contrapuntal unison. Through this balance, questions of compassion and disregard, intimacy, community and isolation, are, if not verbalised, expressed through visual and sensory means.

Through their emphasis on sensory experience, Graham's, Castaing-Taylor's and Paravel's works both reassert our connectivity with, and emphasise our difference from swarming animals. By privileging the sensory, a mode of experience that human and nonhuman animals share, these works lessen their reliance on language, which Bate has described as 'a symptom of humankind's apartness from other species' (2001, p.149). Whilst *Leviathan*'s reduction of language to just another aspect of the sonic landscape—overheard words are

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[29] With the term 'distributed subjectivity,' I combine Jane Bennett's call for agency to be 'distributed' (2010, p.10) and Guattari's emphasis on renewing the 'modes of production of subjectivity' (1989, p.49). Bennett describes the need for agency to be 'distributed across a wider range of ontological types' (2010, p.10), invoking a Latourian and Deleuzian vocabulary of 'actant,' 'assemblage' and, notably, 'swarm' (2010, p.9). Arguing for an 'understanding of agency' as 'a swarm of vitalities,' she observes that the task is then 'to identify the contours of the swarm, and the kind of relations that obtain between its bits' (Bennett, 2010, p.32). For Guattari, subjectivity itself is an assemblage: within his approach, 'deterritorialization' (the opening up of subjectivity to change) can lead to the 'evolution of subjective assemblages' (1989, p.31).

[30] In formulating the disembodied sensory as a force that is at once separated from a single human subject and yet nevertheless sensed by an embodied perceiver, I draw on theories that figure affect as 'pre-personal.'

muffled and rarely comprehensible—is the most extreme example, similar defamiliarisations of language occur in the other works by Castaing-Taylor and Paravel, and, in a very different way, in the poetry of Graham. Whilst Graham's poetry of course operates through language, her linguistic experiments seek to reconstruct this mode of communication. Indeed, at times, the ability of language to hold meaning is stretched so far in Graham's works that it is the aural and visual qualities of the words that are privileged over their semantic meaning.

At the same time as challenging the centrality and supposed transparency of language, the works studied in this thesis denaturalise sensory experience as human by attempting to represent animal and machinic sensory experience, including colour, sound, tactility and perspective. The aesthetic strategies that Castaing-Taylor's and Paravel's *Leviathan* develop to capture nonhuman sensory experience have been briefly discussed by Eirik Risvold Hanssen in his exploration of animal colour perception (2015), and in Selmin Kara and Alanna Thain's writing on animal tactility and perspective (2015)—initial work in an area that invites further development. This question of nonhuman perception is also pertinent to Graham's poems. The poems selected in this thesis, whilst maintaining overall the centralising figure of the poet or lyric subject, temporarily stray from this hub of human perception through their contemplations of the swarm. In 'Gulls,' for example, Graham's free verse shifts into uneven lines that embody the movement of the flock, before returning to the relative stability of the contemplating human figure. The collection *Swarm*, meanwhile, is characterised by a suspension of the first person that immerses the reader in a distributed subjectivity.

Placing the sensory beyond the subject through representations of the swarm creates a tension between the embodied and the disembodied that has been commented on in relation to the works more generally by artists and critics alike. Castaing-Taylor describes *Leviathan* as being 'separated from directional intentionality [yet] yoked to a subjective, embodied experience' (quoted in Hanssen, 2015, p.20). Irina Leimbacher similarly comments that *Leviathan* 'extrapolates "sensory" from the human body to the body of the world itself' (2014, p.39). Likewise, Joanna Klink asserts that Graham's poetry attempts to 'make the collective life something deeply felt, deeply lived' (2005, p.157); whilst James Longenbach comments that a poem from the collection, *Swarm*, feels 'challengingly disembodied' (2005, p.209). The interest in Graham's poetry in a subjectivity that is both embodied and distributed can be traced to her early self-declared interest in how to 'wrench a uniqueness' yet be 'united with the unknown' ([1984] quoted in Klink, 2005, p.167). In what follows, I will draw together insights such as these to develop the swarm, and with it the disembodied sensory, as an analytic. This analytic

focus will be strengthened by the productive comparison between Graham's, Castaing-Taylor's and Paravel's different works.

The Swarm in Theory

Situated within the interdisciplinary field of the environmental humanities, my study draws upon theorisations of the swarm from sources as broad as literary criticism, film theory, post-structuralism, and artificial intelligence.[31] In exploring the aesthetics and biopolitics of the swarm, this thesis navigates between three modes of signification denoted by the word 'swarm.' First is the swarm as the material reality of a group of living (and dying) organisms: this is the swarm as *analogue*, in the zoological sense of the word. Second, is the swarm as *representation* in the films and poems I discuss. These are brought together through the *figurative* swarm. Material swarms have long been loaded with cultural and political meanings. Representations of swarming groups draw—have always drawn—on these associations to deploy the swarm for a variety of conceptual and symbolic functions; hence the *metaphoric* swarm. Resting on this understanding, my thesis triangulates the three levels of meaning: swarms *in* creative works, *material* swarms and swarms as *metaphor*.

At its broadest, this project can be described as taking a cultural studies approach. It also shares concerns with American Studies, a field which studies the 'discursive production of America and American nationality' (Gersdorf, 2009, p.23). But the thesis is primarily an ecocritical project. Ecocriticism is an internally diverse field that has made a substantial contribution to the environmental humanities. Since earlier definitions of the field as 'a study of the relationship between literature and the physical environment' (Glotfelty, 1996, xviii), ecocriticism has been expanded to include environmental philosophy and bioethics (see Huggan, 2010, p.12), as well as other creative media. The study of environmental concerns within film—of clear importance to my study—has been termed variously 'green film criticism, or *eco-cinecriticism*' (Ivakhiv, 2008, p.3: original emphasis) and eco-film studies (Ingram, 2014).

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[31] The environmental humanities is an interdisciplinary field that brings together diverse forms of scholarship that are united in the aim of recasting environmental change as not only a scientific problem, but as a fundamentally 'social and human challeng[e]' (Palsson et al 2011, p.5; quoted in Neimanis 2015, p.68). Asserting that the humanities are uniquely positioned to address such challenges, the environmental humanities asks what the stakes are in 'narrating and managing, living and theorizing in the human/environmental interface,' and seeks to analyse the 'matters, practices, identities, ethics, aesthetics and imaginaries' that are emerging in response to environmental crisis (Neimanis, 2015, p.68). See also Rose et al (2012), Bergthaller et al (2012) and Sorlin (2012).

This scholarship runs in tandem with literary ecocriticism without being reducible to it.[32] Ecocriticism's combination of ecological, literary and cinematic sensitivity is of founding importance to my thesis. The thesis takes as its dual structuring principle the ecological paradigms of land, water and politicised spaces and the long-established formal modes of the lyric, the pastoral and the documentary.[33]

As well as expanding with studies of visual media, ecocriticism's engagements with philosophical developments has developed various subfields. Among these is material ecocriticism, an approach primarily aligned with the broad and loosely defined field of new materialism. This is a field of literary criticism that offers a way of 'thinking language and reality, meaning and matter together' (Iovino, 2014, 4). As noted, this project takes inspiration from new materialist approaches, while holding other aspects of this ontology at a critical distance. Within a new materialist framework all forms of matter are understood as part of 'the swarm of actants', objects that have the capacity to 'animate, to act, to produce effects dramatic and subtle' (Bennett, 2010, 111, 6).[34] New materialism illuminates the swarm's challenge to common conceptions of agency as residing in a single human subject. In turn, the swarm—as a volatile body that emerges through distributed agency rather than unified control—is in many ways emblematic of a new materialist vision of the material world's interconnectedness.

The resonances of this with my analysis of the potential of the swarm to engender effects within its ecologies—and, putatively, on the human who encounters it—are clear. However I stop short of joining the goal of 'radically displac[ing] the human' by reducing the status of its 'being' to that of any other object, pursued by the subset of new materialism, Object-Oriented Ontology (Morton, 2013, 17).[35] In arguing for a flat hierarchy of agencies as

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[32] Eco-film studies emerged both from within ecocriticism itself and from developments in the related fields of animal studies and screen studies. Since the millennium, burgeoning interest in these areas has given rise to important studies of animals in film and documentary (Burt, 2002; Lawrence, 2015), wildlife film and so-called nature documentary (Bousé, 2000), and general environmental perspectives on film (Ingram, 2000; Cubitt, 2005).

[33] Here, I am influenced by Catrin Gersdorf, whose project 'investigates the formative influence of pre-existing conceptual, symbolic, and geographical paradigms [...] on discursive configurations and cultural appropriations of the desert' (2009, p.31).

[34] The term 'actant' derives from Actor-Network Theory (ANT), developed by Bruno Latour, who writes that 'any thing that does modify a state of affairs by making a difference is an actor—or, if it has no figuration yet, an actant' (Latour, 2005, p.71). Aiming to describe 'the very nature of societies', ANT 'does not limit itself to human individual actors but extend[s] the word actor—or actant—to non-human, non individual entities' (Latour, 1990, p.2). Resolutely '[f]aithful to relativist principles' in this way, 'ANT claims that it is possible to trace more sturdy relations [...] by finding a way to register the links between unstable and shifting frames of reference' (Latour, 2005, p.21).

[35] Dating back to the late 1990s, object-oriented ontology is 'an emerging philosophical movement committed to a unique form of realism and nonanthropocentric thinking' (2013,

well as a flat ontology, such approaches are less able to respond to the political fact that the *responsibility* of the human for the environmental crisis is certainly not comparable to that of other objects or animate beings.[36] New materialist approaches are primarily interested in 'the generative force of living matter itself' (Braidotti, 2018, Para 9.25). My approach, meanwhile, is less interested in matter than it is interested in the *material*.

In distinction to material ecocriticism, my thesis performs a 'material*ist* ecocriticism', in the sense of old materialism. While not strictly Marxist, my approach maintains a sensitivity to relations of power within and across species boundaries that distinguishes my research from a new materialist approach. The films and poems studied in this thesis have only oblique engagements with class conflict. Nevertheless, in developing a broadly materialist approach indebted to Marxist paradigms, my analysis illuminates the films and Graham's later poems, if not her earlier ones, as critiques of the depersonalising effects of capitalism. The ethnographic films of the first two chapters, *Leviathan* and *Sweetgrass*, hold a focus on *work*: the work of farming the swarm. They illustrate through affective aesthetics the ways in which '[e]stranged labour', Marx writes, 'turns *man's species being*' into 'a being alien to him' (quoted in Arthur, 1986, p.8).[37] The final chapter focuses on forms of social exclusion and takes as a structuring principle that archetypally Marxist approach, political ecology. Through a creative combination of approaches from new and old materialism, I develop a methodology of materialist ecocriticism that empowers the thesis to incorporate social inequality as much as environmental degradation into its analysis.

My materialist approach leads me to challenge certain posthumanist conclusions. As indicated above, this thesis does not take on trust that the contradictions of the 'posthuman era' are such that they 'explode the concept of the human' (Braidotti, 2018, Para 9.9). Rather, it takes inspiration from Nicole Shukin's definition of the 'species line' as one that can be made 'either more porous or impregnable to suit the means and ends of power' (2009, p.15). This approach is more politically enabling than beginning from assumptions that the species divide is completely erased or no longer operative. At the same time, the new materialist influences on my methodology require that I broaden Marxist approaches like political ecology to incorporate

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p.2). It takes as a basic principle that '[a]ll objects must be given equal attention, whether they be human, non-human, natural, cultural, real or fictional' (Harman 2018: 6; see also Bryant 2011).

[36] Indeed, assuming 'equality in all contexts' is, as the poststructuralist scholar Paul Patton argues, 'not only misleading but dangerous' (quoted in Wolfe, 2003, xix).

[37] By 'species being', Marx denotes not a posthumanist signification but 'a universal and therefore free being' (quoted in Arthur, 1986, p.8).

the more-than-human world. My research seeks to illuminate the uses to which both species difference and likeness across species have been put in the biopolitical control of humans and nonhumans. Taking a broadly materialist approach—rather than cleaving to either new materialist, Marxist, or posthumanist methodologies—I join the project developed by Shukin of undertaking 'a materialist critique of life in biopolitical times' (2009, p.15).

A further aspect of my methodology that reinforces and expands my materialist approach is my engagement with questions of phenomenology and affect. In discussions of the SEL's films, there is often some slippage between the affective and phenomenological dimensions of their aesthetics, conflation that obscures the distinctions between what are two internally diverse fields. Phenomenology, now operative as numerous approaches, was developed as a sub-discipline of philosophy by Husserl, as a study of 'phenomena' as they appear to various forms of human consciousness. Phenomenology is most commonly associated with Maurice Merleau-Ponty, who can be described as pursuing an ethics of defamiliarisation. Merleau-Ponty argues that 'in order to see the world and grasp it as paradoxical, we must break with our familiar acceptance of it' (1992, xv). As is clear from Merleau-Ponty's writing, phenomenology is distinct from affect in retaining the centrality of a human perceiver.

Just as this thesis holds the nonhuman body of the swarm and the individual human subject in counterpoint, my approach to the multisensory aesthetics of the films, as well as the poems, draws on both affect and phenomenology as distinct but parallel approaches. In my formulation, these related fields seek to trace both the operations of power and the possibilities for micropolitical resistance that work on the level of the body 'before cognition begins' (Coole, 2010, p.20).

Theories of affect, as I have outlined, have developed in philosophical traditions of immanence typified by Deleuze (1988) and Brian Massumi (2003) and, in turn, within posthumanism (see Roelvink, 2015). However, affect theory emerged from the discipline of psychology. This tradition argues that affect has the potential to 'amplif[y] the drives and lending them urgency,' since drives, as Anna Gibbs describes, are secondary to affect within the 'human motivational system' (Gibbs, 2002, p.337). This psychological basis offers an empowering perspective on the possibilities of the swarmic encounter. Rather than as a story, representation or as 'categorical affects' that can be recognised as specific emotions, encounter with the swarm in the films and poems under study can be understood as acting as what the

prominent psychologist Daniel Stern termed 'vitality affects' (Stern, 2000).[38] It is in this way that affective aesthetics hold the possibility of engendering a more strongly felt awareness of ecological responsibility.

Responding to the way in which the works under study counterpoint embodied engagement with biopolitical critique, this thesis analyses the implications of the selected films' and poems' swarms through a combined paradigm of broadly materialist and affective approaches. Combining methods in this way, I work towards what Laruen Berlant has described as a possible 'collective political affect' (Berlant, 2012, 72). As such, this thesis hold poststructuralism, old materialism and posthumanism—typified by Deleuze, Marx and Braidotti—in counterpoint, as distinct, sometimes contradictory, but not wholly incompatible approaches.

At this point, it is useful to return to the seminal theorisation of the swarm by Deleuze with which we began. Deleuze's emphasis on multitudes, multiplicities and rhizomes enables vibrant discussion of swarming bodies, but, as will by now be clear, I part company from Deleuze in several key points. First is the Deleuzian emphasis on instability: where Deleuzian ethics 'constantly works to destabilize identity and unity' through its celebration of 'different modes of becoming (rather than being)' (Wolfe, 2003, xix), my contrapuntal approach seeks to expand rather than destabilise identity and to show the internal contradictions that can be housed within a unified whole. Secondly is the emphasis on 'transversal' connections: while enabling the perception of nonlinear connections across scales and species differences, in claiming that '[a]ll multiplicities are flat' (Deleuze, 1988, p.9), transversal approaches risks losing political applicability. Moreover an approach founded on *connection* fails to recognise the experiences of isolation and abandonment that are central to the works studied (see Chapter Three).[39] Again, returning to the question of eco-politics, the materialist and ecocritical impetus

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[38] Stern's psychological affect theory formulates sensations and emotions as 'rushes', affects that, like Deleuzian intensités, are passed between people, senses and media (2000, p.55). Easily transmitted across difference, these 'vitality affects' can be passed both between individuals, as in Stern's famous mother-child example, and communally, for which Stern gives the example of dance. This latter example indicates the valences of affect to both the works under study and the swarm, which can be seen as being made of vitality affects that are transmitted through sound and movement.

[39] In make this argument Chapter Three in relation to Zygmunt Bauman's diagnosis of the scholarly emphasis on connection as a symptom of widespread *disconnection* (2004, pp.127-133).

of my work—to expose material violence against humans, nonhumans and the biosphere—
make me suspicious of relativism as a founding principle (see Ingram, 2014).[40]

Another important point of divergence is that Deleuze loses sight of the human subject.
Including Graham in this thesis—a poet who retains faith in the individual human subject,
despite its hauntings and humiliations[41]—requires me to argue for the continued importance of
human capacities for compassion and selfless action. I hold these positive attributes of the
human in counterpoint with the negative, as I do with the swarm. That Deleuzian philosophy
excavates the human subject is illustrated by the ease with which Deleuzian philosophy has been
co-opted by biotechnological applications of swarm intelligence (SI). SI analyses swarms as
biological systems through complexity theory and simulates their behaviours through adaptive
algorithms to produce applications from urban planning to drone warfare.[42] I am critical of
many applications of SI, although, as with the Deleuzian swarm, the understanding of swarms as
self-organising, non-hierarchical, volatile systems garnered by this field productively informs
my development of the swarm as a critical analytic tool.

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In the fluidity of its movements through the currents in air and water or the contours of
the land, the swarm comes to be co-constitutive of the elements. The way in which the swarm
moves in response to the elements of water, air or land means that it can reveal elemental
forces that are otherwise beyond human perception. The imperceptibility of forces within the
environment that have palpable (and often deleterious) effects has been theorised separately by
Rob Nixon's influential model of 'slow violence'—a 'violence that occurs gradually and out of
sight' (Nixon, 2011, p.2)—and Timothy Morton's 'hyperobjects', massive, all-encompassing
ecological 'objects' such as climate change and radioactive polonium (Morton, 2013).[43] While
'hyperobjects' are 'things that are massively distributed in time and space relative to humans'

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[40] This relativism is exemplified by Deleuze's philosophy determination of 'success or failure'
according to 'categories like Interesting, Remarkable, or Important' rather than in 'knowing'
or 'truth' (1994, p.82).
[41] Graham writes, in 'Deep Water Trawling': 'I was once but now I am / human. I have
imagination. I want to love. I have self-interest. Things / are not me. [...] I am haunted but by
what? / Human supremacy? The work of humiliation. The pungency of the pesticide' (2014).
[42] Complexity theory sees seemingly inert matter, apparently hierarchical socio-political
groupings or ecological phenomena as 'open, complex systems with porous boundaries' (Coole
2010, p.16). A 'form of artificial intelligence', swarm intelligence is 'the emergent collective
intelligence of groups of simple agents' and has applications in 'combinatorial optimization,
communications networks, and robotics' (Bonabeau, 1999, xi). See also Mitch Hoppe (2015)
and Christian Blum and Daniel Merkle's edited book (2008).
[43] Morton's 'hyperobjects' are 'objects' in the sense derived from object-oriented ontology
(OOO).

(Morton, 2013, p.1), 'slow violence' is 'a delayed destruction often dispersed across time and space' (Nixon, 2011, p.2). Distribution, dispersal and challenges to human spatial and temporal norms are also characteristic of the swarm. Most often associated with *speed*—both in movement and life cycle—the swarm's temporality triangulates that of the human and that of ecological change. If, on a conceptual level, the swarm's compressed timescale offers a model for imagining 'slow violence' at a timescale more familiar to the pace of human experience, on a material ecological level, in their sensitivity to changes in their ecosystems, swarms can also act as indicators of environmental degradation. This thesis explores how swarmic representations counterpoint these two aspects to illustrate the 'slow violence' of the ecological crisis.

In their responsiveness to their environment—both acting as weathervane for environmental change and in revealing the currents of the elements—swarms might enable the perception of 'hyperobjects'. These, Morton writes, 'are nonlocal' meaning that 'any "local manifestation" of a hyperobject is not directly the hyperobject' (2013, p.1). My theorisation of the swarm places significant emphasis on its locatedness. As such, the swarm might appear as a 'local manifestation' of the hyperobject, enabling perception where the totality of the phenomenon may be beyond human senses and even imagination. Just as material and represented swarms can act as both a spatialisation and a visualisation of ecological forms normally invisible to the human, the swarm as a *conceptual* tool holds the potential of revealing the intricacies of ecological dilemmas. Of 'hyperobjects', Morton writes, '[t]hinking them is intrinsically tricky' (2013, p.3): thinking swarms may be challenging, but in their ability to invoke different scales, the complexities of relationships across ecological, political and technological spheres and the challenges to forms of subjectivity, the work of *thinking with* the swarm is, I contend, an important and necessary endeavour.

In lyric poetry, animals and nature have most often been interpreted as metaphors for the poet's mind (Cushman, 2012, p.437). Conversely, the largely realist aesthetic of documentary films has led to a critical focus on the material existence and economic role of the nonhuman subjects portrayed. Such approaches—the symbolic and material respectively—cannot adequately respond to the multivalences of Graham's poetry and the works of Castaing-Taylor and Paravel, which stretch the boundaries of their respective media. In response to this, and bolstered by a materialist ecocritical approach, I will neither treat swarming animals as pure symbols and signs nor see them in terms of their economic capital, but consider them as both simultaneously. Here again, I am inspired by Shukin's materialist critique of 'the economic and symbolic capital of animal life' (2009, p.7).

As outlined, in my formulation the swarm is a multispecies phenomenon. I counterpoint my broadly materialist paradigm with a multispecies approach inspired by current developments in multispecies ethnography. The idea of multispecies community is, in Thom Van Dooren's words, 'a community of humans and nonhumans, of the living and the dead' (2014, p.5). The multispecies has been developed within animal studies, which seeks to challenge the ontological bases of the human by attending to our engagements with non-human animals.[44] The conceptual cross-overs between multispecies ethnography and a swarmic vision are expressed by the description, in a journal marking the emergence of multispecies ethnography, of the field as emerging 'with the activity of a *swarm*, a network with no center to dictate order' (Kirksey, 2010: original emphasis). The common founding discipline of ethnography makes the crossovers between multispecies ethnography and Castaing-Taylor's and Paravel's sensory ethnographic works clear enough. Whilst the field is less directly related to Graham's poetry, the role attributed to art more broadly by multispecies ethnography means that it is nevertheless generative in highlighting the presences of the numerous species that appear in her works.

That ecocritical attention has focused on large, attractive animals has been recognised since Edward Wilson's early critique of the field's 'big-organism chauvinism' (1994, p.178). To counter this, multispecies ethnography focuses on those organisms and species that are less visible and less easily anthropomorphised, and have therefore been previously dismissed as mere context to humans. As Kirksey and Helmreich write, multispecies ethnography seeks to reveal that organisms that have previously been consigned to *zoe*, that which is killable, also have livelihoods that 'shape and are shaped by political, economic, and cultural forces' (2010, p.545). The field's aim to elucidate the biopolitical implications of species divides speaks to my aim of analysing the biopolitical interpretations of the sensory swarm.[45] Threatening pests rather than loyal pets, swarming animals are often precisely those which have been victim to the bias that multispecies ethnography seeks to correct. Within swarm studies, however, insects have arguably had more than their fair share of attention: two major publications in swarm studies recently include Steven Connor's eloquent study, *Flies* (2006), and Raffles' *Insectopediea* (2010). In part due to the fact that the term 'swarm' in common usage primarily signifies swarms of

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[44] Animal studies is a broad field that examines animals' instrumentalisations in human culture as food, pets, spectacle, symbols and scientific objects, and explores them as philosophical and ethical subjects (Kalof, 2007).

[45] The reference here to Agamben's concept of *bios* and *zoe* needs some explanation. Respectively, the proper life of an individual or group, and killable life, Agamben identifies this as the founding distinction between forms of life in biopolitical times (Agamben, 1998).

insects, this emphasis can also be traced to the call made by the field of multispecies ethnography to focus on small creatures previously ignored. Whilst this project is indebted to the work of this field, my broader interpretation of multispecies ethnography places the emphasis on the plurality of 'multispecies'. This allows me to place small and medium-sized animals alongside each other, from sheep and birds to fish and humans.

I am not a film scholar by training. Nor am I an anthropologist. Accordingly, this thesis diverges from 'psycho-semiotic' approaches that have been foundational to screen studies (for an overview, see Ingram, 2014, p.459; see also Kickasola, 2009; Metz, 1982). Neither does it perform a quasi-ethnographic study of either the communities or individuals portrayed in the films and poems or of the artists who created them. Rather, I make a contribution to both anthropology and film studies by developing a broadly comparative cultural studies approach and pursuing analysis in the field of materialist ecocriticism.

My theoretical approach is rooted in a close analysis of the specific technologies used by the cultural producers I have selected—be it the camera or the pen. Graham's work moves between the two main modes of environmental poetry: high modernist free verse and more 'language-orientated forms of poetic expression' (Cushman, 2012, p.437). I develop previous analyses of place, the senses and language in relation to Graham's oeuvre with an analysis of the creaturely presences in her works (Longenbach, 2005; Spiegelman, 2005; Vendler, 1995).

Despite gaining widespread attention both inside and outside of the Academy, there has been no thorough critical overview of the work emerging from the Sensory Ethnography Lab. Nor has there been a response to the swarms that populate so many of their works. It is commonly noted that the films' mobile images and textured soundscapes are recorded from the perspectives of humans, animals and machines. That the films decentralise their human presences and distribute agency and perspective across human and non-human actors has been noted by various critics keen to celebrate the new materialist and posthumanist valences of the SEL's films (Thain, 2015; Leimbacher, 2014; Pinney, 2015). The centrality of the swarm as a concept to new materialist approaches makes it all the more surprising that the dominant presence of swarms has been overlooked.

Comments made by Castaing-Taylor and Paravel regarding their own work in interviews and in published writing reveal the influences of new materialist and posthumanist theories to be direct. Speaking of *Leviathan*, Castaing-Taylor has expressed his pleasure at hearing a comment that it was 'as if the fish were filming themselves,' and Paravel talks of 'bringing the rest [of the material world] up' to the level of attention habitually granted to the

human (Castaing-Taylor, 2014, np). Paravel, after completing her doctorate, studied with Bruno Latour, that key figure in new materialism and architect of Actor-Network Theory. Central as these influences may be to the aims of the filmmakers, as with any creative artist, it is important not to take self-theorisations on trust. This is particularly important in the case of the SEL, whose artists are at once eloquent and steeped in theory, yet often reluctant to acknowledge the theoretical labour within the works. The need for a rigorous challenge to the apparent posthumanist consensus in responding to the SEL's films has been called for by Ohad Landesman (2015) and Christopher Pavsek (2015). It is one contribution of this thesis to take up this demand.

Bringing Graham into comparison with Castaing-Taylor's and Paravel's works is far from an obvious choice. A glance at the titles of Graham's collections is enough to get an impression of her interest in the ecological, the material and, indeed, the swarmic: from *Erosion* (1983) in her early work, to *Swarm* (2000) and *Sea Change* (2008) more recently. However, the relationship between Graham's poetry and categories of 'ecopoetry' and 'ecocriticism' is not a simple one. As well as her ecological interests, Graham's poetry is imbued with a deep interest in language, an investment in the human, formal influences from the high moderns and postmodern philosophical influences. Because of the supposed tensions between questionings of language and an ecological commitment to representing the 'reality' of the natural world, ecocriticism has been unwilling to claim Graham as a leading 'ecopoet'.

This is expressed through omissions—a collection on ecopoetry such as that edited by J. Scott Bryson (2002) does not mention her name—and more explicit dismissals, such as Leonard's Scigaj's description of Graham's work as 'exemplary of a poststructural language poetry that nevertheless remains blind to the needs of nature' (1999, xv). Graham's standing as a leading contemporary American poet is not in question. Significant critical attention—both preceding and following her acceptance of the Pulitzer prize in 1996—has been paid to Graham's poetry in response to the linguistic and visual aspects of her work (see Leubner, 2009; Vendler, 1995; Costello, 1992).[46] But, as Lynn Keller notes, 'poetry associated with linguistic and formal experimentation has rarely been examined through an environmental lens' (Keller, p.605). The lack of ecocritical attention paid to Graham is a symptom of a broader trend within ecocriticism.

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[46] See also Willard Speigelman (2005), Kathy-Ann Tan (2007), Catherine Karagueuzian (2005) and the edited collection on Graham's poetry (Gardner, 2005).

A small amount of recent ecocritical work has turned to Graham. Caroline Williamson's article on the apocalyptic focuses on Graham's *Sea Change* (2014), as does an unpublished theses on the poetics of climate change (MacKenzie, 2013; see also Griffiths, 2014). By returning to *Never* and *Swarm*, the collections which Graham published just before this rapprochement of ecocritical scholarship, I am not merely looking to fill a gap in the criticism of her work. This thesis wants to trace the parallel and, I contend, mutually informing evolutions of Graham's poetry and the field of ecocriticism. Graham's oeuvre is indicative of a shift from an ecopoetics and ecocriticism invested in phenomenological experience of nature to a contemporary form that is able to situate these sensory engagements in the networks of global commerce and changing planetary systems (see Solnick, 2016).[47] In attending to Graham's most recent collection, *Fast* (2017), this thesis also registers that the increasing environmentalist conscience of Graham's collections since the millennium has been accompanied by the increasing presence of urban locations and biopolitical concerns. As such, Graham's poetry also follows—and contributes to—a move toward a 'social ecocriticism'. This is a field that recognises the falsity of a distinction between natural and unnatural, urban and rural ecologies (Bennett, 2001, p.32; see also Buell, 2005, p.68) that resonates with this project's approach of materialist ecocriticism. Graham's poetry remains thoroughly invested in the personal and her work cannot be rightly described as Marxist. However, I contend, her poetry is increasingly in tune with materialist approaches. The 'material' in her work has evolved from the philosophical investigations of her early collection *Materialism* (1993) to an approach closer to the materialism of old materialist critiques.

The Swarm in Practice

As experimental artistic works that engage with issues of urgent ecological, social and political concern, the poems and documentary films studied in this thesis face criticisms of being insufficiently engaged. Without questioning the need for informational works and direct calls to action, or engaging in a discussion of their artistic value, I maintain that such works are not the only form of artistic praxis. I join Jonathan Bate in arguing that 'the business of literature,' and to this I add experimental ethnographic films, 'is to work upon consciousness,' rather than

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[47] 'Ecopoetics' has been defined by Scott Knickerbocker as characterised by 'poetic devices which enact, rather than merely represent, the immediate, embodied experience of nonhuman nature' (2012, p.16). Faced with the challenge of responding to 'the non-local impacts of pollution […] or long term climate patterns' more recent formulations 'ecopoetics' increasingly situate the local scale that is implicit in an approach based in sensory engagement within the context of global commerce and the biosphere itself (Solnick, 2016, Para11.24).

simple consciousness-raising (2001, p.23). The power of Graham's poems and the Sensory Ethnography Lab's films to 'work upon consciousness' lies in their immersion of the audience in disorientating aesthetic experiences and in offering no clear solution.

These attributes have led to complaints that the works isolate their audience, and that they leave no clear message or path to action.[48] These criticisms of the lack of clarity in Graham's, Castaing-Taylor's and Paravel's works, I argue, misconceive the centrality of ambiguity to artistic production. Castaing-Taylor's and Paravel's films show chaotic scenes shorn of context. Bereft of points of orientation, the audience is left to make sense of sensory experience. Similarly, the aporias and semantic ambiguities of Graham's poems, far from isolating her readers, invite them to co-create the poems. Neither the films nor the poems offer closure in the form of a moralising message or the escape-route of a suggested 'quick fix', such as a financial donation to a named charitable organisation. The viewer and reader is left to ponder over the implications of their encounter with the swarm.

As discussed, bringing Graham together with the Sensory Ethnography Lab, requires me to develops a critical approach that is indebted to posthumanism but not bound by it. These swarmic films and poems operate through immersion, unsettling contemplation and embodied compassion. By immersing their audience in the dispersed subjectivity of the swarm through the aesthetics of the 'disembodied sensory', the films and poems offer a momentary *suspension* of subjectivity.[49] Leaving the audience to make sense of the ontological ambiguity of this disorientating experience, the works challenge calcifications of subjectivity. This, of course, relies on due engagement from a reader or spectator who is open to transformation. The audience member who remains passive will find the works opaque, and an audience-member unversed in this kind of experimental aesthetics may well be lost.

Criticisms that the films and poems studied in this thesis are the product of artistic elitism are valid to a point (they are, after all, to a considerable degree a product of Harvard University), and it is true that such works are not democratic in the sense of making concessions to a diverse audience. But by the same token, neither do they make concessions to the requirements of entertainment or pedagogy that dictate much of broadcasting and the

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[48] To give three examples, Judy Lightfoot accuses Graham of 'fram[ing] her customary remarks to herself in isolation' in her most experimental collection, *Swarm* (Lightfoot [2000], in Tan 2007, p.110); Christopher Pavsek's critique of *Leviathan* avers that 'the experience that the film offers remains quite blind' (2015, p.5); Sharon Gmelch and Carolyn Hou describe *Foreign Parts* as leaving the viewer with 'raw data' rather than a message (2012, p.368).

[49] See Chapter Two for a discussion of the pertinence of Deleuze's 'body without organs' to the suspension of subjectivity suggested by the swarm.

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publication of written forms. The works' strong ecological and social commitment is not lost in but *manifest in* their aesthetic innovations. Engaging their audience's ecological consciousness through experimental swarmic aesthetics, rather than simple consciousness raising, they rebut 'the tyranny of formula' (Bousé, 1998, p.135) to offer fresh insights into the most pressing concerns of our day.[50]

Whilst the experience of both the films and the poems is one of motion and disorientation, they are also in a profound way invitations to *contemplation*, something that is vital for deep understanding and is commonly perceived as a relatively static activity. The constant motion of the swarms they represent is in tension with this human need for a pause. At the same time as working against rigidities through the inexorable mobility of the swarm, then, Graham's poetry and Castaing-Taylor and Paravel's films pursue a project of temporary fixity. By writing rather than speaking, Graham seeks to capture through her poetry a moment of human experience of the world that, if expressed only in language, would 'be dissolved' and 'swallow[ed]' by the wind ('Gulls', 2002, p.28). Film, of course, has long had a 'fabled ability' to 'preserve the fleeting moment' (Renov, 2016 [1993], p.748). The SEL's ethnographic films give no context until the credits roll, when a brief factual overview serves to locate the works historically through written information.[51] The SEL's films combine the anthropological method of observational film and a broadly phenomenological approach through their sensory aesthetics. In this way, it is through this sensed experience that their films are situated in—and seek to capture—a specific geographically and historically located moment. Rather than merely recording facts or aggregating details, the SEL's films seek, like Graham's poems, to create an *experience* of a fleeting moment. Their aesthetic experiments serve to both defamiliarise the scenes represented and highlight the mediated nature of their 'records'.

For all three artists, the world that is experienced is a consciously ecological one. *Never*, in particular, is driven by the desire to capture a disappearing natural world. In the notes to the poem, 'Evolution', Graham reveals that the knowledge that one species becomes extinct every nine minutes 'inhabits, as well as structures, the book' (2002, p.111). Rather than suggesting a 'denigration of her poetry', as Catherine Karagueuzian has suggested (2005, p.179), this speaks to a renewed urgency in Graham's poetic project. The immediacy of experience is rendered

[50] Derek Bousé writes in reference to the influence the 'Blue Chip model' has had on wildlife films (1998, p.135).
[51] Whether this requires the viewer to experience the film without preconceptions or, as Christopher Pavsek claims, whether the lack of authorial interpretation enables the viewer to leave with the preconceptions with which they came (2014, p.9), is an important—if ultimately unanswerable—question that this thesis will address.

more important, for not only is that particular moment of experience unrepeatable, but the natural phenomenon that was experienced may soon succumb to 'ecocide' (Graham, 2002, p.111).[52] In an interview, Graham speaks of a world in which people have become 'divorce[d] […] from their capacity for sensation, and from the way in which sensation would lead […] to conscience, […] compassion […] and action' (2003, np). Poetry's project, she continues, is to 'break through, to make reality feel real' (2003, np). In this way, the negative of the title of the collection, *Never*, comes to be understood as a determination to resist the kind of apathetic defeatism in the face of ecological crisis that would result in our resigning ourselves to saying we had an unspoiled natural world 'once'.

The consciousness of a disappearing world—as in the title of the important British series of ethnographic documentaries, *Disappearing World* (Nairn, [1970] 2010)—holds a specific meaning within ethnographic film. The 'salvage anthropology' project of capturing in representation communities and cultural practices on the wane is adopted—somewhat provocatively, given its status as an out-dated paradigm—as well as broadened and challenged by many of the Sensory Ethnography Lab's works.[53] *Sweetgrass* follows the last herd of sheep to be guided over the Absaroka-Beartooth mountains for summer pasture. *Foreign Parts* captures the community of the junkyard at Willet's Point before it is subsumed into the New York's regeneration. *Leviathan* operates differently in this regard, since it is not the practice documented by the film which is in danger of decline, but the marine diversity that this practice ruins.[54]

Across their bodies of work, Paravel, Castaing-Taylor and Graham are acutely aware that they are representing something which their audience is unlikely to experience directly, inaccessible either through geographic or social restrictions, or because it may simply no longer be there in the world by the time they encounter the work due to anthropogenic change. Within the seeming universality and inexorability of the so-called progress of capitalist

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[52] In this collection in particular, Graham's poetry attends to what Thom van Dooren has described as 'the diverse ways in which humans […] are implicated in the lives of disappearing others' (2014, p.5).

[53] The salvage paradigm emerges with the origins of the discipline of anthropology (see Chapter Two) and its legacy can be felt throughout the twentieth century. Writing in the context of anthropology in the 1950s, Chick Strand describes what she saw as the discipline's 'idealistic and humanistic' aim to 'preserve knowledge' about 'small cultures […] being destroyed' by globalised modernity ([1978] 2016, p.731).

[54] Leviathan's title could refer either to the ship, metonymic of the fishing-trade, or a 'giant aquatic animal', and by extension marine life (OED Online, 2014: leviathan: n. 1b, 1a). The film pays tribute both to the pelagic ecology that is in danger of being lost for future generations, as well as the present victims of the trade—the fish, and the workers lost at sea, to whom the film is dedicated.

production, these works represent a delimited area and seek to capture a finite moment. Attempting to steep their audience in the natural world through affective aesthetics, the works compete with—and implicitly critique—an image-saturated twenty-first century culture. Whilst the postmodern simulacrum, as theorised by Jean Baudrillard, is depthless (1994), the swarmic profusion of sensory images in the poems and films seeks to give depth to a located scene. In so doing, the works seek to give value to what is overlooked in the rush of stimuli, and is therefore in danger of being destroyed unnoticed. In this way, the films' and poems' ecological aesthetics highlight the cost of unstoppable progress.

The swarm is not only mobile; it is transient. Always on the point of dispersing, the question of how and why the swarm comes to an end still baffles scientists (Vehlken, 2013). The sense of an imminent, unpredictable ending resonates with the fears that haunt awareness of ecological crisis. By one measure axiomatic of excess and profusion, the swarm also resonates with scarcity and loss. The swarm's combination of the fluidity of motion with the momentary resonates with the artists' contrapuntal attempts to capture a moment of sensory immersion. By representing the swarm, these works create in the audience an *embodied* experience of what could be, or has been, lost. In so doing, the films and poems generate a different kind of understanding within their audience than mere information. This understanding is a vital spur to action.

Attributes of the Swarm

The swarm collectively designates a range of different swarming species. The swarms to be studied in this thesis include birds, fish, sheep, humans and machines. Flocking, shoaling and herding, opportunistic predators 'gather', prey 'escape' and multitudes 'exist': all are variants of swarming (OED online, swarm: v.1: 1a, 2, 1b, 1c, 3). Moreover, a single swarm can blur species boundaries, as the haul consisting of multiple species of fish shown in *Leviathan* indicates. A biological definition of the swarm only requires that members be 'animals of similar size' (Hill, 2013). However, in developing a multi-species approach to the swarm, I am not stressing the possibility of numerous species forming one swarm. Rather, I seek to expand conceptions of the swarm beyond the image of insects to include other animals, humans and machines.

Opening up conceptions of cross-species movement, the swarm reveals itself to be a temporary state rather than an achieved entity: as soon as it stops swarming, it disperses into its different members. Because of the diversity of the swarm, there is no one intuitive definition or image of it. Asked to imagine a swarm, one person might imagine with disgust a swarm of rats

scuttling out of the sewers, whilst another might picture the sedate beauty of flocking starlings. Even the arguably archetypal swarm of bees could give rise to the image of geometric order, the taste of honey, the fear of a sting, or the desire to protect the endangered insect. Thinking through the seeming contradictions of these diverse, often highly visceral, responses the swarm requires a consideration of its perceived proximity or distance to the human on subliminal and sensory levels. In the generalisations that it is necessary to make in my discussion of the attributes of swarms, I will maintain a broad distinction between *terrestrial* swarms, and *aqueous* and *aerial* swarms, arguing that the latter two groups, by dint of inhabiting three-dimensional space and being untamable, have a different relation to the land-based human.

Inhabiting the elements of water and air, shoals of fish, flocks of birds and even swarms of insects can evoke a beauty that is in sharp contrast to the alien facelessness of their individual members. Since aqueous and aerial swarms are completely untameable (unlike herds of sheep which can be corralled into following orders from humans and dogs), the prospect of being touched by them is particularly disturbing. As such, once these alien swarms are taken out of their natural order and brought into proximity to the human, these swarms can become powerfully alarming, as illustrated by the almost nauseating representation of the dying shoal of fish in Paravel and Castaing-Taylor's *Leviathan* (see Chapter One). Meanwhile, land swarms of sheep (see Chapter Two) or other land-based animals—by dint of being more easily anthropomorphised—are generally more disturbing in their massed groups than when seen individually: whilst a lamb might be loveable enough to convert one to vegetarianism, when seen as a mass, the herd gives rise subliminally to a loss of projected human individuality. The human swarm is perhaps most unsettling of all. From Newcastle football supporters, whose black and white shirts led to the arguably affectionate if nevertheless troubling nickname 'Magpies', to David Cameron's invocations whilst Prime Minister against the 'swarm' of migrants crossing Britain's borders, and racist portrayals of the large populations of China, groups of humans are often demoted to animal status (Elgot, 2015). The familiarity of the alien swarm and the unsettling qualities of anthropomorphic and human swarms shows, in a contrapuntal logic, that the swarm is at its most unnerving when it challenges the distinctions between the human and the nonhuman.

The ways in which the swarm arises and comes to an end is equally diverse. Flocks of gulls may arise opportunistically in response to a food source, whereas the other flocks of birds, that also appear in Graham's poetry, roost as part of a crepuscular routine. The swarm may arise in a more piecemeal fashion, as the human swarm in *Foreign Parts* does: here drifters come

attracted by the provisions and fluidity of the junkyard. Shoals offer their members protection, more streamlined movement, and the opportunity to find mates help in securing a food source: the group is able to achieve greater feats than individuals could alone. Swarms also offer humans the chance to exploit animal life with greater efficiency, as herds of livestock to be rounded up and shoals to be fished according to the dictates of a human productive economy. *Sweetgrass* shows the birth of a land swarm and leaves implicit its demise, where *Leviathan* shows the slaughter of swarms from the sea but not their life. The ways in which the swarm comes into being and comes to an end reveal its imbrications with wider natural and human ecologies. In the swarm, distinct and sometimes conflicting dyads—the human and the nonhuman, the individual and collective, and proximity and distance—are counterpointed.

To borrow a description of another Deleuzian concept of the potential of deterritorialisation, 'nomadology', the swarm is a 'theorization of movement' (Miller, 2001, p.1145).[55] The poems and films studied embody swarmic motion through diverse aesthetic strategies. However, this is counterpointed with a focus on the ways in which swarmic movement is arrested: the selected works repeatedly show the swarm coming up against external borders. These are both material—such as fishing nets in *Leviathan* and 'Deep Water Trawling'—and immaterial, as in the personal administrative and digital obfuscations in 'What The End Is For', *Foreign Parts* and 'Honeycomb'. The films' and poems' sensitivity to biopolitical structures of containment reveals the limitations of a swarm theory overly invested in constant movement. The emphasis on mobility and change in Deleuzian thought—and in particular in Deleuze's formulation of the swarm and the pack—risks mimicking the inexorable progress of capitalist production.[56]

Discourses of mobility easily transpose into action or *labour*. These have been co-opted by neoliberal promises of class mobility that oblige citizens to work tirelessly. Here, critiques of Deleuzian movement correlate with the failings of Marx's assumptions that constant *progress and development* would liberate the proletariat (see Eckersley, 1992). Of course, rather than liberation, this so-called progress has led to disastrous anthropogenic change. The cultural

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[55] Deleuze's concept of nomadology envisions the nomad as a liberated and disruptive force able to move beyond territorial limits.

[56] Responding to Deleuze's valorisation of the 'impersonal circulation of affects', Slavoj Zizek asks whether this is not 'the very logic of publicity, of video clips, and so forth in which what matters is not the message about the product but the intensity of the transmitted affects and perceptions' (2004, p.184). Continuing, he argues that features such as these ' justify calling Deleuze the ideologist of late capitalism' (2004, pp.183-84). As Shukin writes, Deleuzian theorisations of animal 'intensities' and affects may 'inadvertently resonate with market forces likewise intent on freeing animal life into a multiplicity of potential exchange values' (2009, p.42).

producers studied in this thesis seek to balance the swarm's mobility with the desire to capture a moment in the face of irreversible ecological change. As well as environmental consequences, the fetishisation of movement has serious implications for the mobility of human populations. Justified postcolonial critiques of Deleuzian approaches that 'simply preten[d] [borders] don't exist' (Miller, 2001, p.1145) are mirrored in certain strands of postcolonial theory itself: in challenging the rigidities of national identity, these can 'valorize transnational mobility over national bondage' (Shukin, 2009, p.13). In distinction to such ideals of globalism, it is a key contention of this thesis that the ethnographic and lyric groundings of the films and poems selected for study *re-localise* the swarm.

As noted above, this enables the swarm to inhabit elements beyond human perception and render them visible: flocks of birds embody the movements of the air as the fish do the currents of the sea. When the swarm travels across spaces more familiar to (and indeed inhabited by) the human, and this effect is seen on *land*, it can be more troubling. Land swarms smooth edges by engulfing all they cross, producing the uncanny effect that it is the earth itself which is moving: this is the sense behind the phrase, 'it was crawling with them'. Swarms of land, air or water, though, can act as an amorphous mass that arises unpredictably within an element and is able to swallow everything in its path. This is both emphasised and contained by the aesthetics of the films and poems. The films of the Sensory Ethnography Lab remove what Jonathan Burt calls 'the framing narrative structures of natural history films' (2006, p.177)— including the comforting presence of a pedagogical narrator, epitomised by David Attenborough (see Huggan, 2013, pp.21-64)—and in so doing deny the viewer any distance from the swarms on screen, although once again this is a result of deliberate aesthetic mediation. Graham's poetry, meanwhile, challenges the swarm's supposed all-encompassing capacity: by maintaining the presence of the speaker in the lyrics—a unitary and *unifying* figure—a certain distance is maintained between the reader and the swarm.

As well as engulfing foreign bodies, the swarm first and foremost swallows the individuality of its members. The members collectively form one 'hive mind'. It is perhaps this, more than the swarm's physical attributes, that makes the swarm so alien, unknowable and disturbing. By challenging our entrenched notions of individuality, the distributed subjectivity of the swarm also challenges the correlate (human) virtues of conscience and kindness. Deleuze and Guattari write that '[h]uman tenderness is as foreign' to the pack 'as human classification' (1988, p.244-45). Somewhat similarly, as Hugh Raffles writes,

> We simply cannot find ourselves in these creatures. […] They do not respond to acts of love or mercy or remorse […] [What we find in them] is a deep, dead space without reciprocity, recognition or redemption. (2010, np)

Implicit in Raffles' statements (though not Deleuze's) is that—in the same way as colours look brighter after closing one's eyes—by contemplating the alterity of the swarm, we may come to recognise our own human attributes more clearly. This move incorporates the swarm's troubling aspects into a positive function. However, we would do well to avoid complacency when positing engagements with the swarm. Rather than simply reflecting human subjectivity as an unchanged but clarified (and flattering) image, the swarm has the power to challenge some of the assumptions inherent in both common models of subjectivity and of 'reciprocity, recognition or redemption', in other words, empathy (Raffles, 2010, np). Where Haraway would rebut responses to the swarm as impenetrably alien as being unable to respond to the possibility for human-animal alliances, I argue that swarms evade the possibility of identification necessary to be considered 'companion species' (Haraway 2003): the possibility of *empathising* with the swarm is too speculative, since identification is a requisite for empathy. It is one of the arguments of this thesis that a more ethical and effective position—one demonstrated by several of the works collected in this study—is that of compassion *without* identification.

The swarm is differentiated by its sensory, ecological and mobile attributes from the two other modes of understanding society in the twentieth century—the crowd or the mass— and from the twenty-first century model of the network. Michel Foucault locates the replacement of the crowd with a 'collection of separated individualities' as the marker of modernity's 'governmentality' (Foucault, 1977, 201). These systems of biopolitical control were essential to turn populations into the productive units theorised as the mass—a model of agglomerated bodies—in *The Communist Manifesto* (Marx, [1848] 2008).[57] In addition, the human crowd was emblematic of modernist engagements with impersonality and facelessness: Benjamin's 'shock experience' compares the experience of walking busy city streets with that of working on a production line (Eiland, 2003, 328).[58] Unlike the crowd, the swarm is

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[57] Foucault defines biopower as a 'technology of power centered on life' (Foucault and Hurley, 1979). He contrasts the age of biopolitics, characterised by 'the right to make live and let die' with the sovereign 'right to take life or let live' (Foucault, 2003, p.241).

[58] Benjamin writes that moving through a busy city 'involves the individual in a series of shocks or collisions' of both '[h]aptic' and 'optic' kinds (Eiland, 2003, p.328). He goes on to compare the 'shock experience [*Chockerlebnis*] which the passer-by has in the crowd' to those other modern developments, the 'rhythm of production on a conveyor belt' and the rhythm of film, in which 'perception conditioned by shock was established as a formal principle' (Eiland, 2003, pp.328-29).

unrestricted by a preview limited to the human, and it is more decentralised, mobile and unpredictable than the mass. Meanwhile, the technological—and often technophilic—model of the network is often seen as 'the paradigmatic mode of representing global culture' (Thacker, 2004, np; see Castells, 2000). Unlike these alternatives, the ecological model of the swarm captures ecological, contemporary and biopolitical concerns. The network is a model of a continuous, all-encompassing global network, whereas the swarm is a local and temporary phenomenon: its movement is always on the point of ceasing, its members on the point of being dispersed. The network idealises communication as the foundation of sociality, as well as market productivity. In contrast, through the disembodied sensory, swarmic representations decentralise and challenge verbal communication. The network is idealistically disembodied and the mass almost threateningly embodied. Conversely, the swarm blurs the line between the embodied and disembodied.

A brief overview of recent emergences of the swarm in cultural production will give an indication of the breadth of interest the swarm currently attracts and the variety of meanings that the swarm can inhabit. The swarm is often mobilised as a political metaphor or parable, in order to critique autocratic control. Recent examples of this can be found in Laline Paull's recent novel, *The Bees* (2014), which narrates one bee's resistance to the control of the hive; *White God*, a Hungarian film about a canine rebellion (Mundruczó, 2014); and *Isle of Dogs*, which, set in a future Japan, tells a similar tale of a state-orchestrated campaign to eject supposedly diseased animals to an island used for waste disposal (Anderson, 2018). Anthropomorphism is a clear operating principle of *The Bees* and *Isle of Dogs*, and while the realism of *White God* makes this more muted, it is voiced in a news bulletin that warns that 'the dogs aren't acting like animals, but a well-organised army' (Mundruczó, 2014). These works join a history in popular culture of representing a 'horrific transformation of human societies into inhuman, insect/communist ones', which Eugene Thacker traces back to Hitchcock's *The Birds* (Thacker, 2004, footnote 5, np; Hitchcock, 1963). The terrifying image of the swarm as an unthinkable order, or as nature incomprehensibly veering out of control, comes to be uncomfortably human, considering all too familiar histories of autocratic oppression that are still very much present with us today. The terrifying knowledge that such histories can be—and are—repeated can imbue swarm visions of possible futures (as well as a real or perceived present) with a certain paranoia, a fear that may be felt by, for example, minority populations under threat.

These representations arise from understandings of the swarm as a 'form of centralised control' and 'top-down management' (Thacker, 2004, np). The existence of a 'queen bee', however, is refuted by current scientific understandings of the swarm as a complex system that traces the emergence of the swarm's 'global intelligence' from local interactions between swarmic members (Thacker, 2004, np). Ahead of a fuller discussion of swarm intelligence (the application of adaptive algorithms to natural systems) and its troubling applications, an indication of the artistic explorations of this newer conception of the swarm is needed. An arguably technophilic use of such artificial life (A-Life) systems is swarm music, an 'improvisational music system based on the dynamics of insect swarms' (Blackwell, 2003, p.41). A more critical exploration of swarmic algorithms can be found in the artist Ollie Palmer's *Ant Ballet* (2012), which manipulates the movements of ants by reproducing pheromone trails (chemical paths which ants create to signal to the rest of the swarm) in order to raise questions of control and paranoia similar to those posed by *White God* and *Isle of Dogs*.

Closer to the concerns of the ecological works I will analyse in this thesis are contemplations of bees in recent poetry collections. In Carol Ann Duffy's *The Bees* (2011), the honeybee is a register of ecocritical demise and symbol of nature in need of protection. In Sean Borodale's *Bee Journal* (2012), the possibility of attachment between the beekeeper and the swarm is posed. Ecological destruction and the possibilities of human connection with the swarm are issues central to Graham's poetry and Castaing-Taylor's and Paravel's documentary films. Perhaps closest to these artistic works, their swarms crossing species boundaries, is a third poetry collection. Mark Doty and Darren Waterson's *A Swarm, A Flock, A Host: A Compendium of Creatures* (2013) reinvents the genre of the bestiary, a tradition of animal writing which places poems alongside images. Like Doty and Waterson's visual and verbal work, the films and poems I will be studying combine media, drawing on different phenomenal stimuli to achieve a sensory aesthetic.

Recognising the unsettling alterity of the swarm, the collection of films and poems brought together in this thesis consider the possibilities that emerge from a sensory engagement with beings foreign to the human. In these ecological and sensory deployments of the swarm, I see the possibility of recuperating the swarm as a means of garnering insights into the human condition. As Mark Doty writes in the afterword to the collection, '[p]erhaps we only know what it is to be human in contrast to something else' (2013, np). However, the uncanny likenesses that appear in swarms deployed as parables also appear here. Ecological and sensory deployments of the swarm, as I will suggest, operate through a dual recognition of the swarm's

unsettling *difference* and uncanny *likeness*. This makes them more able to resist both the othering impetus of cultural works which present the swarm as something to be protected, as in Duffy's poetry, and the anthropomorphisation of political allegories. These works are also less susceptible to cooption by less-than-progressive forces than, for example, the artistic applications of swarmic algorithms.

The Dangers of the Swarm

The swarm has the ability to join a diverse group of agents within one collective, and of making space for cross-species and more-than-human encounters. Alongside the swarm's multispecies heterogeneity is its self-organising capacity and its decentralised structure. The combination of these attributes has led to the swarm being welcomed as holding radical potential. In their recasting of the proletariat as a web of heterogeneous yet connected workers, Hardt and Negri follow Deleuze and Guattari in celebrating the swarm as offering a political alternative (Hardt, 2005). However, the possibilities of the swarm come with attendant risks. Placing emphasis on the ways in which identity is subsumed within the swarmic collective risk homogenising the difference of the swarm's individual members. Such presumptions of similarity cannot account for the experiences of differently situated individuals that feminist and class theorists have long worked hard to highlight.

By deploying the swarm as an analytic to respond to artistic objects, my work runs similar risks. It will be necessary to avoid homogenising the different implications of the variously peaceful and predatory, human, animal and machinic swarms that emerge in the films and poems. First and foremost, on the level of cultural objects, my cross-media approach must remain alert to the obvious differences between films and poems. The poems and films are approaching similar questions from different angles, but the media are ineluctably different. My close-readings are a key way of remaining sensitive to the differences of the films and poems under study. In addition, to avoid aesthetic determinism, it is essential to stress that the effects of an encounter with the artistic work cannot be assumed, still less predicted.[59]

A related danger that my analysis, as well as the artistic works themselves, face is that of denying human agency by reducing human subjects to members of a swarmic body. As

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[59] See David Ingram's critique of 'assumptions about audience reception' which he claims are common in ecocritical approaches based in Continental philosophy (Ingram, 2014, p.462). Ingram's preference is for a cognitive approach, and as such he offers important critiques to studies—including this one—that draw on Continental philosophy.

explained in my development of the concept of the disembodied sensory, I want to argue here that the films and poems strive through their aesthetics to offer the audience a suspension of selfhood which can open them to a renewal of subjectivity. Here, the swarm reveals its more troubling attributes. It approaches the ethics of identification of 'deep ecology', a school of ecological thought developed by Arne Naess that has been critiqued for its invitation to surrender individual agency: as John S. Dryzek notes, 'willing immersion in a larger 'Self' is […] surely the essence of totalitarianism' (1995, p.105).[60] Whilst I propose that the 'disembodied sensory' is a critical tool deployed in the films and poems under study for progressive ecological effects, its mode of operating comes dangerously close to more sinister forms of persuasion.

My approach also risks fetishising, if not idealising, the alterity of the swarm. The danger of figuring the swarm as the epitome of nonhuman alterity is that it can position the swarm outside of human power structures and 'histories of violence and exploitation' (Shukin, 2009, 37). Nicole Shukin makes these related critiques of two major figures in early animal studies, Deleuze and Derrida.[61] If the risk of privileging alterity is characteristic of early animal studies, the work of Donna Haraway, among others, has turned the tide of more recent scholarship, in which nonhuman animals are now largely welcomed as 'companion species' (Haraway, 2003; 2008). While a pet dog or cat is a likely candidate for such a title, the extent to which identification with the *swarm* is possible is one of the central questions of this thesis, along with the related ethical question of whether we cannot work rather to give 'care and rights […] to those deemed different or unconnected' (Hochman, 1998, 177).

For, as well as caricaturing the swarm as a model of alterity, the inverse—that of anthropomorphising the swarm—is also a risk. This might operate as investing swarms with human characteristics—as in Laline Paull's novel, *The Bees*, mentioned above—or as using the swarm as a mere metaphor for human thought, as in Thoreau's reverie that '[t]hese sparrows, too, are thoughts I have' (Thoreau, 1984, p.124-25). This has long been an area of contention within animal studies, as well as the environmental humanities more broadly. As Lorraine Daston and Gregg Mitman note, 'anthropomorphisation (and its converse, zoomorphism)

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[60] Arne Naess's movement of deep ecology was developed on the conviction that the 'value of nonhuman life-forms is independent of the usefulness of the nonhuman world for human purposes' (Naess, [2008] 2016).

[61] Of the Deleuzian concept of 'becoming-animal' (Deleuze, 1988, p.242), Shukin writes that it 'arguably fetishizes affect as an animal alterity that eludes rather than enters into the calculations of power' (2009, p.31). Similarly, she argues that 'The Animal that I Therefore Am'—a landmark essay for animal studies in which Derrida emphasises the 'absolute alterity' of his cat—occludes the animal's position as a 'historical subject' (Derrida, 2002, pp.374, 38).

remain matters of intellectual and ethical ambivalence', the former 'sometimes seem[ing] dangerously allied to anthropocentrism', but can also be an example of 'a virtuoso but doomed act of complete empathy' (2006, pp.3, 4, 7).[62] The question of how the swarm is situated in the debate between alterity and anthropomorphism, however, needs no decisive answer for the tension between familiarity and difference emerges from—and is counterpointed in—the swarm itself. As Doty writes in the afterword to his swarmic bestiary, the 'secret of these creatures' appeal' may be that 'they are like us, in their appetites, their foibles, and their mortality, and yet they bear hooves or tails' (2013, np): they are both like and unlike.

Shukin's critique of Deleuze's swarm as being insufficiently attendant to the 'historical actuality' of animal groups (2009, p.31) resonates with my own conviction of the importance of locating the swarm in its historical and political context. It is the intention of this study to imbue the Deleuzian swarm with a recognition of the historical and material conditions that both give rise to the swarm and bring it to an (often violent) end. I shall do so by exploring the biopolitical questions of *predation*, *control*, and *waste*. These are concerns of the three chapters of this thesis in which, broadly speaking, aqueous swarms are prey; land swarms are subject to control; and, in the final chapter, political ecologies mark waste bodies as swarmic. As well as being present in my primary materials, these issues also speak to central attributes of the swarm: its opportunism, its 'hive mind' and its profusion.

The risks of the swarm can be seen clearly in a history of its applications beyond the artistic, theoretical and critical realms. The radical potential of the swarm's dispersed authority has been used both in embodied and digital activism as diverse as flash mobs, guerrilla warfare, and hacker groups: notably Anonymous also call themselves The Swarm. At the same time, a subset of artificial intelligence (AI) called 'swarm intelligence' (SI) has enabled the use of swarm behaviours for *containment*. Swarm intelligence is a concept employed in work on artificial intelligence that operates through a set of algorithms inspired by the collective behaviour of decentralised, self-organised systems seen in natural biology. Birds flocking, fish schooling and animal herding are examples of swarm intelligence in natural systems. Swarm intelligence studies the way in which members follow simple rules, but generate, through their interactions, a kind of composite intelligence; in the words of the industry, 'the emergent collective

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[62] Daston and Mitman write that '[t]hinking with animals can take the form of an intense yearning to transcend the confines of self and species' (2006, p.7).

intelligence of groups of simple agents' (Bonabeau, 1999, xi).[63] This has various benign applications including in media production, creating simulated crowd scenes in films, and, in biotechnology, identifying cancerous tumours.[64]

Swarm intelligence has also been deployed for more sinister ends, to counter the very resistance the swarm offers. Organisational, technological and military applications use swarmic algorithms to predict and manipulate human movements and behaviours (Parikka, 2010 in Iveson, 2013). Almost as soon as the swarm was developed as a site of biopolitical resistance, it was subject to what Jake Kosek terms 'technocapitalist capture' (2010). In relation to drone warfare, Kosek describes how swarming is 'a form of collective action that has been recently appropriated by Pentagon strategists' (2010, p.653).[65] Far from its origins as a liberatory mode, the swarm has come to be seen as an orthodoxy of oppression.

Whether this holds true within digital and communication studies is a question that lies beyond the scope of this thesis. Tracing a different legacy of the swarm—that of the artistic, the ecological and the sensory—I will argue that the swarm is not only recuperable, but is a crucial tool in living beyond the restrictions and restructurings of the contemporary moment. Here I return to Graham's description of the potential of poetry as 'a contagion […] from body to body' (2003, np). It is in this manner, I suggest, these swarmic works offer new ways of transferring insights into the human condition at this ecological and biopolitical moment, and of resisting oppressive deployments of the swarm. Taking into account the swarm's loaded history of signifying both resistance and control, it is important to remain aware of the possibility that these deployments of the swarm can do damage. This thesis therefore takes the multispecies and the sensory as starting points and counterpoints them with an awareness of the social, ethical and biopolitical implications of the swarm as invoked by these creative artists.

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[63] Describing SI as the 'social insect metaphor for solving problems', Eric Bonabeau and colleagues explain that it 'emphasizes distributedness, direct or indirect interactions among relatively simple agents, flexibility, and robustness' (Bonabeau 1999: xi).

[64] Bonabeau and colleagues summarise the areas of applications of SI as 'combinatorial optimization' (such as determining the optimal route for deliveries), 'communications networks, and robotics' (Bonabeau, 1999, xi).

[65] Given the centrality of Deleuzian theory to swarm intelligence, Deleuze's comment that 'societies […] have always appropriated these becomings in order to break them' is insightful and ironic in equal measure ([1988] 2004, pp.247-48).

Swarmic Ecologies

The spatialisation of connections is central to the swarm. Accordingly, this thesis takes as its organising structure the study of interrelation that is ecology.[66] Organising the chapters according to land, aqueous and urban ecologies enables each chapter to incorporate the fluidity of species and elements, whilst maintaining a coherence based on types of location and degrees of mobility. Given the swarm's challenges to ontological boundaries between species, as well as between the human, animal, and machine, organising the thesis by species would be untenable. A strict demarcation between elements (water, air, earth, fire), is also undercut: the water and air mix in sea spray, and earth and fire mix in construction yards and factories.[67] The organising principle of ecologies is sufficiently loose to incorporate these combinations and distinctions. I will structure this thesis around a triptych of ecologies—the *pelagic*, *terrestrial* and *political*. Structuring my chapters around ecologies prevents this thesis from treating the environment as a mere background to the swarms under study. By including political ecologies and urban locations in my ecocritical project, I join Michael Bennett in striving towards a 'social ecocriticism' capable of responding to the complex interrelations of urban and non-urban places and things (2001, p.32). This broader ecocriticism must, in Lawrence Buell's words, take 'urban and degraded landscapes just as seriously as "natural" landscapes' (2005, p.22).

With appropriate fluidity, I place selected poems from Graham's millennial collections alongside, and in conversation with, the feature-length documentaries of Lucien Castaing-Taylor and Véréna Paravel, and the short films and installations which were created around these films. The feature-length films *Sweetgrass*, *Leviathan*, and *Foreign Parts* have a clear focus on land-based, aqueous and urban swarms respectively. Ecologies are porous, however: water rushes through into *Hell Roaring Creek*, one of the short films surrounding *Sweetgrass*, and seeps into *Foreign Parts*, which documents a junkyard frequently overtaken by giant puddles. Similarly, whilst each of Graham's collections has its emphasis, the swarmic presences within them once again evade any strict categorisation. By opening each chapter to the three collections of Graham's under study, the thesis remains open to less obvious appearances, whilst broadly responding to the prominence of the aqueous swarms in *Never*, the machinic in *Swarm*, and the political landscapes of *Fast*.

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[66] Ecology is the study of 'the relationships between living organisms and their environment' and those between 'people and social groups and their environment' (OED Online, 2014: ecology, n. 1a, 1b).

[67] For an insightful look at the elements from the perspective of ecologically conscious media studies, see J. D. Peters' *The Marvelous Clouds: Towards a Philosophy of Elemental Media* (2015).

The stability of the elements shifts across the chapters: from the fluidity of water to the stability of land to a fusion of the two in the porous urban space of a flooded junkyard in *Foreign Parts* and the bushfires of the desert in *El Mar La Mar*. Rather than chronology, the main justifying principle of my chapters is to gradually expand common conceptions of the swarm from the speed of three-dimensional swarms. As such, the opening chapter on aqueous ecologies is populated by creatures that are relatively familiar to conceptions of the swarm: flocking birds and shoals of fish. It then moves to swarms based on land: the sheep in *Sweetgrass* are familiar, tameable, and easily anthropomorphised when seen in small groups, but when amassed as a herd of three thousand come to be as unsettling as any swarm. In the final chapter, I consider the still stranger swarms of machines and cars, and the human and machinic swarms in the poems selected from *Never* and *Fast* alongside *Foreign Parts* and *El Mar*. This progression allows me to expand my definition of the swarm and explore the limits of what the swarmic can do in these poems and films brought together in the thesis.

The progression of chapters also follows a loss swarmic speed, starting with the vertiginous mobility of three-dimensional swarms of the air and sea, the steady progress of the land-based swarm, before considering swarms that are losing momentum, and the various attempts to mobilise them by members within the group, and attempts to move them on made by external figures. This consideration of the semi-mobile swarm allows the thesis to close by evaluating the ways in which the works under study may work to combat the lack of momentum in environmental movements in different contexts.

Broadly, each chapter asks the following questions. Firstly, can representations of the unstoppable motion of pelagic swarms extend compassion to the nonhuman, and yet maintain political urgency and a recognition of the differences between human and animal suffering? The political and ecological message of *Leviathan* is to be found in its bewildering portrayal of the predators and prey at sea as rendered by the exploitative practices of the fishing industry. The motion of the shoals and flocks is contrasted with the human figure in Graham's shoreline poems, in a way that validates the importance of contemplation, but also warns against human inaction in the face of ecological crisis. Secondly, what can a consideration of negotiations of distance by the apparently peaceful land-based swarm reveal about human intimacy and nostalgia? The sheep herders who traverse great distances together in *Sweetgrass* seem to share an intimacy as unspoken as the connection among the flock, whereas this bond is strained by emotional and physical distance for the couples in Graham's poems, 'What The End Is For' and 'The Swarm'. Thirdly, the final chapter asks whether the temporarily immobile swarm can

offer a model of resilience that suggests a form of community that operates outside of the harsh decisions of inclusion and exclusion. The homeless woman in Graham's poem, 'High Tide', slips beyond the pity of the passer-by in a poem that augurs the fate of some members of the community that hovers around the junkyard that is destined for redevelopment in Paravel's film, *Foreign Parts*; the people in 'Honeycomb' and *El Mar La Mar* are subject to very different kinds of surveillance.

In sum, this thesis aims to develop a conceptualisation of the swarm that reveals its ecological and social possibilities. Uncountable and unpredictable, the swarm will always exceed any attempt to contain it, and this project makes merely an initial step in the potential explorations of the sensory swarm. As well as continuing the inquiry into the broader concerns of the artists selected, the approach to the swarm developed here could equally be applied to different representations and performances. What human-animal becomings might emerge when a human group dances the swarm? How might a photographer, a sculptor or a painter capture the swarm's inherent mobility in their static medium? These questions, whilst they may hover in the air, must remain unanswered in the course of this thesis. By settling on a small group of heterogeneous cultural objects, this thesis seeks to rejuvenate discussions surrounding its selected artistic works as well as more broadly within materialist approaches, in the hope that this will pave the way for future swarmic explorations that are motivated by interests of their own.

Chapter One

Pelagic Ecologies in Jorie Graham's 'Prayer' (*Never, 2000*) and 'Deep Water Trawling' (2014) and Lucien Castaing-Taylor and Véréna Paravel's *Leviathan* (2012) and *Still Life / Nature Morte* (2012)

Jorie Graham's coastal collection, *Never*, opens by observing the motion of one of the sea's swarms: 'Over a dock railing, I watch the minnows, thousands, swirl' ('Prayer', 2002, p.3). The observation of the shoal of fish becomes an experience, at once sensory and contemplative, that builds to generate an ethical reflection that leaves its speaker more aware of the invisible and planetary forces all are subject to. As such, this short poem, 'Prayer,' demonstrates the core aims of Graham's use of the lyric. It also highlights the central concerns of this chapter: how representations of what I term pelagic swarms—shoals of fish and flocking birds—are enabling for the development of an ecological consciousness based in both immersion and contemplation, cognition and affect; how attempted engagements with those swarms might suggest an ethics beyond identification; and how the combination of swarmic presences and the lyric mode is used in both film and poetry to reformulate modes of subjectivity.

In this chapter, I have selected four works—two poems and two ethnographic films—that are located in the pelagic zone. The pelagic, contrasted with both coastal areas and the deep ocean, denotes that part of the open sea where water meets air. The continual collision of elements only heightens the instability, as experienced by the human visitor, of a world far from land. This part of the planet's waters is known for the richness of life it contains; most importantly for this chapter, it is a place replete with aqueous swarms. As outlined in my Introduction, one of the purposes of this thesis is to broaden traditional notions of the swarm beyond the insect world to incorporate any species that amasses in uncountable, mobile

groups—'superorganisms' that behave as one according to the principles of self-organisation.[68] Later in the thesis, I will expand my use of the swarm as a multi-species phenomenon to include nonhuman mammals, machines and even humans. Beginning more modestly, this chapter remains linked to significant bodies of biological research that treat flocking birds and shoals of fish as three-dimensional swarms.[69]

This chapter focuses on Graham's, Castaing-Taylor's and Paravel's representations of the swarms of the sea. The pelagic swarm is as generative for Lucien Castaing-Taylor and Véréna Paravel's explorations of the position of the human subject in their feature-length film, *Leviathan* (2012) as it is for Graham's lyric 'Prayer.' Whilst Graham's poem begins with grounded contemplation before moving into a sensory immersion in the swirling minnows, the opening of Castaing-Taylor and Paravel's *Leviathan* is immediately disorientating and almost abstract: unmediated by an identifiable subject, the viewer only gradually locates the opening sounds and images of abstract colour as those of a fishing trawler. I put these two works alongside Paravel and Castaing-Taylor's *Still Life / Nature Morte* (2013), a short film that stays within the enclosed, if not fully domesticated, space of the fishing trawler's galley.[70] Graham's poem 'Deep Water Trawling' (2014, 41), which, like *Leviathan*, plunges the viewer into proximity with shoals killed in industrial fishing, but then strays beyond the trawler into the unknown swathes of the deep ocean. Notwithstanding the formal, aesthetic and ideological differences of Graham's poems and Castaing-Taylor and Paravel's films, these works share an interest in engendering a renewed sense of the relationship between the human and the sea. Moreover, they are all examples of what I will term the 'ethnographic lyric.' Counterpointing these works, I want to explore the potential that swarms of the ocean hold for catalysing new forms of representation and new forms of subjectivity which both challenge the myopia of human exceptionalism (see Introduction) and retain a sense of political urgency.

Despite the sea being a foreign environment to humans as a land-based species, and indeed its creatures being alien to human touch, the sea has always been central both to the

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[68] See Introduction for a discussion of Bert Hölldobler and E. O. Wilson's work on the 'superorganism' as a 'colony' made up of 'closely cooperating animals' (Hölldobler, 2009, p.4).

[69] One example of the behaviours of shoals of fish and flocks of birds being analysed in terms of 'the dynamics of a swarm' is Allison Kolpas and her colleagues' study, which found that the response of 'a few individuals' to a predator or food source triggers 'a cascade of responses ultimately leading to the group changing its direction of motion' (Kolpas et al., 2013, p.10).

[70] *Still Life / Nature Morte* (hence *Nature Morte*) is the exception in this grouping in not containing any nonhuman animals. By including it in this chapter, admittedly briefly, I want to attend to the ways in which this short film, like, I contend, *Leviathan*, works to recentre the human.

human imagination and to human enterprise. It is also one of the sites in which the deleterious impacts of anthropogenic change on the planet can be most clearly felt: increasing ocean temperatures and decreases in maritime diversity may be beyond the everyday perception of human populations, but they are brought home as sea levels rise and fish stocks fall. As noted by scholars working in the 'Blue Humanities'—a field of scholarship that investigates representations of the sea—in the age of the Anthropocene, 'uncomfortable and disorientating entanglements of sea and self have become increasingly relevant to twenty-first-century writers, artists and activists' (Mentz, 2018, Para 11.31). While far from axiomatic, the Anthropocene remains the most apposite term to describe, at a broad level, the ecological conscience that drives the works combined in this chapter.

Focusing particularly on the seemingly innocuous shoals of fish within the works studied in this chapter, I will consider how aqueous swarms enable considerations of ecological connectivity, control and impact that underlie humans' changing relationship to the earth and its waters. The short poem 'Prayer,' which opens Graham's earliest explicitly ecological collection, in which the waters of the coast are a continual presence, is a meditation on the state of the human species as it enters a new millennium with a dawning awareness of what is now known as the sixth great extinction (Ceballos, 2015). *Leviathan* points to both the human and nonhuman cost of the brutal industry that is North American commercial fishing, while its companion piece, the short film *Still Life / Nature Morte*, focuses unblinkingly on the exhausted workers resting below deck. Finally, Jorie Graham's recent poem, 'Deep Water Trawling' reads as a response to *Leviathan*, not only in its subject—'trawling-nets by catch poison ghost fishing' (2014, p.41)—but also in its ambiguously shifting perspectives, through which the poem variously speaks as the fish, the sea, the ship, the fishermen and the reader.

Drawing these works together, this chapter begins by considering the specificities of pelagic ecologies in terms of scale, aesthetics and affective mode.[71] From there—acknowledging the centrality of abstraction to both the perception and the representation of the swarm—I consider how representations of pelagic swarms in these poems and films re-work the lyric into communal and located forms. I then explore how the representations of swarms and atmospherics (a term to which I will return) in 'Prayer,' *Still Life / Nature Morte* and the opening

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[71] By using the term 'pelagic ecologies' rather than the broader term aqueous ecologies, and so referring to the ocean rather than to water, I am referring to these works' interest in the maritime implications of humanity's relation to the sea. This does not require the works to be located in the open ocean. Graham's collection *Never* mainly considers our ecological impact from a coastal position; although, of the poems in this collection, 'Prayer' is situated closer to the open sea, with the lyric subject standing on a pier suspended above the water.

sequences of *Leviathan* counterpoint the modes of immersion and contemplation. Lastly, turning to the latter portions of *Leviathan* and to Graham's recent poem, 'Deep Water Trawling,' I attend to the cosmological elements of the works and ask what vision of the human they offer.

Pelagic swarms are groups of conspecifics (members of the same species) that swarm together naturally in water or air. In their ability to move so fluidly in elements foreign to the human, they have been perceived as archetypal figures of freedom.[72] In place of the utopian freedom commonly associated with the oceans' flocks and shoals, the films and poems studied in this chapter are portraits of industrial slaughter at sea and contemplations of species loss. As such, they are emotive and political in equal measure. The fish in *Leviathan* and 'Deep Water Trawling' are seen to have been reduced by human action (aided by machines), from pulsating shoals to crushed masses of sea creatures that would not naturally swarm together. The gulls in *Leviathan* remain beyond the reach of human capture, as does the shoal of minnows in 'Prayer'; however, the film and poem show each of these pelagic swarms to be deeply affected, not only by broader ecological forces but also the effects of human action that have long reached the sea floor.[73]

Whilst the prospect of orchestrated killing or purposeful abandonment to death is a possibility for both humans and nonhumans in nearly all of the works discussed in this thesis, it is only in *Leviathan* and 'Deep Water Trawling' that systematic butchery itself is directly represented. Characterised by such deadly power relations, these works operate more strictly in the realm of necropolitics than biopolitics.[74] Questions of control, agency and power in the relations between humans and nonhumans are central to the ethical and political questions of this thesis as a whole. Within this discussion of maritime slaughter, these questions are posed particularly close to the blade. Immersion is a dual abandonment, to life, but also potentially to death.[75] By beginning this thesis with the sea, I begin with a place of origins (of life on our planet). But counterpointed with this is the notion of the sea as a place of death, from human drowning to the 'dead zones' of the deep ocean (Graham, 2014): from dust to dust, yes, but so

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[72] Discussing 'the freedom of fish and birds,' Sean Cubitt sees 'in their streamlined shapes, the perfection of their adaptation to their environments, and their ability to move in three dimensions' a 'distant utopian gleam' (Cubitt, 2005, p.49).

[73] As Stacy Alaimo states matter-of-factly, 'everything in the ocean has already been touched by human practices, if not human hands' (2014, p.194).

[74] As was outlined in the Introduction, both biopolitics—theorised by Foucault as governmentality's 'systemic monitoring and regulation of living organisms' (Quinan 2018, Para23.14)—and the related paradigm of necropolitics, which analyses 'contemporary forms of subjugation of life to the power of death' (Mbembé, 2003, p.39), are of key importance to this thesis.

[75] See Chapter Three for a discussion of the swarm as a life-giving but also death-carrying force.

too—considering 'our bodies' mostly watery constitution' (Neimanis, 2017, p.3)—from water to water.[76]

Pelagic ecologies

By arranging my chapters according to ecologies—of water, land and politics—I am responding to the centrality of place in the works I am studying as something both sensed in a phenomenological way and understood geopolitically. All of the works (though particularly the films) are 'atmospheric' insofar as they convey not only a mood or an emotion but an atmosphere, something not located in a human individual or group but characterised by, in Jesse Oak Taylor's words, a 'dispersive, everywhere-and-nowhere' quality (Taylor, 2016, p.69; see also Böhme, 1993). The works draw on the dispersal of atmosphere—something that makes it 'a space in which interiority and exteriority intermix and in which our being blends with others' (Taylor, 2016, p.68)—in order to situate human perception in a broader environmental context.

In the works under study, there are two primary swarms: flocking birds and shoals of fish. The gulls are a voracious swarm, but the fish are the prey of a voracious industry. Being both a nutritious food source (and, as such, central to trade) and difficult to anthropomorphise, fish are victims of the systems that mean that, as Anat Pick remonstrates, 'when it comes to animals, power operates with the fewest obstacles' (2011, p.15).[77] Meanwhile, while chickens have long been bred solely for human consumption, sea birds remain undomesticated and, excepting the eggs of certain species, are by and large not hunted by humans.

Mainstream nature documentary representations of the swarm in nature usually place the human in a passive relation to the swarm. The artistic works I study are unusual in that they counterpoint the voracity typically associated with the swarm (in the gulls in *Leviathan*) with the *fragility* of the swarms of fish, placing humans as predators rather than prey. This predation is shown to occur either directly, as witnessed by the film *Leviathan* and poem 'Deep Water Trawling,' or indirectly through ecological degradation and mass extinction, the subject of Graham's collection *Never*.

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[76] *Forest of Bliss,* Robert Gardner's lyrical record of the rituals surrounding death in Benares, India, is a powerful consideration of bodies of water (here, the River Ganges, rather than the ocean) as sites of both life and death.

[77] The difficulties in anthropomorphising fish places them among the nonhuman animals most vulnerable to what Cary Wolfe describes as 'the *institution* of species*ism*' (Wolfe, 2003, p.2: original emphasis).

The swarm is often seen as unremittingly negative and threatening—a troublingly mindless body that bombards, engulfs and is beyond human control. This is particularly true of the most alien swarms of the sea and sky which move in disconcertingly perfect symmetry, and in elements in which the human is robbed of a firm footing. Shoals of fish and flocks of birds move *through* their respective elements of water and air, but also move *between* them, just as these elements combine in the turmoil of the ocean's atmospherics to form haze and spray. Moreover, birds and fish, moving in currents of air and water, can also form currents themselves.

Human beings, of course, are unable to perceive these currents, except by inferring them from the sight of a flock or a shoal; as such, the swarms' movements through these unknown elements are ineffably fascinating. This is one reason why the constant flux of the sea's swarms is so mesmeric and beautiful, and indeed why these fluid bodies are an archetypal object of contemplation. However, contemplation implies a cognitive control that runs in tension with the undeniable alterity of these pelagic swarms and the constant motion of the elements. Pelagic elements have neither the stability of land ecologies nor the familiarity of urban and domestic spaces (as will be explored in the following chapters). In keeping with this, the swarms found at sea are more alien and more uncontrollable.

The degree of the aqueous swarm's alterity is revealed most by its relationship to touch. Naturally, flocks of gulls fly and fish swim in their foreign elements untouched by both humans and each other. Whilst a flock or shoal seen from afar, moving uninterrupted, inspires contemplation, when this separation is breached, the beauty of pelagic shoals' movements breaks down into violence. In contrast, as will be discussed in the following chapter, with domesticated animals such as sheep there is a physical closeness and familiarity that allows humans to manoeuvre them. Untameable and indifferent to human instruction, the shoals of the sea cannot be nudged or dictated to, only captured by deadly nets.

The sea is an alien environment: unlike sheep, which have lived on land alongside their herders for millennia, aqueous swarms inhabit elements—the 'inhuman ocean' (Mentz, 2018, Para11.28) and the open sky—in which the human can only be a visitor.[78] There can be no mutual touch between human and the untameable aqueous swarm and this makes them peculiarly haptic—in the sense of its Greek derivation, ἅπτω; 'I fasten onto, I touch.' Captured

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[78] As will be explored in the following chapter, Castaing-Taylor is aware of the long history of humans and sheep: 'Sheep and humans have existed uneasily with each other since we first domesticated them in Mesopotamia ten-thousand-odd years ago [...]; they were quite possibly the first domesticated livestock animal in history' (in MacDonald, 2013, pp.273-274).

by nets and robbed of their three-dimensional mobility, both human touch and the touch of their fellow members of the shoal can be fatal. Meanwhile, the discomfort felt by the powerless human when bombarded by the flock or engulfed by the shoal verges on that of violation. The ease with which contemplation can turn to an all-encompassing sensory immersion is a central attribute of aqueous swarms, which are faster moving than land-based or urban swarms. Accordingly, this chapter will explore the ways in which these works supersede a simple opposition of immersion and contemplation—and its root opposition of the body and mind respectively. Revealing the co-presence of these modes of experience, the works develop a contrapuntal aesthetics of simultaneity and shifting emphasis.

There are, of course, different swarms that populate the air and water of the pelagic zone. I will focus my discussion of these pelagic ecologies by emphasising the waterborne (shoals) rather than the airborne (flocks of gulls). These three-dimensional, waterborne and airborne swarms are often compared to each other in studies of swarmic movement and share an unbridgeable alterity stemming from their habitation of foreign elements. Nevertheless, shoals and flocks have distinct connotations. Airborne and unlimited by the sky, the flock of birds has long been associated with freedom and transcendence. The sudden movements of a shoal in response to possible threats that approach through murky waters appear more consonant with the struggle for survival. Whilst the swarm threatens the human with its potential to engulf, the shoal is in fact in a state of constant vulnerability, one that is ever increasing owing to human activity.

The attempt to survive is a central trope of documentary and ethnographic works, yet is rarely so for lyric contemplations and representations of pelagic swarms. This is one likely reason that fish—as Juliana Spahr has noted in passing—have been a less common lyric subject than the archetypal lyric bird (Goldsmith, 2016, p.412). It is the shoal and the attempt to survive that is the focus of the works selected for this chapter. Gulls form a backdrop of predators and appear as by-catch by turns. Humans, too, decentred from the main focus of these films and poems, appear as engaged in their own struggle for survival yet also as agents of marine destruction. My selection is certainly partial, made for reasons of scope and clarity, and it is particularly worth noting that Graham's poem 'Gulls' in *Never* reveals the survival impulse that also drives the birds. By focusing on these works' representations of fish, which I read as operating primarily in the lyric mode, I argue that these composite works combine the

ethnographic and documentary focus on daily life and survival with a lyric emphasis on consciousness, infusing their ethnographic lyrics with both abstraction and transcendence.[79]

A further reason that fish are a more unlikely lyric subject is that these creatures—which are not sentient in the same way as mammals—are, as I intimated earlier, less easily anthropomorphised. As well as representing the human attempt to engage with the ocean's creatures, the films and poems under study work to imagine and represent the phenomenology of the aqueous swarm. In so doing, the works at times make radical uses of 'humanization' to 'restor[e] the rights that human domination took from [them]' (Adorno, in Milne, [2001] 2014, p.361). We can observe this humanisation in, for example, brief visual parallels between close-ups of fish and human heads in *Leviathan*, and in the apostrophe to the butchered fish in 'Deep Water Trawling.' Without positing a subjectivity comparable to that of the human, *Leviathan* and Graham's aqueous poems attempt, through their respective aesthetic experiments, to portray the ultimately unknowable sensory experiences of the pelagic creatures they represent.[80]

As well as attempting to represent the sentience of the ocean's nonhuman creatures, the works under scrutiny in this chapter attempt to engage with—and exploit—this most alien of natural environments. With their focus on survival, consciousness and ambiguous intentionality, these works pose the question of whether they can represent the fragility and alterity of nonhuman bodies at the same time as revealing humans' relatedness to them. As such, they follow the two central undertakings identified by philosopher Val Plumwood for the 'ecological humanities,' tasks succinctly summarised by Deborah Rose and her colleagues as the needs to 'resituate the human within the environment, and to resituate nonhumans within cultural and ethical domains' (2012, p.3). In this, I see these ecological artistic works—whose makers are, after all, embedded in the ecological debates surrounding their respective academic fields—as sharing and developing the project now commonly referred to as the environmental humanities.

Another central mode of the swarm—and one that runs in tension with these aims—is its abstraction. When faced with the swarm's innumerability and its constant mobility, a loss of concretion (in other words, the ability to perceive swarming creatures as a material presence rather than merely optical phenomenon) occurs as a function of how we see. Likewise, the

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[79] See Chapter Two for a fuller discussion of the relation of the transcendental to the works.
[80] *Still Life / Nature Morte*, taking place entirely in the cabin of the fishing trawler, is the exception in this grouping in not containing any nonhuman animals and is a counter to the other works in this chapter.

swarm stretches the ability of formal representation to maintain a sensory depiction of an innumerable and shifting mass, and so abstraction occurs aesthetically. Artists attempting to represent the swarm commonly respond with strategies of simplification—abstraction, anthropomorphisation and metaphor—that hold both aesthetic and ethical risks. The human relationality, creaturely aspects (see Introduction) and ecological implications of the swarm are central to what I see as the ethical potential of the works discussed across this thesis. By counterpointing these aspects with abstraction, the works avoid treating the swarm as either opaque other or reflective surface of the human mind.

The perfection of the swarm's nonhuman organisation is so unsettling that, once perceived through aesthetic or theoretical simplification, there follows almost involuntarily an impulse to control it aesthetically and cognitively. Both literary anthropomorphisation and metaphor and visual mapping perform an abstraction of the swarm, revealing the order beneath the apparent chaos of the swarm, but losing its viscerality and vitality. The primary tools of rendering the swarm within the poetic tradition are those of metaphor and anthropomorphisation. An archetypal example of both is Thoreau's figuration of a flock of sparrows as a model of human thought:

> These sparrows, too, are thoughts I have. […] they flit by quickly on
> their migrations […] One will not rest upon its twig for me to
> scrutinize it. The whole copse will be alive with my rambling
> thoughts, bewildering me by their very multitude, but they will be all
> gone directly without leaving me a feather. (Thoreau, 1984, pp.124-
> 125)

In this passage, Thoreau responds to the unpredictability, inscrutability and transience of the airborne swarm by glossing over its alterity in order to reflect back his own thoughts like a mirror. Both Graham's poems and *Leviathan*, in contrast, aspire to avoid reducing swarms to a vehicle onto which human thoughts are projected. As outlined in the Introduction, much scholarship on Jorie Graham's poetry interprets her use of birds and other animal groupings as being a similar reflection of the poet's mind or a metaphor for the poet's script (Spiegelman, 2005, p.228). As I will argue in this chapter, however, the shoal of minnows in Graham's poem, 'Prayer' is not simply deployed as a reflection of the individual poet's mind, but rather acts as a lens through which the poem opens out onto the broader concerns of the human species, before returning to consider the implications of this for the individual lyric subject. The aim of gaining insight into the human consciousness through the swarm remains, but it is gleaned through a respect for the swarm's existence as an alien and unknowable natural phenomenon. Critical responses to Castaing-Taylor and Paravel's work, *Leviathan*, have been

much readier to embrace what is perceived as its posthumanism, but what has been less readily acknowledged is how this is counterpointed in the film with a core interest in the human. This interest is much more evident in the film's companion piece *Still Life / Nature Morte*. By including this short film—which focuses entirely on humans, but is just as discomfiting as *Leviathan*'s pelagic swarms—as a minor but important aspect of my discussion, I hope to illuminate the interest that is more latent in *Leviathan*.

The swarm is a body that poses considerable challenges to representation. As Burt says of 'slow motion shots of flying creatures or magnification for insects,' while the techniques used to record animal size and speed change constantly, the 'final imagery is often brought into some sort of visual or temporal *conformity*' (2002, p.87, my emphasis). Within documentary and arts of the moving image, the swarm is often treated as an entity to be mapped visually within the frame. The three-dimensional movements of airborne flocks and aqueous shoals make them particularly inviting for such tracings: being fluid yet delimited, pelagic swarms seem to invite filmic shots that capture the whole body from a distance. In this sense, the swarm is less able to escape the control of the camera than its counterpart concept of connectivity, the more invisible virtual network (see Introduction). This technique of distancing operates in a more contemplative mode, which is a mode of cognitive control and, as such, stands in contrast with the aesthetics of bombardment I have described. This is the common representational strategy deployed by mainstream nature documentaries, in which the swarm is a physically intrusive and threatening presence.[81]

While an aesthetics of proximity captures a sense of the hapticity of the swarm but loses a sense of the order that underlies its apparent chaos, techniques of distant mapping grasp the swarm as visual pattern but lose a sense of swarming creatures as living material bodies. The works under study in this chapter combine these aesthetics of proximity and distance, counterpointing the two as they shift perspectives to invoke both the swarm's symmetry and its hapticity. Some artistic representations that map the swarm draw on the techniques of swarm intelligence (SI)—in essence, a system of mapping through simplification and objectification which, as explained in the Introduction, algorithmically renders a swarm a model of 'nodes' and 'lines.' For an example, see the processed videos of 'small brains en masse' by US-based artist and professor Dennis Hlynsky (2013). Through a non-digital technique akin to time-lapse, these

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[81] I use the term 'nature film' rather than 'wildlife film' because, as Scott MacDonald comments, the former 'more comfortably includes the lives of insects and sea organisms' (MacDonald [2006] 2016, Footnote 2, p.981). See also MacDonald's discussion of the absence of critical attention to what is 'among the most popular documentary genres' (2010, p.56).

images visualise the paths of each member of a group of swarming animals.[82] In tracing the flight-lines of the swarm, Hlynsky's images obscure the swarming bodies themselves.

If aesthetic abstraction is a function of the limitations of human perception when faced with a mobile swarm, it carries ethical risks. Just as responding to the hapticity of a swarmic mass exceeds the capacities of traditional forms of representation, fully comprehending the subjectivity of a massed group of 'like' members exceeds the capacities of an individual. Our inability to recognise the individual subjectivity of swarmic members is an abstraction that occurs on the level of subjectivity. This is what Karl Ove Knausgaard has so affectingly described as the 'vanishing point,' the point at which compassion cannot penetrate the facelessness of the mass (2015, np). Knausgaard's illuminating comments on the ethics of the shift between individual and collective in creative forms were made in his acceptance speech for the Welt Literaturpreis in November 2015. Referring to the 'vanishing point' at which an individual becomes part of 'the mass human,' Knausgaard locates the ethics of the novel in 'the zone where the other moves between the definite and indefinite' (2015, np).

Delivered in the midst of the global migrant crisis, the central example of his speech is the powerfully re-singularising image of the drowned child that broke through the media coverage of this mass human movement described as a 'swarm' by then British Prime Minister, David Cameron (Elgot 2015). The possibility of empathy is foreclosed in derogatory invocations of the swarm, as well as by the swarm's impenetrability; however, empathy is also undesirable in its presumption of identification. Rather than arguing for the expansion of empathy, I want to argue for *compassion*, which can be granted to beings that we do not understand. As Derrida writes, 'a war [is] being waged […] between those who violate not only animal life but even and also this sentiment of *compassion* and, on the other hand, those who appeal to an irrefutable testimony of pity' (2002, p.397: my emphasis). In this, I also join Anat Pick's goal of working towards 'modes of observation and seeing that push against the endeared viewing positions in the visual arts: identification and exchanged looks' (2011, p.7).

The alternative simplification strategy for the moving image is to portray the swarm as static, as white noise. Sensed from up close, the swarm proliferates so far that it loses all order and all perspective. This strategy of swarmic abstraction, like its alternatives, ends by reinforcing rather than challenging this inability to recognise individuals within the facelessness

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[82] That this must be retrospectively constructed reveals the challenge of the swarm's mobility: even those movements that, seen individually, would not be too fast for human perception, become in their proliferation impossible for humans to take in in real-time.

of the mass. As such, all these simplifications can act as a barrier to compassion that may result from a more visceral, though not necessarily all-encompassing, witnessing.

Whilst swarmic abstraction holds ethical and aesthetic risks, it remains an integral mode of the swarm. Castaing-Taylor's, Paravel's and Graham's pelagic works respond to the aesthetics of abstraction invited by the swarm even as they emphasise the swarm's fragility, hapticity and alterity. This is iterated differently in the different ecologies. As will be explored in the next chapter, in Castaing-Taylor and Ilisa Barbash's land-based work, *Sweetgrass* (2009), there is clearer distinction between the counterpointed modes of distance and proximity; in Graham's collection *Swarm*, meanwhile, swarmic abstraction is the starting point into which the sensory has to be infused. In the pelagic ecologies, meanwhile, abstraction is reached through proximity, making the primary mode the visceral.

Leviathan invokes both the transcendent abstraction of gulls flocking and the physicality of their dives to feed on the ship's bycatch; both the abstract shapes of sea creatures trailing behind a net and the sensory reality and creaturely aspects of the dying haul on deck. Graham's 'Prayer,' too, treats the minnows as a metaphorical subject for the human species, but works through a visceral sense of their motion. As they attend to both the order of the swarm and to the deadly breakdown of that order, these artists' pelagic works seek to maintain textured representations capable of responding to both the metaphorical and the material import of the swarms. The works shift between sets of qualities, suggesting both the possibilities and limitations of human compassion for the swarm, a body defined by its undeniable alterity. In the next part of this chapter, I will argue that in 'Prayer' and *Leviathan*, the abstract and haptic, communal and individual modes of the swarm are counterpointed through an engagement with the 'singularity' of the swarm. I will now expand upon the concept of singularity and argue that these pelagic works reconfigure the individual *within* the mass through a process I will term 're-singularisation.'

Lyric Re-singularisation

Like the other works brought together in this thesis, these artists' films and poems of oceans and their creatures blend the documentary and the poetic, the ethnographic and the lyric. This combination of genres is differently inflected in the poems and the films, but the emphasis on the lyric mode is strongest in these pelagic works of both forms. Where the works I will discuss in the following chapters might be closer to lyric ethnographies, the films and poems under current discussion are what I term 'ethnographic lyrics.' While the poetics of

nonfiction film has been granted discussion (Renov, [1993] 2016), and the 'film poem' is an established genre, the specific combination of visual ethnography and lyric poetry has not been adequately explored. I use the term 'ethnographic lyric' rather than the more widely used term 'film poem' to respond to the specificities of the forms from which these composite works emerge.

These forms and media have their own distinct histories of representing the sea. The sea—often imagined as the world's most otherworldly space—has long attracted and exceeded attempts at creative representation. As Steve Mentz notes, the 'disorientating pressure of the inhuman environment of the sea has influenced artists and poets from Homer to J. M. W. Turner and beyond' (2018, Para 11.41). While poetry has been only indirectly influenced by the increasing access which technological developments have granted both documentary and ethnographic film, technological constraints have been both a barrier to exploring this largely nonhuman environment and an attractive challenge.[83] As such, despite the significant technological challenges, the history of ocean and sea-creatures in film is almost as long as that of the medium itself. The Lumière brothers' earliest films, as Sean Cubitt notes, 'show the affinity between 'the spectacle of the ocean' and cinema (2005, p.45). One of the primary influences on nature film, the series of Disney True-Life Adventure films (see MacDonald, [2006] 2016) began with *Seal Island* (Algar, 1948), followed four years later by *Water Birds* (Sharpsteen, 1952). Like the ocean itself, film as a medium has the potential to powerfully combine cognition and affect; as Renov writes, the 'explosive effects' of cinema are 'cerebral as well as visceral' ([1993] 2016, p.753).

Both the lyric and the ethnographic film are rooted in traditions of humanism: ethnography's disciplinary focus is on human communities; the lyric's is on the consciousness of the individual subject. However, the nonhuman has always been a constituent part of human experience, and accordingly these forms have from the outset been concerned with tracing how nonhuman animals and elemental forces physically shape their subjects' material lives, and appear symbolically in their social lives and psychologically in their interior selves. Rather than a so-called humanist representation being replaced by an ostensibly nonhumanist portrayal, the two have been imbricated from the beginning. If posthumanism—adapting Bruno Latour (1991)—suggests that we have never been *only* human, my approach, grounded in critical

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[83] See Sean Cubitt's chapter on the history of oceanic film (2005, pp.45-60); also Stacy Alaimo on exploring the sea as a means of developing technology, and as a parallel to space expansion (2014).

humanism, argues that we nevertheless continue to be human (see Introduction). As I argue throughout this thesis, the human and the nonhuman are joined in a contrapuntal relationship.

As Jonathan Burt has noted, '[c]apturing animals on film presented technical challenges, which in turn reinforced the novelty of film via the animal's own potential for novelty and its power to fascinate' (2002, p.85). This is all the more true of animals that live out at sea, which most people never have the opportunity to see first-hand. This filmic (re)production of fascination applies to both wildlife films, which focus more or less exclusively on the animal, and on forms of film that explore the relationship between humans and their environs— including ethnographic film. The human endeavour to make a living from the sea has been a recurrent fascination for ethnographic film since the walrus hunt in *Nanook of the North* (Flaherty, 1922). *Leviathan* stands in a history of ethnographic films of maritime hunting, that include the whaling in Sarah Elder's *At the Time of Whaling* (Elder, 1974) and the dramatic shark hunting in Dennis O'Rourke's *The Shark Callers of Kontu* (O'Rourke, 1982).

Unlike these works of salvage ethnography, which record ancient traditions of maritime hunting performed by hand, *Leviathan* records a mechanised and industrial endeavour. Though linked, as Paravel suggests, to 'paleolithic hunting and gathering' (in Castaing-Taylor, 2016, p.58), this form of fishing is embedded in international networks of trade, competition and commerce. The brutality of this trade is unflinchingly witnessed. The butchery of the larger sea creatures on the trawler echoes the massacre of sharks in Jacques-Yves Cousteau and Louis Malle's *The Silent World* (1956); although, admittedly, *Leviathan* is critical rather than celebratory of the masculine display of the domination of the ocean's creatures evident in Cousteau's work. In enacting a form of critique, *Leviathan* is distinct from the vainglorious violence of Cousteau's scientific films. By the same token, Castaing-Taylor and Paravel's film also diverges from the comfortable complacency of Disney's *True-Life Adventures* (1948-60; see MacDonald, [2006] 2016, pp.972-76) and the aesthetic indulgences of contemporary blue-chip nature documentaries such as *The Blue Planet* (2001).

While undoubtedly influenced by evolving scientific and technological discoveries of the sea, poetry is not reliant on physical access to the open sea in order to represent it. As such, poetry is able to stretch as far as the human imagination. The lyric, moreover, is free from formal constraints that restrict other forms of poetry. This formal fluidity makes it particularly capable of responding to and embodying—if not capturing—the flux of the sea. Meanwhile, its emphasis on perception provides a filter through which the reader or viewer can experience this alien environment. For these reasons, the lyric is a form with a long history of pelagic

representation. Indeed, an emblematic, even originary image of lyric experience takes place on a boat tossed in the ocean: as Drew Milne reminds us, '[t]he ur-image of the human domination of human nature for the sake of lyric experience is provided by Homer's *Odyssey* and the story of Odysseus bound to the mast of his ship to hear the sirens' ([2001] 2014, p. 362). In these films and poems—created with acute consciousness of anthropogenic change—the central import is the domination of *nonhuman* nature by the human; how such domination is achieved by the overriding of limits of human endurance; and in turn how these complex ecological relations can be expressed by the lyric. But even in the origins of Greek lyricism, there is an understanding of the lyric that is not restricted to common contemporary conceptions of the form as centring around human subjectivity, but which rather, as Milne remarks, 'position the muses closer to the gods and the mythic forces of nature' ([2001] 2014, 362). This is to say, the lyric's ability to represent forces and subjects beyond the human is an inherent attribute of the form. Graham's waterborne poems, but also Castaing-Taylor's and Paravel's maritime films, draw on this aspect of the lyric—alongside, in the case of the films, contemporary forms of multispecies and visual ethnography—in order to stretch their representations of the sea and its swarms of air and water into the more-than-human realm.

These works suffuse the lyric form's emphasis on sensation and the subjective with an inquiry into humanity's relationship with the sea that is variously ethnographic, documentary and, as I will explore in the latter half of this chapter, cosmological. The considerations of anthropogenic degradation to which these inquires lead are in turn rendered palpable to the viewer and reader in a visceral, emotive way. Present in the films and the poetry are the consciousness-raising properties of both lyric and documentary forms, properties which operate on the level of the individual and the collective, the human and the ecological. As I shall explore towards the end of the chapter, in the particular case of Graham's 'Deep Water Trawling,' the desire to not only raise the consciousness of the reader but to incite a *response* is so ardent that the poem approaches the polemical. By drawing on the various capabilities of their composite forms, Graham, Paravel and Castaing-Taylor generate new forms of ethnographic lyric capable of responding to the endlessly amorphous and polysemous swarms of the pelagic zone in a way that affects the audience more deeply than mere comprehension.

The influence of phenomenology on Castaing-Taylor's work is clear in his early self-declared aims to counter 'the elaboration of social theory as uncorporeal knowledge unanimated by phenomenological lived experience' with the intent to 're-embody vision, sensualize the spectral, and shape the scopic as tactile' (1993: 160, quoted in Westmoreland,

2015, p.2).[84] Taken as a fitting description of *Leviathan* by Westmoreland and Luvaas (Westmoreland, 2015, p.2), Castaing-Taylor's comments also indicate the pertinence of the *lyric* form to the film. Far from the disciplinary strictures of social sciences based in rationalism or cognitivism, poetry has long been invested in 're-embody[ing] vision' and 'sensualiz[ing] the spectral,' to use Castaing-Taylor's terms.

In traditional lyrics, the lyric subject might offer a mooring point in among the sea's fluid movement, but the hybrid works here considered stretch the lyric beyond a single unitary subject. This is achieved by responding to the sea's creatures and swarmic forms of life: specifically, shoals of fish and flocks of birds. In so doing, these creative works are in fact drawing on and expanding a central aspect of the lyric. Following Susan Stewart (2002) and Theodor Adorno (1991), at the core of the lyric form is a tension between the single consciousness through which the lyric is mediated and the universal or unspecified humanity from which that subjectivity emerges as distinct.[85] As such, the lyric is a peculiarly apt form for swarmic representations that mediate the same dyad of individual and mass, the one and the faceless many. If, in the lyric, the singular emerges from the communal, in the swarm, subjectivity is always already distributed and can never reach individualisation as understood from a human perspective. How, then, do these works oscillate between these two modes of being—the communal and the individual?

To illuminate this question, this chapter reads the swarmic lyric through the third term of *singularity*. Singularity is a way of transcending the distinction between the communal and the individual, the general and the particular. As I have demonstrated from the outset of this thesis, the primary texts' representations of swarms combine sensory, at times almost non-representational aesthetics with an ecological and ethnographic focus on the locatedness of the swarm. Here, I will develop this central insight by attending to the manner in which the sensory and the documentary elements of the works—in other words their aesthetic and geographic modes—combine singularity and specificity (the distinctions between which I will outline in what follows). I will then explore how this combination generates what I will term ontological 're-singularisation'.

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[84] As Mark Westmoreland and Brent Luvaas note, this quotation is taken from a notice in *VAR* (1993, 9[2], p.160) that announced the release of *Visualizing Theory* (1993).

[85] As Milne comments, '[a]ccording to [Theodor] Adorno, the first person "I" whose voice is heard in lyric expresses an individual particularity which is opposed to the collectivity of human nature" (Milne, 2014 [2001], p.361).

Whilst not the immediately obvious choice over its companion terms of the individual and the unique, the 'singular' has proved a rich term within recent philosophical explorations of identity within the collective, the plural or the multiple. Michael Hardt and Antonio Negri develop the concept of singularity in the context of the political action of the 'multitude,' which they define as 'a set of singularities' that are not effaced in the collective (2009, xiii). Meanwhile, Félix Guattari sees in 'processes of singularization' the possibility of renewing subjectivity without imposing the frames of reference attendant to an identity (Genosko, 2009, p.87). Both formulations of singularity—Hardt and Negri's attempt to avoid losing the one in the many, and Guattari's effort to avoid a largely pre-determined definition of the individual by group identity—are enabling for my analysis of the swarms represented in the works under scrutiny as singular. Emphasising the continuities within and across heterogeneities, singularity is a model of subjectivity that fosters the ecocritical ethic of connectivity.[86] In acknowledging the *alterity* of members of a multitude or swarm, singularity signals the unknowability not only of the nonhuman, but also of those within our species or community grouping.

As is unsurprising given the swarm's ability to move back and forth between utopian and dystopian formulations, there is also a more sinister aspect of swarmic singularity. Common conceptions of the swarm are that it subsumes individuality into the mass. Similarly, highlighting that the 'singular' is the mode of much of recent French philosophy, Peter Hallward argues that the postmodern impulse to reach specificity risks turning into a 'homogenising pluralism' (Hallward, 2000, p.7).[87] From this perspective, the swarm appears to be emblematic of the de-personalised, immediate and all-encompassing logic of the singular. Graham's, Paravel's and Castaing-Taylor's works certainly engage with this mode of swarmic engulfment, but by counterpointing the distant and the proximate through scalar shifts, they reveal that the swarm operates on the level of the individual and the collective simultaneously.

The specificity of swarmic members is inextricable from the singular mass of the swarm. The swarm's location in space and time also combines the singular and the specific. By revealing this contrapuntal logic, the works both re-individualise and re-localise the swarm. Hallward's typology of the specific and the singular usefully illuminates this distinction (2000). Hallward defines the singular as having no relationality: '[t]he singular […] is constituent of itself, expressive of itself, immediate to itself' (2000, p.10). The specific, meanwhile,

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[86] As such, singularity sits within 'the metaphor of the web of interdependence' that Lawrence Buell notes 'is central to the ethical force of the contemporary ecocentric critique of anthropocentrism' (Buell, 1995, pp.284-85).

[87] See my critique of the homogeneity of Deleuzian thought in the Introduction.

'introduces an irreducibly subjective element' and is defined by relationality: 'their individuality is primarily maintained through certain ways of relating to situations and to other individuals' (Hallward, 2000, p.9). Ever polysemous and mutable, the swarm calls into question the impermeability of Hallward's categories, combining the singular and the specific in its aesthetics, locatedness and ontology. As noted above, the works discussed in this chapter emphasise the haptic materiality of the swarm at the same time as invoking its abstraction and metaphorical capacities. In both their abstract transcendence and the immanence of sensory experience, these swarmic representations are aesthetically singular. At the same time, the works under scrutiny localise these aesthetically immersive and allegorical swarms in a particular time, space and socio-economic moment, making them *geographically* specific.

The sensory aesthetics and documentary localisation of these films and poems suggest a distinction between aesthetic singularity and geographic specificity. However, once again, this separation is countered by the works' contrapuntal logic. The heterotopic aspects of *Leviathan*'s shipping trawler out at sea and the allegorical mode of Graham's 'Prayer' (in which the shoal comes to stand for the human species on the brink of change) invoke geographic singularity in their reference to themselves as a self-defining space rather than to a concrete external reality.[88] At the same time, aesthetic specificity is inherent to the films' commitment to the 'real' (a legacy of their origins in the observational methodology of ethnography) and, to a certain extent, can also be found in the material investigations of Graham's poems. As such, the works do not simply confound Hallward's typology by combining two separate modes of specificity and singularity, but rather counterpoint the two in both aesthetic and geographic aspects.

It is from this combination of aesthetic and geographic specificity and singularity that ontological re-singularisation emerges. Re-singularisation is a term that signals the return to an altered subjectivity that is more attuned to its communal being at the same time as its specificity. It is a mode of being that is at once collective and individual, which can emerge once the presumption of a discrete ontological stability is challenged. These works 're-singularise' the represented swarm, revealing it to be formed of both individual and communal modes. Within the context of anthropogenic environmental change—in which the 'here' is inextricably tied to places distant—the specific is unravelled by the complex interrelations of cause and effect. Because of this, the swarm's ability to move between the modes of the communal and

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[88] Foucault describes his concept of the heterotopia as 'something like counter-sites, a kind of 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' (Foucault, [1967] 1984, p.3).

the specific makes it a highly valuable conceptual tool for thought and action in the Anthropocene.

The insistent valences of the necropolitics of commercial fishing situate these broader concerns of anthropogenic change within a specific industry. I contend that the films' and poems' phenomenological, multispecies and affective aesthetics operate in counterpoint with their broadly materialist (if not rigorously Marxist) critique of the depersonalising and dehumanising effects of the fishing industry. I will develop this argument later in the chapter by exploring the dyad of abstraction and immediacy in relation to Karl Marx's thought. As in many of the films and poems studied in this thesis, in the composite works under current scrutiny, the basic tenet of observational film—that political insights are gleaned *through* the experience of observing life as lived—is combined with the lyric's emphasis on subjective experience.

What effect does re-singularisation have on the form of the works analysed in this chapter as ethnographic lyrics? According to Susan Stewart, a central attribute of the lyric is its 'weird simultaneous emphasis on and evacuation of the first person' (quoted in Terada, 2004, p.269). In this contrapuntal relationship to the perceiving subject, the mode of subjectivity posed by the lyric and that of the swarm are closely aligned. With its hyper-embodied yet distributed subjectivity, the swarm shares the unpredictability and ultimate alterity of the 'situation of poetry,' which Stewart describes as 'when thought is unattributable and intention wayward' (1995, p.34). In its fluid, ambivalent relationship to subjectivity and place, the lyric is a peculiarly apt form for representing the swarm. These swarmic representations in turn rework the lyric, re-localising and re-singularising it, revealing it to be both singular and, to quote Graham's poem, 'communal actually' (2014, p.41).[89]

The common conception of the lyric—at least since the Romantics—is that it emphasises personal expression at the cost of political, social or geographic engagement. This implies a subjective emphasis at the cost of the localised, the inward at the expense of the outward, the specific at the expense of the communal. Both are challenged by the swarm, which is both subjective and localised. Re-singularisation involves a collective self and re-localisation involves specificity. More than simply engendering a kind of public intimacy in what Stewart refers to as a 'triangulation' with the reader, the swarmic lyric challenges the dichotomy of singular and collective, speaker and addressee (Stewart, 2002, quoted in Terada, 2004, p.269).

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[89] In an illustrative shift between individual and communal modes, Graham writes in 'Deep Water Trawling': 'I have this way of transmitting – call it voice – a threat – / communal actually – the pelagic midwater nets like walls closing round us' (2014, p.41).

Since subjectivity is simultaneously invoked and effaced in the lyric, the form's evocation of place is necessarily dual. As noted, the lyric has often been characterised as enacting a turn away from the world's political and historical specificities.[90] However, as long as the lyric is expressed from the perspective of a lyric subject (be it emphasised or evacuated, unified or dispersed), it is by definition a located form. If the lyric is both localised and abstracted, the swarm—constantly moving through, over or above a specific place, yet always in response to it—is also both defined by and at a remove from its environment. Representing the swarm requires that the lyric form be re-localised. As such, these swarmic lyrics evoke a more situated recognition of place than, for example, the distant and glossy aesthetics that characterise the global imaginary of the film poem, *Baraka* (Fricke, 1993).[91] This locatedness is the spatial aspect of what Nikki Skillman refers to in relation to subjectivity as the 'unifying pressures of the lyric' (2016, p.241).[92]

The swarm's localisation in time and space is key to its distinction from the contemporary moment's most dominant mode of connectivity, the *network*—discussions on which, as Luc Boltanski and Eve Chiapelllo note, have proliferated in theoretical and empirical works across disciplines (Boltanski, 2005, pp.138-39; see also Castells, 2000; Galloway, 2007), including theorisations of the network's partner concept of the 'cloud,' co-opted from the atmospheric in much the same way as previous iterations of the swarm have been co-opted from the zoological in media theory (see Ruparelia, 2016; also Peters 2015). This counter concept of the network—emblematic of globalisation, omnipresence and the inescapable (see Fuchs, 2012, 2016; Allmer, 2015)—highlights the ethical and ecological value of the ways in which these lyric works re-localise the swarm.

Re-singularisation, within my consideration, occurs through the swarmic encounter. As well as reworking the model of subjectivity *within* the work, this encounter also occurs between the film and its viewer and the poem and its reader, and therefore has an effect on the subjectivities with which it comes into contact. In other words, if swarmic re-singularisation stretches the lyric form's ability to shift between subjectivities as imagined and created by any

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[90] The aubade, a particularly intimate lyric form in which lovers greet the dawn, has most often been understood as a move away from the external world.

[91] This montage film moves swiftly between continents and subjects. With its proliferation of images gathered primarily for their visual qualities, *Baraka* loses both spatial specificity and unity.

[92] As such, the ethnographic lyric also offers more coherence than the anti-lyric, of which the fractured forms of Juliana Spahr's poetry is an example. For a discussion of Spahr's development of 'collage, narrative and the uncreative brain,' see Skillman (2016, pp.241-254). See also Sam Solnick's study (2016) of the lyric's mainstream and avant-garde forms in the British and Irish context.

given work, a similar effect might be had on the viewer or reader. To suggest that the experience of watching or reading these works holds the possibility in turn of affecting the subjectivity of the individuals who consume them is an argument that must inevitably remain within the realm of the speculative. When Maurizio Lazzarato describes the 'event' as an 'encounter' that 'can make space for a twofold shift'—'one time it meets the soul, the other the body'—he stresses that in the encounter 'this differentiation is newly uncertain, unpredictable and risky each time' (2003, p.4).

The effects on diverse audience members of these open-ended works will be as heterogeneous as the audience members themselves. Since re-singularisation assumes a multifaceted and mutable subjectivity, this is as true within single audience members as it is across groups: these films and poems can affect the same individual in different ways depending on the time and place of reception.[93] Nevertheless, in registering the potential effects of the swarmic encounters in these works, however unpredictably they may arise, I seek to respond to what is at the heart of the works' ethical and political implications. In developing re-singularisation as a model of change precipitated by encounters between the nonhuman swarm and its human perceiver, I contend that it offers the possibility of both intimacy and collaboration without the need for identification on the level of shared species, grouping or material circumstances.[94] Through re-singularisation, the films and poems scrutinised in this chapter move away from the restrictions of exclusive communities to a recognition of the possibilities of engagements across difference.

As an unpredictable set of forces that is borne out of the ephemeral relations between artwork and audience, and swarm and human, the swarmic encounter cannot but be understood as a bundle of affects (see Introduction). As Thomas Bristow writes in his study of the affective in the 'anthropocene lyric,' affect theory 'considers affects as primary physiological expressions […] and emotions as fully integrated experiences of feelings within the context of a subject's private life history and social meaning structure' (Bristow, 2015, p.124). I follow models of affect that see the difference between affect and emotion as scalar rather than absolute; in Sianne Ngai's terms, as 'a modal difference of intensity or degree, rather than a formal difference of

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[93] Mindful of the risks of aesthetic determinism, I refer to the audience in the abstract sense of an implied viewer as constituted by the works.
[94] Here my work is in conversation with that of Denise Riley whose work, reconceiving what she terms 'lyric selves,' argues for the possibility of nonidentitarian solidarity that is not reliant on identification (2000).

quality or kind' (2005, p.27).[95] As such, Bristow's observation that '[c]ognition is an important aspect of emotion, particularly with respect to complex arousal through interpreting events over time' (2015, p.125) also indicates the importance of cognition to affect.

If affect theory reveals the dichotomies between the mind and the body, and between cognition and affect to be false, it also elucidates the falsity of correlate binary terms. I previously discussed the contrapuntal interplay of abstraction and hapticity in this chapter's selection of pelagic films and poems. I will now turn to the ways in which these pelagic works combine the affective modes of contemplation and immersion. This latter pairing is distinct from the former in its signification of attentive focus and sustained attention. This highlights that immersion and contemplation are modes of audience response, whereas abstraction and hapticity are modes of swarmic activity and representation. Through the lens of affect theory, immersion and contemplation can be seen as complementary parts of an affective response to the swarmic encounter.

The purposeful deployment of affect through representation is what I term affective aesthetics. This is a *tool* and, like any form of persuasion, can be used for good or ill. One danger in discussions of affect is that they idealise affects as a force of pure energy removed from political intentionality and human agency. This is one problem with Deleuze and Guattari's formulation of affect: '[f]ar from being politically motivated,' Nicole Shukin writes, 'the micropolitical force of affect described by Deleuze and Guattari […] is cast as a "nonvoluntary" force springing from the irrepressible multiplicity of heterogeneous nature' (2009, p.31).[96] Within this conceptualisation, the 'figure of animality to which affect is attached is rendered profoundly abstract' (Shukin, 2009, p.31). Rather than conceiving of affect as 'becomings' that signify 'a virtual state of pure potential' as in a Deleuzian formulation, I seek to return affect to 'a state of historical actuality' (Shukin, 2009, pl.31). This situated, politicised theorisation of affect allows us to respond to the way in which the films and poems under scrutiny both register

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[95] I follow Ngai, for whom 'affect and emotion both revolve around a human perceiver and feeler', agreeing that this 'human orientation' gives Ngai's theory its 'political force' (Houser, 2018, Para10.1). Ngai offers an enabling alternative to conceptions of affect as *involuntary*. These have been developed by Deleuze and Guattari, for whom 'is not a personal feeling, nor […] a characteristic' (1988, p.240), and Brain Massumi, who likewise distinguishes between emotions as 'personal' and 'subjective' and affect as 'unqualified' (Massumi, 2002, p.28). Massumi's claim that affect is 'not ownable or recognizable and is thus *resistant to critique*' (Massumi, 2002, p.28: my emphases) illustrates the dangers, as well as the attractions, of creating a theory beyond cognitive interrogation.

[96] In her cogent summary of Deleuze and Guattari's formulation of affect, Shukin explains that '[f]or Deleuze and Guattari, affect is especially, quixotically, configured as an "animal rhizome"' (Deleuze, 1988, p.47; quoted in Shukin, 2009, p.31).

and invoke re-singularisation through affect and reassert their subjects' position within broader systems of global commerce.

By combining their affective aesthetics with ethnographic and lyric focus on the local with a broader awareness of the global systems of destructive maritime practices, the films and poems discussed in this chapter re-localise their human and nonhuman subjects in a historical moment and political systems of power. The poem, 'Prayer' is a broad consideration of the ability of human and nonhuman species to act and survive in the face of environmental degradation. In 'Deep Water Trawling' and *Leviathan*, this is counterpointed with a sensitivity for the specific operations of power and capitalist production that continue to aggravate the environmental crisis. All of these portraits of pelagic swarms are consciously situated in a moment of anthropogenic change; to varying degrees, they re-localise their swarms in a historical moment and political systems of power as well.

In *Leviathan* and Graham's poem 'Deep Water Trawling,' the use of affective aesthetics is counterpointed with the biopolitics—and necropolitics—of slaughter. By bringing the experiential together with the structural in this way, these ethnographic lyrics deploy affective aesthetics to political effect. As Shukin has written of similarly politically-motivated films, '*[m]aking feel* through the techniques of cinematic affect is ultimately a project of *making humans*,' for the viewer's humanity is 'realised and authenticated when spectators react with the appropriate feeling and action to the force of images' (2015, p.195: original emphases). In my analysis, affect is not a force that overpowers the complexity of human emotion and response. Rather, taking a more humanist position, I argue that affective aesthetics are strategically deployed in order to deepen, question and challenge human responses.

Immersion and Contemplation

Engaging both mind and body, the sea is at once an immersive environment and one that inspires deep contemplation. Immersion is primarily a physical sensation: its signification as an all-encompassing sensory experience derives from its aqueous root meaning to plunge in water. Contemplation, meanwhile, is a primarily cognitive function, one that implies stability and uninterrupted thought. Contemplation and immersion are both acts of attention: it is their relation to *agency* that differs. To contemplate is the intentional act of beholding attentively, while to be immersed is an all-encompassing experience in which attention is demanded involuntarily. By repeatedly shifting the subject position from that of human to nonhuman swarm, the water-based films and poems discussed in this chapter counterpoint these modes of

willed contemplation and involuntary immersion, modes of perception that are combined in certain moments of transcendence and sublimity, as I will explore.

As well as aqueous metaphor, immersion is a phenomenological term. Within this context, immersion denotes a qualitative methodology for the human sciences, including ethnography. Clark Moustakas describes immersion as the first stage of analysis, during which the researcher is involved in the world of experience and has yet to integrate the findings (1994). As such, within visual ethnography—and the ethnographic lyrics under current discussion— the technique of immersing the viewer in an apparently 'raw' (though, of course, not unmediated) experience puts them in the position of the researcher. This strategy of visual ethnography is used notably by Robert Gardner, who describes withholding information in order to prompt the viewer to '[do] their own anthropology' (2001, p.78). In Moustakas' framework, 'immersion' is followed by the stages of 'incubation' (a period of awareness, insights and understanding) and 'illumination' (in which understanding is actively expanded) (Moustakas, 1994): these stages are similar to contemplation, as commonly understood. Shifts between immersion and contemplation are central to the films and poems under discussion, but I will argue that their relationship is much less linear than in these phenomenological approaches.

If immersion entails physical proximity—as close as water on skin—contemplation implies distanced observation, one that is visual more than tactile, and more cognitive than physical. Following this, an initial consideration would pose a spatial division between a contemplative shoreline and an active, immersive environment out at sea. Indeed, the liminal coast and the turbulent sea are archetypal sites of contemplation and immersive action respectively. Within creative representation, this places Matthew Arnold's lyric 'Dover Beach' (1965) opposite *Deadliest Catch* (Beers, 2005-2018). The portrayal of industrial fishing in the latter—variously named a documentary series and a reality-TV series (Pavsek, 2015, p.9)— is referenced in *Leviathan*. However, this binary would have difficulty in accommodating 'The Fish,' a poem by one of Jorie Graham's influences, Elizabeth Bishop (1983), in which the moment following a catch expands to immerse the reader in an otherworldly encounter with the creature wrenched from the sea. Similarly, Herman Melville's *Moby-Dick* ([1851] 1950) — an intertext of *Leviathan*—complicates and exceeds this division, being at once a maritime adventure and an allegory on the human search for meaning. As these forebears of this chapter's films and poems indicate, an easy division between the spaces and modes of human experience of pelagic spaces has long been challenged. The littoral—characterised by the shoreline's

expanse, its constantly enfolding elements and its dramatic climate—can surely be immersive, just as extended periods of time at sea offer empty hours for contemplation. As Odysseus's sirens remind us, there is space for lyric experience out of sight of the shore. Just as the sea's spaces are not neatly divisible, immersive and contemplative responses to them are constantly combined.

As well as the spatial division of coast and open waters, the opposition of Arnold's shoreline lyric and Beers' maritime documentary would suggest a formal opposition of the lyric as contemplative and the documentary as characterised by immersion or action. Indeed, it is true that an intuitive response—as well as the initial critical response—places Graham's poetry as the more contemplative and Castaing-Taylor's and Paravel's film the more immersive.[97] Whilst not refuting that this is the respective works' primary emphasis, I will argue that these modes of engagement co-exist in both the films and the poems considered here. To elucidate this contrapuntal relationship, I will explore Graham's pelagic lyrics through the lens of immersive contemplation, and I will attend to the contemplative immersion of *Leviathan* and *Still Life / Nature Morte*.

Affect theory is a paradigm that exposes the falsity of the binary opposition of body and mind, revealing how each affect and are affected by the other (see Introduction). An opposition of immersion and contemplation lies in the same binary of body and mind, the sensory and the cognitive. Hardt identifies the challenge of affect as residing 'primarily in the synthesis it requires' since 'affects refer equally to the body and the mind' (2007, ix). Applying this challenge to the dyad of immersion and contemplation within the context of the sea—which invites the response of gazing in 'meditative absorption' both in direct experience and in representation (Cubitt, 2005, p.48)—reveals these not to be discrete but rather inextricable and complementary modes of attention, reception and relation.

Close-readings of 'Prayer' and the opening of *Leviathan* offer an ideal opportunity to explore the dyad of immersion and contemplation as co-constitutive modes of engagement. Despite offering very different aesthetic experiences, both the film and poem counter the longstanding opposition between body and mind—what Renov has called that 'regrettable (Western) dualism' ([1993] 2016, p.747). A close analysis of these works shows the assumption that immersion and contemplation are mutually exclusive to be untenable. As works that

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[97] This is indicated by the first reviews quoted on the back cover of *Never* and the website of *Leviathan*: Graham's collection 'offers meditations' (2002); *Leviathan* is 'like no other documentary in memory' (Lim, 2012, np).

demand a hyper-attentive audience, they continually counterpoint the two modes, showing attention to be an embodied form of awareness in which contemplation and immersion are both integral aspects.

The flux of pelagic ecologies represented in these works, and the swirling currents followed by swarms in water and air make for a particularly enabling environment for the juxtaposition of immersion and contemplation. The continual interplay of the pelagic zones' elements of water and air inspire responses of immersion and contemplation; through the body of the swarm, Graham's poems and Castaing-Taylor's and Paravel's film counterpoint these modes of response. In portraying their shoals of fish and flocking gulls, the film and poem perform continual shifts between motion and stasis, proximity and distance, bombardment and passivity. The human cannot fully immerse itself in the nonhuman body of the swarm: a brief sense of swarmic movement and swarmic dispersal may be achieved but the unbridgeable divides of scale and species remain. Similarly, as a body made of continually moving, uncountable members, the swarm both inspires contemplation and exceeds comprehension: its movements are mesmerising yet ultimately imperceptible. To the extent that it outstrips the cognitive control enabled by contemplation in this way, the swarm is both deeply unsettling and potentially liberating in its potential to suggest models of expanded subjectivity.

Immersive and contemplative experiences of the swarm are underlain by responses of surrender and attempted control (responses that have always been central to human and nonhuman relations). Immersion is the wilful suspension of control in response to the swarm's intensity and rapid movement, whilst contemplation responds to the same sensory stimuli with attempted control or suspension. Contemplation—of which meditation is a disciplined form—attempts to control or suspend the intensity of sensations and thoughts in order to see them more clearly. This does not involve a removal from the body but rather a closer attention to it and how it affects and is affected by cognitive processes, a mutuality revealed by affect theory (see Introduction). Immersion, by contrast, is a wilful surrender to the intensity of shifting sensations and rapid movement.[98] This surrender does not, however, imply a cessation of cognitive activity, which will inevitably seek to impose a narrative on sensations that seem devoid of sense.

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[98] As Castaing-Taylor has commented in an interview, his mind is not removed from the indeterminate shapes of *Leviathan*'s abstract images but 'taken' by them: '[I]t's the moments […] of chaos, of anarchy, of discombobulation where I'm completely taken […] by the image' (Castaing-Taylor, 2014, pp.1-2).

In the eternal flux of the ocean and in response to the mobility of the swarm, the body and the eye are always already moving. The reader of 'Prayer' is called upon to both visualise and *feel* the movements of a shoal. Meanwhile, the viewer of *Leviathan*— plunged into a disorientating environment—attempts to orient themselves through their senses at the same time as instinctively imposing some cognitive frame of reference or narrative. Both film and poem demand a return to the audience's own body: these phenomenological and affective modes of perception play a vital part in the recognition of the 'intricate relationships' between humans and other animate and inanimate beings (MacDonald, [2006] 2016, p.980). As I will demonstrate in the following readings of 'Prayer' and *Leviathan*'s opening sequence, by counterpointing immersion and contemplation, these works give rise to questions of ecological responsibility and compassionate awareness in a watery world in which the human is neither central nor safe, but whose impacts can be felt in every molecule of water and air.

Immersive Contemplation: 'Prayer'

Graham's collection, *Never* (2002), is the most aqueous of Graham's collections. Mainly located on the shore—that emblematically liminal location, characterised by fluid motion and axiomatic of poetic contemplation—the poems in the collection pose the question of how to embrace the constant flux of the world and yet allow pause for breath. Populated with swarms that move between the elements of water, air and land, this collection shows Graham to be 'a poet who registers a world in motion' (Spiegelman, 2005, p.235).

Nevertheless, in this collection, the immersive experience of the motion of swarms and their elements is counterpointed with moments of pause. 'Complex Mechanism of the Break' (2002, pp.33-35), for example, is a poem in which an eventual lull is welcomed as a moment that allows for the contemplation of distance rather than the remaining immanent to the experience of immersive motion. The relentless forward-facing movement of a flock of birds in 'Gulls' is an intimidating image of fatigue for the speaker (2002, pp.26-30). In this poem, the gulls offer Graham a model of moving between the elements of water, land and air, as well as mind, body and language. Fused with the poet's own words through a metaphor that imbues the words with movement, the gulls are invested with the desire to 'see behind themselves,' 'as if it's a betrayal, / this single forward-facing.' Pitying the swarming words, the reader of this poem comes to be grateful for their own ability to 'see behind' and re-read the lines of the poem.

In 'Prayer'—the opening poem of *Never* and the poem on which I will focus here—the poet's contemplation of the swarm's motion leads to a moral recognition, if not an epiphany, of humanity's position in the world (2002, 3). As such, it staunchly defends the urgent need for attention and warns against stasis. Before a close analysis of 'Prayer,' I want to turn to an earlier well-known poem of Graham's that focuses on a shoal of fish—'Salmon' (1982, pp.18-19)—in order to illuminate the particularities of Graham's millennial poem. In both 'Salmon' and 'Prayer,' a shift occurs between the shoal and the human. 'Salmon' performs a move from a recent memory of watching a nature programme 'on television […] in our motel room' to a childhood memory of watching lovers 'through slatted wooden blinds'. Importantly for this chapter, not only is it a water-based shoal of swarming salmon that prompts the insight of the poem, but a *televised mediation* of that swarm.[99] That the speaker sees the salmon on a screen goes some way to explain the poem's emphasis on sight, rather than the more synaesthetic experience presented by 'Prayer.'

The helplessness of sight is the informing metaphor of 'Salmon.' As Nikki Skillman explains: the salmon, driven by the genetic requirement to procreate—'resolution of will / and helplessness'—are compared in the poem to with the act of sight understood biologically as 'the flow of perceptual data "upstream" from the retina to the brain' (2016, p.230). This formulates vision as a de facto passive experience. 'Prayer' by contrast works to illuminate the *difficulties* of seeing, perceiving and comprehending things on the edge of sight: the shoal's currents, the forces of history, the position of the human in the new millennium. The shift in 'Salmon' from watching the nature programme to the memory it provokes—described by Skillman as 'one of the disarming juxtapositions characteristic of Graham's early style' (2016, p.230)—is a clear juxtaposition of two memories, as linear as the river in which salmon travel upstream. In 'Prayer,' a similar shift is made, but linearity is replaced by the fluidity of the pelagic. A more complex contrapuntal logic operates, in which each component of the poem is continually in play. In this later poem, the shoal of fish acts both as material referent and as metaphor for the agency of the human species, while the lyric subject is almost effaced by the physical sensation of the shoal's flow yet is also figured as agentive individual.

In this poem, Graham develops a model of consciousness that is not simply either sensory or contemplative, but performs a complex counterpoint between the two. Less clearly

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[99] The long-standing influence of the cinematic on Graham's poetry has been discussed (see Introduction). In Chapter Three, I will explore the development of the nonfiction mode, specifically in Graham's recent collection *Fast* (2017). This early poem shows Graham's engagement with small-screen and non-fiction broadcasts long predates her recent work.

mediated and less linear than her early representations of the shoal, Graham's millennial pelagic poems share something of the disorientating flux of *Leviathan*.[100] As noted above, 'Prayer' opens with an initial observation, grounded in the lyric subject's position standing on the pier, that soon turns from visual to sensory as the encounter with the swirling shoal becomes a transformative experience for the poem's narrator. Introducing 'Prayer' during a programme about consciousness on the American radio broadcaster, NPR, Jorie Graham explains how the first half of the poem is written to capture the simultaneity of sensations and thought: 'one is thinking […] while one is also feeling and doing and looking and remembering' (Flatow, 2003, 16min). The poem's first section—described by Graham as an attempt to 'capture an act of consciousness, which has so much simultaneous activity in it'—moves with the lyric 'I' as she and the reader are caught up in the shoal's movements (Flatow, 2003, 16min). In 'a single sentence full of nesting parentheses,' the words of the poem, like its narrator, swirl with the shoal in free verse lines overflowing with internal rhyme, sibilance and continual enjambment that heighten the sense of motion (Flatow, 2003, 16min). This creates an immersive experience of both the water and the shoal's movement and of the flux of conscious and unconscious thought.

Not mediated by a television screen or wooden blinds (as in 'Salmon'), the shoal in 'Prayer' is experienced by the lyric subject directly. The more direct engagements with nature's swarms in Graham's later works draw on ecomimesis.[101] At two crucial moments in the poem, the lines build, reaching the full length of the page before, like the impossibly still moment at the crest of a wave, hanging with a single word or cluster of words toward the right hand side of the page after a long white space. In these moments, the anticipation is both physically and cognitively felt, and as such these pauses mark climaxes in the poem's combination of immersion and contemplation. The first such suspension marks the consideration of what the minnows 'mak[e] of their unison'; the second considers the sea's 'arrowing motion that forces change' on those caught within its currents. These moments

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[100] A similar overall movement from linearity to more complex juxtapositions can be seen in Castaing-Taylor's work, which began with the linear if sparse narrative of *Sweetgrass* (see Chapter Two).

[101] In a challenge to the emphasis of early ecocriticism, Timothy Morton rejects the privileging of 'ecomimesis' and what he describes as its 'rhetoric of immediacy': '[w]hile it pretends to rub our noses in the natural world, ecomimesis is caught in the logic of reification' (2007, p.137). Morton criticises ecomimesis's celebration of the natural world as failing to recognise the darker aspects of how humans and the environment are intertwined. In response, Greg Garrard defends the aesthetic strategy, arguing that ecomimesis 'already is not what it used (or Morton uses it) to be; while wilderness epiphany no doubt lurks in some corners, nature writing is capable of demonstrating a sophistication […] and self-consciousness' (2010, p.14).

highlight the swarmic principles that drive the poem's consideration of both human and nonhuman action, specifically its interest in what emerges from the collectivity of the swarm and its ambiguous intentionality, and the swarm's position within wider, elemental forces. For Graham, these broader considerations stem directly from the immersion in the shoal. The 'bodily experience of witnessing the minnows', she avers, becomes 'feelings and then emotions,' which precipitate 'thinking'; it proceeds by way of a composite of cognition and affect which generates a moral awareness and a recognition of an 'ethical predicament' (Flatow, 2003, 16min).

As already discussed, the shoal has a mesmerising ability to render invisible currents visible. The act of attending to what is revealed through the flux of the shoal, in which the lyric immerses its reader, is contemplative, and involves both perceiving the barely perceptible and considering its implications.[102] The body of the shoal is made up of fish that 'swirl / themselves, each a minute muscle, but also, without the / way to create current.' The shoal's seeming inability to 'create current,' but its purposeful activity of 'making of themselves a / visual current,' also acts as a metaphor for the role of the poem: whilst the direct effect of Graham's swirling words cannot be quantified, they too work to render unseen forces visible.

In its continual motion, the collective body of the shoal is defined by ambiguous intentionality. In 'Prayer,' the speaker's experience of the eddying shoal makes her re-think humanity and its place as a species within unseen forces of faith, history and—a particular concern of the collection—ecological change. Prior to its publication in the collection *Never*, the poem was published in *The New York Times* on Christmas Day 1999, under the title of 'Poems for a Millenial Year, Prayer' (Graham, 1999). The original title and the date of its publication indicate that this is a poem that self-consciously engages with the sense of change facing humanity as a species and the world in which we live. The fish become emblematic of the human race within the forces of time on the eve of a new millennium, moving within currents we can only perceive by the effect they have on us. The shoal of minnows, then, acts as the object correlative of the human species by evoking sensory experience that helps visualise and sense an ordinarily imperceptible concept: that of the individual's membership of the indistinguishable mass and the possibility of agency therein.[103]

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[102] A similar experience is created through *Leviathan*'s long takes, which allow for space to consider the broader significance of what is perceived through sensory immersion.

[103] The term 'object correlative' was popularised by T. S. Eliot, who defined it as 'a set of objects, a situation, a chain of events which shall be the formula of that particular emotion;

At the hinge of the poem, the flux (that until now has been characteristic of the poem) is arrested by clipped sentences that offer ethical messages: 'this is freedom. This is the force of faith.' Linguistically stepping out of the minnows' eddying movements to deliver this message, the poem at this point recalls and returns to the human observer, who, stationary and alone, seems frozen, a figure incapable of action. Attributing freedom to the motion of the shoal rather than the speaker divorces the human individual of its connotations of self-determination and will. The reader is enjoined to embrace the change definitive of the shoal and inherent to sensory experience. The swarm's continual movements, made as they adapt to their elements, put into focus the limits of a 'pure' or static contemplation of the world: 'The longing / is to be pure. What you get is to be changed.'

After these contemplations of the human in the eve of the millennium, there comes a mediating sentence:

> [...] More and more by
> each glistening minute, through which infinity threads itself,
> also oblivion, of course, the aftershocks of something
> at sea.

The words of this sentence evoke the shoal of minnows—'glistening,' 'thread[ing]' a passage within 'the aftershocks of something at sea'—but the metaphor is now both visually and temporally unmoored from its swarmic referent. This enables these lines to mediate between the poem's considerations of the shoal, the human species and the lyric subject. When the poem returns—in the manner of a contrapuntal fugue—to the narrating subject in the closing lines, it is a different lyric 'I' to that of the poem's opening. Having been infused with the flux of the shoal, this 'I' is less calcified and more consciously situated within its species and broader ecologies: it is what I term a 're-singularised' self. The minnows provide a lens through which the poem questions how humans, as a collective, can act ethically within historical, political and environmental forces.

The final lines of the poem ask what it means to attempt to capture the fleeting experience of a changing environment. Here, the motion of the shoal, currents and grains of sand is contrasted not just with the human figure standing on the deck, but also with the lines on the page. In the closing lines, the poem self-referentially figures itself as something that is both voluntarily lost in the wind and urgently handed to another:

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such that when the external facts, which must terminate in sensory experience, are given, the emotion is immediately evoked' (Eliot, 1921).

> […] hands full of sand, letting it sift through
> in the wind, I look in and say take this, this is
> what I have saved, take this, hurry.

The aural proximity from the internal rhyme of 'hands' and 'sand' evokes tactile connection, while the dactylic rhythms that follow ('letting it sift'; 'in the wind') elicit the speed at which the sand flies into the wind. Notably, the lyric subject's own movement to pick up the sand (which would not necessarily be found on a pier) has not been mentioned: in a poem which evokes the movement of fish, water, air and sand, the speaker only looks and speaks. The lacuna of this physical action is followed by the claim that the poem was not something said, but rather an action performed: 'Listen, I was not saying anything. It was only / something I did.' In this way, the poem combines thought and action. As such, it evades the simplifications of what Timothy Morton characterises as overhasty 'injunction' made by ecomimesis 'to stop thinking and *do something*' (2013, p.92). As well as claiming a certain physicality for the act of writing, the implied reader is urged to 'listen' and 'take this': the poem can be heard and felt but is not simply said.

The closing lines of the poem, however, express doubt about the position of poetry and its potential. In a similar way to Castaing-Taylor's and Paravel's ethnographic studies of communities in decline, Graham's poetry, across her different collections, pursues a common project of fixity at the same time as seeking to capture the flux inherent to human experience of the world. By expressing the experience in writing rather than in speech, she seeks to capture the moment in language when it would otherwise be lost in the wind like 'hands full of sand.' The earliest of Graham's consciously ecological collections, *Never* is driven by the desire to capture a disappearing natural world. In the notes to the poem 'Evolution,' Graham reveals that knowing that one species becomes extinct every nine minutes 'inhabits, as well as structures, the book' (2002, p.111). Expressly linking this 'nine-minute span' with the length of time it may take to read 'any poem here before you,' Graham makes each poem a eulogy for a different species (2002, p.111).

This renders the immediacy of experience more urgent, for not only is that particular moment of experience unrepeatable, but the natural phenomenon that was imaginatively experienced may soon succumb to 'ecocide' (Graham, 2002, p.111). Returning to the closing lines of 'Prayer' with this in mind illuminates the ghostly presences behind the poem: 'I cannot of course come back. Not to this. Never. / It is a ghost posed on my lips. Here: never.' The 'ghost posed on my lips' to which the speaker 'cannot of course come back' could be the species that has become extinct in the nine minutes spent reading this poem. That the poem will have

taken much longer to write leaves the shadows of more ghosts behind it. In this way, this poem both validates the importance of contemplation, but also warns against human inaction in the face of ecological crisis.

'Prayer,' with its near-immediate immersion in the shoal, is illustrative of the way in which, in large part, Graham's poetry refuses to provide narrative or context and as such requires of the reader active meaning-making.[104] Writing on 'lyric embodiment,' Jennifer Ashton uses Graham as an example of the postmodern lyric's eschewal of an authoritative lyric voice in favour of the reader's participation in meaning making through active reading (2005 pp.161-76). On this level of narrative and interpretation, Graham's poetry and Castaing-Taylor's and Paravel's ethnographic works alike place demands on their respective audiences. In *Leviathan*, like many of the feature-length works emerging from the Sensory Ethnography Lab, a small portion of information is revealed only in brief explanatory text preceding the end credits. These lines act in a similar way to the footnotes with which Graham ends her collection, *Never*, albeit without the option the physical book affords of skipping ahead.

Central to the combination of the modes of immersive and contemplative experience in both Graham's poems and Castaing-Taylor's and Paravel's films is that they demand, in their different ways, a hyper-attentive reader or viewer. This attribute means that contemplation—defined as 'attentive consideration'—is a requisite state for the audience to be immersed in the experience of these works (OED online 2014, 'contemplation' n.). The contemplative demands which these films and poems place on their audiences return us to our bodies *through* an engagement with our minds. However, the ways in which they do so are strikingly different. Whilst similar on the narrative or informational level, on the sensory level, Graham's poetry differs from *Leviathan* in requiring the reader to do imaginative rather than interpretative work. 'Prayer' requires the reader to engage with, imagine and create the sensory experience of the poem; indeed, the process of developing the imagination is one that Graham sees as central to her work's ethical role. In contrast, *Leviathan*—which immerses the viewer in a sensory experience that is so relentless that Pavsek goes so far as to call it 'embodied oppression' of the spectator (2015, p.7)—leaves its implied viewer the task of *interpretation*, rather than imagination. Unlike in Graham's poetry, which does not stop short of making direct calls to the

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[104] This demand for active participation from readers is common across *Never* as a collection, but is more notable in the pared back poems of *Swarm* (2000), as will be discussed in the following chapter.

reader, the ethical implications of this affective engagement with the massacred shoal of Leviathan are left to the viewer.

Contemplative Immersion: Leviathan and Still Life / Nature Morte

The shoal in 'Prayer' may not be a utopian model for freedom, or free-will for that matter, but it is certainly free from ideas of labour. By contrast, in Castaing-Taylor and Paravel's film *Leviathan*, labour is all-encompassing. Here, the depersonalising effects of capitalist production are strongly felt. *Leviathan* is set on a fishing trawler off the coast of New Bedford. The experimental film is on one level an ethnographic inquiry into the social and ecological crisis of maritime food production on America's waters. The fishing industry has been at the heart of American place-making since Europeans first crossed the Atlantic in search of cod (Kurlansky, 2003). The politics of the film, though far from blatant, are expressed through its insistent gaze on the violence meted out on the fishing trawler.

Unlike Graham's 'Prayer' in which the lyric subject remains standing on the pier even whilst becoming imaginatively connected to the shoal, *Leviathan* does not leave the trawler until the implied drowning of the film's explosive ending; nevertheless it removes the viewer's bearings from the outset. Shot entirely at sea and mainly at night, the film is a highly disorientating experience. Jettisoning norms of documentary and the observational tradition in ethnographic film, *Leviathan* replaces comprehensible language and narrative with multisensory encounters with the various beings caught up in the enterprise of commercial fishing—captured shoals of fish and shellfish, flocks of gulls and, more rarely, the ship's crew. The film's highly textured soundscape and destabilised footage afford a haptic proximity to these diverse bodies that continues relentlessly, rarely giving viewers space or time to pause.

Combining these aural and visual elements over successive long takes, *Leviathan*'s multisensory aesthetics immerse the viewer in an affective encounter with the swarms of the sea. This enables the film to simultaneously extend a recognition of sensory experience to the non-human world and to expose the limits of representation in the face of the swarm's alterity. At the same time, the swarm's distributed subjectivity makes for a disembodied encounter that challenges the limits of individual consciousness. The film's representation of the shifting body of the swarm through haptic aesthetics creates what I have developed in the Introduction as the 'disembodied sensory.'

This disembodied quality is heightened by the imposing presence of the trawler's machinery. With reference to the powerful documentation of container ships by Allan Sekula

(1995, 2010), Steve Mentz observes that 'the human-ocean interface has become increasingly mechanized and dehumanized' (Mentz, 2018, Para 11.32). In relation to the industry of fishing specifically, this mechanisation has reached such a pitch that 'the quaint term "fishing"' can now only act as a euphemism for the 'massive industrial extractions' of the ocean's formerly profuse life forms (Alaimo, 2014, p.196). The film provides an unsparing look at the brutal effects on both exhausted workers and butchered fish, a critical focus that is counterpointed with an equal emphasis on the industry's waste. For this, the American ocean becomes an endless trashcan: discarded shellfish and fish-heads are kicked overboard, torrents of bloody water are flushed into the ocean and a heaving net dragged to the surface exudes a trail of crushed shellfish.[105] The amount of waste created by this one trawler on a single day is shocking in itself; the film leaves the viewer to extrapolate that this is but a fraction of the damage done by the industry on a global scale.

Leviathan is an unflinchingly critical portrait of the industry that helped to build North America by doing such damage to its waters. As it pays tribute to the losses it causes and the damage wrought to humans, nonhumans and ecosystems, behind the film is a grim awareness that the enterprise of industrial fishing continues to be driven by corporate greed and justified by the complacent assumption that the sea's shoals are infinite and endlessly adaptable.[106]

The combination of immersive and contemplative modes, as well as that of bombardment, is deeply tied to the film's innovations in form. The radical boundary-crossing potential of the swarm catalyses the film's generative combination of ethnographic, documentary and art film into a novel form that hovers at the edge of representation. *Leviathan* incorporates the abstraction of experimental art into an ecological imaginary that remains deeply invested in the real. This results in a composite work that is as disorientating and disturbing as its subject.[107]

Before considering the implications of this for the film's ontology and ethical potential, I want to continue my exploration of these works' combination of immersive and contemplative modes. In turning to this film, which has abandoned a singular human perspective and passed beyond traditional representation and into an immersion in the swarm, the question arises of

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[105] See Chapter Three for a discussion of waste material (both nonhuman and human) in terrestrial and political contexts.

[106] For a survey of the unsustainability of global fishing and a rebuttal of claims as to the ability of fish stocks to rejuvenate quickly, see Charles Clover's *The End of the Line* (2009), which was made into a documentary of the same name by Rupert Murray (2009).

[107] As explained in the Introduction, I opt for the term 'composite' over the more commonly used alternative (both in critical theory and in descriptions of the SEL's works) 'hybrid.'

whether there can be space for human contemplation at all. Critics within and outside of the Academy widely use the term 'immersive' to describe *Leviathan* (MacDonald, 2013, p.335; Thain, 2015, p.42; Howell, np, 2013; Lim, 2012, np). This term is used to signify an all-encompassing sensory experience, but the aqueous roots of the word—of being plunged into water—make it a peculiarly apt term for this film. Without wishing to resort to watery 'puns' (Pavsek, 2015, p.6), I will investigate *Leviathan*'s affective aesthetics in terms of immersion, for it enables a theoretically rich exploration of the film's phenomenology, ontology and ethics.

Filmed on waterproof GoPro cameras, *Leviathan* immerses the viewer in the turmoil of the fishing trawler at sea. The viewer is plunged into crates of dying fish, crammed into a shower cubicle with a tattooed crewman, and submerged in the tumultuous ocean waters. Immersion is undoubtedly a central mode to *Leviathan*, but an exclusive emphasis on immersion cannot fully respond to how the film both destabilises and shocks the viewer, *and* offers mesmeric, almost sublime contemplation. An analysis capable of explaining more fully the shifting affective and cognitive experience generated by the work must be sensitive not only to the film's immersive mode but also to its modes of bombardment and, however surprisingly, contemplation.

In among the dizzying shots of fish, gulls and human bodies roiling at sea, the film includes moments of relative stasis that seem more conducive to contemplation. These are often shots that focus on more individualised bodies in varying states of consciousness, be it a concentrating captain, a disorientated seagull, or a dead fish. Although it is a separate piece, the short film, *Nature Morte* (2013) is an extension, in some ways, of these aspects of the film. As single static long take with a duration of nearly thirty minutes, *Nature Morte* works as a counterpoint to the largely unrelenting motion of the feature-film. The piece focuses unblinkingly on a small number of exhausted workers resting in the ship's mess, or dining room, providing an insight into the human cost of the manual labour of commercial fishing which remains more implicit in among the dizzying rush of the feature-length *Leviathan*. That this stable shot was not incorporated into the main body of the film, but rather kept as a separate piece, might suggest that the immersive feature-length film has no room for contemplation.

However, the contemplation associated with the still life is retained in the film through movement. In fact, *Leviathan* can be seen as a series of mobile still lives. This is perhaps clearest in the extended shot of a fish-head rolling repeatedly towards and away from a gunnel, a scene Pinney describes as 'a *nature morte*, which is continually moving' (2015, p.37). The reflexively

named *Still Life / Nature Morte* (hence *Nature Morte*) is a very different kind of painted scene. Marked by the lack of camera movement, it has more of the stability associated with a painting, but here the subjects are not inanimate but *living* humans. The crew seem almost insensate from extreme fatigue. Their movements an uncanny echo of the film's still life of the fish-head. As in Marx's analysis of the depersonalising effects of capitalism and Walter Benjamin's description of factory workers' repeated movements as automatic (see Introduction), the crew seem to register a kind of death in life, borne out of the more brutal forms of labour. As such, rather than this subject matter making *Nature Morte* more humanist in any simple sense, the film portrays its human subjects as being reduced to the status of objects arranged for a still life.[108]

Nature Morte counterpoints life and death, the still and the moving, and—to continue my overall discussion—contemplation and immersion. Even within this more restful space, the obvious exhaustion of the workers suggests that a lull or a pause does not necessarily give rise to contemplation. The association of a lack of movement with contemplation is undercut by both the nearly motionless short film and the mobile feature-length. Affect theory's revelation of the co-constitutive nature of cognitive and emotional responses allows us to see that the film's unstable and immersive long takes do in fact enable contemplation to arise. As Ernst Karel noted in an interview with me, *Leviathan*'s immersive aesthetics do not prevent the viewer from having linguistic thoughts and, by extension, contemplative responses (Karel, 2015).[109] Rather than the film's contemplative mode being solely located in its scarce moments of lull, a contemplative state of mind emerges from the extended sensory assault of the film's immersive experience: these responses are felt by the viewer as contemplative immersion.

As the camera is plunged into the ocean and soars into a blackened sky, the human body—both that of the film's profilmic subjects (those placed in front of and recorded by the camera) and of the viewer—is surrounded by flocks and shoals. In 'Prayer,' the lyric subject goes forth to immerse themselves in the shoal imaginatively; in *Leviathan*, the camera is plunged into the fish which rush toward the viewer. The sense of being surrounded by a swarmic mass is disconcerting and intrusive. In distinction to Graham's 'Prayer' and in a similar manner to her later poem, 'Deep Water Trawling,' *Leviathan*'s pelagic swarms can also give rise to an

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[108] *Nature Morte* is filmed from the same vantage point as the penultimate scene in *Leviathan*, in which a crew member slowly falls asleep. This will be discussed in relation to the apocalyptic connotations of *Leviathan*'s closing sequence later in the chapter.

[109] "[I]mmersiveness [does not necessarily] preclude thinking about what one's seeing or hearing"; "part of the reason I think that *Leviathan* maybe in particular is a powerful experience is because of its duration and the length of time that the normal audience member is being made to spend without language coming at them. I don't think that precludes lots of language happening inside one's own head" (Interview with Ernst Karel on 15.12.15, 45m).

experience of being bombarded. Bombardment and immersion are correlate terms that share a sense of profusion, but have differing significations in terms of agency. If the aqueous term immersion is a cognate of the *elements*, bombardment is a cognate of the ocean's *swarms* and, as such, holds connotations of attack. Immersion implies the active verb 'to immerse oneself'; and whilst one can 'be immersed,' this implies a degree of consent attributable to the term's positive connotations of enfolding and absorption, far removed from the sense of powerlessness behind the term bombardment. The introduction of this third term of bombardment—which invokes more extreme affects than immersion might—further challenges a conception of immersive experience as the antipode of contemplation for it places immersion as a bridging term between the modes of contemplation and bombardment. By recognising that all three modes are continually in play (with the emphasis on the shifting between them; focussing, in other words, and to use my term, on the fact that they are *counterpointed* throughout), I appreciate the film's greater affective complexity than more singular responses which focus on the film's immersive qualities alone allow for.[110]

The hapticity of *Leviathan*'s swarms is key to the film's ability to work on the audience's consciousness in this way. To the fish, any touch is fatal: as the opening sequence demonstrates, taken out of its element, the three-dimensional shoal becomes a mass of bodies crushing each other in a net, before being dropped in a crate and later killed by the seamen employed to gut them. The proximity to the suffering shoal and what Castaing-Taylor has referred to as 'the pornography of […] the massacre' is rendered all the more nightmarish by the intrusive flock of gulls that follow the ship for bycatch (2015, 42min). Since most of the film—excepting a central section graced with watery sunlight—takes place before and after daylight, the gulls seem to form a claustrophobic enclosure around the ship. These predatory birds, all sharp beaks and flapping wings, can touch but not be touched by the human. The film's all-encompassing sensory aesthetics reach toward a swarmic sublime, one defined by haptic proximity, rather than the archetypal expanse of an open landscape, as evoked in Castaing-Taylor's earlier work, *Sweetgrass* (see Chapter Two). The twin aesthetics of bombardment and hapticity in *Leviathan* work to elicit compassion for both its human and nonhuman subjects. The film's ecological imaginary—in which an ethics of ecological compassion is central—lies in its contrapuntal shifts

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[110] Discussing the SEL, Karen Nakamura notes that '[f]ilms do not need to pipe in smells, waft breezes across the audience, or chill the room […] Our brain's natural synesthesia [sic] will do it automatically when we are totally immersed in the filmic world'; she suggests the filmmakers associated with the 'Harvard school' have 'achieved this level of technical cinematic and synesthetic immersion' (2013, p.135).

between immersion and contemplation, human and nonhuman, as well as between the levels of the individual and the collective.

It is the mode of bombardment that is most frequently used in mainstream representations of the swarm in nature documentaries. As noted, *Leviathan* certainly invokes in the viewer a sensation of being bombarded—its swarming images and sounds create an all-encompassing sensory experience that puts the viewer in a passive relation to the film. But the implications of this are different to the positioning of the swarm bombarding the human that is common to mainstream representations of the swarm, for the film is in essence a portrait of a shoal crushed and butchered by the human. *Leviathan* bombards the viewer not to evoke human passivity, but rather to reveal the swarming shoals to be defenceless in the face of human predation. By creating *passivity* in the viewer through its sensory overload, the film seeks to generate an embodied understanding of the impacts of our *agency* as a species. As such, the film's aesthetics of bombardment are a crucial aspect of the film's attempt to engender compassion for the dying shoal. The passivity of this aesthetics of bombardment runs in productive tension with the calls made on the viewer by the non-narrative, open-ended film to actively partake in meaning-making, an attribute shared with Graham's poetry.

The human crew are far from being the main focus of the cameras that circle around them as they work. The expectation of anthropocentrism makes *Leviathan*'s nonhuman focus startling, yet once the viewer is habituated to this, the human presences become more powerful because attenuated.[111] Sparse instances of human camaraderie—one crew member giving a cigarette to another with a smile—are particularly poignant. Even when the main object of the camera's attention is the fish that are being sliced, sorted and packed away, the toll that the repetitive movements and heavy physical labour take on the men's bodies and minds is clear enough. One sequence that does focus on their bodies takes place in the shower cubicle: this sequence has been critiqued as voyeuristic and prurient (Leimbacher, 2014, p.39), but exposing the flesh of the 'butchers' reveals an unhealthiness that is more striking than the men's tattoos.

By describing *Leviathan* as an ethnographic lyric, I am highlighting the strange subjectivity of the film—strange, evacuated, disembodied but viscerally felt—that is generated by its lyricism and experimental aesthetics. In doing so, I am countering a critical emphasis that defines the film as a documentary, a label commonly given to the film, though not by its makers (Castaing-Taylor, 2016, p.55). The forebears of *Leviathan* are to be found not in the

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[111] This operates in a similar way to the expectation of familiarity that Attridge describes as the 'necessary background' to the surprise of singularity in literature (2015, p.22).

documentary but in other literary genres and visual media. The fictional aesthetics and ethnographic impetus of this film point to precedents that stretch from the literary allegory of *Moby Dick* ([1851] 1950) to *Forests of Bliss* (1986), a seminal ethnographic film that paved the way for the work of the Sensory Ethnography Lab.[112]

The prominence of the fish and gulls in *Leviathan* suggests that the film is a nature documentary. As Derek Bousé has outlined, wildlife film has emerged as a separate tradition to the documentary (1998). *Leviathan*, however, scrambles this opposition, drawing as much on social documentary precedents such as John Grierson's *Drifters* (1929) and *Granton Trawler* (1934) as the tradition of wildlife film. At the same time, it remains in important ways an ethnographic film (see Landesman, 2015). In the vein of multispecies ethnography, *Leviathan* foregrounds the lives—and deaths—of the nonhuman creatures involved in the practice undertaken by the community of study.[113] *Leviathan* is a composite of nature documentary and ethnographic film, which traditionally seeks to portray a *culture*, and as such plays into the idea—itself a composite—of the naturalcultural (see Introduction).

Most attention has been given to the intertext that is referenced—ironically—by the film itself: *Deadliest Catch*, which is overheard playing as a crewman watches it in the galley (Beers, 2005-2018).[114] This has been variously interpreted as a 'clever hint' (Landesman, 2015, p.17), as egregiously self-congratulatory (Pavsek, 2015, p.9), and as a 'little inside joke' (Russell, 2015, p.31). However, all critics agree that this self-reflexive move acts to distinguish *Leviathan* from a broadcast marketed as entertainment: this forebear is almost entirely aesthetically and ontologically opposed to *Leviathan*. In my interpretation, this self-referential gesture shows that the wry humour which, as we shall see in the following chapters, is evident in both Castaing-Taylor's and Paravel's earlier films, finds space even in this most nightmarish of environments: the filmmakers are able to make a joke at their own expense as well as that of the Discovery Channel.

As noted above, the lifting of technological barriers has been crucial to crossing the frontier of filming at sea (see Alaimo, 2014). This explains in part the critical and media

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[112] It is notable that these, like many of Castaing-Taylor's and Paravel's creative and anthropological influences, are drawn from North American works. The combination of American and European influences on films made in the Sensory Ethnography Lab will be discussed further in Chapter Two.

[113] See the article on *Leviathan* co-written by prominent contributor to multispecies ethnography, Eduardo Kohn (2015).

[114] A mainstream humanist, narrative and drama-driven show from the Discovery Channel, *Deadliest Catch* is more properly a reality television series than a documentary, as described by Landesman (2015, p.17).

emphasis on the technological feats of images caught at sea, from the pioneering work of Jacques Cousteau—scientist, filmmaker and inventor of the 'aqualung' that remains central to scuba diving equipment today (Reynolds, 2010)—to the widely watched British natural history programme, *The Blue Planet* (2001). This fascination surrounds *Leviathan* to a similar degree, with commentaries clustering around the film's 'widely celebrated' filming technique and equipment (Pavsek, 2015, p.9; see also Dollar, 2013; Landesman, 2015).

Beyond mere technophilila, however, the way in which *Leviathan* was filmed is central to its aesthetics of instability and proximity. The film's footage and sound were filmed entirely on GoPro cameras, small waterproof sports cameras first manufactured in 2002.[115] These were attached to the filmmakers' and crewmen's bodies; to sticks that are plunged into crates of fish and held overboard in water and air; and on rarer occasions, to the ship itself. If this separation of the camera from the filmmakers' bodies creates, as Russell observes, 'an aleatory, contingent, and almost free-floating perspective' (2015, p.30), it is at the same time one that is insistently embodied.[116] Denied the comfort of a habitually stable cinematic gaze, the viewer is immersed in what is an already disorientating and relentlessly physical environment of a fishing trawler. The frenetic movements of swooping gulls, dying fish and labourers' hands are experienced through long takes that are as mobile as the human and nonhuman bodies that crowd the screen. The continual instability and multiplicity of perspectives that emerge from the footage imbue the swarmic encounters in *Leviathan* with a destabilising force.[117]

To get a sense of how this immersive experience is constructed, it is worth turning to the opening sequence of the film, which, like Graham's 'Prayer,' traces a shift from the human subject to the shoal. As explored, Graham's 'Prayer' traces a progression from the lyric subject, through the shoal, to a re-singularised self. *Leviathan*'s opening movement from human to shoal, meanwhile, is much less linear. While Graham's poem moves with the shoal from the second or third line, *Leviathan* takes nearly a third of the film to finally immerse the viewer in the massed fish, though these are the dead and dying creatures of the trawler's haul. The thirty-minute long

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[115] Castaing-Taylor and Paravel's use of modern technology to create destabilising images continues in the recent installation, *Ah Humanity!* (2015), filmed on a smart phone held up to a telescope.

[116] See Eirik Frisvold Hanssen's description of *Leviathan*'s GoPro cameras as a 'species' (2015).

[117] Christopher Pavsek argues that the novelty of this 'new' camera technology must be somewhat qualified: since GoPro cameras have been so commercially successful among amateur users and their footage so commonly shared on social media, he argues that the GoPro 'has become a constitutive a priori of experience today' (Pavsek, 2015, p.9). This critique does less to diminish the destabilising power of the film's visual and aural composition than to steer critics away from focusing on the technological tools used rather than the artistic use to which they have been put.

opening sequence follows the careful operation of hauling the heaving net out of the water and being emptied on deck. Before the fish are finally dropped, the sequence shifts almost seamlessly between all of the other subject positions of the aqueous ecology surrounding the shipping trawler, from those of the fish, gulls and the human workers to that of the ocean and the ship itself. The shifts between viewpoints in extended long takes are at times distinct, whilst at other times, the perspectives fuse less clearly, and the lines between species are blurred.

The film opens on black, into which splashes of colour and shapes emerge—evocative of abstract impressionism—to the sounds of rattling chains and crashing waves.[118] In these initial disorientating minutes, the viewer attempts to establish the perspective and content of these sights and sounds. Only slowly does it become apparent that the camera's perspective is defined by the movements of the body of a member of the crew.[119] The muffled voice of another worker is heard giving unintelligible instructions to the worker whose body bears the camera but whose hands work to unravel knotted chains. The lack of intelligible language in *Leviathan* is entirely intentional: when the film is experienced as intended in surround sound, multiple channels of machinic and elemental sound—carefully worked by Ernst Karel—render the human voices much less intelligible than when presented in monaural sound.

After laborious minutes of physical preparation on the part of the crew, and physical acclimatisation and mental anticipation on the part of the audience, a net bursting with fish is raised from the sea. The emptying of the net has all the drama of a birthing scene: a mixture of keen anticipation, sensitive handling and the intense physicality of a gory arrival. Whilst experienced through the movements of the fisherman bearing the camera, ultimately the birth is orchestrated by the greater power of the ship, which is uncannily disembodied. Chains and levers move, controlled by unseen hands; in some of the few audible words of the film, instructions ordering the workers to 'hang on' are transmitted over the tannoy. This disjuncture between the agent and the tool reminds us that this is an unnatural, violent birth in which the mother of the sea, disavowed by the rapacious fishing trade, is only figured negatively.

When the net releases the haul into the large wooden crate that forms a significant portion of the deck, it holds the same draw as attracts eyes to a car crash. Yet the camera, still

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[118] For an evocative description of colour and the shifts from abstract to concrete as the viewer manages to identify the objects in the opening sequence, see Eirik Frisvold Hanssen's astute article on the implications of the paradox of *Leviathan*'s disembodied embodiment (2015, p.23).
[119] As a collective noun, the word 'crew' indicates the workers' mutual labour in a shared endeavour rather than imposing on them a common identity. As such, it operates in a similar way to the swarm, as discussed in my theorisation of re-singularisation above.

attached to a worker, quickly moves away from the haul to focus on preparing the net for the next catch. The dying fish are still visible in the lower half of the shot, and so the gaze of the viewer and of the labourer remain in conflict. To the fishermen this sight has lost its horror through the banality of repetition, yet the film's implied viewer is one who is likely to be seeing a haul of this kind for the first time. For both the profilmic subjects *in* the film and the implied viewer as constituted *by* the film, immersion and contemplation merge at this point, though in very different ways. Physically inactive, yet their senses unremittingly assaulted and their mind continually engaged in orientating the instabilities of the film, the viewer shifts between gazing at the crew's focused and repetitive movements, and the uncontrolled and spasmodic flailing of the dying fish below. It would be a presumption not supported by the film to intuit what the crewmen are thinking as they work, but it seems clear that at this point the workers are fully concentrated on the actions required of them to perform this difficult (and hazardous) operation. Their labour is immersive in the sense of being physically consuming, but also—considering the dangers involved—in requiring mental alertness. Moreover, working as a team—for all that the film removes the habitual emphasis on human language—the crew's *communication* as a group is a necessity.

After this glimpse of the haul, the camera moves between all of the other presences on and around the shipping trawler before finally immersing the viewer in the dying fish: the camera moves with the crew, becomes entangled in the ship's netting and traces the uncannily intestinal rope, before dropping into the ocean itself and flying with the gulls. Unable to stabilise themselves, the viewer's experience is in some ways immanent to the sensory experience of images and sounds. However, lost in a film that privileges the senses over sense, the viewer instinctively attempts to orient themselves: mental attention arises because of the disorientating immersive experience not in spite of it. The duration of the film's sustained long takes provides the viewer mental space to contemplate the spectacle presented with limited direction from the film itself.

During this constant shifting, however, there is a moment of relative calm: an extended shot shows a member of the crew, in some incomprehensible interaction, throwing an orange sphere, perhaps recognisable as a buoy, overboard towards a second ship. In the otherwise completely isolated environment of the ship at sea, this second ship seems small and fragile. A sense of a broader fishing community is invoked and then dwarfed by the enormity of empty space on the ocean in a counterpoint of connection and isolation. This other ship also appears as a spectral haunting: its illuminated frame, with a fishing trawler's unfamiliar

horizontal winches extending over the deck, resembles both the skeleton of a boat and the jaws of a sea-monster. The body that the camera is attached to remains still for this extended period, but this only *heightens* the sense of the ship's constant heaving on the waves: even moments of lull, and the contemplation they invite, are characterised by the ocean's immersive flux. In sequences such as this, the film inhabits contemplative and almost otherworldly modes and meanings whilst still immersing the viewer in the felt reality of the trawler.

Despite its unexpected shifts, *Leviathan* has until now offered a plausibly linear narrative. This is disrupted when the camera turns from the ghostly ship back to the deck. The crate—into which the net had previously released a fresh catch—is briefly glimpsed as empty, before the scene cuts and the crate is once again heaving with dying fish. Is this second haul a ghostly echo of the first, or was the ghostly apparition rather the other ship—contemplated in a seeming suspension of the film's continual action—along with its turn to an empty deck? The film's dedication, in its credits, to ships lost at sea might support this latter interpretation, but since the film is formulated to deconstruct rather than create a navigable space, the discrepancy is more likely to serve to heighten the overall disorientation of the film. In this way, what may have been an unintentional slip in editing becomes a site of ambiguity that invites different interpretations.[120]

In 'Prayer,' Graham's lyric subject gets caught up in the movements of the free shoal of minnows as soon as she catches sight of it, but in *Leviathan* this visceral immersion in the dying haul is the culmination of the opening sequence. The extended immersion in the dying shoal is filmed from *in among* the teeming fish, most of which are already dead, having been crushed in the net. As the ship swells on the waves, the camera and fish move in the crate. Intestines protrude from the fish's mouths; horrifying convulsions remind us that these creatures are dying as we watch. Had the film opened with this, the effect might have been to inspire the viewer to detach from this horror. To make the viewer truly encounter the suffering of the shoal, it is necessary not simply to *shock*, but to break down the viewer's sense of themselves as invulnerable, stable and unconnected. The flux of the opening sequence puts the viewer at the mercy of the turmoil of the trawler in order that, when finally immersed in the shoal, we might

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[120] In their discussions of the film, Castaing-Taylor and Paravel have emphasised that their work resolutely opens out signification rather than dictating it. Anticipating the aims of the Sensory Ethnography Lab more broadly, Castaing-Taylor's early essay 'Iconophobia' stresses that a key strength of visual ethnography is that it is 'susceptible to differing interpretations in a way anthropological writing is not' (Taylor, 1996, p.75). For a discussion of the ethical risks of giving such 'spectatorial freedom' and the extent to which it is an 'abdication of aesthetic, intellectual, and political responsibility,' see Christopher Pavsek (2015, p.8).

be ready to contemplate our connectedness to the shoal as creaturely members of the aqueous ecology, and perhaps to feel compassion across the species boundary.

This is the first encounter with what will be the central focus of the remainder of the film: in Castaing-Taylor's words, the attempt to 'represent the death-throes of the fish' (2015). This first haul of fish is followed by numerous other hauls seen over the course of the film: of scallops, skate and everything in between; of rays hacked apart in a sad echo of the brutal slaughter of shark after shark in Cousteau's *The Silent World* (1956).[121] The sheer bloodiness of the fish comes as a surprise and is one of the film's most defining visual features.[122] During the butchery that follows the capture of haul, the film is at its most distressing, but also, somehow—as we witness 'torrents of blood pouring onto a canvas of aquamarine' (Pinney, 2015, p.37)—the film retains its 'visceral beauty' (Stevenson, 2015, p.49).

When the film turns to the processes of butchery, as well as the level of graphic proximity, the film's characteristic shifts in subject positions are maintained. In the first such bloody sequence, the camera initially sits within the over-sized bucket of indistinguishable fish. It then moves gradually from the unidentified mass to focus on the fish that is currently being butchered before, almost imperceptibly, the focus moves to the hands of the worker wielding the knife. The focus shifts from the bloody effects to the precision, attention and speed of this well-practiced action. The lack of a clear juxtaposition between subject positions has ethical valence, neither shying away from the viscerality of the death of the fish nor demonising the workers as butchers. As I will explore later in this chapter, the opening lines of 'Deep Water Trawling' perform similar shifts.

The film cannot maintain the intensity of swarmic flux without the risk of losing its audience; this is the aesthetic risk of abstraction. To avoid this risk, after the first thirty minutes of the film's swarmic bombardment, the camera focusses on three individuals separated from the swarm—a fish, a gull and a fisherman. The shots form a rare moment of lull and singularisation, all the more emotive because of its scarcity. This triptych of extended portraits of isolated swarm members forms an unusual reduction, if not suspension, of the film's chaotic mobility. Here, the emphasis is more clearly on contemplation. The first portrait is of a fish-

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[121] Sharks are close relatives of rays and so the similarity is not just in size. The discomfort in watching these practices in *Leviathan* is far outstripped by that felt watching the slaughters in Cousteau's film, which were clearly performed for the benefit of the so-called documentary film.

[122] Critics have commented on the 'blood spilling overboard' (Pavsek, 2015, p.10), 'the redness of coursing blood' (Stevenson 2015: 49) and the sheer 'torrents of blood' (Pinney, 2015, p.37) coming from the butchery of the fish.

head rolling on deck before finally returning to the ocean through the gunwale at the side of the ship. After being confronted with the mass of dying fish, the focus on this single fish head—removed from its sea, shoal and body—is perceived as uncannily anthropomorphic (see Introduction). The dismembered head's disturbingly life-like movements, the insistence of its gaze, and its repeated 'fail[ure] to leave the stage' (Thain, 2015, p.44) combine to render it an object of combined comedy and pity.

Leviathan. Courtesy of Véréna Paravel and Lucien Castaing-Taylor. 1

When the portrait of the fish is echoed in the third portrait of the series (of a worker), the empathy that was extended to the anthropomorphic portrait of the fish in the preceding scene means that compassion is now also granted to the worker. Just as drained and weather-beaten, the human head is cut—not by a worker's knife, but by the camera shot—just above the end of the nose, making his face look uncannily fish-like. Splicing shots of humans and nonhumans is a common practice of zoomorphism in film (see Introduction on zoomorphism and anthropomorphism). *Leviathan* counterpoints its anthropomorphic and zoomorphic registers, 'humanizing animals and animalizing humans' by turns (Daston, 2006, pp.7-8).

Within the film's destabilising experience, as Russell notes, 'the human body is dispersed and displaced, and yet not entirely absent' (2015, p.31). By relativising the human subject as merely a single member of one species in an ecologically connected world, the film works on the conscience as well as the senses. The viewer's implication in the destruction they witness in the film is highlighted by their undeniable kinship with the human labourers. This

connection is counterpointed by the fact that the viewer—consuming the film as the majority of people consume fish caught on trawlers—remains safe and dry in the cinema. As such, *Leviathan*'s lyric capability of heightening consciousness together with its documentary mode of bearing witness combine to enable a strong if implicit critique. Its critique of a fishing industry driven by relentless capitalism is inclusive enough to attend to both the human cost to the workers and maritime degradation.

Abstraction and Immediacy

Having explored abstraction as an aesthetic response to the swarm and having posited the aesthetic strategies of immersion and contemplation as techniques of re-singularisation, I now want to discuss abstraction as a different order of meaning: the level of theoretical abstraction. To do so, I will explore the related dyad of abstraction and immediacy. Like contemplation and immersion, this dyad has its correlate in the higher level terms of cognition and affect. Drawing on Karl Marx's thought, I will develop abstraction as a strategy of cognition that operates through its counterpart, *rationality*. Immediacy, meanwhile, is perceived through—and is an effect of—emotion and affect. If poetry 'mediates between concrete reality and abstract ideas' (Bristow, 2015, p.5), so too can film.[123] The affective aesthetics of both the ethnographic lyrics of this chapter counterpoint these two modes.

I previously discussed abstraction as an aesthetic strategy of representation, but also as a response to the challenging subjectivity of the swarm. I also showed that both these motivations for abstraction raise ethical questions. Now, I want to think about the ethical concerns and ideological implications of what I see as the works' combination of abstraction and immediacy. Counterpointing these modes, I contend, enables both Graham's poem and *Leviathan* to critique the depersonalising effects of capitalism in a way that does not repeat the reduction of immediacy to abstraction. A prime example of the use of abstraction as a theoretical tool to reduce the immediacy of experience to a rational meaning can be found in the writings of Karl Marx. I now want to explore the implications of this for the combination of affect and critique of capitalist production in the works under scrutiny. To do so, I draw on to Halliwell and Mousley's discussion of the ambivalent relationship to the immediacy of emotion and experience in Marx's thought. Marxism has been critiqued as privileging 'impersonal systems and historical forces over human beings who are seen merely as their effects' (Halliwell, 2003,

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[123] As Pavsek writes, *Leviathan* 'appears to be simultaneously sublime and *immediate*' (2015, p.9: my emphasis).

p.30). 'If capitalist production disengages itself from human processes,' Halliwell and Mousley explain, 'then Marx meets one kind of abstraction with another by privileging systemic analyses over the lives of actual people' (2003, p.30).

In certain passages in *Capital*, Marx, the 'Enlightenment rationalist', Halliwell and Mousley observe, 'tentatively puts emotion back into a system from which it has been banished' (Halliwell, 2003, pp.22, 30). Describing working conditions with 'considerable emotion' through factual reports and workers' testimonies, Marx moves from 'abstract analysis to concrete situation' (Halliwell, 2003, p.31). This shift from conceptual abstraction to human experience is an attempt to 'restore *immediacy* and presence to the experiences of exploited workers', something that is denied by capitalism as an 'abstract principle of exchange' (Halliwell, 2003, pp.31-32: my emphasis). Within the works discussed in this chapter (and across this thesis as a whole), the abstractions and depersonalisations of capitalism are countered by the immediacy of affects—forces that are 'pre- or sub-personal' (Houser, 2018, Para10.2)—rather than emotions, which, in *Capital*, are 'rational, eloquent and intelligent' (Halliwell, 2003, p.31). In Marx's critique of capitalism as a depersonalising force, '[t]he solid immediacy of emotions thus counters the abstract principle of exchange built into the capitalist system' (Halliwell, 2003, p.32).

As I have discussed above, *Leviathan* has been overwhelmingly received as an innovative achievement of immediate affective experience and welcomed as an instance of strands of new materialist thought that are currently most in vogue in critical theory. However, I share Landesman's view that 'the dominant focus on spectatorial perception as a sensuous experience' is 'quite limited in its value' (2015, p.14). Whilst I concur with Pavsek that considering the film as a solely sensory experience is insufficient, I disagree with his conclusion that the film 'blind[ly]' forecloses its own conceptualisation (2015, p.5). Amongst critics, there is a general lack of recognition of *Leviathan*'s identity as a mode of *analysis* as well as an *experience*.[124] My contention is that the reworking of perception and sensuous experience, undeniably central to the film's impact, cannot be understood as separate from the film's critique of the political, economic and environmental degradations and structures.

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[124] This can be traced to the self-described mission of the Sensory Ethnography Lab as inclining towards the 'perceptual first and the conceptual second' (quoted in Russell, 2015, p.32). While this might suggest a devaluation of the conceptual, the film itself is thoroughly suffused with the meditations of intellectual framing, as, indeed, are the discourses of affect that surround the film. See Pavsek on the 'fetishistic disavowal' in discourses surrounding the film (2015, p. 6).

Affective approaches, of course, are not incompatible with Marxist ones. On the contrary, what I want to show is their *compatibility* by arguing that my selected artists are undertaking, if not a strictly Marxist critique, then a materialist one, a critique that operates through a phenomenological and affective lens. Within this view, *Leviathan*, along with *Nature Morte* and, to a certain extent, Graham's more recent poems, invoke the sensory and synaesthesic in order to critique both the means of production—capitalism as a system that depersonalises those who labour within it—and the more 'objective' (Marx, [1867] 1976, p.167), 'highly theoretical, rationalist *analysis* of commodity production' of Marxist analysis itself (Halliwell, 2003, p.30: my emphasis).

The Cosmic Reach of Pelagic Ecologies

As the readings above have made clear, Graham's, Castaing-Taylor's and Paravel's pelagic works explore human and nonhuman relations with acute sensory viscerality. This project of rendering environmental relations and dangers more deeply felt is pursued across the works selected for study in this thesis. However, these pelagic portraits and inquiries take a notably broader lens, placing their subjects and groups in a cosmic and anthropogenic context in a way that their works of land and city—which will be studied in the following chapters—do not. One suggestive answer for why this should be is the scale and boundlessness of the pelagic elements themselves. Vast and seemingly empty, particularly at night, the sea and the sky have long prompted contemplations of human mortality, finitude and insignificance. At the same time, the ocean's incalculable expanse is equally likely to quicken fantasies of human mastery over the sea, which, like all visions of the sublime, are inevitably futile.

I have shown that, in these artists' works, the enormity of sea and sky is juxtaposed not only with an isolated human figure as in the archetypal littoral lyric or the crew of a maritime epic, but also with the swarming creatures found in the ocean. The shoals of fish and flocks of birds in these artists' pelagic works are notably smaller than the swarms of sheep, humans and machines that populate their urban and land works, notably the herd of three thousand sheep in *Sweetgrass* which, as we will see in Chapter Two, stretches across mountainsides. The members of the smallest of the shoals, the minnows in Graham's short poem 'Prayer,' move in their 'thousands'; yet the whole group can be seen without moving the head. The 'miniscule' size of these fish is appropriate for the poem's consideration of whether humans and nonhumans can act within planetary and cosmic forces in order to engender change. *Leviathan*, meanwhile, is a film that signals and critiques human greed and predation, and accordingly its captured shoals

are formed of larger creatures—ones that do not naturally swarm together. Sharing *Leviathan*'s critique of a central cause of maritime degradation, Graham's recent poem 'Deep Water Trawling' decries the grotesque waste of creatures that were 'the wrong size' being discarded as 'millions of tons' of bycatch. The extremity of this scale is rendered all the more poignant by the realisation that the 'scars on the seabed—the mouth the size of a football / field' are made of individual creatures 'thrown / back dead or wounded.'

The elemental vastness of the ocean and sky might be expected to further dwarf these small swarms of the sea. On the contrary, the works under scrutiny get closer to imaginatively rendering the scale of our seas and skies through their representations of swarms. By emphasising the haptic physicality of these swarms, these works reveal the anthropocentrism behind any assumption of the ocean as an empty space. As with terrestrial wildernesses, this supposition has long supported claims for colonial expansion and the exploitation of natural resources: as Stacy Alaimo explains, the view of the untamed ocean as 'the earth's last frontier of wilderness […] in terms of American mythology' positions it as 'the place for narratives of domination' (Alaimo, 2014, p.193; see also Kroll, 2008).[125] Rebutting such discourses, these works perform scalar juxtapositions between an immersive yet impenetrable environment and an unknowable yet viscerally felt swarm. By invoking both of these scales, the works are able to signal beyond the human as merely existing alongside the swarm, and toward their entanglements on ecological and even cosmic levels. In this way, these portraits of the hauls of one fishing trawler or the single shoal observed from a deck hold much broader implications. Becoming synecdochic for the human species as a whole, the shoals and trawlers make humanity seem much more vulnerable to the whims of 'an inhospitable environment' than familiar images of humans on land (see Mentz, 2018, Para11.28).[126]

The attention to scale and sensation in these pelagic works figures the swarmic presences as markers of physical excess that stand as the obverse of scarcity. The film and the poems engender a felt sense of what we are at risk of losing by juxtaposing an emphasis on the richness of maritime life with attention to its ecological vulnerability. The shoals face the deleterious consequences of human activities stemming from the contradictory presumptions

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[125] Insights from eco-feminism into the expression of aggressive masculinity in the domination of nonhuman environments (in Greta Gaard's terms, the 'connections between the exploitation of nature and the oppression of women across patriarchal societies') will be further explored in Chapter Two (Gaard, 1998, p.3).

[126] As Mentz explains, 'blue humanities scholarship removes human actors from controlling heights and plunges them into uncertainty, movement and dissolution' (2018, Para11.29).

that the oceans are empty and that they are endlessly replenishing. In tracing the exposure of these life forms to anthropogenic degradation, the works counterpoint immersion in excess and contemplation of loss. As I have shown, this is the message behind *Leviathan*'s critique of over-fishing and the implicit outcry which 'Prayer' makes against 'ecocide.' Noting just one of the threats to maritime life, alongside the spread of plastics and other pollutants, Saskia Sassen warns that some of the gyres that help oxygenate the ocean 'are becoming massive trash zones leading to the asphyxiation of marine life' (2018, Para 14.195). In the face of disastrous maritime degradation, the lifelessness of deep ocean waters—described in Graham's 'Deep Water Trawling' as '[t]he largest lifeless spaces this side of the / moon'—has the potential to spread to occupy the formerly vibrant and alive pelagic zone.

Both the elements and the swarms are simultaneously incalculable and viscerally sensed in these works, which continually counterpoint these two modes of perception. In 'Prayer,' the movements of both sea currents and the minnows come to be felt in the ebb and flow of the poem's long and short lines. Here the movements of the fish and their native element are in union. As previously explored, this ambiguity between the collective and the larger forces in which it exists is a central message of the poem's investigation of agency across species and scales. The captured fish in *Leviathan*, meanwhile, are devoid of agency. The helplessness of their death throes is felt affectively as their grotesque convulsing bodies fill the screen, not larger than life but rather as large as their own life. The sensory shock felt when the camera is literally immersed in water to the sound of what Ernst Karel describes as a 'disturbing gasping' figures negatively the fish's return to the element from which they have been fatally separated (2015, 15m).

Whilst pelagic creatures and elements share qualities of affective alterity, the swarms in these works can be usefully differentiated from the elements by their finiteness. By definition uncountable, the swarm may seem endless, but the shoals of fish in 'Prayer' and *Leviathan* are in fact shown in their entire form, as a whole shoal of minnows or a haul suspended in a net above the deck. In contrast, the gulls in *Leviathan* form a flock never seen in its entirety. Creating a claustrophobic enclosure around the fishing trawler, the birds are a menacing presence and seem capable of bombarding both the humans on deck and those in the cinema. However, it becomes apparent that the flock does not extend beyond the immediate vortex of the trawler, and rather that the gulls are following the ship for its bycatch: like the shoals, the gulls form a delimited swarm.

The *elements,* meanwhile, extend far beyond the reach of poem, film and perhaps even human imagination. In *Leviathan*, the two-dimensional blackness of the sky seen between the gulls' white bodies and the depths of the sea that swallow the trawler's detritus and bycatch renders them both impenetrable and ultimately imperceptible. Likewise, in 'Prayer,' the 'dockside cycles of finally-arriving boat-wakes' in which the minnows move originate far beyond the sensorium of the poem. The 'original shock' that caused these ripples, one that the reader 'must imagine,' is meant, Graham has explained in an interview, to evoke the Big Bang: in this image, the ocean water holds echoes from the beginnings of time (Flatow, 2003, 16m). The unseen depths and endless breadth of the ocean reveal the different limitations of both filmic and poetic representation, as well as those of human imagination in grasping the infinite. *Leviathan*'s shots seem to span a huge space, from flying with the gulls or swimming behind a heaving net dragged toward the surface. The film's mobile shots are indeed far removed from the habitual stable camera, but the limits of the film's representation are defined by the length of the two by four stick on which the GoPro cameras were held overboard.

Unrestricted by such limits, Graham's 'Deep Water Trawling' goes further, travelling far beyond the trawler to follow the 'nets abandoned' that continue 'ghost fishing' long after humans have 'die[d] / of exhaustion or suffocation' (2014). This haunting image is one that *Leviathan*'s cameras could not reach, yet likely would have included had it been possible. If Graham's lyric can stretch as far as human imagination, it also reaches a space that challenges that imagination. Descending yet further into 'the dead zones' where there is 'no life,' 'Deep Water Trawling' can only describe its emptiness through comparisons with the more familiar empty spaces of 'the Sahara' and 'the moon'. Compared to the vastness of the ocean—in particular the *deep* ocean—the delimited swarms of the pelagic zone appear closer to the human scale: nonhuman pelagic swarms and human land swarms appear as similarly small bodies situated within the boundless elements.

In pelagic ecologies, then, the swarm and human are unavoidably situated in a much broader ecological context, one that reaches a cosmic scale. The synopsis of *Leviathan* describes it as 'a cosmic portrait of one of mankind's oldest endeavours' (Castaing-Taylor, 2012, p.2). Elsewhere, Paravel has described her and Castaing-Taylor's aims to create in *Leviathan*, rather than 'something straightforwardly ethnographic,' a 'cosmological portrait of our relationship to the sea—tacking back and forth between the sublimity and horror of it' (in Castaing-Taylor, 2016, p.58). I will explore the implications of Paravel's statement for my reading of *Leviathan* further shortly, but for now I want to highlight the pertinence of the cosmic to my argument. If

Paravel and Castaing-Taylor enlarge their ethnographic portrait to engender a cosmic purview, it is equally possible that Jorie Graham's pelagic poems stretch beyond something straightforwardly lyric by dint of their engagement with the cosmic. In fact, Graham has indicated the cosmic purview of 'Prayer' in her description of the poem, partially quoted earlier: she suggests that the wakes in which the minnows are observed imply 'an original shock much further out at sea,' commenting that this 'would be a kind of metaphor for something like a big bang' (Flatow, 2003, 16m). In this way, the smallest swarms become a correlative for humanity's position in the cosmos.

Cosmology is the theory of the universe and its laws, and as such is a study of existence on the largest scale. As such, it might seem the polar opposite of the lyric, which is often seen as myopically subjective and introverted, and the ethnographic, which is by definition located in a single community. As ethnographic lyrics, these works are first prompted by their swarmic subjects to stretch the lyric to a form capacious enough to house a massed collective. Their immersion in the boundless pelagic elements further expand the lyric form from the communal to the cosmic. Maintaining the affective vitality that is core to these works, they infuse these ecological relations at the broadest scale with the core lyric modes of the subjective, the sensory and the singular. By dint of being sensed through an embodied perspective, albeit a distributed, swarmic one, these works are by definition localised. As they stretch the ethnographic and the lyric to a communal, even cosmic vista, these works reimmerse the lyric in time and space. By localising the infinitude of the cosmic to our specific moment, these works manifestly engage in the Anthropocene, our current geologic era. Between the scales of the local and the cosmic, the political is situated. In relation to the new nature writing, Sam Solnick acknowledges that critiques of such writing—and indeed of ecocriticism itself—as being restricted to localism and an apolitical emphasis on renewed sensory experience are less valid in relation to more recent work (2016, Para 11.26; see also Smith, 2017). Similarly, these contemporary North American works are highly aware of the global networks of energy, commerce, power and waste in which their subjects are located. As such, they form illustrative examples of contemporary, ecologically-engaged artistic work which, along with new nature writing, is 'prepared to locate the local within global networks and acknowledge the technological modification of life and landscape' (Solnick, 2016: Para 11.26).

If the boundlessness of the ocean gives Castaing-Taylor's and Paravel's and Graham's aqueous works a similarly cosmic orientation, and re-immersing this in time and space renders them similarly anthropocenic, the modes in which each responds to the deleterious effects of

human action are far from similar. Whilst *Leviathan* stages the drowning of human endeavours in an explosively apocalyptic ending, Graham's more recent pelagic poem 'Deep Water Trawling'—which follows her increasingly urgent ecological collections, *Sea Change* and *P L A C E*—is impassioned, even polemical, in its attempts to rouse the reader and assert the need for action. I will now consider the ideological implications of the modes of the polemic and the apocalyptic in the ending of *Leviathan* and in this particular poem by Graham.

As noted earlier, Paravel has described *Leviathan*'s cinematic portrait as 'tacking back and forth between the sublimity and horror' of humanity's relationship to the sea (in Castaing-Taylor, 2016, p.58). The sublime and horror are both affective modes felt by the individual through the senses, but are differentiated by their positioning of the subject as in control and out of control respectively. Whilst the Kantean sublime does involve a feeling of powerlessness in the face of the awe-inspiring nature, this feeling is indulged with a frisson of pleasure because the human individual's overall control is maintained. The sublime is also experienced through another's eyes. The Romantic painting that has come to be emblematic, even synecdochic, of the sublime—Caspar David Friedrich's 'Wanderer Above the Sea of Fog' (1818)— demonstrates both of these characteristics: with sturdy footing, the lone hiker stands in between the viewer and the eerie and vertiginous landscape. Horror, by contrast, is a mode of powerlessness in the face of violence, as amply demonstrated by works of the genre in film and fiction spawned from this mode.

Paravel suggests through her nautical metaphor of 'tacking back and forth' that it is by veering between these modes—the frisson of the sublime and the abjection of horror—that *Leviathan* maintains its forward momentum.[127] The film's unpredictable shifts between viscerally experienced positions of supremacy and powerlessness are indeed as disorientating to the viewer as a ship's rapid turns can be to a seafarer. Whereas in *Sweetgrass*, it is always the herd that unpredictably shifts from obedient flock to a swarm of beasts beyond human control (see Chapter Two), *Leviathan*'s shifts from helpless horror to sublime command occur as the film's perspective moves among members of the pelagic ecology, from the horror of the butchered fish to the sublime transcendence of the gulls and the disembodied power of the ship itself. The sublime is an aesthetic mode of human mastery over nature that has been associated with the lyric form since the Romantics. Coupling the sublime aesthetics offered by a ship riding the waves with the horror of this human mastery when seen from the perspective of the butchered

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[127] '[T]acking' is a nautical term that refers to the port and starboard turns performed in order to move in an overall forward direction when facing the wind.

fish as well as the cost to the worn fishermen themselves, *Leviathan* instils the sublime lyric with an ecological conscience.
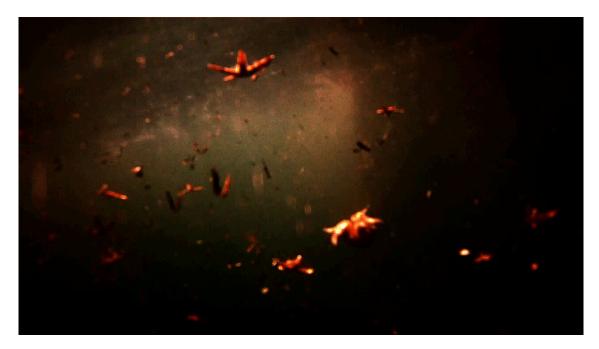
Whilst the film eschews a clear narrative, *Leviathan* can be seen as a circadian narrative of a haul's capture and the crew's attendant labour. The central section of the film traces the horrifying processes of various hauls' capture and butchery. The crew's labour of gutting and sorting lies within the 'familiar territory of the camera's relation to men and work,' as Pinney notes in his discussion of the film's intervention into the history of ethnographic film (2015, p.35). This familiarity is rendered disconcertingly uncanny by the way in which the crew themselves come to be seen like the fish: their worn weather-beaten faces seem not dissimilar to the aqueous creatures with which they work. This section of the film is full of the blood and gore of the fish and the seeming impassivity of their butchers: horror, and the ways in which we numb ourselves to it, is the primary mode of this sequence. Within the spectrum of sublime control and horrific passivity, the crew occupy an ambivalent space, being in control of their prey yet engaged in their own fight for survival in what is one of the most dangerous jobs in the world.

After the day's fish have been killed, sorted and packed away, the film's closing sequence is formed of two final long-takes, shot in the mess and overboard. Marked by a notably slower tempo than the relentless action preceding it, these shots once again stage the film's counterpoint of the contemplative and the immersive. While the final shot is the film's most extreme immersion in the elements surrounding the trawler, the shot that precedes it offers a contemplation of the cost of the day's labour. This penultimate scene—in which a stationary camera unflinchingly watches a member of the crew fall asleep, alone at the table in the ship's galley—has attracted much critical commentary, largely because of its marked difference to the rest of the film (see Pavsek, 2015, p.9; Russell, 2015, p.31).[128] In place of the maritime bodies that have until now populated the screen, the camera focuses on a human body, and on fatigue rather than frenetic activity or death. Unlike the disorientations of the opening scene attached to a crew member, this scene (the last of a human figure) is from a stable camera, more akin to CCTV footage than the GoPros which primarily define the film's aesthetic. The unflinching gaze seems to come from the perspective of the ship itself. As well as pointing to the dangers of a ship being run by such exhausted workers, the scene's aesthetics suggest the impassivity of the trawler—synecdochic of its owners and, by extension, the

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[128] All but one of the contributions in the VAR edition dedicated to *Leviathan* focus on this scene, as noted in Westmoreland and Luvaas's introductory article (2015, p.3).

consumers of its products—to the brutal effects on its crew. This contemplative moment invites the viewer to consider their own implication in the horror of what they have just witnessed as consumers of both film and fish.

The circadian narrative is stretched and distended by the fishermen's twenty-two hour long working day. The perennial night-time of the shots on deck (excepting a relatively short period of daylight in the central part of the film) and the endless illumination of the ship's interiors reflect the disorientation of this relentless work. In line with this, there is only momentary respite for the viewer too, who—as soon as the captain loses consciousness—is engulfed in the film's explosive closing sequence. Here, the camera is embroiled in an extended explosion and implosion of air and water. Gulls appear to be somehow flying 'upside down and backwards' (Stevenson, 2015, p.49), both above and below the roiling sea: the sense is of the world not just being inverted, but turned inside out. When the camera plunges underwater, there is no maritime life, only the mutilated bodies of discarded fish that form easy pickings for the relentless gulls. Within this tumultuous landscape, there is copious evidence of human agency in the mutilated sea-creatures. Moreover, this purview suggests there is little possibility of human agency redressing the situation: this is the vision of a posthuman moment in which the balance of marine ecosystems has forever been lost.

Leviathan. Courtesy of Véréna Paravel and Lucien Castaing-Taylor. 2

In this closing sequence, the film's mode of horror turns to the apocalyptic. Whilst horror is an affective reaction to a threat against an individual or a group (such as the crew or

the fish), the apocalyptic registers a threat to a whole civilisation: it is horror on a cosmic scale. Traditional images of the apocalypse, particularly in a post-9/11 world, are of falling towers and burning cities. By invoking the apocalyptic far out at sea and situating it in the current moment of ecological threat, *Leviathan* suggests that the end of human civilisation may stem from this forgotten space and the unseen damage done by humans to the pelagic ecology on which they rely. As such, the film follows Lawrence Buell's definition of 'the rhetoric of apocalypticism' as one that 'implies that the fate of the world hinges on the arousal of the imagination to a sense of crisis' (2005, p.285). By infusing the realism of ethnography with apocalypticism, the film both registers the apocalypse as an imagined future and figures it as a lived daily reality for those out at sea on the trawler, thereby combining the vision of an encounter with 'environmental apocalypse ahead' and exploring 'crisis as a place in which people presently dwell,' which Frederick Buell describes as characteristic of 'crisis thought' in the 1970s and the contemporary moment respectively (2003, p.177).[129]

By infusing the modes of sublime and horror with the apocalyptic, *Leviathan* reminds us of the cost of our seeming mastery over nature, a cost that will be felt by individuals, communities and the entire species alike. Whilst the apocalyptic mode invokes the broadest level of anthropogenic change, the film's explosive ending can also be seen on the individual level as the phantasmagoric drowning of the worker we have just seen fall into a slumber. The level suggested by the film's dedication to shipwrecked trawlers is the communal: in this view, the camera abandoning the fishing trawler evokes the imagined shipwreck of the trawler and comes to be metonymic for the demise of commercial fishing itself. That this demise would follow the industrial degradation of pelagic life links the economic and political with the anthropocenic levels. These different scales—the lyric subject of the fisherman, the ethnographic subject of the crew, the economic and political subject of the industry as a whole, and the anthropocenic subject of the ecology—are all interrelated. Rather than judging the way in which the film '*refuses* to provide an interpretation' in order to be 'an abdication of aesthetic, intellectual, and political responsibility' (Pavsek, 2015, pp.8-9), my contrapuntal analysis argues that by holding these levels of meaning together, the film's portrait of the costs of industrial fishing reveals the complexities of cause and effect, from the specific to the planetary.

The demise of commercial fishing seems an unthinkable prospect in the face of the relentless momentum that seems to drive the industry (as it has driven the film). But it is

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[129] See also Eva Horn's *The Future as Catastrophe: Imagining Disaster in the Modern Age* (2018).

precisely in the success of this kind of maritime extractivism that the sea's ecological diversity and our future food supply will be ruined. In this way, *Leviathan* makes the same warning as Graham's poem 'Lull' which ends by chastising the human species with the direct address, 'your greed is not / precise enough' (2012, p.58).[130] This counter-survival impulse is powerfully exemplified by the greed of a fishing industry so imprecise that it rejects the majority of the fish it catches. Yet whilst the waste of this industry—clearly documented by the film—is deplorable in itself, the film does not provide any information about the state of fishing stocks either in this region or globally, nor, as Paravel acknowledges, can this knowledge be assumed in the audience (in Castaing-Taylor, 2016, p.58). The risk of this lack of interpretative framing is that the film's latent warning of chronic shortages and possible future absence of fishing stocks is lost on a viewer faced only with nets heaving with fish being brought to the surface.

If *Leviathan* closes in the seemingly hopeless transcendence of apocalyptic bombardment, Graham's pelagic poems end with an urgency that calls directly to the reader to take note and implicitly to take action. In her earlier poem, 'Prayer', the emphasis is on what there is to save: figuring the minnows as emblematic of a species vulnerable to ecocide, the poem closes with a self-referential address to the reader as 'what I have saved, take this, hurry.' Graham's later poem, 'Deep Water Trawling,' approaches the polemic, a mode which assumes the capacity for human action. Here, the shoals are vulnerable to death by human action much more directly because in this poem—which, intriguingly, was written while Graham was based in Cambridge, MA, after *Leviathan* was released and in broad discussion in that university town—the emphasis is on the industrial maritime slaughter that sees 'millions of tons thrown / back dead or wounded'.

Not willing to risk losing the environmental message in ambiguity, the poem makes explicit the information that *Leviathan* leaves latent ('discards can reach 90% of the catch'; 'deepwater fish grow very slowly […] late reproductive age—are particularly thus vulnerable'). As an ethnographic lyric in which description is not just circumstantial but central to its purpose, these two levels of meaning are continually combined. Of course, the potential overlaps of descriptive information and plurality of meaning are central to poetry, as the closing phrase—'there is a call for you' (a phone call and a call to action)—powerfully demonstrates. Where *Leviathan* turns to black after its final submersion, 'Deep Water Trawling' keeps

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[130] See Nikki Skillman's reading of this poem as a warning that our 'appetites, unchecked by selfless vision, lead us away from long-term survival rather than toward it' (Skillman, 2016, p.255).

descending, to gaze upon the total absence of life in the depths of the ocean, 'the largest lifeless space this side of the moon.' The polemical meets the apocalyptic, revealing the binary of hope and despair to be false. Unlike Claire Colebrook's imagining of the world after the extinction of the human species (2014, p.1-28), this poem posits a human consciousness that remains after an apocalyptic ending. Averring that '[t]he end of the world had already occurred,' the poem considers the need for humanity to exist after the end of the world: 'It is in a special sense / that the world ends. You have to keep living.'

Written in a prosaic register, 'Deep Water Trawling' is suffused with textual excess and repetitions of words or phrases. This mirrors the profusion of sea creatures in the seemingly endless hauls pulled from the ocean in commercial fishing. However, a plethora of repeated negatives echo through the poem (there are twenty-eight negatives of 'no,' 'not' and 'nothing' in a poem of only fifty-four lines). This excessive use of negatives suggests a chronic scarcity behind the apparent plenitude. The poem's turgid prose and verbal repetitions enact a critique not of the shoal's excess, but the excesses of industrial fishing.[131] However, the repetitions also reveal a certain desperation behind the poem to transmit the urgency of the message. When the poem follows a net that has been cut loose and descends beneath the pelagic zones to the deep ocean (where there is 'almost no more oxygen→then there is→no more→oxygen→'), it evokes a breathlessness that not only suggests the deep sea, but also the ways in which a message can lose momentum and clarity if no space is granted to breathe.

The uncertainty that drives the poem is reflected in its multiple questions, thirteen in total, although only five have question marks. Much of the rest of the poem is made of assertions or facts that complement if not directly answer those questions. The lexicon of the poem markedly contrasts earlier work by Graham in the relative lack of metaphor and 'poetic' tone; however, the questions and answers reach a metaphorical and self-referential level. In this way, the poem's interchange with an ambiguous voice evokes both the tone of a documentary voiceover and that of a ghostly embodiment of the ocean itself.

Graham's polemic reveals a faith in the individual subject, a faith that is put under pressure in *Leviathan*.[132] Posthumanism itself develops in response to just such a loss of faith in

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[131] For a discussion of the swarm invoked as an emblem of excess, see Chapter Three.

[132] Mark Westmoreland and Brent Luvaas describe Paravel's work as being 'instilled, through and through, with the fragmentary impulses of a scholar who has lost faith in the singular subject position' (Westmoreland, 2015, p.1). While an apt description of *Leviathan*, this is less true of Paravel's earlier film, *Foreign Parts* (see Chapter Three). Thus, one might argue that the loss of faith in the singular subject position is just as much Castaing-Taylor's as it is Paravel's.

the individual human subject, be it formulated as a challenge to the exclusions behind the 'implicitly normative status' of the presumed subject (Braidotti, 2018, Para 9.10), or as a desire to transcend the limitations of mortality, as in the related area of transhumanism. Yet, as I have been arguing in this thesis, just as the figures of the human and the nonhuman are counterpointed in each work, so too are their humanist and posthumanist ambitions. In closing, I shall discuss the combination of posthumanist elements with humanist aims that makes up what I will describe as the works' *critical humanism*. As well as being the most radically non-representational work to emerge from the Sensory Ethnography Lab, *Leviathan* is also the one that goes furthest in redefining the position of the human subject. The position of the human is put under similar pressure in Graham's 'Deep Water Trawling.' Attending to how these works reposition the human, in these closing paragraphs I will consider the ideological stance and moral outlook behind the vision of humanity the works offer.

Leviathan's critical humanism builds on that already evident, albeit in more denuded form, in its makers' earlier works such as *Sweetgrass* and *Foreign Parts*: *Sweetgrass* is interested in the phenomenology of the sheep (see Chapter Two), and *Foreign Parts* suggests the possibility of machinic vitality (see Chapter Three). Jettisoning the audible human speech that was present in these earlier works, *Leviathan* consciously attempts to move beyond accustomed modes of human comprehension toward a sensory experience of pelagic ecologies. *Leviathan* has been widely described in terms of posthumanism as, variously, a 'posthumanist ethnography,' as demonstrating a 'post-humanist ambition,' and as wielding a '"post-humanist" vision' (Westmoreland, 2015, p.2; Hanssen, 2015, p.25; Leimbacher, 2014, p.39). However, there is an assumption behind such interpretations that *Leviathan* creates 'a world that spans beyond the human,' and that the film's posthumanism implies leaving humanity behind (Stevenson, 2015, p.52). These more restricted understandings of what posthumanism means fail to recognise the ways in which the film is very much about the human. As such, it is closer to Cary Wolfe's understanding of the posthuman as 'not the triumphal surpassing' of the human but rather 'an increase in the vigilance, responsibility, and humility' (2010, p.47).

Paravel herself has been careful to highlight that as the film repositions humanity, it does so with a deep interest in the human. In a video interview, she stresses:

> It's not true actually that we are not interested in the human. Maybe
> [we are interested] more than many other people. But it doesn't
> mean that we want the human to be positioned in the centre [… or]
> to have an anthropocentric or a logo-centric point of view. […]
> [W]hat we started to pursue [is] to reposition the human in a bigger

matrix.

<div align="right">(in Castaing-Taylor, 2014, 10m)</div>

In Paravel and Castaing-Taylor's 'posthumanism,' then, the 'post' does not mean 'after' the human, but rather after anthropocentrism. *Leviathan* creates a defamiliarised vision of the human in which 'the human body is dispersed and displaced, and yet not entirely absent' (Russell, 2015, p.31). In inspiring renewed focus on the human rather than participating in the erasure of the human, *Leviathan* responds to an ethical need to recalibrate the position of the human vis-á-vis the nonhuman lest we disavow human agency and responsibility. Rather than posthumanism strictly understood, *Leviathan* demonstrates a critical humanism (see Introduction), paying mutual attention to the human and what Stefan Helmreich among others terms the 'other than human' (2016).[133]

One critic who interprets Castaing-Taylor and Paravel as working through a narrower version of posthumanism has described them as 'enact[ing] […] through cinema' the 'ethical demand' made by Foucault of reaching a moment when '"man would be erased, like a face drawn in the sand at the edge of the sea"' (Erika Balsom in Castaing-Taylor, p.41). Yet, far from erasing the human, *Leviathan* gets as uncomfortably close to the human bodies on the trawler as it does to the nonhuman bodies. Foucault's demand is more readily met by the posthumanism of distance demonstrated by, for example, Rosa Barber's short film, *Time as Perspective* (2012), or Edward Burtynsky's book of photographs, *Oil* (2009), both of which portray eerie landscapes of oil fields populated by industrial pumpjacks but practically devoid of human figures. *Leviathan* asks similar questions of anthropogenic environmental destruction; yet it does so through a posthumanism of proximity that emphasises the sentience of the various bodies that fill the screen. In this way, *Leviathan* attempts to represent the precarity of the alien bodies from the sea in relation to human action at the same time as reveal their relatedness to humanity through an emphasis on our shared sentience.

Criticism that *has* acknowledged the humanism in *Leviathan* attributes it to the film's ethnography. For example, Westmoreland and Luvaas identify a seeming tension between 'experimental abstraction and ethnographic humanism' in the film (2015, p.2). The counterpointing of the human and the abstract—be it the abstractions of swarms or those of elements—is certainly central to the film's workings. However, in my view the humanism

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[133] Helmerich's term is a refreshing and enabling alternative to the more commonly used phrase the 'more-than-human,' a phrase which can suggest a rejection of the human as originary or superseded.

found in *Leviathan* can be attributed just as much to its lyric modes as to its ethnographic inquiry. Moreover, whilst humanism is certainly an important aspect of ethnography's influence on the film, the development of nonhuman subjects and perspectives within the multispecies turn in ethnography further loosen the association between the film's humanism and its ethnography.

Leviathan not only draws on the individual mode of the lyric and the communal mode of the ethnography but, by counterpointing the two, reworks each of these two modes of inquiry. As I have sought to show, it is by drawing on these modes in order to represent individual and collective experience that the film is able to reconfigure the human in its individual as well as communal forms. This recognition of *Leviathan*'s lyric interest in the human and the individual avoids a teleological evaluative stance based on an assumption of increased worth the further the film moves toward disorientating and decentring the human. Such an approach tends to dismiss what is seen as an originary or lingering humanism as retrograde, rather than responding to the ways in which the vision of the human here is recalibrated. The same teleological assumption can be seen in the greater critical attention given to *Leviathan* over *Sweetgrass*, a more subtle and less technologically revolutionary but a monumental and perhaps more enduring work.[134]

The vision of the human created in *Leviathan* and in the later works of Castaing-Taylor and Paravel is more disturbing than that of their earlier works, *Sweetgrass* and *Foreign Parts* (see Chapters Two and Three respectively). An illustrative contrast can be found between scenes in *Leviathan* and *Sweetgrass* in which the camera watches labouring men fall asleep. The scene in *Leviathan*, discussed above, shows an isolated and unhealthy-looking man falling asleep in the enclosed, spartan dining room of the trawler; while in *Sweetgrass*, when the herders break up their journey into the mountains with periods of rest, they sleep in the open and in each other's company, seemingly serene if exhausted by the hardships of their journey. As I will explore in the following chapter, *Sweetgrass*, like *Leviathan*, emphasises the physicality of the labourers through the aural proximity to their breathing and non-verbal articulations, and attends to their exhaustion and ageing. Yet, the earlier, almost pre-lapsarian film lauds the labourers as honourable and almost enviable in their pursuits. In *Leviathan*, the tactile proximity and focus on

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[134] While *Sweetgrass* attracted more than fifty reviews (Grimshaw, 2011, p.247), it received only scattered academic criticism, such as Helen Hughes's excellent discussion (2014; see Chapter Two), whereas *Leviathan* has been the subject of a dedicated edition of the Visual Anthropology Review (which Castaing-Taylor founded). Introducing the edition, the editors write that the film achieved 'notable theatrical success,' spreading beyond the subdiscipline of visual ethnography to go on to 'solici[t] praise from film critics, festival goers, and the larger cinephiliac art world' (Westmoreland, 2015, p.2).

the human body creates a vision of the human that is uglier, more unhealthy and subsumed within an industry driven by human appetites and greed. The bestialising or posthumanist lens and the Swiftian vision of the human it engenders becomes all the more troubling in Paravel and Castaing-Taylor's following co-productions, *Caniba* and *Somniloquies*, that centre on human subjects but offer disturbing portraits of decaying bodies and minds.[135] As such, emerging from more humanist works and leading to zoomorphic ones, *Leviathan* can be seen as the apex of Castaing-Taylor's and Paravel's posthumanist perspective. Like the artists, the viewer of *Leviathan* might well take this new way of seeing with them when they leave the cinema.

The vision of the human in Jorie Graham's early aqueous poems, such as 'Prayer,' is very different to Paravel's and Castaing-Taylor's disturbing figures. Here, the human is more upright, filled with emotions that are presented as largely laudable and a sense of moral consciousness that at least holds the potential of leading to responsible action. Rather than that of gross greed or exhaustion, the evil that Graham is working against in these earlier works is a lack of a viscerally felt awareness. Her later works become increasingly fraught and, by the time she comes to write 'Deep Water Trawling' some fifteen years later, her poems are filled with an urgency to move from awareness to action, entering the territory of advocacy, if not quite activism.[136] The apocalyptic vision of this poem is more closely aligned with *Leviathan* than with Graham's earlier works, but it retains a sense that, even if the world cannot be saved, the lyric subject remains a figure of hope and moral awareness.

In a similar way to 'Prayer,' 'Deep Water Trawling' immerses the reader in a close encounter with the shoal in order to return to a human subject that is more aware and perhaps redeemable. However, the poem shares not only *Leviathan*'s subject matter of 'trawling-nets bycatch poison,' but also its repeated and ambiguous shifts between subject positions. The poem begins by addressing the hunted fish, referring to their human hunters' greedy intentions: 'they don't want to know you they want to / own you.' Soon the lyric voice is addressing the human predators directly: 'there is nothing in / particular you want—you just want' and a sense emerges that the lyric voice is that of the ocean itself: 'probing down to my greatest

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[135] *Caniba* is a portrait of the Japanese cannibal, Issei Sagawa that is characterised by the extreme close-up. In *Somniloquies*, the camera moves over indistinct sleeping bodies to the disturbing recordings of an infamous sleep-talker.
[136] See Graham Huggan's discussion of aesthetics, advocacy and activism in relation to postcolonial ecocriticism, which he describes as 'preserv[ing] the aesthetic function of the literary text while drawing attention to its social and political usefulness, its capacity to set out symbolic guidelines for the material transformation of the world' (2010, p.14). Taking advocacy too far runs the risk—as Michael Renov has argued of John Grierson's documentaries—'of hammering rather than mirroring society' (Renov, 1993, p.746).

depths.' In *Leviathan*, the filmmakers' knowledge about the masses of bycatch thrown overboard and the particular damage done by the fishing industry remains latent. Going beyond its own formal bounds, 'Deep Water Trawling' fuses its lyric voice, already expanded to be the depersonalised ocean, with an informative almost documentary-style commentary: 'discards can reach 90% of the catch'; 'deepwater fish […] late reproductive age—are particularly thus / vulnerable.' At once a voice-over and the voice of the sea, the speaking subject of this fact-based, almost turgid lyric, is both depersonalised and unified, embodied and disembodied.

As 'Prayer' places the individual within the species, 'Deep Water Trawling' places the individual within the system of global capitalism, a human creation that has outstripped human control. First tracing the incalculable damage done by human systems of trade and ownership, the poem then turns to the individual human subject trying to maintain the virtues of humanity within this world: 'I was once but now I am / human. I have imagination. I want to love. I have self-interest.' By the end of the poem, the lyric subject—as formulated by the poem—has been made aware of the moral and practical quandaries of their position within the ecological crisis and appears ultimately redeemable as an honourable subject. However, the ability to take redemptive action is put in doubt. In the sobering context of twenty years' inaction and hindsight, the title of Graham's earlier poem, 'Prayer' appears to be a form of supplication. Whilst the task of the poem written at the turn of the century was to deploy the lyric's consciousness-raising properties to render the reader aware of the invisible problems of 'ecocide,' the challenge of the later poem, 'Deep Water Trawling,' is to prevent that awareness from being diverted from remedial action by distractions and other commitments. In the poem's final interchanges, the pelagic speaker both surges and recedes as the lyric subject is interrupted by a third human voice announcing a 'call' from the world of human commitments: 'I am the upwelling→I am the / disappearing→hold on→just a minute please→hold on→there is a call for you.' The call could be that of an individual's daily tasks or a political world's competing priorities. Returning to the lyric subject above the surface of the sea, as 'Prayer' does, the poem has instilled this human subject with an awareness of its position within micro and macro-political obligations.

If Graham's hope for remedial action seems to dwindle, the vision of the human in her works remains redeemable. Graham's works assume a position of virtuous critique and act as a call to action. Castaing-Taylor's, Paravel's and Karel's, for their part, seem to be marked by pessimism. This outlook is succinctly expressed by collaborator Ernst Karel in his description of another of his works, *Single Stream*, as 'a portrait of failure' (2015, 38m).

Conclusion

All the works under study in this thesis combine the lyric and the ethnographic, the poetic and the documentary. In this chapter, I have considered the prominence of the lyric in these waterborne works and the effect this has on stretching both subjectivity and aesthetics into new forms. The form of the lyric is peculiarly suited to representations of both the aqueous element and the sea's human and nonhuman presences. Its formal fluidity enables it to evoke the flux of the sea, whilst its emphasis on perception reflects the sensorial qualities of the pelagic environment. By re-singularising the lyric and re-immersing it in time and space through their ethnographic focus on a specific time and place, the works I have analysed here enable a deeply-sensed and emotive engagement with the ecological changes facing the planet's rivers, seas and oceans. This prominence of the lyric mode is balanced by a greater emphasis on the ethnographic in the works that are studied in the following chapters. The pastoralist community featured in *Sweetgrass*, discussed in Chapter Two, takes ethnography back to its origins, whilst the *pastoral* mode in this film and the poems selected retain a lyric element. The ethnographic emphasis is strongest in the works considered in the final chapter: Véréna Paravel's *Foreign Parts* and Jorie Graham's 'High Tide' and 'Honeycomb' (from *Never* and *Fast* respectively). Located in urban ecologies of degradation and communities of political exclusion, these works place ethnography's founding consideration—the workings and failings of communities—into a nostalgic, lyric and inter-personal mode.

As I have argued in this chapter, all these works—excepting *Still Life / Nature Morte*—perform scalar shifts through the body of the swarm. Beginning with a form located in the human individual, 'Prayer' infuses the lyric with the global and cosmological, whilst *Leviathan* ground its cosmological portrait in the visceral and the embodied by invoking the subjective phenomenology of the sublime and of horror. Broadly speaking, *Leviathan*, like 'Prayer,' traces a shift from the individual—through the various creatures of the pelagic ecology—to communal humanity and back to an individual subject, before offering some final reflections on the impossibility of return. Both works immerse an initial individual human subject in the mass of maritime bodies in order to reach a consideration of the human as a communal being: the process I term 're-singularisation.' 'Deep Water Trawling' begins from a starting point of a communal lyric, shifting imperceptibly between the human and cosmological voices of the sea itself. All of these works offer a polysemous portrait of the relationship between humanity and the sea as felt simultaneously on individual, communal and species-wide levels, scales that run in parallel and in combination through the perpetual interplay of a contrapuntal logic.

The shoal's ambiguous intentionality, as pondered in Graham's poem 'Prayer,' and the strange sentience evoked by *Leviathan*'s images of the death throes of the fish as well as 'Deep Water Trawling's shifting voices, indicate that the shoal does not fully give itself up to human comprehension, contemplation or representation. Nevertheless, as my readings here have demonstrated, both Graham's and Castaing-Taylor and Paravel's pelagic works reach toward a fleeting and partial connection with this inescapably alien body, and an uncanny likeness is sensed. The hope is that rather than evoking facelessness, the swarm can be a model of compassion that respects alterity. In, for example, shots in *Leviathan* in which portraits of individual fish heads are juxtaposed with portraits of crew-men that look uncannily fish-like, cut off above the end of the nose, human beings may look like fish momentarily, but remain undeniably distinct. This jarring realisation of an unbridgeable divide is itself a moral moment. While stopping well short of activism, the ethical and political implications of these pelagic works' swarmic aesthetics are nevertheless palpable. Graham's poems and Castaing-Taylor and Paravel's films counterpoint an awareness of ecological connectedness with the shoal with a recognition of the power relations and human agency that mark the age of the Anthropocene. As such, the shoal enables these works to challenge human exceptionalism and to reveal our ecological connectedness in a way that does not absolve us of responsibility.

Chapter Two

Land Ecologies in Lucien Castaing-Taylor and Ilisa Barbash's *Sweetgrass* and *Hell Roaring Creek* and Jorie Graham's 'The Swarm', 'What The End Is For' and 'Reading To My Father'

In the same way that the works discussed in the previous chapter were characterised by their representations of aqueous ecologies, the films and poems in this chapter share a focus on land, specifically the rural landscape of the American West. Whereas water creates continual motion or flux—as evoked to disorientating effect in the works discussed previously—the spatial imperative that land imposes is distance. Swarms can travel huge distances, but members must maintain a degree of proximity to avoid dispersal. The gulls and fish encountered in the previous chapter inhabit elements that are foreign to the human: land-based swarms, by dint of sharing the very ground we walk on, seem to be closer to the human both literally and ontologically, although, as will become clear in this chapter, this propinquity does not guarantee a benign relationship. Considering these tensions between distance and proximity, this chapter asks what the swarm, which is not defined by one-on-one relationships, can reveal about human and nonhuman intimacy—as well as loss.

To do so, I will place poems in which Jorie Graham considers the loss of intimacy, namely 'What The End Is For' (1987, 26-29), 'The Swarm' (2000, 57-58) and 'Reading To My Father' (2017, 23-25) alongside Lucien Castaing-Taylor and Ilisa Barbash's feature-length elegy to the sheep-herder and his herd, *Sweetgrass* (2009), and one of the related short films which focus more exclusively on the sheep, *Hell Roaring Creek* (Castaing-Taylor, 2010). The rural settings of these diverse works give rise to a plethora of questions around land ecologies. Humanity's complex relationship with land is surveyed in variously concrete and intangible forms of collective experiences, from agriculture to the nation state, alongside more private interpersonal connections. At the same time, these works offer a sensitive exploration of the relationship of humans with other land-based creatures, as well as with machines—specifically

aeroplanes and telephones—that help humans to surpass land's imperatives of gravity and distance.

A brief introduction to each work before an outline of the chapter's structure should prove helpful. *Swarm* (2000), Graham's most fragmented collection, which emerged from personal and marital collapse, is of course a key collection for this thesis. Despite its entomological connotations, the swarm is more conceptual, the swarms appearing in it more machinic, and the central ecological motif one of parched land. 'The Swarm' (2000), the eponymous poem of the collection, explores the impact of geographic distance on human intimacy and how swarming sounds can be transmitted by telephone. In line with the previous chapter's study of marine poems written by Graham across her writing life, I will complement the reading of this central poem by preceding it with an analysis of a poem written two decades earlier and following it with a very recent poem. Written during the Cold War, 'What The End is For' (1987) invokes the image of grounded B-52 planes, poised ready to fly to battle, as a political metaphor for marital deadlock. At the close of this chapter, I will return to the contemporary moment with Graham's recent poem 'Reading To My Father', first published in 2016, which explores the inescapable fact of death by juxtaposing the loss of the poet's father with the phenomenon of mass species extinction.

In conversation with these poems will be Castaing-Taylor and Barbash's land-based films. *Sweetgrass* follows the final 'transhumance', or seasonal migration, of a herd of three thousand sheep across the mountains in the American West. This practice, characterised by extremes of temporality, scale and endurance, is both elegised and revealed in all its hardships by the film. 'Hell Roaring Creek' is one of several short films Castaing-Taylor made from the footage gathered when shooting *Sweetgrass*. Its steady focus is held on a river crossing, a torrent of seemingly innumerable sheep matching the endless rush of water.

The chapter will begin by exploring the attributes of land swarms. The massed groups I am treating as land swarms in these works are more diverse and cross more species than the gulls and fish of the previous chapter's sea-based ones. They are the three thousand sheep in *Sweetgrass* and 'Hell Roaring Creek'; the grounded but humming B-52 planes in 'What The End Is For', along with their crew; the disintegrating self in 'The Swarm'; and the lost species mourned in 'Reading To My Father'. Just as *Leviathan*'s gulls and fish crossed the elemental barriers of air and water without diluting the previous chapter's emphasis on the aqueous, in the current chapter, the swarms from Graham's poems hold the potential to take flight or otherwise transcend the limitations of land. However, these possibilities—the bombers'

capacity to fly, the transmission of voice by telephone, a soul leaving a body—only serve to underline the current state of being grounded. In fact, the swarmic attribute of mobility is challenged by the poised but apparently static swarms in these poems by Graham.[137] The size and speed of the sheep in *Sweetgrass* also seem opposed to the swarmic. The film, by adopting the perspective of mountainside, herders and sheep by turns, reveals the limitations of an anthropocentric perspective in recognising the power and uncontrollability of these massed animals.

The main thread linking these various works is that they all represent a working through of an experience of loss: the final sheep drive in Montana; the ending of marriage and relationship; the death of a father. Parallel to their shared emotional core is a formal connection: the works variously invoke and rework the form of the *pastoral*, the age-old form linking land and loss. I will explore questions surrounding the pastoral, loss and nostalgia that arise from this observation through a close-reading of *Sweetgrass* and 'What The End Is For'. These works are also infused with forms of violence, both latent and manifest, arising from the location of the North American West, the Western and the military. In line with this emphasis on violence, these films and poems work through a dark counterpoint of intimacy and control. These two seemingly opposing energies are nevertheless disturbingly related, since one in fact often enables the other: control is enabled by both the physical proximity possible with the relatively tame sheep in *Sweetgrass* and the intimacy of personal relationships in Graham's poems. Next, I will explore the very different experiences of loss expressed in 'The Swarm' and *Hell Roaring Creek*, which are both forms of self-fragmentation, but are painful and transcendental respectively.[138] This will lead into a closing consideration of the ways in which the films and poems brought together in the chapter link the experience of personal human bereavement with ecological loss, with a particular focus on Graham's recent ecological elegy, 'Reading To My Father'.

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[137] Where the absolute unity of movement in travel can give certain swarms (such as bees) the appearance of being still in motion, the mass of planes in Graham's 'What The End Is For' are not seen to be moving from outside, but internally; as well as housing the movements of their crew, their engines are continually 'running'.

[138] I will explore the question of transcendence poses to works of Sensory Ethnography later in this chapter: at this point, it suffices to gloss the transcendental as an experience, mediated through nature, that reaches beyond immediate experience.

Land Swarms

Sharing the soil with humans, land swarms are inherently more touchable and less alien than the aqueous and aerial swarms encountered in the previous chapter. When massed together, however, these swarms of the earth can be overwhelming, destructive and—in their capacity to make the land over which they move look as if it were moving itself—disorientating. Almost elemental when perceived as a mass, the individual animals that comprise the land-based swarm in *Sweetgrass* can appear uncannily human, and even (to use that ultimate term of containment) 'cute'. It is with the sheep in *Sweetgrass* that I will begin my discussion of land swarms. Larger and more easily anthropomorphised, as mammals sheep are of course closer to the human from an evolutionary perspective than the fish and gulls of the sea. Partly because of this, a flock of sheep seems far removed from common conceptions of the swarm. The animals are too large, their grouping as a flock insufficiently numerous, their feet too firmly based on the ground to fit the image that hovers in the mind of insect wings and metallic noise. But what happens when the sheep number not dozens but thousands, and when this mass is moving through a landscape so vast that they look no larger than flecks of cotton? Such is the question raised by *Sweetgrass*, an ethnographic film that follows the last sheep drive across the Absaroka-Beartooth mountains in Montana.

Nor is it just common conceptions of the swarm that are challenged by the herd. The behaviour of flocking sheep seems the inverse of the very attributes my thesis outlines as being core to the swarmic. Far from embodying alterity, uncontrollability, speed and vitality, sheep are domesticated, directable, slow-moving and famously stupid. Swarms are often seen as pests, whereas sheep have been bred for human purposes for millennia. These differences seem clear enough, but they are more fluid than fixed. Whilst the works studied in the previous chapter explored the crushing of the swarm, the animals in *Sweetgrass*—seemingly uncountable but nevertheless accurately numbered by their herders—retain the swarm's vitality and mobility. However, as the first animal to have been domesticated, the sheep's uncontrollability and alterity seems in question. While a swarm is by definition self-organising, sheep are emblematically biddable. In the introduction to *Ten Poems About Sheep*, Neil Astley reminds us that the supposedly submissive behaviour of flocking, frequently used as a derogatory term when applied to humans, is for sheep a form of evolutionary protection: 'Sheep behaviour assists survival, whereas human herd behaviour is unthinking, undermining and courts disaster' (2014, p.4). This instinct for protection does not always make the sheep as easy to direct as they are in the popular imagination. Similar to the way in which the defensive movements of fish

have not commonly focused on in the lyric (see Chapter One), the more active, uncontrollable aspects of sheep are not normally represented, countering as they do the idea of sheep as biddable and harmless. *Sweetgrass* reveals human control to be only just maintained over the gargantuan flock, which on several occasions strays beyond the control of the shepherd and sheepdogs, turning from a flock or a herd to a swarming mass of bodies.

Sheep only swarm in this way because they are under duress: left alone, sheep move slowly and peacefully as a dispersed group. This adds another level to the frisson that characterises the power dynamics between human and swarm: counter to the idea of the swarm as an inherently uncontrollable thing, humans have actually tamed the sheep into swarming according to their will. In the previous chapter, we saw how the works discussed highlight the fragility of the swarm, presenting it as prey rather than a massed group of predators programmed to engulf the human. In industrial fishing, it is necessary to kill the swarm in order to capture it. The parallel revelation of this chapter is that not only can the swarm be reduced to compliance through human intervention, it can also be willed into being. For paradoxically, it is necessary to tame the flock—so that it will respond appropriately when corralled by humans and terrified by sheepdogs—in order to make it swarm.

Despite sheep being the first creatures to be domesticated, their alterity cannot be denied. Starting with the suggestion of an uncanny communion with a sheep that turns to look at the camera before the cut to the title screen, *Sweetgrass* explores the unknowable phenomenology of the herd as they leave the ranch for the mountains. Trying to direct the sheep through an unforgiving mountainous landscape, the two herders retain control of the three thousand sheep with great difficulty. For sheep, as for any collective, the swarm is not an entity but a state, and at times such as these the sheep are swarming beyond human control, whilst at others they merely flock obediently. Challenging the image of sheep as living soft-toy, Castaing-Taylor and Barbash's *Sweetgrass* reasserts its alterity. Humans and sheep have coexisted for thousands of years. By rendering sheep swarmic, *Sweetgrass* reveals the power struggles and inter-species violence that are inherent in herding sheep, as revealed by Paul Alpers among others (Alpers, 1997; Gerrard, 2004, p.39; Gifford, 1999). As the film follows the sheep drive, the motion of the sheer mass of herding bodies constantly challenges the control of their human herders: this flock of sheep is seen to move in and out of the swarmic mode.

As previously noted in the Introduction to this thesis, the swarm has often been used as a military metaphor. Indeed, in an example of metaphor moving to actuality, from image to algorithm, bee swarming is currently deployed as an model for American drone-warfare (see

Kosek, 2010). The military connotations of the swarm are particularly strong in this chapter (ironically so given the pacific qualities of sheep), since the works selected explore the tensions as well as intimacies between those who share the land. The most explicit example, which I will cover later in the chapter, is Graham's early poem, 'What The End Is For,' which begins with a couple laying in grassy meadows, but has as its central image a humming mass of bomber planes, poised ready for battle. On a supposedly romantic walk in America's midwest, the narrator has been taken by a young boy to a vantage point above a military base to see a field of B-52 planes, a swarm of army machines nestled in the hive of the domestic meadows of North Dakota. The poem shifts from this tableau of military readiness to another static image of wife and husband standing in a dark kitchen, 'for hours […] unwilling to move, irreconcilable'. Counterpointed with international political tensions, the poem's primary subject is the tensions of an intimate relationship that has reached an impasse, as it is in Graham's 'The Swarm'. If control of self—and potentially other—is exerted in a domestic context in Graham's poems, in *Sweetgrass*, the tensions are those attendant on physical labour, the almost incomprehensible operation of two men leading a herd of three thousand sheep. The sheep are like a land army led by the ranchers of the midwest, who—unlike the peaceful shepherd of Wordsworth's Lake District and Christianity's Christ the shepherd—are filled with the echoes of both the soldier and the cowboy. More than simply making the link between war and agriculture as distinct forces that have left their mark on the landscape, the works brought together in this chapter invite us to see the military landscape hidden within the pastoral idyll.

The swarms of sheep and machines in this chapter continually hover on the brink of an outbreak of violence. Here again they lie in contrast to the shoals of *Leviathan*, which flounder in the aftermath of brutal crushing. The violence at the heart of shepherding and the anticipatory violence of the Cold War bomber planes are both enabled by the intimacy of those involved: Graham's poem ponders how the crew 'seven boys' 'must live / inseparable' to ensure the constant readiness of the bomber planes, whilst *Sweetgrass* examines the relationship foundational to shepherding, that between beings familiar yet other. As such, these works are illustrative of the nexus of intimacy and control mentioned previously, two forces working in counterpoint that will prove central to this chapter.

Loss, land and the pastoral

The works selected for study in this chapter are strikingly different in mood, mode and medium to those I looked at in the previous chapter, but also to each other. Nevertheless, they are brought together by the emotional impetus that drives their creation: all are artistic representations of a process of working through loss. *Sweetgrass*, following the last sheep drive in North America, is a tribute to a lost practice, whilst Graham's poems engage with personal losses of divorce and bereavement, as well as a loss of political innocence. As well as this explicit subject-matter, there are other losses that are not so clearly spelled out, including the loss of a life and a home in the midwest, America's rural heartland, and the attendant loss of youth (of both the works' subjects and makers). These losses are both directly and obliquely tied to a changing relationship with the land. The sheep herders' livelihood is literally one of working the land through driving their animals. More obliquely, in Graham's poem, 'What The End is For', the ending of a relationship is refracted through a memory of agrarian fields and geopolitical defences.

The loss of communal practice in *Sweetgrass* seems antithetical in scale to the more domestic personal losses mourned in Graham's poems. However, these poems raise individual, domestic loss to political and global levels, whilst Barbash and Castaing-Taylor's film brings this communal loss back to the individual level. As in all the works considered in this thesis, the negotiation of these levels—individual and communal—is prompted and enabled by the works' consideration of swarmic bodies. The mass of buzzing B-52 planes, 'this eternity of engines never not running', in 'What The End Is For' introduces the international tensions and conflicts of the Cold War. Meanwhile, the individuality of the two herders in *Sweetgrass* is juxtaposed with the huge herd of three thousand sheep, which are themselves at times individualised.

If both works shift between micro and macro scales, a key difference between them is that of mood. *Sweetgrass* shifts from tranquil nostalgia to frustration to humour, whilst Graham's poems speak of a more bitter, biting pain, albeit one infused with nostalgia. If land and loss are at the core of these works, their aesthetic mode is also shared: the pastoral, the archetypal form of land and loss. These investigations are, of course, very differently explored in these different forms. The expansiveness of what Anna Grinshaw describes as *Sweetgrass*'s 'carefully calibrated duration' (2011, p.250)—which Laura McMahon has identified as an 'emergent aesthetic of the slow animal art film' (2015, p.164)—seems far removed from the precision of Graham's

crafted verse.[139] This opposition—the lack of intervention claimed by much ethnographic film versus poetry's standing as the most intensively crafted form of literature—is of course the foundational difference between the cultural works compared in this study. This contrast is more obvious in *Sweetgrass* and 'What The End is For', which are, respectively, a more recognisably traditional work of visual ethnography and a lyric poem than the works discussed in the previous chapter (*Leviathan*, 2012; 'Prayer' 2000, 'Deep Water Trawling' 2014), which were produced by these artists more recently. Castaing-Taylor's *Hell Roaring Creek* and Graham's 'The Swarm' and 'Reading To My Father', which I will discuss in the latter half of this chapter, are also more experimental works. In their formal experimentation and fragmentation of selfhood, the differences between ethnographic film and lyric poem arguably become less stark.

There are unexpected similarities in the works' aesthetic mode and artistic influences too: the works all engage with and rework the pastoral mode. That this should be so is less surprising in view of the fact that they are all land-based works exploring experiences of loss, and the recognition that the pastoral is a formal mode that links land and loss: the works' emotional commonalities help to explain their formal and aesthetic synergies. The pastoral, which is always a compensatory form tied up with loss, is a clear entry point into understanding these works. The pastoral mode, at its simplest, offers an imagined return to an idealised past. The 'pastoral myth of a pre-industrial Golden Age', to quote Terry Gifford (2016, p.10), is a world of untouched and fertile nature, a world of leisurely youth and romance. The oppressions and suffering attendant on agricultural labour are hidden beneath this image: in Paul Alpers' words, the pastoral 'does not envisage deprivation', but is founded on it nonetheless (1997, p.7). The pastoral clearly idealises a pre-industrial society, but it also evokes other losses less directly. The foundational loss that grounds the pastoral is, of course, the loss of the rural. This gives another resonance to the artists' move from the American midwest to a more cosmopolitan East Coast which followed the initial creation of these works: *Sweetgrass* was edited in the years following Castaing-Taylor and Barbash's move to Cambridge, while *Swarm* was published soon after Jorie Graham made the same move. An unspoilt rural landscape is lost, however, even before it is left: the entrance of the machine into the 'garden' of the American landscape—influentially theorised as a recurrent image across American literature by Leo Marx

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[139] McMahon's intervention highlights that *Sweetgrass*'s durational aesthetic is as much indebted to the history of slow cinema (a form of art film characterised by long takes and minimal narrative used by filmmakers from Andrei Tarkovsky to Ben Rivers) as it is to the tradition of visual ethnography.

([1964] 1999)—is no less present in these works, in which bomber planes, guns and walkie-talkies variously figure.

These works' invocation of the pastoral raises a key question of this chapter: is not the swarmic inassimable to the pastoral? The temporality and emotions of the swarmic mode and pastoral form seem at first sight to be opposed. The speed of the future-oriented troubling body seems uncontainable by the slow nostalgic past of contentment and fulfilment in the pastoral. The turbulence of the swarm and its uncountable density seem antithetical to the tranquil dispersal of a flock being assidusouly counted by night. Where the swarm seems most inassimable to the pastoral is in the question of will or intentionality: the swarm is self-willed and ultimately alien; the shepherd's flock directable and domesticated.

A helpful term in showing how these two modes, the swarmic and the pastoral, can be reconciled is the 'post-pastoral', helpfully theorised by Gifford (2013, p.29). Rather than adding to the long list of 'prefix-pastorals' to which Gifford gestures with my own suggestion of the 'ethnographic pastoral,' I will work with Gifford's term which is characterised by an 'insight of connectedness.' This is a point that distinguishes it from both the pastoral, which is based on an opposition of a retreat into the rural and return to the urban, and from the anti-pastoral, which performs a break with the pastoral tradition (Gifford, 2013, pp.28, 18, 22). The post-pastoral's ethic of connectedness also links it with ecocritics' insistence on the recognition of connectivity as a vital step in nurturing a healthier relationship with our fellow creatures on the planet. Indeed, Gifford goes on to argue that successful post-pastoral literature has the ability to mesh a postmodern provisionality that resists firm categorisations and an ecocritical urgency that cannot wait for such categories to be fixed (2013, p.26).[140] The term 'post-pastoral' is broad enough to enable me to draw on previous theorisations of the pastoral: specifically, from the British ecocritical tradition, Raymond Williams' influential 'anti-pastoral' (1985); and, on the other side of the Atlantic, Leo Marx's influential development of a specifically American

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[140] To Terry Gifford's list of 'post-pastoral dystopias, utopias, and pre or postapocalyptic texts [that] all raise questions of ethics, sustenance, and sustainability' (Gifford, 2013, pp.28-29), I add the recent adaptation of Margaret Atwood's novel *The Handmaid's Tale* into a television series by the American production company MGM Television (Miller, 2017-18). The series updates the seminal novel's dystopian portrayal of a crisis in human sterility with current concerns around nuclear waste and crop failure. The nexus of fertility and sterility that is obliquely present in the works considered in this chapter is the centre of both Atwood's and MGM's *The Handmaid's Tale*.

pastoral, as well as his distinction between the 'complex pastoral' and the 'sentimental pastoral' ([1964] 1999).[141]

Raymond Williams' 'anti-pastoral'—developed in the seminal work, *The Country and the City* ([1973] 1985)—is perhaps the most influential reformulation of the pastoral. Emerging from the British traditions of a pastoral embedded in systems of enclosure and aristocratic land ownership, the anti-pastoral is a Marxist critique that seeks to expose the systems of property and physical hardship beneath the idealisations of the pastoral. *Sweetgrass* certainly shares this aim, but rather than taking a cognitivist approach, as Williams does, it performs an *affective* critique that bears witness to the grunting viscerality of herders' and sheep's hardships. This affective critique of capitalism is achieved by the film's combination of the physicality of the ethnographic method as an in situ practice—which is in turn rendered affectively powerful through sensory aesthetics—with an understanding of the structural forces affecting the community being studied. This is a foundational strategy to many of the works emerging from the Sensory Ethnography Lab; indeed it is central to the politics of sensory ethnography as a form. All of the films studied in this thesis can be described as performing such a critique, be it *Leviathan*'s tirade against industrial fishing or the light *Foreign Parts* shines on those left behind by the regeneration of New York City. While capitalism is not the focus of all of Jorie Graham's poems, certainly 'Deep Water Trawling' (Chapter One), 'High Tide' and 'Honeycomb' (Chapter Three) can equally well be described as critiquing capitalism through affective means. In their different ways, these works seek to expose structural forces all too often hidden beneath idealised imaginaries.

The 'complex' pastoral, meanwhile, shares some of the anti-pastoral's aims; rejecting the mainstream pastoral's studied or naïve obliviousness to social and environmental injustices, it uses the pastoral 'to politically oppositional ends' (Buell, 2005, p.145). Marx's 'complex' pastoral 'brings a world which is more "real" into juxtaposition with an idyllic vision', something Marx calls 'the *counterforce*' ([1964] 1999, p.25; emphasis in the original). The complex pastoral, then, is inherently contrapuntal, both signalling the desire for peace and harmony and the awareness that this is an illusion (Marx, [1964] 1999, p.25).[142] A central 'counterforce' that often intrudes into the specifically American pastoral is the presence of

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[141] For a helpful summary of Marx's and Williams' revisions of the pastoral, see Buell (2005, pp.13-17). See also Greg Garrard on the American pastoral as distinct from the British one (2003, pp.48-56).
[142] Both the desire for harmony through the pastoral, and the violence embedded within it are brought out in Philip Roth's unnerving novel *American Pastoral* (1997).

technology, epitomised in Marx's analysis by the railroad. The specifically American pastoral—characterised by the 'US cult of wilderness'—emerges from the historical tendency to pastoralise the sites of European colonisation (Buell, 2005, p.144). As Annette Kolodny avers, this figuration of the 'new world' as an Edenic landscape helps explain why the American pastoral 'hailed the essential femininity of that terrain in a way European pastoral never had' (1975, p.6). Accordingly, rather than the Marxist critique, the American pastoral has had to confront critiques of its 'identification with masculine colonial aggression directed against women, idigenes and the land' levelled by feminist and multicultural scholars (Garrard, 2004, p.49).

As a meditation on the realities of the Cold War, Graham's poem 'What The End Is For' is just such a critique of American colonial aggression, though as it is formulated in the twentieth century rather than as a historical legacy. If this is the poem's critique on a macro scale, the question it asks is how these same tensions and impasses operate on the personal level; to transpose the feminist maxim, how the political is the personal. The question of gender is central to reworkings of the pastoral. Of course, it is important to note that 'What The End Is For' is a pastoral poem written by a woman; the 'love' addressed in the poem is a man, not the usual woman. But questions of gender in the pastoral extend beyond the fact that it is a form, like so many, traditionally dominated by male writers; these questions coalesce around the centrality to the pastoral of *control*. This is both control of people and of nonhuman nature: as the poet John Kinsella writes in the introduction to his work of criticism, *Disclosed Poetics*, the pastoral is 'firmly grounded in the hierarchies of control—of the divine right […] and the ladder of authority' which separates an urban elite from the poor who work the land (2007, p.1). Despite common conflations of the pastoral and nature writing, the pastoral, Kinsella asserts, 'is not really about nature except insofar as it is about landscape, the mediation of nature through human interference and control' (2007, p.2). The exploitation of the landscape, livestock and workers condoned by the pastoral can be, insights from ecofeminism reveal, closely tied to the exploitation of women.[143] 'What The End Is For' is less an explicitly feminist poem about domination than one concerned with the pain and mutual resentments of lost intimacy; nevertheless, the poem dwells on the risk of such resentments slipping into control of

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[143] As Greta Gaard and Patrick Murphy explain, 'ecofeminism is based not only on the recognition of connections between the exploitation of nature and the oppression of women across patriarchal societies [but] also […] on the recognition that these two forms of domination are bound up with class exploitation, racism, colonialism, and neocolonialism' (Gaard and Murphy, 1998, p.3; see also Gaard, 2010; Westling, 1996; Warren, 1993; Merchant, 1980).

both self and other that foreclose the possibility of healing. This poem draws heavily on the visual and aural senses to make connections across its micro- and macro-scales and to render its message more affecting. I will now explore the workings of geopolitical and labour tensions, sensory physicality, nostalgia and lost intimacy in both Graham's 'What The End Is For' and Barbash and Castaing-Taylor's *Sweetgrass* in more depth through close-readings of the two works.

The Pastoral and Loss in 'What The End Is For'

'What The End Is For,' the first poem of Graham's to which I turn, considers a grounded swarm of B-52 planes constantly ready to be deployed for war, a political instability that is folded into the poem's sadness at the breach ending a relationship. 'What The End Is For' is a poem that announces its concern with endings in its title. It appears in the early collection with a title that is heavy with elegiac resonances and pastoral tropes of the loss of youth and innocence, *The End of Beauty* (1987). The more specific losses in 'What The End Is For' are that of a personal relationship and that of political innocence. The poem dramatises these two losses by juxtaposing two prolonged, pregnant moments of watching: a memory of being shown by a young man a field of battle planes poised for take-off and the memory of 'the last time' the speaker saw her now estranged partner. The scenes are notable for the near complete absence of movement: a sunset in each marks the only visual change and forms the metaphorical centre of the poem.

Grounded planes seem an unlikely grouping to be considered swarmic, but a closer look at the poem reinforces this analogy: the war planes are 'five hundred B-52s on alert', 'running every minute / of every day', emitting a 'huge hum'. Like with *Sweetgrass*'s sheep, the sheer number of the aeroplanes, far exceeding the common mental image of a grouping of aircraft, makes them approach the swarmic. Whilst much larger than nature's small swarms of the air, once in the sky these planes will look no larger than birds from land. Whilst stationary, they are nevertheless poised for action. If the swarms of sea creatures in *Leviathan* and 'Deep Water Trawling' are fatally crushed and robbed of their mobility, these planes' very purpose is to be continually ready to swarm: the Boeing B-52 strategic bombers were built to carry nuclear weapons during the Cold War era, which was only to end four years after the publication of this poem. The swarm's state of *alertness*, as an augur of anticipatory violence, can itself be threatening: suspended, ready to attack, the swarm here invokes suspense rather than the horror of an unanticipated arrival.

The swarm is also a force of organised violence (one possible definition of the military) and this is invoked by the other swarmic group in the poem: the unseen crews of the five hundred planes, 'seven boys' to a plane, totalling a number greater than that attributed to the herd of three thousand sheep in *Sweetgrass*. These men, seen only in the mind's eye, are rendered swarmic by their number but also by the closeness of their bond. Living as one, their military discipline and intimacy—as well as their capacity to fly—seem to make of them a curiously close counterpart to the human swarm. That the men remain unseen by the speaker of the poem—and so are not described visually but at one remove through the reported speech of the speaker's companion—both highlights the secrecy of the military and reasserts the difficulty in empathising with a group large enough to approximate a swarm.

Within the latent violence of the airbase's protected boundary, the sunset is perceived as almost an escape, but one still marked by violence and pain: 'the last path the sun can find to take out' is that of the military base's barbed wire perimeter, described as a 'concertina wire in its double helix / designed to tighten round a body if it turns.' The sight of the bomber planes in their enclosure marks a shocking encounter for an American citizen living through the reality of the largely invisible Cold War, as indeed it does for later generations. Encountering the deafening hum of the planes, which are nestled among the meadows of the pastoral idyll, the Cold War's presence on domestic soil is felt viscerally by both speaker and reader:

> They sound like a sickness of the inner ear,
> where the heard foams up into the noise of listening,
> where the listening arrives without being extinguished.

The cacophony of the planes emitting their 'huge hum' seems inescapable: 'this eternity of engines never not running'. Figured as a force that intrudes into the body through the synaesthesia of the sound 'foam[ing]' into the 'inner ear', the noise of the planes acts as an aural equivalent of the swarmic bombardment that the previous chapter traced in *Leviathan*'s proximity to the swooping gulls and the death throes of the fish. As I will explore in the following section of this chapter, a very similar sonic overwhelm occurs in *Sweetgrass* when the bleating of the sheep reaches a deafening crescendo. Within my formulation of the swarm as a concept that can be expanded beyond arthropods, swarms are usually single species but are multisensory in their effects.

The swarmic sound of the planes highlights the way in which the poem both invokes and reworks the pastoral. In what could be a line from a poem much more readily recognised as a pastoral lyric, the speaker declares, '[t]he meadow, the meadow hums, love,' but this

meadow hums not with bees, but with the planes which symbolise military readiness. The air is so pregnant with an impending violence that even the grass was 'wholly prepared'. The swarm, not just through movement but also through sound, is an embodiment of anticipatory violence.

The political awareness rendered undeniable by the insistent presence of the bomber planes is figured visually through the sunset, which once again highlights the barbed wire of the enclosure: 'each barb flaring gold like a braille being read.' The sunset becomes a metaphor that links a visual violence with legibility for the blind with a form of comprehension that operates through sensation rather than sight. Similarly, the poem, in recreating the physical sensation of the buzzing planes and the meadows on which the speaker and her companion lie, is able to surpass the limitations of the sight of a sunset, which is axiomatically fleeting: 'then off with its knowledge and the sun / is gone'.

These planes are not seen with the love addressed by the speaker, but rather with 'your stand-in', '[a] boy just like you.' The loved one the poem addresses is a partner she has not seen since an evening 'we stood facing each other': the poem is an elegy to the ending of their relationship. Interspersed with these military and swarmic images, then, are the traditional pastoral tropes of the rural and of youth. Whilst the pastoral, by staying within the pre-lapsarian past, renders the loss of youth, romance and nature implicit, in this poem that idyll is invoked only as a shadow of the present reality: the memory sequence of the speaker lounging in a meadow with a young man is counterpointed with a darker memory of the moment marking an estrangement. The open space of the meadows is juxtaposed with the scene of the speaker in the kitchen, where the speaker, boxed in by the human construction of house and marriage, stands with an older partner at the end of a relationship. In some ways, this poem echoes Coleridge's poem 'This Lime-Tree Bower My Prison' in which, as Gifford explains in his discussion of the pastoral, 'Coleridge, stuck in a domestic 'prison', imagines his friend up on the sublime, wild, Quantock hills' (Gifford 2016: 15). In Graham's poem, instead of a friend, the speaker projects an image of her self at another moment and with a mere acquaintance, a 'stand-in'; instead of envy, the feelings are more conflicted.

Whilst the sunset on the meadow is marked by a shocking revelation—the reality of military readiness— that is emblematic of a loss of political innocence, the kitchen scene, which is also tracked through a sunset, is of a more gradual, creeping darkness, and a more personal disillusionment. Framed by the window, the outdoors is rendered a 'picture' of domesticated nature, a safe and familiar environment that is gradually erased: '[t]he picture window behind you was slowly extinguished, / the tree went out, the two birdfeeders'. Here again, the light

catches on particular objects, though here the light is liquid rather than flame, forming 'in puddles stuck like the useless / splinters of memory'. Whilst the sunset in the meadow signifies a political realisation burning into the speaker's consciousness like the military defences that flash like braille through the meadows, the sunset perceived from the kitchen reveals a slower and more attenuated epiphany; the recognition that a relationship has ended. The pain of this loss is such that it can only be expressed retrospectively, and so the gradual erasure of the broader environment is detailed before the first and most important erasure: 'Your face went out a long time / before the rest of it'.

Graham's is an intensely visual poem, that operates through visual metaphors to link the loss of political innocence and personal love, but the contrast between the two scenes is augmented by the aural. The hum and roar of the planes alternates with the silence of the kitchen; the loquacity of the eager young boy is juxtaposed with the partner to whom there is nothing left to say:

> Are you still there for me now in that dark
> we stood in for hours […]
> unwilling to move, irreconcilable? What he
> wants to tell me,
> his whisper more like a scream
> over this eternity of engines never not running,
> is everything

Far more nuanced than a crass staging of a 'Cold War in the kitchen,' the poem asks how it is possible to overcome ideological and geopolitical tensions when personal breaches are 'irreconcilable'. The personal disillusionment, the loss of love, is at once incomparable to the loss of political innocence of the other section of the poem and nevertheless compared by it through its contrapuntal structure. Transcending the personal and political binary, the speaker links the political revelation with a personal turning point, and in turn situates that personal loss within the broader forces 'of history, hopes, laws handed down'. Furthering these crossovers, the expected correlation of intimacy and control with these two spheres is reversed. The crew of the war planes, the speaker's companion relates, 'stay together for life', whereas the couple's interchanges are reduced to reproach ('When I asked you to cross the six feet of room to hold me // you refused') and defence ('Why should I move?') that seem infused with an almost military control.

The poem ends by suggesting a final mutual surrender. The stand-off continues '[u]ntil we were what we must have wanted to be: shapes the shapelessness was taking back'. The

poem's coda suggests that this brings release, a freeing from the stalemate that enables speech, song and poetry again to flow. In one of Graham's signature shifts to the mythical, the two memory sequences are counterpointed with the violent scene of Orpheus's dismemberment: 'When the Maenads tear Orpheus limb from limb, / they throw his head // out into the river.'[144] The poem's images of static and silent watching are replaced, at its close, with frantic and violent motion. This is a violence that does not, however, hinder song: 'Unbodied it sings […]' The land, too, which has during the poem seemed to freeze the speaker and her companions ('the meadow [… which] stands for sadness') is replaced by the flow of the river: 'the sound of the cataracts grows'. Cataracts—in the sense of waterfall and rushing water, but also, of a gradually deteriorating eye condition, evoking the near loss of sight performed through the sunsets in the previous two sections—rush toward the ocean, 'until the sound of the open ocean grows and the voice.' It might well be that 'the voice' Graham finds through Odysseus's deathly dismemberment is a way of regaining the flow and sound of the ocean.

The idea that in Graham's verse, the ocean and an attendant linguistic flow are forces of healing, whilst suffering and stifled speech are associated with land, is supported by a survey of two of Graham's later collections. *Swarm*, which I will examine in greater depth later in this chapter, is of all Graham's collections the one most deprived of water and liquid flow. The collection is replete with 'images of desiccation and dust,' motifs of suffering that Joanna Klink argues are reflected in the 'formal paring-down that happens in the line and in the diction' (2005, p.165), and which are also redolent of the anti-pastoral. The linguistic fragmentation of *Swarm* expresses a fragmentation of the self, caused in this case by marital breakdown. The image of the swarm both invokes the autobiographical instance of the end of Graham's marriage and transcends it, coming to act as a motif, in Klink's terms, of 'the urge to dismantle the first person and recoalesce into a more expansive self' (2005, p.163). This description by Klink of the impetus behind *Swarm* works as an uncanny summary of the hopes this thesis holds for the concept of the swarm. A central difference is that I hope this can be achieved, or at least prompted, through disorientation and challenges to the unified self without the pain of collapse and self-dissolution. Similarly, with regards to the broader ontological level of the position of the human species, through my contrapuntal method I aim to work towards a process of expanding the category the human without either collapsing differences between the human and

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[144] Graham returns to the myth of Orpheus and Eurydice across her poetry collections. See 'Orpheus and Eurydice' in this collection (1987, pp.17-19) and 'Aubade' in *Errancy* (1998, pp.57-58).

nonhuman or arguing for a complete dissolution of the category of the human, as some strands of posthumanist theory do (see Introduction and Chapter Three).

Swarm was followed by the most aqueous of Graham's collections, *Never*, which, as we saw in the previous chapter's discussion of 'Prayer', is suffused with the flow of the ocean. For Graham, it seems that a second stage of healing after the process of writing *Swarm* is necessary, one imagined through the flow of water: in *Never* as in the closing of 'What The End Is For' the ocean acts a motif of the connection enabled by such an opening out of subjectivity, a self able to expand rather than a self fragmenting. If, for Graham, water is a healing force and land is suffocating stasis in *Swarm*, for Castaing-Taylor (with his respective collaborators Paravel and Barbash), quite the reverse is true. The ocean, as experienced in *Leviathan*, is phantasmagoric, conjuring up visions of men isolated within the crew, whilst the land of *Sweetgrass* hosts a lost idyll of family bonds and connectedness. It is to this cinematic elegy that I now turn.

Sweetgrass, Nostalgia and Intimate Control

The opening of the film *Sweetgrass* sees new life emerge from a bitter winter: lambs are born; women and children join in the work of the communal family enterprise. Having placed its focus on the sheep and their herders through their journey for summer pasture, the film's ending lies in stark contrast to its opening, with the pointed absence of these sheep (now sent to slaughter) and, in its final shot, a long take of a solitary older man facing an uncertain future. As such, the cycle of the seasons, from the thawing winter to the end of summer, and the life cycle of the animals, from lambing to slaughterhouse, are mirrored in—and counterpointed with—the human narrative. The complexities of the film emerge less from its narrative structure than its formal influences. It will be helpful, then, to start by outlining these, before exploring how the film reworks these modes through its aesthetic experiments.

On a factual level, *Sweetgrass* is named after one of the four counties through which the sheep drive travels: Sweet Grass, Montana. Informing the observant viewer of this only as the credits roll, the film gives space for other associations to arise. In fact, as well as its geographic specificity, the title's significations span the film's range of influences from the pastoral and the Western to the legacies of visual ethnography and salvage ethnography. The pastoral is deeply connected to the histories both of the Western and of ethnography, and it is through this central mode that I will triangulate my discussion of the others. Within social and cultural anthropology, the study of pastoralist communities has from the beginning been a classic subject

for ethnography.[145] Meanwhile, as an artistic mode of an idealised relationship to the land, the pastoral has a close connection to the Western, in which adventure, virility and romance are inextricable from the ranchers' life on the land. The violence that seems an inescapable component of the virility of the Western makes one final mode pertinent: that of the military.

The pastoralists of traditional ethnographic studies are of course very different from the ranchers studied in *Sweetgrass*. Unlike nomads, for these ranchers the journey into the mountains with the herd for summer pasture—a practice called 'transhumance'—is a seasonal exception from their settled lives in the town and on the ranch; one, moreover, that is undertaken by only two of the men from the ranch. Even more pertinent is the position the ranchers followed in *Sweetgrass* hold within the history of North American settlement and expansion. It is by considering this broader context—the historical context of the Western frontier—that the relevance of the Western becomes clear. As a form that celebrates the settlement of the American West, the Western is in some ways the inverse of American-based ethnography: while conventionally studying nomadic communities based in so-called developing countries, anthropology also undertakes research on precisely those indigenous groups within the US whose ancestors survived the genocidal purges that enabled settlement (see Strong, 2005). In contrast, since early discussions of cinema the Western is the 'American film par excellence', to quote André Bazin's well-known phrase ([1971] 2004).

The Western has a longer tradition than in cinema alone, however. As Lee Clark Mitchell reminds us, it stretches from novels and penny-dreadfuls to early cinema and contemporary blockbusters (1996, p.7). Sharing the endless adaptability of the pastoral mode, the Western operates as a mode rather than a specific form. That it should be so, and that is should continue to hold its position as the un-American film, can be explained by how closely the Western is tied to nation-building.[146] The historical imbrication of the violent suppression of nomadic indigenous communities with European settlement in North America reveals the military, the final mode discussed here, to be closer to the Western than first appears. A contemporary understanding of American expansion and military activities may see it as the sole concern of foreign policy, but this has not always been the case. My discussion will explore how the ghosts of historical state-endorsed violence in Sweet Grass County appear in the film, and

[145] As early as 1839, James Cowles Prichard, an influential figure in early anthropology, figured the 'simple pastoral tribes' of anthropological study as the inverse of 'civilised agricultural nations' (quoted in Gruber 1970, p.1293). For more recent studies of pastoralist communities in anthropology, see Dahl and Hjort (1976) and Salzman (2002).
[146] See Chapter Three for a discussion of the uses of the desert as national boundary (both metaphorically and literally) in the United States.

how the echoes of a peculiarly American military ethos seem at times to be heard in the ranchers *Sweetgrass* follows.

The pastoral, the ethnographic, the Western and the military are four distinct but interlinked modes. They are also, in certain ways, incompatible, the most extreme contrast being that between the pastoral and the military, which is often associated with the industrial (as in military-industrial complex) and the technological. It is my contention here that Castaing-Taylor and Barbash's film uses the tensions and contradictions of these modes to rework the literary and cinematic forms on which it draws. As well as the primacy of the land, what all these modes share is the element of loss, of looking back on a lost world. The question leading my discussion is how *Sweetgrass*—which claims, in the film's own synopsis, to be an 'unsentimental elegy to the American West' (Castaing-Taylor, 2009)—variously invokes, reworks and disavows nostalgia through these modes. A distinction aligning the thematics of control with the Western and the military, and nostalgia and loss with the pastoral and the ethnographic, may be instinctive but is nevertheless untenable. That this is so is revealed by the counterpoint of intimacy and control. Within the dark interplay of these forces, the presence of intimacy or control increases the chance—or risk—of the other: both are in constant play in the nexus of ethnographic, Western, military and pastoral modes.[147]

Sweetgrass' range of influences is typical of the creative work that would go on to be produced in the Sensory Ethnography Lab at Harvard. Indeed, it was this film that first launched the Lab as a hub of creative ethnographic filmmaking, and as a school of thought and of ethnographic film—'the Harvard school'. Even within the Lab's genre-crossing approach, it remains as true for *Sweetgrass* as for any collaboration that each maker brings their own specific set of core references. This is clearly illustrated by Scott MacDonald's interview with Barbash and Castaing-Taylor, in which he asks about the influences they see as bearing on the film (MacDonald, 2014, pp.373-393). To summarise their responses, in addition to both makers seeing the film as a reworking of the mode of salvage ethnography (a form I will explore further in what follows), Barbash makes it clear that from her perspective the film invokes the Western, whilst for Castaing-Taylor it is primarily engaged with the pastoral (MacDonald, 2014, p.393). As well as revealing these influences within their collaboration, taking a closer look at Barbash

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[147] This nexus is also present in science fiction. In *Westworld* (both Michael Crichton's 1973 film and Jonathon Nolan's adaptation for HBO; 2016-2018), the Western and the pastoral are invoked as contrapuntal conduits for human desire: within the technologically enabled fantasy world, herds of cattle act as tokens of nostalgia and flies operate as markers of the inhumanity (or rather, artificiality) of the park's so-called 'hosts'.

and Castaing-Taylor's respective responses will provide a useful starting point for understanding the way in which *Sweetgrass's* multiple influences intertwine.

Barbash reveals that, for her, the title is a conscious reference to Merian C. Cooper and Ernest B. Schoedsack's 1925 film *Grass* (in MacDonald, 2014, p.393). This film, recorded in Iran, also records mass human and animal migration and was the second ever ethnographic documentary, after *Nanook of the North* (Flaherty, 1922). This reference not only positions the film within the tradition of ethnographic film, but also within the paradigm of 'salvage ethnography' in particular. Salvage ethnography, characterised by an impetus to 'collect and preserve,' was a term coined by Jacob Gruber in 1970 in the *American Anthropologist* (1970, p.1292). Gruber sites the emergence of salvage ethnography in the 'sudden and traumatic' awareness that dawned on nineteenth century Western scientists and humanists of the 'destructive impact of European civilization on native peoples and their cultures' (1970, p.1292). This awareness, Gruber continues, did not dent the 'nineteenth-century optimism' that held to the conviction that such destruction of human cultures was a necessary, if lamentable, by-product of progress (1970, p.1293). The contemporary resonances of a dawning realisation of the destructive impact of human activity in the age of the Anthropocene are clear enough: degrees of optimism remain, with similarly questionable beliefs in 'progress' often leading to hopes being pinned on technological 'solutions'.

Salvage ethnography, like the pastoral, is traditionally imbued with a nostalgia that remains largely untempered by a sense of injustice. Given this history, it is no surprise that salvage ethnography has long been open to criticisms of Western hegemony. Castaing-Taylor and Barbash, as anthropologists working within academia and the museum sector, are highly aware of these particular criticisms of the form. Whilst, Castaing-Taylor avers, salvage ethnography has long been deemed 'retrograde' in written anthropology and critical theory, it has had a longer life in visual ethnography (in MacDonald, 2014, p.377); and it is within this latter context that Barbash and Castaing-Taylor wanted to engage with and rework the form. Aware that 'for anthropologists, it would be embarrassing to depict a world that was disappearing'—so far had the discipline reacted against salvage ethnography—Castaing-Taylor and Barbash drew on the greater freedoms granted to them as artists as well as anthropologists (Castaing-Taylor, 2016, p.61). As such, the driving question behind the film became whether they could 'acknowledge a historical loss without falling prey to all the pitfalls of patronizing romanticism and nostalgia' (Castaing-Taylor in MacDonald, 2014, p.377). Nostalgia and loss,

then, were central to the filmmakers' conception of the film, even as they sought to avoid sentimentality.

Whilst Barbash situates *Sweetgrass* within the interlinked traditions of ethnographic films and Westerns, Castaing-Taylor's references are from other forms of art: he notes, for example, that the title is a 'a revisionist riff on the pastoral, an age-old form in literature and painting' (MacDonald, 2014, p.393). Whilst Castaing-Taylor's comments elsewhere (2011, np), and likewise my own discussion, focus on the literary pastoral, the use of the pastoral mode in the visual arts is another palpable influence on the film, and can be seen in the 'painterly style' of the film's cinematography (Grimshaw, 2011, p.252). He also reminds us that *Sweetgrass* is named after Sweet Grass County. These two origins for the film's title—in geographic fact and artistic fiction—are deeply intertwined. The extent to which the pastoral is embedded in this particular landscape can be seen from the benign pastoral associations of not just Sweet Grass County but all four of the counties in which the film was shot (Stillwater County, Wheatland County and Park County are the others). Unlike the other counties the film could have been named after, the name of Sweetgrass County holds the echo of an English village that was formative to the image of sheep in the Western tradition well before ranchers arrived in the American West: Grasmere, the home village of the Romantic pastoral poet William Wordsworth. That Castaing-Taylor spent formative weekends during his childhood visiting his grandmother in 'the Lake District—Wordsworth country', gives this famous poet and this equally celebrated place a close connection with the conceptualisation of *Sweetgrass* (Castaing-Taylor, 2011, np).

Wordsworth is a key figure in reformulations of the pastoral in the British tradition. Kinsella identifies Wordsworth's shepherding poem 'Michael' as 'a turning point' away from the pastoral tradition's previous idealisations, showing instead a 'consciousness of the collapse of the idyll' (2007, p.1). For Castaing-Taylor, Wordsworth is the first poet to take seriously the 'loneliness of being a shepherd, the drudgery of being a shepherd, the reality of being a shepherd' (Castaing-Taylor, 2015, 28min). I contend that the lyrical sensitivity to people and place in Wordsworth's poetry gives rise to a realism more commonly associated with ethnography, whilst in *Sweetgrass*, the ethnographic origins of the film lead to the poetic, the elegiac and—through its location in the expanses of the American West—to the sublime. The filmmakers are as aware of the problematic nature of the pastoral as they are of salvage ethnography, with Castaing-Taylor commenting that, in *Sweetgrass*, he and Barbash 'sought to convey at once the allure and the ambivalence of the pastoral' (Castaing-Taylor, 2011, np).

Attending to this ambivalence, the film invokes the sublimity of the sheep's journey through the vast landscape only to undercut it with the reality of human exhaustion and frailty, similar to the juxtaposition of the horrific and the sublime performed in *Leviathan*. Insofar as the swarm is a mode of excess, its movements across land and sea readily invoke the sublime, in stark contrast to the ease with which an individual swarm member can be dismissed—to borrow a term from swarm intelligence—as a 'simple agent' (Roy, 2014, p.55; see also Chapters One and Three).

Made by an American woman and a British man in the American midwest, it is a moot question of whether *Sweetgrass* is an American or British pastoral—and to what extent it draws on the legacy of the classical pastoral. In the vein of Gifford's post-pastoral, the film connects rather than opposes these different versions of the pastoral. It is Castaing-Taylor rather than Barbash who draws on the pastoral and he does so through a classical and English tradition, citing Theocritus, Spenser and Wordsworth but not, for example, Henry Thoreau (Castaing-Taylor, 2011, np). In 'transpos[ing] the pastoral to the American West', Castaing-Taylor and Barbash had to significantly adjust and expand the genre (Castaing-Taylor, 2011, np). These adjustments are primarily made in terms of scale. If Wordsworth's shepherds grazed small flocks in small English fields, *Sweetgrass*'s enormous herd—three thousand sheep implausibly controlled by just two men and their dogs—is itself dwarfed by the expanses of the American West. Rather than the gently rolling hills of the British Isles, this landscape of harsh snow-capped mountains is a on 'a scale almost unimaginable to Europeans,' Castaing-Taylor affirms (2011, np). Notably, when Castaing-Taylor articulates his experience of that landscape he speaks in terms of the 'transcendental' in the Emersonian sense, and as such references a markedly *American* tradition.[148]

Unlike English shepherding practices based on systems of enclosure, these sheep are on a very definite journey. This is not local grazing, after all, but a search for summer pasture on a monumental scale, a sheep drive that continues for over one hundred and fifty miles. A journey of that length in England would have taken Wordsworth's shepherds from the west coast to the east, from the Lake District to the North York Moors. The journey of the ranchers and their sheep thus approaches the epic, not only in scale but also in terms of the attributes of epic poetry, that ancient tradition of storytelling which relates the almost superhuman efforts

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[148] Later in the essay mentioned above in which Castaing-Taylor refers to the classical and British pastoral traditions, he concludes by describing '[s]pending the summers high in the Rocky Mountains, among the herders, the sheep and their predators' as a 'transcendent experience'(2011, np). For a study of Ralph Waldo Emerson's transcendentalism and its literary formulations (including those of his mentee, Thoreau), see Lawrence Buell (1973).

required of heroic men undertaking tasks and journeys of national significance. The American pastoral, in distinction to the British or European, is characterised by the legacy of what Garrard describes as 'a self-consciously virile frontier society' (2004, p.51). *Sweetgrass* is, among other things, a critique of the myths of frontier masculinity, both revealing how it is imbued in the ranchers Pat and Joe, and undercut by their human fragility. In its revealing but generous portrait of the two men, the film draws on another peculiarly American mode: that of the *Western*.

Alongside the pastoral and salvage ethnography, the Western is the third central influence I will trace in my discussion of the film's nostalgia and counterpointing of intimacy and control. Given the film's location in the West and its subject of mass animal herding, this cinematic influence is inescapable. It is also consciously invoked by the film: the workers are not shepherds but, as seen in the text before the credits, 'Western ranchers'. To return to MacDonald's interview, Barbash affirms that she 'grew up watching *Gunsmoke*' and other Westerns and that the people in *Sweetgrass* reminded her of characters from those films (in MacDonald, 2014, p.391). As well as *Grass*, Barbash lists the Western *Red River* among the film's predominant influences (in MacDonald, 2014, p.391). Scott MacDonald describes the film as 'a Western about cowboys that involves no shoot-outs and no romance' (2013b, p.264). There may be no shoot outs between cowboys, but on several occasions we see shots fired at bears that hunt—and at one point, kill—the ranchers' sheep. As I will go on to show, at these points and others the journey takes on the aura of a distinctively American military ethos. Indeed, it would not be overstated to suggest that the Western itself is made up of a peculiarly American combination of the pastoral and the military. With its idealisation of the outdoor life and youthful romance, qualities also shared by the pastoral, the machismo of the Western has a key added ingredient: explicit violence. Lee Clark Mitchell traces a shift from Westerns before the 1960s in which violence was figured as a last resort necessary to uphold honour, to later works in which the tempo is marked by 'bloody set pieces' used to almost cathartic effect as 'moments of timeless arrest' (Mitchell, 1996, pp.223-224). The Western shares the pastoral's emphasis on landscape, which Mitchell describes as being 'unmatched in any other popular genre' (Mitchell, 1996, p.7). In the Western, landscape is the setting 'into which violence intrudes' (Mitchell, 1996, p.7), this human violence takes the form of visible display rather than a latent presence disguised within it, as obtains in the pastoral.

As indicated previously, my analysis will centre on the pastoral, reading the modes of salvage ethnography, the Western and the military in relationship to this more explicitly literary

mode. The debate over which filmmaker brought which particular influence to the film raises the question of whether, in focusing on the pastoral in this chapter, I am privileging the perspective of Castaing-Taylor over that of Barbash. This is a real risk particularly given the more ready availability of interviews and written commentary given by Castaing-Taylor.[149] However, in this instance I feel justified in pursuing this line of inquiry to address a different imbalance: that of scholarly attention. The majority of critical responses to the film have, by dint of coming from film and anthropology scholars, focused on the film's status as an ethnographic or documentary film. This, as Koehler notes, misses the self-avowed influences of the pastoral on the work (2011, np). To the extent that Barbash's influences are more strictly anthropological—and also more American—than Castaing-Taylor's, they are also the references that are more readily picked up on by the majority of critics.

This overview of the numerous influences informing the film enables us to return with greater clarity to the question of how the film uses aesthetic innovations to render both sheep and the pastoral swarmic. The sheep first swarm beyond the control of the humans and dogs driving them early in the film, soon after leaving the ranch. As they are driven up the mountains, the sheep get 'cut off' in wooded terrain: they have become maddeningly uncontrollable in a manner that is the opposite of swarmic speed. Before addressing this sequence in greater detail, it is important to stress on the way in which the film positions the sheep as its main subjects, especially from the point at which the film leaves the ranch for the mountains. As Castaing-Taylor told me in interview:

> the longer I spent up there, the more I got interested in the subjectivity of the sheep, the phenomenology of the sheep, and the physicality of the sheep, rather than the humans.   (2015, 27m)

In this way, the pastoral's founding principle of retreat and return is suffused with a stretching of perspective to incorporate the nonhuman phenomenology of the sheep. This not only indicates that *Sweetgrass* is deeply rooted in the established tradition of observational ethnographic filmmaking (Grimshaw, 2011, p.255; Sandall, 1972; Young, [1975] 1995), but, as Grimshaw has argued, reveals it to be a film that is part of—and indeed has driven—the

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[149] For further examples of commentaries given by Castaing-Taylor, but not Barbash, see Jay Kuehner's interview and Castaing-Taylor's essay for the Arts Desk (Kuehner, 2010; Castaing-Taylor, 2011). This is a problem of reception as well as intention, but it is notable that whilst the film's credits describe the film as being produced by Barbash and 'recorded' by Castaing-Taylor, and edited by both, the Arts Desk essay introduces Castaing-Taylor as the 'director', and no mention of Barbash is made in introduction or the essay itself. In regards to *Leviathan*, in contrast, Castaing-Taylor and Véréna Paravel are at pains to describe themselves as both co-'makers' of the film rather than using the more traditional roles.

burgeoning role of the aesthetic and the sensory-cum-phenomenological in visual ethnography (Grimshaw, 2011, pp.255, 259). The experience of everyday life has, of course, always been central to the ethnographic method. Within works of visual ethnography that engage with the phenomenological specifically this emphasis on *experience* is supplemented with an equal emphasis on *perception*.[150]

This phenomenological focus is central to the way in which the aforementioned scene renders the sheep not only central but swarmic. In this sequence, swarmic bombardment—like that of the humming war planes in 'What The End Is For'—occurs aurally first and foremost; bleat follows bleat, piling up into a cacophony that can send a human mad. In among this noise, human voices are transmitted through walkie-talkies and recorded on lavaliere microphones. Purposely rendered quieter than the bleating sheep in the sound design, as Ernst Karel told me in an interview (2015), these human voices are removed from the bodies of the confused and frustrated herders. Adding to this sonic immersion is the denial of visual distance and perspective: in a prefiguration of the camera that rolls on deck with the dying fish in *Leviathan* (see Chapter One), the camera is placed low down within the swarm. Placing the camera within the herd in this way has the effect of suggesting the perspective of the sheep, and has been welcomed as indicating the possibilities of invoking, and to a certain extent experiencing, the lifeworld of nonhuman others. This a central aim of strands of anthropology that have engaged with multi-species ethnography, developments that have been termed 'the species turn' (see Introduction; also Kirksey, 2010; Haraway, 2008; Timothy, 2009).

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[150] As outlined in the Introduction, perception is central to most strands of phenomenology, from Merleau-Ponty's foundational work to Tim Ingold's sensory anthropology (see Introduction; Mearleau-Ponty, 1992; Ingold, 2000). For a study of the ways in which phenomenology has been deployed in anthropology, see Ram Kalpana and Christopher Houston's edited collection (2015).

Sweetgrass. Courtesy of Lucien Castaing-Taylor. 3

Throughout this sequence, the sheep fill the screen and, when watched on the silver screen, dwarf the human viewer: placing the viewer within the herd in this way creates an uncomfortable and somewhat claustrophobic experience. As Grimshaw notes, the sheep remain 'mysterious and resistant to the human gaze' (2011, p.250). The defamiliarised perspective of the sequence simultaneously gestures towards a cross-species encounter and reaffirms the alterity of the sheep, thereby highlighting the human viewer's alienation from them. As such, the film reveals the 'polarization of immersion and alienation as separate reactions'—as a false binary (Hughes, 2014, p.81).

The aural and visual primacy given to the nonhuman animals in this sequence is complemented in others that emphasise the power of the landscape; through these aesthetic techniques, as Grimshaw argues, the film positions both of these nonhuman forces as 'agents' that 'profoundly shap[e] and transfor[m] the lives of human subjects in physical, affective, and material ways' (2011, pp.253-54). For it is, of course, the needs of the *sheep* that lead the men to drive them into the mountains for pasture and face the unforgiving materiality of the landscape. The position of the herders as two men trying to negotiate these vast nonhuman forces is illustrated most strikingly at a later point in the film in which the sheep are yet more swarmic: a single long-take in which the sheep have streamed down a cliff-side like an

avalanche, pushing the herder—who then must drive them back up the impossibly steep slope—to the edges of endurance and sanity. That neither camera nor rancher caught the sheep before they went over the mountain-side, but would only witness the aftermath of this, indicates that within the slow temporal rhythms of the mountaintop, even movement at a sheep's pace can be as uncontrollable as the fastest of swarms.

Sweetgrass (1h16) 4

The view above is that of a wide shot of the herd—unusually, seen in its entirety, as a whole—which then slowly zooms out, revealing the camera to be positioned on a nearby mountaintop at least a mile away. In sync, the sound of the frustrated herder's cursing and exhausted breathing is caught with perfect clarity by the lavaliere microphone worn by the herder. Through this simple but effective juxtaposition of sound and image, the film counterpoints its human and nonhuman perspectives: the desperation of the hired hand, the swarming sheep, and the perspective of the vast landscape itself.

In this scene, whilst the sheep seem as small as flecks of cotton or white ants, collectively they cannot but be recognised as a huge force. This shot shows more clearly than any other in the film the way in which the huge herd acts as one: it is indeed a 'superorganism' made up of 'closely cooperating animals', defined in relation to ant colonies by E. O. Wilson and Bert Hölldobler (2009, p.4).[151] The very real physical damage such animals can do has been

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[151] While not naturally 'eusocial', or 'truly social' in the biological sense, the sheep approach one core attribute of this eusociality within the organisation of the ranch filmed in *Sweetgrass*:

stressed by George Monbiot who, writing in a British agricultural context, describes sheep as 'woolly maggots', a 'white plague' and an 'agent of destruction' (2013, np). Within both Monbiot's emotive language and the visuals of *Sweetgrass*'s powerful shot across the mountain, sheep are seen to swarm insofar as they are recoded as insects or grubs. The enraging effect of their uncontrollability on their supposed masters is rendered all too clear. In fact, this instance of the sheep falling over the cliff leads to the film's emotional turning point. As in the title poem of Graham's collection *Swarm*, to which I will turn shortly, a telephone conversation forms a central scene in *Sweetgrass*.

Exhausted, frustrated, near breaking-point, the herder howls from the top of a mountain down the phone to his mother: 'they went over a cliff, Ma'. The breath-taking visual expanse surrounding the solitary man—accompanied only by his sheepdog—reinforces the sense of physical distance between the herder and the person with whom he is trying to communicate. The sublime aesthetics of a solitary figure in a vast landscape is undercut by the acknowledgement of human frailty and dependence on others, allowing the spectator's awe to be infused with compassion. The frustrations the herder expresses down the phone—to the effect of being 'driven mad' by the sheep—reveal a degree of cross-species intimacy in the relationship between the men and the beasts, described by Castaing-Taylor as 'a violent closeness' (2016, p.62). This relationship between the human labourer and the animal food-stock being cultivated is entirely absent in *Leviathan* with its wild swarms of air and water, where the proximity between men and fish is solely one of physical violence.

As indicated by the scenes just described, a large part of the sense of proximity and intimacy afforded to both human and non-human subjects operates through the film's soundscape. Accompanying the often visually stunning long-takes is sync-sound recorded with lavaliere microphones. Intimacy here is captured through the ears, not the eyes. Combining sonic intimacy and visual distance, we overhear the distant sheep herder's breath and mutterings (Leimbacher, 2014, 38)—or, as when the herder tries furiously to drive the sheep back up the cliff discussed above, shouted invectives. This intimacy can seem uncanny, even alienating through its very proximity. The shots that counter aural proximity and visual distance risk becoming a sonic equivalent of voyeurism: the lavaliere microphones can feel intrusive, and their uncanny machinic intimacy holds echoes of a surveillance more akin to Orwell's *1984*

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this is the 'separation of reproduction from rearing the young' (Hölldobler, 2009, p.8) through the forcible removal of lamb from ewe when required to give each ewe the 'optimum' number of young, witnessed in the opening segment of the film.

([1949] 2000) than the benign Christ watching over His flock. Since intimacy must be reciprocal by definition, this seems more evocative of a form of control. This is one, perhaps quite cynical reading of the film's sonic disjunction. In my interpretation, however, the sound from the lavalieres primarily works to engender a reciprocal intimacy between subjects and filmmaker, and by extension the viewer. The embodied intimacy granted by the filmmakers' method of participatory ethnography—in which Castaing-Taylor joined the herders throughout their journey—is both mutually felt and genuine. When, in a scene in their tent, the herders comment that 'Lucien's fallen asleep' and simply carry on talking, they signal their intimacy with him by revealing that their behaviour remains the same whether or not he—the observer, the filmmaker—is present and awake.

Some of the most intimate moments are, like this one, of the ranchers quietly sitting with each other, when gruff mutterings and heavy breathing are as present as intelligible speech. Challenging a logocentric approach through such strategies, this film captures something of the ineffability of intimacy. There are echoes of *Brokeback Mountain* (Lee 2005) in scenes such as these, another film in which the pastoral and the Western put pressure on each other. As Catriona Mortimer-Sandilands and Bruce Erickson explain, while in North America 'wilderness areas are highly heterosexualized,' this is an erasure of the 'long history of pastoral representations of male same-sex eroticism', a disavowal that began in the early twentieth-century (2010, pp.3-4).[152] By portraying the wilderness as 'a vast field of homoerotic possibility', *Brokeback Mountain* excavates the prior tradition of the pastoral to imagine 'a queer nature' (Mortimer-Sandilands, 2010, pp.3-4).[153] In fact, the intimacy of the two ranchers is that of cousins rather than that of lovers (Hughes, 2014, p.80), but since the viewer is unlikely to realise that the herders are related, the question of homoerotic possibilities is left open. The ambiguities of these scenes of quiet physical proximity reveal that platonic connections as well as romantic ones are conveyed by physical intimacy. These scenes' nonverbal expressions also challenge human exceptionalism through a reminder of our shared bodily existences: the herders' random mutterings and bodily sounds come to be felt as not so different from the jaws chewing grain and hooves on the ground of their herd. In the sound design of the film, too, intimacy and control, power and reciprocation, are continually negotiated.

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[152] Rictor Norton traces the association of sexual ambiguity with earlier forms of the pastoral to Virgil's eclogues and Renaissance texts such as Richard Barnfield's 'An Affectionate Shepherd' ([1594] 1974: p.172).
[153] See also Timothy Morton's essay Queer Ecology (2010).

By rendering sheep swarmic, *Sweetgrass* reveals the fluidity of power relations between ranchers and sheep as well as the extent of cross-species relationality (see Haraway, 2003). How far, though, does this enable the film to escape the nostalgic simplifications of the pastoral? To elucidate the mood and narrative structure of the film, it is useful to compare it with two more films: firstly *Leviathan*, and then *For The Lost*, a film by Pierre-Yves Vandeweerd (2014). Beginning in a winter of wind and snow, *Sweetgrass* follows the herders through lambing and docking in spring to the end of the long summer months during which the two hired hands Pat and Joe drive their sheep through the Absaroka-Beartooth mountains for pasture. A tale of a full year, the film's structure is in tune with the slow pace characteristic of herding. As such, it is in marked contrast to *Leviathan* which, as we saw in the previous chapter, is structured as a circadian narrative, albeit one distended to the point of disorientation by the crew's endless round the clock labour. *Leviathan* is in line with the frenetic speed of life on the trawler, whereas the strain placed on the herders in *Sweetgrass* is a product of arduously slow work. Whilst the exact length of the journey across the mountains—a staggering one hundred and fifty miles over three months—is only revealed just before the credits roll, it is evoked throughout by the durational quality of the film. Robert Koehler remarks upon Castaing-Taylor's 'immense reservoir of patience' as a key ingredient of *Sweetgrass*'s 'intensely attentive filmmaking' (2011, np). This patience is also required of the viewer as long-take follows long-take, in almost ceremonial style.

The simple narrative, too, in following the flock from ranch to mountains and back to human civilisation, evokes the simplicity of this age-old family run business. Throughout the film—whether you read it as having a beginning, middle and end, or as Koehler does, as comprising a four-part symphonic structure (2011, np)—the viewer retains their bearings, as opposed to being lost in the apparent formlessness of *Leviathan*. Whilst the ranch in *Sweetgrass* has been in the family for generations, in *Leviathan* no worker can stay in the job for long due to sheer physical exhaustion; moreover, the workers are often people who have difficulty holding down a life on land. As a film, *Sweetgrass* rewards multiple viewings and will likely last for generations. There is less certainty that the immersive experience of *Leviathan*, an experience that is less rather than more compelling on second viewing, will endure in the same way.

Sweetgrass is more traditionally representational than *Leviathan*, which flickers at the edges of abstraction. Conversely, Graham's *Swarm*, to which I will turn shortly, is a much more abstract collection than *Never*. This absence and presence of abstraction reflects the presence or absence of grounding ways of life within the narrative aspects of the respective works. Whilst

Graham's collection *Swarm* arises from the personal dissolution of a marriage, *Sweetgrass* is a portrait of a traditional family enterprise, with children herding sheep alongside the adults until the two ranchers Pat and John continue the journey high into the mountains. The family life on the ranch is not the focus of these early scenes, but is rather glimpsed alongside the labour of the farm, and thereby avoids being idealised to the point of being saccharine. Nevertheless, the mood appears to be one of general contentment. This sense of a family enterprise is true of the filmmakers as much as of the herders: Castaing-Taylor and Barbash took their children with them to live with the herders for the summers they filmed there, and they thank them in the credits. Leaving Barbash with the children on the ranch, Castaing-Taylor joined the herders for the entirety of the sheep drive in the unforgiving territory of the Rocky Mountains. In *Leviathan*, in contrast, the turbulent and highly dangerous labour witnessed and recorded on the fishing trawler has none of the nostalgic connotations inherent to *Sweetgrass*; in this later film, an exposure of the human and environmental costs of commercial fishing, the workforce is made of men unmoored from connections of home.

As noted above, Castaing-Taylor describes joining the sheep drive as a 'transcendent experience' (2011, np), implying an Emersonian connection with nature. In *Leviathan*, meanwhile, as I argued in Chapter One, moments of aesthetic transcendence are created as brief respite for the viewer, but the suggestion that those actually on the trawler might reach a level of heightened awareness could only be through sheer exhaustion, nausea or injury (or a combination of all three). Nevertheless, both films evoke a transcendent experience, one that goes beyond the level of immediate experience to another level. This runs in tension with both the everyday perception that is central to phenomenology and the emphasis that sensory ethnography itself places on the 'real'. This combination of the immediate and the transcendental creates a contrapuntal logic according to which the transcendental can arise from the everyday.[154]

If the comparison with *Leviathan* indicates the extent to which *Sweetgrass* indulges in nostalgia (the phantasmagoric atmosphere of the film shot at sea emphasising the relative tranquillity and humour of the ranchers' journey in *Sweetgrass*), an equally if not more illuminating contrast is to be found in *For The Lost*, a film by Pierre-Yves Vandeweerd (2014). Like *Sweetgrass*, this is a ethnographic film suffused with poetry about the transhumance of a

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[154] This interpretation of transcendence is in distinction to the emphasis on rituals privileged in early formulations of ethnographic film. For an examples, see Jean-Rouche's *Les Maîtres Fous* (1955). See also Chick Strand's critique of this emphasis in visual ethnography (1978).

flock of sheep. However, the moods of the two films could not be more different. Inspired not by the pastoral but by the time Vandeweerd spent living and filming in the Sahara desert, *For The Lost* is shot during the harsh winters and snow-storms of the Lozère region of France; rather than radiating sunny nostalgia it is infused with haunting grief. While *Sweetgrass* is an exploration of masculinity under strain, machismo is strikingly absent in *For The Lost,* which follows a female herder and both male and female psychiatric patients. In retaining some nostalgia, *Sweetgrass* does not entirely escape the machismo that is embedded in the Western and the less obvious but latent celebration of youthful masculinity in the pastoral.

The relative simplicity of the linear narrative of *Sweetgrass* lies in contrast to the more poetic, essayistic juxtaposition of two sets of related ideas in *For The Lost*: the not uncommon losses of herders, sheep and villagers during the area's regular snow storms and the untold losses of people buried in the asylum's grave. In Andrew Northrop's words, Vandeweerd's films are 'poetic essays exploring the lives of those affected by exile, conflict, loss, and the ecology of harsh environments' (2017, np). Meanwhile, in *Sweetgrass*, a pastoral narrative rather than a poetic essay, the retreat of the ranchers to the mountains does not hold the timbre of exile but rather echoes a longed-for time and space. These comparisons are not meant to imply the greater worth of *For The Lost*. Rather, the contrast elucidates how the harshness and frailty exposed by *Sweetgrass* are nevertheless incorporated into a nostalgia for a certain formulation of virility. The influences of the Western on *Sweetgrass*, entirely absent in Vandeweerd's film, go some way to explaining this.

How, then, is virility formulated in *Sweetgrass*? As well as their roles as herders, the film's two protagonists are imbued by the film's aesthetics and cultural references with the roles of military commander and cowboy. The Western and military aspects to *Sweetgrass* are both used to put pressure on the pastoral role of the shepherd; in turn the pastoral undercuts the virility of the cowboy and commander. Although it goes without saying that a military commander leads humans not animals, it is important to note the first clear difference between *Sweetgrass* and the typical Western: that these ranchers herd sheep and not cattle. This goes some way to undercut the virility of the cowboy: a long-standing internal conflict between ranchers, tinged with masculine competition, asserts that 'real men' herd cattle.

To illustrate how the roles of cowboy and military commander combine with that of sheep herder, it is worth turning to a particular sequence in the film. These are the scenes following Pat's discovery of a bear killing and eating a sheep, in which the ranchers brandish their weapons and mark the loss of one of the herd. Like the moment discussed earlier in which

the sheep fall down the steep cliff-face, this event forms one of the moments of rapid action that punctuate the slow temporality of the film as a whole. With its gory close-ups of the sheep's body, this sequence is also one of the film's harshest moments. In its speed, its visceral intensity and the ranchers' use of technology, this scene refutes any reading of *Sweetgrass* as, in Marx's terms, a 'simple' or mainstream pastoral work, instead affirming its position as a powerful example of the more multivalent 'complex' pastoral (Marx, [1964] 1999, p.5). Whilst simple pastorals perform an erasure of the shepherd's hardships—'delet[ing] workers in order to enhance the idyll' (Buell, 2005, p.145)—the scenes of *Sweetgrass* referred to here get uncomfortably close to the ranchers' emotional and physical challenges.

In the earlier scenes showing Pat's attempt to get the sheep to climb the cliff-face, followed by his telephone call to his mother, his personal vulnerability and physical exhaustion are fully exposed. If this sequence infuses the pastoral with agrarian hardship—and in so doing follows the anti-pastoral in 'mak[ing] its correctives through the actual detail of the georgic mode' (Gifford, 2013, p.22)—in the sequence of shots following the bear's attack, echoes of the Western resound as well. Indeed, it is at this point that the first gunshots of the film are fired. Whilst narrating the events to the filmmaker—'And there that son of a bitch was…'—with perfect dramatic timing, Pat spots the bear in the distance and fires at it: 'There he goes, right down by the trees there. Fucking brute'. Whilst Pat's verbal tirades against the sheep that had strayed down the cliff-face were violently misogynistic, here his gendered language reflects his response to the ewes under his protection and ownership being attacked by an animal he presumes to be male. The revenge Pat seeks here holds echoes of the Western cowboy's retribution outside the law.

The masculinity that is performed and negotiated here is, of course, in close connection with the figure of the cowboy. The sequence, though, is also redolent of military operations. At this moment of a death of one of the herd, Pat and John seem almost like two commanders leading a battalion of men. One out of three thousand sheep might not seem so grave a loss, making the importance that is placed on the death of one sheep all the more striking. Seen through a military lens, this evokes the duty of American service personnel not to leave one of their men behind in enemy ground, dead or alive, a point of honour deemed almost sacred by the US army. However, there is little sense of emotional loss felt by the ranchers for the sheep. Rather, the herders, generally hyper-vigilant, seem deeply concerned about their lapse and what the owners of the ranch will want in terms of evidence. Taking photographs of the carcass, John asks, 'I suppose they'll want a close-up, close-ups, yeh?' to which Pat replies 'Yeh, just to

show how fresh it is and everything'. This explains the note of anxiety in his earlier insistence to the camera that the sheep's 'legs were kicking' when he discovered the bear, proving 'it had just killed it'. The procedures they must follow to minimise censure and financial loss are as present in the minds of the herders as the dangers of the bear returning.

The procedures the herders go through following the sheep's death serve as a reminder that this is not so much a cowboy killing or a military mission as an economic undertaking. It is true that military leaders might feel a serviceman's death as a failure in their responsibility to protect rather than as a personal loss, but more than this, it becomes clear that the sheep's loss is a specifically financial one: unlike soldiers, these sheep are destined for slaughter. A thread running throughout this thesis is the question of how engaging with the swarm can enable a renewed and more ethically conscious stance towards both human society and individuals: here, the implicit comparison of the sheep and the soldiers helps spur the realisation that in some cases soldiers are destined for slaughter as well. The moral issues surrounding the ethics of command this raises are a further twist in the nexus of intimacy and control: military command is maintained only through a thorough knowledge of those being led, just as the ranchers' awareness of their three thousand sheep is such that one lost is immediately recognised. As suggested in the description of the close bond between each crew of the bomber planes in 'What The End Is For', intimacy is a requirement for efficient warfare.

These procedures show the herders as employees, not cowboys. The disjunctions between the late nineteenth-century era of the Western and these Montana herders are emphasised by the role of technology in these procedures. The initial warning of the bear's kill comes over walkie-talkie, and arriving on the scene John fumbles to load a new film into his camera to take photographic evidence. Both technologies seem quaintly outdated to a present-day audience, but also completely anachronistic to the Western. Nevertheless, the legacy of the Western is consciously played out in these shots. The following shot works to reassert the very real danger posed by the bears to the herders, yet at the same time this cowboy tableau is consciously comic. The scene's humour comes from its imagery: the older herder, John, is seen urinating from behind and, responding to Pat's question, 'Do you have your pistol?' says 'I got this one,' and, with his *spare* hand, holds up his gun. This scene—which, Barbash noted after a screening of the film, proved objectionable enough to be cut by a distributing company that aired the film (Barbash, 2016)—is the film's ironic pinnacle of manly display by its 'cowboys'. In this sense, the moment is marked by the comedy of ironic distance, but it is also gently bittersweet: the evident intimacy between these men (as well as that engendered towards them

by the film's portrayal) means that the humorous portrayal of the older man's gesture is counterpointed with a recognition of their real concern and the awareness that they are facing real danger. The Western is both invoked and undercut here: the ranchers are closer here to stereotypes of simple shepherds than the heroes of Hollywood's Westerns, and of course they are herders in reality, not actors playing idealised fictional characters. As in *Brokeback Mountain*, the film uses the pastoral to undercut the Western.

Sweetgrass (1h12) 5

If the irony of the historical distance between these men and the Western is latent in this scene, the personal distance between the men and the cowboy figure is highlighted by the following scene. The scene appears to interrupt the previous one with Pat's cry, 'Cool!' overlaid on the previous scene, yet these are two separate occasions chosen to counterpoint one another in the editing process. Through this cut, the mood turns from the male daring of Pat shooting after the bear, to the innocence of boyish pleasure at John's discovery of an arrowhead: 'Ah, cool John. You found a good one! I think it's an arrowhead!'. Here, Pat and John become overgrown boys exploring the wild West, men who watched Westerns as boys rather than heroic cowboys themselves. As John passes Pat the arrowhead, there is an instance of rare physical contact between the two men. This is a moment of shared pleasure, release from work and homosocial bonding in a film dominated by labour, similar to the point in *Leviathan* discussed in the previous chapter at which a crewman lights two cigarettes and hands it to a colleague with a brief smile at the camera.

The more sinister resonances of herders finding and collecting arrowheads are apparently lost on Pat and Joe. The viewer, however, may ponder the implications of these early weapons made by the land's previous indigenous inhabitants. The landscape the herders are traversing is literally littered with the detritus of the founding genocide of North America. The ghosts of these historical battles give rise to images of military swarms familiar from every Hollywood battle scene: in the pause before the armies meet, swarms of land armies are surveyed as a prelude to inevitable slaughter. The arrowhead John finds is from battles that have long been won. If the slaughter of Hollywood's military swarms is rendered almost apocalyptic in scale by cinematic hyperbole, these historical battles did indeed augur for the indigenous populations of North America the end of society as they knew it.

The sequence surrounding the loss of a sheep is multi-faceted. It first encapsulates a nostalgia for the action of a Western, then tempers this with hints at the fragility of the herders' actual twenty-first century socio-economic position, before obliquely gesturing to their forebears' complicity in the nation's historical crimes: nostalgia and precarity, innocent pleasure and inherited guilt are counterpointed in a complex portrait of the herders' endeavour. *Sweetgrass* expresses its grounding in agrarian reality—and the physicality of men, sheep and labour—through its affective aesthetics; combining this with the variously fictional genres of pastoral, Western and military adventurism, the film both reveals the structures of power, ownership and history within which the herders operate and pays tribute to their individual humanity. In the preceding chapter, I read *Leviathan* as an ethnographic lyric and argued that it deploys the disorientations and viscerality of its affective aesthetics in order to make an critique of industrial fishing, a critique that is intensely political. Similarly, in this chapter, my reading of *Sweetgrass* shows this earlier film to combine observation and emergent analysis—the central characteristics of 'observational ethnography' (Landesman, 2015, p.12)—with aesthetic evocations of affect that are characteristic of *sensory* ethnography in order to perform *an affective critique of capitalism*.[155] Holding these distinct but coeval lines in counterpoint, *Sweetgrass* (like *Leviathan*) generates an affective aesthetics that holds the potential to engender a genuine interest in the other—human or nonhuman—through a suggestion of their lived experience, an interest that leads to compassion and, finally, a politics.

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[155] The anti-capitalist dimensions of Graham's work are similarly expressed through a counterpoint of affective engagement, detailed observation and political comment. This is less prominent in the poems selected in this chapter, but are clear in those studied in both Chapters One and Three.

At this point, we can return with greater clarity to the question of how the film combines British and American pastoral traditions. Reading the film as a critique of capitalism shows it to stand firmly within the British ecocritical tradition of Williams's anti-pastoral. This is counterpointed with subtle acknowledgements of the racial and gendered violence that is particularly embedded in the American pastoral's legacy of 'masculine colonial aggression' (Garrard, 2004, p.49). These acknowledgements can be seen in the scene surrounding the bear's killing of a sheep, along with the one in which Pat attempts to drive the sheep back up the cliff-face. These scenes respectively pay attention to the arrowheads that testify to the genocidal clearing of the land and the gendered invectives (among which 'bitches' is far from the most offensive) hurled from the frustrated and emasculated herder to his ewes.[156]

The rapid shifts in mood from emergency response to simple amusement to echoes of violence evident in the sequence following the sheep's death are characteristic of the film as a whole. In the following scenes, which include the second example of the film's Western and military timbres I want to discuss, there is a repeated shift from complacency to alarm. This is in an aesthetically stunning and otherwise peaceful scene near the end of the journey. Initially, the shot is almost saccharine in its evocation of the cowboy homecoming: the sounds of bleating and hooves on the ground are counterpointed with the herder singing, 'We'll be coming down that mountain when we come.' John interrupts himself to warn his colleague over walkie-talkie that a four or five sheep have been left behind on a crag. Dismayed, the other herder cries, 'I'll be damned. Get 'em, Bret! Way up'. Within a herd of three thousand, these few sheep cannot be left. This fleeting moment echoes the earlier sequence of losing a sheep to a bear in its emphasis on the cost of leaving a member of the herd behind and its resonances of the American military ethos.

The extreme difficulties of maintaining control over the sheep—and by extension the additional strain of returning to recover trailing sheep—become more apparent as the sequence goes on. As the herders continue to force the sheep down the slopes become increasingly steep and thick with fog. The elderly herder John attempts to drag his horse down a particularly steep section of the slope, before slipping down a patch of scree himself. Painful as this is to watch, the audio adds to the affective power of the shot; as well as John's heavy breathing, the

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[156] The anthropological origins of the film assures its awareness of the implications of the 'settler pastoral' for indigenous populations, but the particular significations of the pastoral to the African American experience and its 'history of plantation slavery and rural lynchings' is beyond the scope of the film (see Garrard, 2004, p.55).

cacophony of bleatings is punctuated with Pat screaming at his dog, 'I can't control ya! Stay behind!'

In these shots, the sheep fill most of the screen. This close proximity to the animals is replaced by near imperceptibility in the following scene, a wide-shot across the vast landscape. A slow zoom over the course of the long-take gradually reveals the moving streak of white in the distance to be not, as initially appears, a waterfall, but the trail of sheep descending a steep mountainside. As well as revealing how far the herd still has to go before reaching the ranch, the long-take of the waterfall-like surge creates distance from the herd that is striking after the immersion in the teeming mass of the previous sequences. As well as conferring visual distance, the scene also offers aural respite. The bleatings of the herd have previously approached white noise, and this distance that comes as a sensory relief to the viewer, a break that the herders are denied. In this scene, the swarming sheep are visually abstracted through distance. In cinematic representations of the swarm, this technique of abstraction is commonly used as a strategy to enable the containment of the swarm within the frame. The alternative is abstraction through proximity, which we first saw in *Leviathan*, in which the camera's intense proximity to the haul of fish on deck gave rise to an abstraction of the teeming mass (see Chapter One). *Sweetgrass* alternates between these two forms, counterpointing low-angle shots taken from in among the herd being juxtaposed with striking distant shots—from the first view of the herd streaming toward the ranch to this extreme long-take in which the sheep can be mistaken for being part of the landscape itself.

Sweetgrass's innovation of juxtaposing distant shots with aural proximity has been much commented on. One particularly astute description is Irina Leimbacher's account of the 'occasionally jarring and paradoxical relationship between the immensity of the seen world and the intimacy of the heard mouth and throat' (2014, p.38). Whilst Leimbacher focuses on the juxtaposition of the vast landscape and the intimacy of one of the herder's vocalisations, the same sensory disjunction offers a way out of the bind of binary representation of the swarm as either white noise or as a distant, mapped object.[157] The 'intimacy of the heard mouth and throat,' to borrow Leimbacher's phrase, is captured in relation to the sheep as well as the herders: this awareness of individually bleating ewes is juxtaposed with the 'immensity' of the visually indistinguishable swarming sheep in such a way as to enable an awareness on an affective level of the herd as a mass that is composed of individuals.

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[157] For a parallel discussion of these alternatives, see the previous chapter's analysis of *Leviathan*.

The quiet image of the sheep trailing down the mountainside like a waterfall is followed by an equally quiet scene in which John lies fast asleep at the base of a tree. This echoes an early scene—which also opens with a medium shot of John—of the herders at rest during their ascent into the mountains: in this earlier instance, Pat wakes John up jokingly pretending his sheep are 'getting by' him. The wry humour of the earlier scene raises the expectation that Pat will repeat his joke, but by this late point in their expedition, the two men are equally exhausted and both of them fall asleep. When night falls, it is not a prank that interrupts their rest but the guard dogs' warning of approaching bears; the quiet is disturbed not by laughter but by the herders' gunshots at a retreating mother and cubs. The unpredictable shifts in speed and mood I have been tracing continue unabated. After this point, passage through seemingly easier terrain and contented singing and comments—'let's go, let's go home'—are countered with a moment of violent frustration, as the younger herder, Pat, punches his horse on the nose: 'Damn you, I hate ya, you son of a bitch'. For the herders, the task of controlling the sheep, dogs and horses is second only to the challenge of self-control as they work at the limits of physical and psychological endurance.

Soon after this, the ranchers come to the base of the mountains. The transition is from the 'wild' space of the mountains and the human space of tarmacked roads and pens. This shift is marked by a shot which, shows the sheep streaming past a wooden sign with points back up the hill to 'Wilderness'. This is a visual joke: how can the wilderness be signposted like a public footpath? Can land that has for centuries been grazed by sheep be counted as 'wilderness'? These are questions the film knowingly engages with, addressing them carefully but also playfully in self-referential moments such as this.[158] This scene marks the end of the film's central section in the mountains, and an attendant change in the film's perspective and interest. The image of the sheep leaving the wilderness is one of the film's many shots that were filmed low-down from the height of the sheep; in Leimbacher's words, 'what one might understand as their vantage point' (2014, p.38). Its literal signposting of the herd's departure from the wilderness also marks the end of *Sweetgrass*'s focus on the sheep and its reversion to a human perspective on the return to human civilisation. The film ends pondering the very human predicament faced by John—now no longer on horseback but being driven in a van by another man—of what he will do after this journey, which, we now begin to realise, has been the final sheep drive. The animals' fate, be it shearing or slaughter, is left implicit.

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[158] See Ohad Landesman's description of a similar 'wink to the audience' at the very opening of the film when a sheep, at the end of a long close-up, turns to face the camera (2015, p.12).

In this way, the film's narrative and attention first establish, then de-centre, and finally re-centre the human, celebrating the last people involved in the centuries-old practice of driving sheep up to summer pasture. This counterpoint between the ranchers, the animals and the landscape continues into the credits. Played over a single scene of the mountains after the sheep drive has been completed—when, as Castaing-Taylor comments, the bleating of sheep has given way to the sound of 'elk bulging' (2016, p.55)—are the film's acknowledgements: hundreds of names, many of which have the same surname. The 'tightknit rural community' this suggests gestures towards the 'human-centric culture' that, Castaing-Taylor acknowledges, is 'almost off-screen in the film' (2016, p.56). As in *Leviathan*, screen-time may be primarily spent with the nonhuman animals, but the heart of the films is their investigation of the *human* relationship with the environment, and of the workers' relationships with the people and animals alongside whom they work.

Loss, Self-fragmentation and Reassembly in 'The Swarm'

What follows all relationships that are based on control—from the interpersonal to the economic to the primary relationship between humans and the land—is loss. If Graham's poems and *Sweetgrass* similarly engage with questions of loss as refracted through the pastoral mode, they differ markedly in their response to their respective losses. If fecundity is an obviously pastoral motif in *Sweetgrass*, even as it is suffused with the georgic mode and contemporary capitalist working relations, desiccation and the anti-pastoral are the core of the two poems of Graham's to which I now turn: 'The Swarm' (2000, pp.57-58) and 'Reading To My Father' (2017, pp.23-25). As such, these poems are in closer resonance to the ways in which the anti-pastoral is figured as sterility and dust.[159] If these works are all about working through an experience of loss, in *Sweetgrass* and 'What The End Is For' loss is refracted through nostalgia, whilst the mode in which loss is registered in Graham's later poems is suffering and painful self-fragmentation.

This difference is linked to the time at which the works were made in relation to the loss being considered. The timescale of *Sweetgrass*' editing process, only completed nearly a decade after the first summer's shooting, means that the making of the film was inevitably a process of looking backwards: nostalgia is woven into the fabric of its making. Similarly, 'What The End is For' is a poem that looks backwards to two juxtaposed memory sequences. This

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[159] A good example of this is the South African writer Olive Schreiner's novel, *The Story of an African Farm* (1989).

hindsight seems to foster nostalgia in these works. Meanwhile, 'The Swarm' and 'Reading To My Father' remain located in the moment in which they were written, the collection *Swarm* having been written within the centre of the storm of Graham's divorce, and the poems now collected in *Fast* written during Graham's period of bereavement for her father. These poems are full of raw emotion and the pain of self-fragmentation.

Swarm, along with its eponymous poem on which I will focus later in this section, is Graham's most sparse and fragmented collection. In a footnote included in the collection, Graham gives a definition of the swarm in the following words:

> a body of bees which at a particular season leave the hive or main stock, gather in a compact mass or cluster, and fly off together in search of a new dwelling-place, under the guidance of a queen,' as well as 'persons who leave the original body and go forth to found a new colony or community.
>
> (2000, p.114)

This definition is in many ways a more traditional understanding of the swarm than the one developed in this thesis. The swarm here is one of insects, led by a queen, although the current scientific understanding is one of self-organisation rather than a hierarchically organised entity (Hölldobler, 2009). In fact, the definition Graham invokes here—which is taken from the OED—is more traditional than the conceptualisation of the swarm that she herself develops through the collection. *Swarm* studies not a mass, but a single self—a 'superorganism'—and rather than positing a collectivity led by the guiding force of a queen bee, Graham explores the loss of direction; invoking the moments in which the swarm has just left its enclosure and no clear direction, the collection of poems explores the feeling of being lost when a self fragments and has to recentre itself.

The poems in *Swarm* work through a suspension of subjectivity through language that is 'severely trimmed and cleared', as Graham announces in the opening poem of *Swarm* ('from The Reformation Journal', 2000, p.3). In stark contrast to the immersion in a teeming herd in Castaing-Taylor and Barbash's portrait of the land-based swarm, in Graham's poem, its disorientations are expressed through lack rather than through excess. Nevertheless, both Graham's suspended subjectivity and Castaing-Taylor's swarmic collective subsume the audience in a sensory experience of the swarm; both are examples of the 'disembodied sensory', the affective representation of a barely recognisable subjectivity that I trace across their works (see Introduction). Whilst not logophobic in the way that Castaing-Taylor's work has been characterised (Pavsek, 2015, p.4), Graham's collection *Swarm* challenges language by

breaking it apart and reconstructing it. In *Swarm*—which remains Graham's most experimental collection—syntactic and typographic experiments stretch meaning over greater and greater distances of white space on the page and clausal non-sequiturs. The swarm, which can only operate as a collective if a certain proximity is maintained, raises the question of how far meaning can be stretched before it is lost. Graham uses her linguistic experiments in these poems to stage the expansion of the self that is inherent in both intimacy and its loss.

As noted in the discussion of land swarms earlier in this thesis, central to the question of intimacy is the ability, or inability, to touch. The title poem of Graham's millennial collection, 'The Swarm', explores just this challenge. If the earlier poem, 'What The End is For', ponders an ending that has already taken place, 'The Swarm' is perhaps yet sadder because the ending has not yet come, but is felt to be inevitable. Indeed, it has been described as perhaps Graham's 'saddest' poem (Spiegelman, 2005, p.225). The speaker holds the phone out to the sounding bells in a vain attempt to share an experience of place despite distance. The poem stages an effort to transmit both the environment's sound through the telephone and to describe the visual and synaesthesic experience of place through language. The poem's repeated attempts to describe the same scene beyond the 'easy things' of 'a sunny day, a crisp Aegean blue', become more abstract ('a piece of the whole blueness broken off') as the speaker attempts to describe how the scene, together with the phone call, 'announces' a recognition 'of *having once been*, / of being, of *coming to life* […] a debris re-/assembling'. The experience of the phone call seems to have sparked a realisation that a relationship is ending: the past tense of the melancholic phrase, 'We were somebody', jars within the immediacy of the poem's description of the scene.

In the course of the poem, 'The Swarm' becomes an elegy. It concludes by lamenting that the telephone can neither transmit the speaker's experience of the landscape in front of her, nor register bodily intimacy: 'this tiny geometric swarm of / openings sending to you // no parts of me you've touched'. The swarm here is a device of communication, but one that, as with a resolutely disembodied machine, is insufficient to maintain emotional connection: the remembered intimate touch is replaced by the phone's 'plastic cooling now'. Also in contrast with the telephone's machinic noise, however, is the poem's warm, textured description of both the scene and the emotional landscape of the speaker. The poem mourns the attenuation of a relationship that is foundering on the impossibility of connection, but its sensory language has immersed the reader in the synesthetic experience that the speaker could not convey to her partner: in this way, the poem achieves an effect of the disembodied sensory. Some words can,

the poem insists, create a connection over distance, albeit on this occasion only in the context of the relatively impersonal relationship between poet and reader.

Klink argues in her review of *Swarm* that the disorientation of the emotion of love—which refuses the separation of self and other, mind and body—is embodied in this collection of poetry in the suspension of the first person and the poetry's radical enjambment: the 'price of enjambment—love—[is] confusion; your sensibility disturbed' (2005, pp.162, 164). Yet *Swarm* is not a collection of poems about the expansion of the self that comes from falling in love, but about the fragmentation of one's sense of self and of a life that comes with a divorce; not fusion with another subjectivity but the dissolution of the subject attendant on a painful separation. The swarm here is a marker of the dissolution of human selfhood attendant on loss. By emphasising the pain of such a loss, Graham's collection challenges the Deleuzian vision of dissolution as a vitalising force. The 'body without organs'—described as 'the unformed, unorganized, nonstratified, or destratified body and all its flows' (Deleuze, 1988, p.43)—is a key concept through which Deleuze and Guattari argue for the fragmentation of subjectivity as a force of subversion.[160] Rather than embracing the state of being an 'unformed' and 'destratified' body without organs, Graham's collection is a working through of grief, aiming to return to a point of an embodied and unified selfhood.

The blurb on the book cover avers that to swarm is 'to leave a hive, a home […] in an attempt, apart, to found new forms that will hold': the departure, or the rupture, is understood to be the first step in a future readjustment. This invocation of a swarm as a marker of the loss of home—one that is left and not necessarily returned to—will be further developed in the following chapter's explorations of homelessness and migration; in this collection, the home that has been left is that built in a marriage. The swarm, then, operates in these poems to express the painful self-fragmentation of an emotional rupture. Where strength can be found in the swarm is in its ability for self-repair: it is through expressing emotional and linguistic

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[160] The term 'body without organs' is borrowed from Antonin Artaud and developed by Deleuze and Guattari in *Anti-Oedipus* (1972) and *A Thousand Plateaus* (1988) alongside the related concepts of 'deterritorialization' and 'becoming-animal' (see Introduction). As with these concepts, it operates through the force of affects: as Patricia Pisters explains, the 'body without organs is the sub-personal, not-yet-organized level of affective qualities that allows new perceptions, new connections and new affects' (2018, Para11.61). See also Katherine Hayles on the fear of the dissolution of the human self in the context of technological developments. Hayles argues that this fear arises from a perception of the 'subject as an autonomous self' and suggests that this fear can be released by instead seeing the human as 'part of a distributed system', as, in other words, a body without organs (1999, pp.290-91), an argument characterised by the Deleuzian combination of idealism and nihilism.

rupture that *Swarm* makes steps toward the realignment of the self and the realignment of language which must follow. *Swarm*—a very different form of elegy to 'What The End Is For'—therefore both pushes the lyric and the self towards, then salvages them from, the limits of dissolution.

Similar questions around the ability of the self to expand are raised by *Hell Roaring Creek*, one of the short films that emerged from the footage gathered when filming *Sweetgrass*. Watching this short film is in many ways an experience of an expanding self akin to the experience of reading *Swarm*. Comprising three sections filmed by a still camera, the film steadily watches the seemingly endless herd crossing the creek. At first, the viewer is struck by the animals' sheer number, their size and the sound they make. That the short is less nostalgic than *Sweetgrass* but rather a sensorially overwhelming experience is indicated by its title, the name of the river evoking the roar of hell rather than the pastorally benign title of the film. Indeed, Castaing-Taylor describes *Hell Roaring Creek* and the other short films as being characterised by 'sensorial overload', noting that they 'bombard you with different kinds of frenetic, tactile intensity' (in MacDonald, 2014, p.396). After a time, though, the experience becomes meditative, and the viewer becomes more attuned to the idiosyncratic differences between the different sheep: through a process of heightened attention, the viewer can better perceive the individual within the mass. At the same time, the endless run of sheep evokes similar images of an army crossing a river, which may serve to either heighten or lessen the viewer's degree of empathy. This suggests fluidity between the modes of military control, self-fragmentation and—as was argued in the previous chapter's exploration of re-singularisation—a broadened, more perceptive subjectivity.

Conclusion

The pastoral's mood of nostalgic familiarity, leisurely fulfilment and harmony with nature, like the flock, seems the opposite of the swarm. It has been my contention in this chapter that *Sweetgrass* post-humanises the pastoral by rendering this most anthropocentric of modes swarmic, thereby revealing the power relations and violence at its core. The pastoral's idealisations of this imagined past are robustly challenged by the physical hardships and economic structures witnessed in *Sweetgrass* and by the ominous military presence in 'What The End is For'. Nevertheless, a veil of nostalgia hangs over both *Sweetgrass*, a portrait of the honest manual labour of a family business, and the meadow memory sequences of Graham's poem,

which are counterpointed with the steady darkening of the kitchen scene with the speaker's newly estranged partner.

Sweetgrass announces itself as an ethnographic elegy to a way of life, the practice of sheep herding, before immersing itself into the phenomenology of the sheep. Yet it ends by contemplating loss on a deeply personal, human level: the loss of youth and the loss of family. Without negating the film's deep sensitivity to the phenomenology and experience of its nonhuman creatures, it is human experience and human loss that are at the true heart of the film. Ending by pondering the dilemma faced by a man of advanced years who is forced to make a new start, the film comes to resonate with the upheavals experienced by the filmmakers attendant on their own move from Boulder, Colorado to Cambridge, Massachusetts. This goes some way towards explaining the resonances of the pastoral's idealisations of a lost rural youth of romance. Despite the putative rejection of the auteur by Castaing-Taylor on behalf of the Sensory Ethnography Lab (Castaing-Taylor, 2015, 80m), the film is as much about the man and woman holding the camera as it is about their human and non-human subjects. The autobiographical aspects of Graham's poems—openly acknowledged by Graham herself—are a central force in her work but, as in the Sensory Ethnography Lab's films, this is exceeded by the art of the works themselves.

The films and poems I have discussed in this chapter embody nostalgia and the bitter realities of loss through, on one level, their immersive portrayals of land-based swarms, and on a broader level, their invocations of the swarm as a concept. Despite their apparent focus on nonhuman swarms, ultimately, the core of the works is their exploration of the human condition. This is not to deny the profound considerations of experience beyond the human and beyond individuality that are offered by the swarmic encounters in the works, but rather to affirm that human and non-human perspectives run through each of the films and poems in counterpoint. The implications of this for what I term the 'critical humanism' of the works (see Introduction) can be elucidated with reference to Gifford's argument that the post-pastoral need not perform a complete break with the pastoral, but rather can work within the prior tradition (2013, p.26). To return to a quotation first cited in the Introduction, '[i]f humanism cannot escape its "post-" then "posthumanism" cannot escape its humanism' (Halliwell, 2003, p.190). The sensory aesthetics of the films and poems and their structural, political critiques are joined in a similarly contrapuntal relation. Just as the choice between art and anthropology is revealed by *Sweetgrass* to be a false binary (Grimshaw, 2011, p.258), my analysis of the works

discussed shows the distinctions between phenomenological witnessing and geopolitical critique to be not irreconcilable methods but rather complementary parts of a more expansive inquiry.

As well as registering personal and cultural losses, the works in this chapter signal a working through of the foundational loss facing humanity as a species: that of a sense of ontological security and dominance in what must now be recognised as a world of complex interconnections that faces catastrophic ecological change. In opposition to the nostalgia of the pastoral, which fixes the past through a singular viewpoint, the energy of the swarm implies that finding a renewed sense of coherence and wholeness must come from movement. The immobility of the human, mechanical and animal bodies in the poems by Graham studied in this chapter, and the golden memories of the transhumance followed by *Sweetgrass,* all suggest that just as the swarmic state is one of constant mobility, stasis is the anathema of love. The loss of love attendant on the literal ceasing of movement and life is the core of Graham's recent poem, 'Reading To My Father' (2017). This poem eloquently summarises the concerns of the poems and films considered in this chapter, and offers a conclusion to my discussion.

The poem links the multiple losses of species of flocks and swarms with the personal, immediate loss of the speaker's father whose body lies in front of her. The link between bereavement on a personal and loss on a communal or ecological level is a connection that is made by the other works in this chapter—and indeed is a central insight pursued by the thesis as a whole. These connections, enabled by the poetic shifts characteristic of Graham's poems, but also by the abstractions and narrative arcs of the films studied here, are more than an analogy, but are informed by theoretical and scientific insights into the relations between human and landscape. 'Reading To My Father' transposes the undeniable—yet somehow incomprehensible—event of the loss of a parent through the unknowability of where the tipping point lies in the current threat of ecological crisis. To show how Graham's elegy to her father elucidates these various ideas and experiences of loss, it suffices to quote the following section:

> Here it is then, one last time, the
>
>   news. I
>   read. *There is no*
> *precedent for, far exceeds the ability of, will not*
>   *adapt to, cannot*
>   *adapt to,*
> *but not for a while yet, not yet, but not for much longer, no much*
> *sooner than predicted, yes, ten times, a hundred times, all evidence*
>   *points towards.*
>   What do I tell my
>
> child.

>   […] Here it is now
> the
>   silent summer—extinction—migration—the blue-jewel-
>   butterfly you loved, goodbye, the red kite, the dunnock, the
> crested tit, the cross-
>   billed spotless starling […] spud-
>   wasp […] oh your century, there in you, how it goes out.
>   […] Behind you thin machines that ticked and hummed until
> just now
>   are off *for good*.

Within the poem's litany of extinct flocks and swarms, quietened bodies and machines and echoes of ecological portents from news and science, perhaps the most poignant phrase is the question: '[w]hat do I tell my child'. This is on one level the dilemma faced by the speaker of how to tell her daughter of her grandfather's passing and, on another, the sense of guilt shared by a generation who have left the planet in such danger. Just as the ranchers in *Sweetgrass* are heir to the national legacy of genocide, the speaker of this poem—like people everywhere—must come to terms with bequeathing her child a damaged world and the inherited responsibility to make some form of amends.

The ecological conscience of 'Reading To My Father' is suggestive of Scott Hess's 'sustainability pastoral' (2004). However, Graham's poem is devoid of Hess's optimism regarding the possibility of achieving a harmonious relationship with nature that 'remains socially and ecologically sensitive to its own fragility' and 'makes us active fashioners […] of our happiness' (2004, p.72). Rather 'Reading To My Father' laments the impossibility of revoking the irrefutable losses we have already sustained.[161] In this context of a damaged planet, Gifford argues that the post-pastoral is a vital tool in 'imagining our very survival' for its engagements with the complexities of postmodern life offer the typically contrapuntal insight that 'retreat informs our sense of community' (1999, p.174). It is to the necessity of a 'retreat' from community that the next chapter turns, although—like a swarm that leaves its home—those who leave in the works which follow do so without the pastoral's assurances of 'renewal and return' (Gifford, 1999, p.174).

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[161] Hess argues for the urgency of working towards a 'sustainability pastoral' as a corrective to the 'popular pastoral of consumerism', in which guise the pastoral, that formerly 'elite cultural form' has 'become central to our contemporary society' (2004, p.71).

Chapter Three

Political Ecologies in Véréna Paravel and J.P. Sniadecki's *Foreign Parts* (2010), Sniadecki and Joshua Bonnetta's *El Mar La Mar* (2017) and Jorie Graham's 'High Tide' (2002) and 'Honeycomb' (2014)

Having begun by contemplating gulls and fish and continued by watching over sheep and humming bomber planes, this thesis will close by confronting the disconcerting swarms of humans, insects and machines. Where previous chapters explored the reworkings of the lyric and the pastoral modes, this chapter takes as its formal focus the motif with which the documentary is most readily associated: the talking-heads interview. In parallel with this formal focus is a shift from previous chapters' attention on pelagic and land ecologies to this chapter's remit: political ecology. The field of political ecology—first discussed in the introductory chapter of the thesis (see also Neumann, 2005, p.2)—is a multi-disciplinary exploration of the complex relationship between human politics and environmental forces. Broadening the field of political ecology to a more-than-human purview, I seek to apply its insights to the artistic and experimental reworkings of the documentary form performed by the films and poems analysed in this chapter.

This chapter has neither the stability of land nor the constant motion of water and air seen earlier in the thesis; its constituent works variously inhabit the elements of earth, water and air and, additionally, the fourth element, fire. Moving from a focus on elemental ecologies of water or land to the unifying thread of political ecology enables the chapter to retain coherence among these changing elements. The interplay between the elements and, likewise, the interplay of politics and environment have both been integral to the thesis as a whole, but in this chapter the focus rests on the latter. Political ecology operates on multiple scales and in hugely varied environments, and accordingly the films and poems selected for study in this chapter are located on the borders of national, urban and domestic spaces. The swarms seen, in the films and poems discussed in this chapter, to inhabit these politically fraught areas are equally varied: wasps, bats, cars and humans all move in self-organising groups.

Throughout my thesis, swarms have proved to be polysemous, but the biological diversity of the swarms studied in this chapter is matched by a greater breadth of symbolic meaning than yet seen. This closing chapter sees a contrapuntal distancing from and return to the common conceptions of material swarms. Here, the swarms become at once more literal and more removed from their referent: bees, wasps and ants are present, but individual people, human populations, machines and digital networks are also all figured as swarming entities. Swarming is viewed in this chapter as a survival strategy: these swarms move together to gather food and other resources or, being prey themselves, to ensure their safety. The linkages I will seek to make between swarming behaviour and human communities are based less on dubious analogies than on Nigel Clark's carefully formulated argument that 'the challenges of an innately unstable nature may be one of the most basic and primordial incitements for coming together with others' (2011, p.139). As such, the swarm is a beneficent force: one of community. Community—a concept that is notoriously difficult to define—can for the purposes of this discussion be conceived as a benevolent alternative to the more impersonal and uncaring force of society. If responding to the 'hostile conditions' of the social world more broadly can 'rene[w] […] collective bonds,' as Clark argues (2011, p.146), community is that which, as Jean-Luc Nancy has it, '*happens to us* […] *in the wake of society*' and the ills that a less caring social context may deal out (1991, p.11: original emphasis; quoted in Clark, 2011, p.139). This chapter develops a swarmic community as an alternative to a networked society (see Castells, 2004).

The swarmic communities of people in the films and poems studied here, however, also show that pressure and exhaustion can lead these same mass groups to fragment. External circumstances—be they environmental or political, or a complex combination of the two— lead to individual members being excluded; even the whole swarming body may face dissolution. But as well as being portrayed as variously resilient and fragile communities, swarms are also invoked as signals of excess, voracity and destruction; they are symbols of destruction and loss as well as hope and beneficence. These various significations emerge from the negotiation of a primary dyad by the swarms in this chapter: that of inclusion and exclusion. As I shall argue, this is a complex nexus that is then triangulated by a third concept: waste.

In all senses—spatial, biological and in symbolic freight—this is a chapter of composites. As in previous chapters, I place films made by those affiliated with the Sensory Ethnography Lab in conversation with two of Jorie Graham's more recent poems. The first of Graham's poems analysed in this thesis, 'Prayer', is the opening poem of *Never* and,

symmetrically enough, I will address the penultimate poem of the same collection that provides the last but one lyric in this study. 'High Tide' is a poem that records an encounter between a local homeless woman and the lyric subject (Graham, 2002, 100-105). Returning from the emergency room one night, rather than following her daytime routine of passing the woman by, the lyric speaker approaches the sleeping woman only to find the dormant figure is not the homeless woman but a dummy left there as a place-holder. I place this poem in conversation with Véréna Paravel's and J. P Sniakecki's feature-length film *Foreign Parts* (2010), a community portrait of the junkyard at Willets Point, which lies on the edge of New York's urban reach and is fated for redevelopment. An ethnographic film that draws on the tradition of 'salvage ethnography',[162] *Foreign Parts* follows the activities of the condemned junkyard in its last months before eviction. It threads the stories of four developed characters—of whom three are homeless—in among the broader community portrait of Willets Point. The film also focuses on the cars that are continually dismantled and reassembled on the junkyard: in dwelling on the uncanny liveliness of the machines that at times seem more like animals in their vulnerability, it develops what Anat Pick describes as a creaturely ethics (2011, 193; see Introduction).

In this chapter, unlike in previous ones, I combine this film not with a short film emerging from the same project but with a separate feature-length work. After leaving the Sensory Ethnography Lab, Paravel's collaborator J.P Sniadecki worked with Joshua Bonnetta to create *El Mar La Mar* (2017; henceforth *El Mar*). This feature-length film meets those living at and traversing the Sonoran desert, located at the borderlands of the United States and Mexico. Carrying the Lab's interest in capturing the affective presences of landscape and human and animal life, *El Mar* mobilises a distinctive voice that marries both ethnographic and poetic registers with a more formalist experimental cinema tradition than that conventionally associated with the SEL. *El Mar*'s testimonies—taken from humanitarian workers, residents and newly arrived migrants—are counterpointed, and at times briefly overlaid, with visuals of a parched landscape and its swarms. Human figures occasionally appear, and it is left to the viewer to ponder whether these are the people we have been listening to. The anachronistic tracking methods used by border patrols 'hunting' migrants in *El Mar* are counterpointed with very different methods of control and surveillance questioned by the last poem selected for study. 'Honeycomb,' from Graham's recent collection *Fast* (2017, pp.4-5), follows the speaker's search for connection and safety in their home computer at the same time as it poses a challenge to the digital surveillance and intelligence used to track the computer user. In this

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[162] For a discussion of 'salvage ethnography', see the discussion of *Sweetgrass* in Chapter Two.

final pairing, literal swarms of ants that decompose bodies in the desert in the film are juxtaposed with swarm intelligence (SI), an invisible power that has, as the poem insists, all too tangible effects.

In these works, as in political ecology, a diversity of scale, location and swarming subjects is unified by common interests in social exclusion and waste. It is my contention in this chapter that both social and environmental forms of exclusion and waste are deeply rooted in the swarm, biologically (as a collective body that is undeniably hard-edged) but also conceptually and aesthetically. Common notions of the swarm as a destructive unit that lays waste to all it comes into contact with have led to it being designated a pest. These conceptions are manifest in political rhetoric invoking the swarm as a force of incursion. The trope of 'invasive' species as the supposed enemy of their 'native' counterparts informs the normative approach to conservation to which Fred Pearce has offered a robust rebuttal (2015).[163] But at the roots of this discourse, as Jason Groves argues, are fears that can just as easily be directed at humans as well as nonhuman newcomers (2012, np): invocations of the swarm seeking to capitalise on invasion fears can be both zoomorphic, in relation to 'invasive' species, and anthropomorphic, as in descriptions of 'swarming' populations. Drawing on this symbolic weight, artistic works such as those under scrutiny here question the beliefs behind such appropriations of the swarm.

This chapter will explore how the target films and poems, through the motif of the swarm, shine a light both on humans who are treated as waste and on the exclusion of waste matter from public consciousness. Waste and exclusion—those seemingly unavoidable problems of human social organisation—are foundational to understandings of biopolitics. First explored in the introductory chapter, biopolitics has been present throughout this thesis but is now of central importance. As I will explore, in order to reveal the imbrications of human and nonhuman forms of waste and exclusion, the works under study operate through a more-than-human lens. Accordingly, responding to these films and poems requires an engagement with biopolitics that is not restricted to the human, as in Foucault's formulation, but which instead responds to the human alongside its nonhuman contexts, as do the works themselves. Here I am indebted to Nicole Shukin's materialist critique of biopolitics and animal life (see Introduction).

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[163] Rather than dangerously disrupting established ecosystems, Pearce argues, alien species most often contribute to the forming of new ecosystems (2015). In this, so-called 'invasive species' emblematise nature's adaptability.

The question of the extent to which a posthuman perspective is helpful, while pertinent throughout the thesis, is of particular importance to this chapter by dint of its engagement with surveillance and the machinic. I will return to this subject, but for now I want to address the questions of Marxist materialism since these are brought into focus by the chapter's deployment of political ecology.[164] Describing political ecology as 'certifiably materialistic', Aletta Biersack and James Greenberg also stress the importance of 'meaning-centred approaches,' and as such counterpoint 'neo- and post-Marxist perspectives' at the centre of the field (2006, p.4). Contemporary political ecology's focus on 'the nexus of symbolic and material factors, how each conditions the other' makes it highly pertinent to this thesis's jointly materialist and aesthetic critique (Biersack, 2006, p.4).[165]

Before outlining how I intend to use and adapt political ecology in this thesis, it is helpful to provide a basic overview of the field. An early definition by Harold Brookfield and Piers Blaikie, though broad, remains useful:

> The phrase "political ecology" combines the concerns of ecology and a broadly defined political economy. Together this encompasses the constantly shifting dialectic between society and land-based resources, and also within classes and groups within society itself. (1987, p.17)

Many of the ecologies studied across this thesis, from the maritime world of industrial fishing to the pastoral world of shepherding, are in fact also economies.[166] The latency of political ecologies in these chapters becomes explicit in the poems and films studied in this chapter. These are works that directly explore the tensions within and across societal groups that both arise from and are expressed through ecological forces.

The field of political ecology is generally characterised by a relatively unidirectional approach that traces the political forces beneath environmental problems. An illustrative

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[164] Political Ecology 'uses Marxism to clarify human-environment relations and social justice issues' (Bristow, 2015, p.126).

[165] The first generation of political ecology was based in world systems theory—'a theory that envisioned the world as organized into a single class system, first-world nations owning the means of production and third-world nations supplying the labor and producing the surplus value' (Biersack, 2006, p.4)—an exemplification of '[s]trutural Marxism' that has been critiqued by postmodernism as being 'totalizing, [...] grand-theoretical, [...] Eurocentric, [...] teleological, and [...] progress-oriented' (Biersack 2006, p.25-26). Meanwhile, ecology 'tended to focus on the local, overlooking the global', meaning that '[n]either framework considered the dynamics of local-global articulations, the emphasis of political ecology today' (Biersack, 2006, p.4).

[166] It seems worth noting that resources are not, as Brookfield and Blaikie seem to suggest, restricted to land, as is made clear by the exploration of aqueous ecologies in this thesis's first chapter.

example is Paul Robbins' assertion that the field's central premise is 'that environmental change and ecological conditions are the product of political processes' (2004, p.11). In a refreshingly flexible approach to the field, Roderick Neumann formulates political ecology as a field that seeks to elucidate 'the multifaceted relationship of politics to ecology, without attempting to privilege one over the other' (2005, p.9). Rather than placing political processes as a prior cause, political ecology in Neumann's view identifies 'environmental problems as simultaneously political and ecological, social and biophysical' (2005, p.8). Where my approach differs from Neumann's is in his description of the 'relationship of nature and society' as 'in a word, dialectical' (2005, p.9). Whilst a dialectical approach implies an ultimate fusion of nature and society, my composite reading is based on the separate yet parallel. The almost classical dialectics of political ecology arise from its origins in Marxist thought. In moving away from these origins with my contrapuntal approach, I am at the same time challenging the new materialist dictum, most strongly associated with Haraway, of the 'naturalcultural'.[167] I argue that through a contrapuntal lens, it is possible to recognise the simultaneity of natural and social causes without denying their position as distinct forces.

Working with a broader form of political ecology, this chapter works to show the ecology behind politics, as well as enacting the more common approach of exploring the politics behind environmental changes. It adds to what Robbins describes as the field's challenge to 'apolitical ecologies', a parallel challenge to non-ecological politics (2004, p.11). This approach, in line with Neumann, can explore the ways in which problems that appear to be strictly socio-political such as homelessness, urban poverty and migration are inextricably tied to environmental forces. Indeed, a less unidirectional approach is invited by political ecology's 'growing interest in the relationship of the environment to new social movements for entitlements, livelihoods, and social justice' (Neumann, 2005, p.6), subjects that are as firmly situated in the political as in the environmental arena.

Issues of social justice are clearly apparent across the poems and films studied in this chapter. In addition to this, my application of political ecology to my primary texts follows two other areas that are commonly marked as future directions for the field. These are the *urban—*

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[167] 'The complexity of naturecultures points [to] the impossibility of separating domains such as history and biology in technoscience and everyday life alike' (van der Tuin 2018: Para23.3). In the words of Haraway (who coined the term), '[i]n layers of history, layers of biology, layers of naturecultures, complexity is the name of our game' (2003, p.2). Bruno Latour's related concept, 'natures-cultures'—which 'simultaneously construct humans, divinities and nonhuman' (1991, p.106)—similarly seeks to challenge the ontological divide between nature and culture.

which is belatedly being incorporated into a field which initially studied rural communities in the third world—and the ways in which the environment is increasingly being framed in policy debates as a *security* issue (Neumann, 2005, pp.154, 159). Broadly, these areas structure this chapter's readings, which pair two urban works (*Foreign Parts* and 'High Tide') and two works exploring the fears and realities of national security (*El Mar* and 'Honeycomb').

Political ecology has long been marked by the pursuit of 'multiscalar analyses of human-environment relations,' which in turn renders questions of complexity unavoidable (Neumann, 2005, pp.6, 10). The driving questions of political ecology are in line with this thesis's search for a middle ground between the bodies of particular individuals and the collective mass through the ecological body of the swarm. It is equally enabling for my study's concurrent attempt to perceive links between apparently separate bodies within ever-shifting ecologies. Political ecology resonates with the approach taken by this thesis in one further respect: the field's inclusive interdisciplinarity. Neumann outlines work done in the field as necessarily combining several methodologies, such as 'political-economic analysis, historical analysis, ethnography, discourse analysis and ecological field studies' (2005, p.6). By combining political ecology with poetry and ethnographic film, I am adding a complementary methodology and medium to the field's already well-established interdisciplinarity.

In bringing political ecology together with experimental artistic works that draw on the medium of documentary film, I also want to emphasise the receptiveness of a field largely pursued in the social sciences and human geography to aesthetic and affective approaches. As previously noted, political ecology as a field originated in Marxist thought. A useful model in bringing an affective approach to political ecology is the work of Lauren Berlant, who marries a recognition of the power of affect with a Marxist analysis of the structural forces that engender poverty and inequality (2011). As in Berlant's work, the films and poems studied here seek to develop a 'collective political affect' (Berlant, 2012, p.72).

Zoomorphic invocations of the swarm alongside their anthropomorphic deployments necessitate the development of a *more-than-human* version of political ecology. Highlighting the affective within political ecology goes some way to enabling this. To support my approach, I want to combine political economy with methodologies derived from environmental humanities and ecocriticism. These offer a powerful development of the relationship between the politics of inclusion and exclusion in a more-than-human context. As Sean Cubitt writes, noting Jacques Rancière's insight that 'politics is the struggle over inclusion in the arena of the political,' ecocriticism must 'contest the boundaries between (human) subjects and (environmental)

objects of rule' (2013, p.284). The subjects of political ecology have gradually been expanding from 'traditional' rural subjects to include 'modern' Western urban populations. As with biopolitical critiques, it is simply one step further to incorporate more-than-human subjects into its purview.[168]

As in political ecology, investigating issues of waste and exclusion is a foundational impetus for the common formal thread that links these diverse works: the documentary. The documentary is a form broad enough to house investigative, ethnographic and experimental forms of social and environmental inquiry. Just as previous chapters investigated the lyric and pastoral modes, this chapter centres on the form of documentary, and specifically the talking-heads motif. Poetry and ethnographic film have, of course, been equally important constituent parts of this thesis. This is true both of the section of films and poems, and of the genres and modes investigated within them. Opening with a study of the lyric, the thesis began with a form that originated with poetry before moving to the pastoral mode, which has always been used across verbal and visual forms. In closing with a focus on the talking-heads documentary, the most well-known form of nonfiction film, the thesis studies a medium more clearly aligned to ethnographic film. In this way, the thesis's tripartite structure achieves a balanced weighting of poetry and ethnographic film.

The symmetrical structure in the thesis's combination of ethnographic film and poetry across its chapters is a manifestation of my contrapuntal method. As explained in the Introduction, the contrapuntal method attends to the ways in which distinct, even seemingly contradictory significations, moods or modes are present in a single artistic construct, with each component part—like themes in a piece of contrapuntal music—held together in the complex structure of the whole. Each is given only a 'provisional privilege' to quote Edward Said, who has been instrumental in developing counterpoint as method (1994, p.59). The contrapuntal method of numerous themes being given only temporary emphasis underpins the combination of film and poetry across the thesis. If this is the *macro* level, the contrapuntal operates on the *micro* level too: the coexistence of apparently contradictory forces or meanings is central to my readings of individual works, and their invocations of polysemous motifs and their shifting emphases. The contrapuntal approach is also apparent in the structure of this chapter: the close-

[168] As Cubitt writes: 'the mode of government described by Foucault as biopolitics […] takes the mass of population as its object, statistical management as its method, and the regulation of life as its goal. Of course, such regulation extends to the life of the biosphere' (Cubitt, 2013, p.284).

readings are divided into two sections, which juxtapose invocations of the swarm as hope and as bleak dissolution.

On all levels, within as well as across individual works, my analyses negotiate the shifting dyads of the human and nonhuman, the social and environmental, and the aesthetic and political. One further dyad is that of linguistic and sensory communication. Language is a foundational yet not necessarily foregrounded presence in the poems and films studied across this thesis. Language was decentred by the films studied in the previous chapters, *Leviathan* and *Sweetgrass*, which foreground nonhuman and machinic sounds. Meanwhile, Graham's experiments in defamiliarising and reworking language, central to all her poetry, reached their apogee in *Swarm* (2000), the collection discussed in Chapter Two which stretches human language to its breaking point. To the films and poems studied in this chapter, human voices are once again integral as one central line of the counterpoint, if not a unitary melody. These voices take the form of *testimony*. The previous chapters' films were striking in their absence of interviews, which are often seen as the cornerstone of any documentary. Rather than relinquish the interview, the films (and also, more obliquely, the poems) selected for study here use and reimagine the talking-heads motif.

The dyad of individual and collective modes runs throughout the thesis. The first chapter focused on an individual's internal experiences of immersion and contemplation through the concept of singularity. The second chapter considered interpersonal relations between individuals and how lost intimacy comes to be refracted through nostalgia. This chapter continues to work with the dyad of individual and collective, placing the emphasis on the collective. Where the first chapter asked whether the swarm could help engender a more expansive subjectivity, and the second explored the promises and losses of interpersonal relations, this chapter asks whether the swarm can help us to build more expansive, inclusive societies. Focusing on relations within and between communities, this chapter takes as its central dyad inclusion and exclusion, asking whether the swarm can offer new models of social organisation.

For all that they appear amorphous, swarms are remarkably hard-edged: it is impossible to be partially within a swarm. By raising the vexed issue of the boundaries of communities, the swarm in turn unavoidably raises the inherently political question as to whom and how membership—or inclusion—is granted, denied or revoked. Inclusion requires exclusion, and exclusion all too often begets isolation. Yet the swarm also offers a model of communal response to expulsion. It is helpful here to return to the definition of the swarm, first discussed

in Chapter Two, which Jorie Graham quotes from the OED in the notes to her collection *Swarm*. A swarm, she writes, is:

> "a body of bees which […] leave the hive […] and fly off together in search of a new dwelling-place," as well as "persons who leave the original body and go forth to found a new colony or community" (2000, p.114)

Of the multiple definitions, Graham selects two which make explicit the connection between the swarm and the collective human search for a new home that is, in a word, *migration*.

In this chapter's inquiry, I am inspired by the question with which Zygmunt Bauman closes his seminal study of social, material and political exclusion. At the end of *Wasted Lives: Modernity and its Outcasts*, Bauman asks 'whether the inclusion/exclusion game is the only way in which human life in common may be conducted' (2004, p.133). Seen through the lens of political ecology, the 'inclusion/exclusion game' manifests itself in border control, rights of residence and social classes. At the same time as operating on the level of the geopolitical, these decisions affect individuals both practically and ontologically. To those designated as being included or excluded from society—which, after all, is all of us—the implications of such a verdict have a profound effect on the psyche. As Susan Morrison explains in her overview of waste studies—a field that explores the 'transfer from the materiality of waste to the metaphoric' (Morrison, 2013, p.466; see also Thill, 2015; Thompson, 1979)—wasting occurs both on the individual level as the 'interiorization of waste' and on the social level, in 'the "wasting" of whole classes of human beings' (Morrison, 2013, pp.466-67). To exclude someone is to dehumanise them; while to be included is to be humanised; as such, this chapter's dyad of inclusion and exclusion runs in parallel to the nexus of dehumanising and rehumanising first outlined in the thesis's introduction.[169] The interiorising and exteriorising of waste—both central to the works under study here—are, in my analysis, mutually constitutive. The films and poems that I will discuss juxtapose seemingly opposed subject positions, both to extend a recognition of individual interiority within mass groups and to suggest how complicity in 'wasting' others impacts on the subjectivity of the apparently secure.

This chapter's central issues—migration, waste, and social exclusion—are all cornerstones of political debate and have long driven the inquiries of political ecology, the

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[169] Coupling dehumanisation and exclusion in this way raises questions of the implications for non-human exclusion, particularly pertinent to this chapter's discussions of material waste. The contrapuntal method I have developed across the thesis enables a recognition of non-human exclusion that does not negate the dehumanising effects of exclusion on human subjectivity.

realm of this chapter (see Robbins, 2004; Neumann, 2005). Just as the poems and films under study bring the human, animal and machine together in a complex poetics of life and waste, the contrapuntal version of political ecology I will be working with is sensitive to human and more-than-human lives and forces alike. Directing this version of political ecology to that of the reworked talking-heads documentaries under study will enable me to reinvigorate political ecology's conventional emphasis on social exclusion. Broadening the field of political ecology (which is normally practised in the fields of sociology, political sciences and geography) by combining it with environmental humanities and biopolitical critique, I argue for the advantages of forging a nascent form of biopolitical ecologies (with the plural signalling the greater breadth of the term).

Political ecology, documentary film and waste aesthetics are, at root, all investigations of the challenges and exclusions inherent to human social organisation; in a word, biopolitics. To quote Foucault, biopolitics 'deals with the population […] as a political problem […] as a biological problem and as power's problem' (2003, p.245). The object of biopolitics is, Foucault continues, 'not exactly society' or 'the individual body' but 'a new body,' 'a multiple body, a body with so many heads that, while they might not be infinite in number, cannot necessarily be counted' (2003, p.245). The relevance of this, the object of biopolitics, to the swarm to is clear. The swarmic attributes of this many-headed, uncountable body also suggest that, despite its humanist legacy, biopolitics has always been more-than-human. Countering the legacy of Foucault's biopolitics (in which animals are disregarded), Nicole Shukin argues that 'zoo-ontological production of species difference' is a key strategy in the control of both human and nonhuman populations, and that 'discourses and technologies of biopower *hinge* on the species divide' rather than stopping at it (2009, 11: my emphasis; see also Introduction).

The distinction between the included and the excluded is at heart one between the useable and surplus. This brings us to the third term with which I will triangulate inclusion and exclusion: waste. Another contrapuntal issue, waste is both surplus to (human) need, and so is rejected, and it is a form of—usually unwanted—superabundance or excess. Waste then accumulates, becoming excess, and so becomes an object of contempt. This hatred of excess is consonant with the fear of the swarm's profusion—a presence that envelops and absorbs—which I discussed in Chapter One's analysis of *Leviathan* (Castaing-Taylor, 2012). In this way, waste can be understood as a swarmic construct. An excess of production can also be described

point of the two approaches is the documentary: John Grierson's famous definition of documentary as 'the creative treatment of actuality' (1933, p.8) could equally well apply to approaches to political ecology like Bauman's.

Highlighting the place of aesthetics in the resurgent field of 'waste studies', Susan Morrison places Bauman as a direct influence (Morrison, 2013, p.464). Morrison argues that 'waste literature' 'enables culture to acknowledge what it has to deny […] bodily, cultural, and societal waste—material and metaphorical aspects of our world' (2013, pp.472, 464).[171] Broadening Morrison's focus on literature to all forms of art, this chapter builds on the resonances of waste to the aesthetics of the swarm. Morrison cogently explores the ways in which the 'very materiality [of waste] […] inevitably become[s] metaphoric' (2013, p.465). Far from an 'anomaly' in this respect, as Morrison suggests (2013, p.465), I argue that—along with many other material objects that carry a heavy symbolic freight—waste resonates particularly strongly with the swarm.[172]

What happens when we think of human waste as swarmic? As soon as we ask this question we are confronted with the uncomfortable truth that human waste is, in fact, all too often characterised through the loaded metaphor of the human swarm. The power of this metaphor in political rhetoric is succinctly illustrated by an example first cited in the Introduction, a warning given during the migrant crisis by the then British Prime Minister that 'swarms' of people were coming to Europe (see Elgot, 2015). Here, the keenly felt fear of the swarm is coupled with the equally visceral fear of 'wasted humans' (Bauman, 2004, p.5).[173] As Morrison argues, 'Western culture has long marked waste as "Other"' (2013, p.464). The overlaying of waste with social exclusion on the level of populations is the very definition of racism. It is such fears and exclusions embodied by swarmic waste that the poems and films investigated in this chapter draw upon and challenge.

As noted above, in this chapter's selection of films and poems, swarms of bees, ants, cars and bats appear alongside human communities and populations. The triad of human, animal

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[171] For Morrison, waste aesthetics is a study of the ways in which artistic works refuse a tidy narrative cleaned of anything that could be deemed disposable, but rather contain 'beloved nuggets amid the junk' (2013, p.472). The ethical import of this kind of writing, Morrison claims, is that it 'contributes to […] a kind of […] amends […] forgiv[ing] us for our actions that have soiled the world and urg[ing] us to rectify those actions' (2013, p.472).

[172] One such example—one that acts as an inverse of the swarm as a signifier of waste—are heads of corn which, in Elias Canetti's vision, represent the innumerable people across the globe who must be fed (Canetti, Crowds and Power: 1960/2009 in Hughes 2014, pp.57-58).

[173] Bauman defines 'wasted humans' as 'the "excessive" and "redundant", that is the population of those who either could not or were not wished to be recognized or allowed to stay' (2004, p.5).

and machine has run as a thread throughout this thesis, but not until now has the machinic aspect taken on such ontological significance. In these works, insect and mammalian swarms are kept largely distinct from human groups. Human forms and swarming collectives act upon each other variously through juxtaposition and through what James Riley describes as a 'contiguous' similarity, 'an association formed by proximity' (2014, p.44). It is through the presence of machinic bodies that the challenge to ontological categories emerges in these works. Machines are anthropomorphised, and humans rendered robotic in the predictability of their behaviours. Beyond this metaphorical mixing, in some cases human and machinic swarms combine to form composites.

As explained in the Introduction, the composite—a body in which multiple parts combine without fusing—offers an enabling point between the assemblage (DeLanda, 2006), which is limited by its flat hierarchy, and the insufficiently multiple cyborg (Haraway, 1991). The implications of the composite in relation to these works are manifold. In the first two works discussed, *Foreign Parts* and 'High Tide', strict binaries between the human and machinic are dissolved as repurposed materials are bestowed with a creaturely affect (see Introduction, Agamben, 1998; Pick, 2011). The poem 'High Tide' hinges on the ambiguity between a collection of repurposed materials—first metaphoric and then material—with a wasted human life.

In *Foreign Parts*, Paravel's and Sniadecki's sensory camera imbues the junkyard's materials with the vitality of a kind of machinic swarm. As junkyard workers use machinic equipment to reduce cars to their component parts, the cars seem uncannily vital and bestial: the disassembly is witnessed almost as a dismemberment. The film's focus on the constant reassembly of car parts is juxtaposed with a sensitive portrait of the junkyard's human community, soon to be made homeless. Poised on the edge of abandonment and dispersal, in *Foreign Parts* the human swarm and the machinic swarm which has provided their livelihood both mirror each other and combine to form the composite community of the junkyard. As Nigel Clark observes, '[c]ommunities, we are now used to hearing, are composite entities' (2011, p.144). In *El Mar* and 'Honeycomb,' the texts that form this chapter's second pairing, composites of humans and machines are formed through the operations of power and control. In *El Mar*, exchanges between border patrol are heard as machinic, disembodied voices over radio waves and men climb precariously on the pylons that transmit them; while in 'Honeycomb,' the spectre of digital surveillance is called into being by the speaker who attempts to fix it through personification and so communicate with it.

As I follow Bauman and Morrison in applying the concept of waste to human lives, I also explore the complexities of human relationships to waste material. Seen through the political-ecological lens of the swarmic collective, waste is inextricable from questions of agency, inclusion and responsibility—questions that are addressed in my selected poems and films by means of affective aesthetics. This does not lead me, however, to situate my discussions of swarmic waste and the affective aesthetics used to represent it within the new materialist approaches that are currently in broad dissemination. Such approaches—in exploring the 'agentic capacities of matter' (Phillips, 2012, p.447) with a perspective that 'classical humanity is all but obsolete' (Pick, 2011, p.2)—risk eliding or erasing the particularities of humans and nonhumans, and indeed focusing on nonhumans to the exclusion of the human. Stopping short of such claims—which, in my view, exclude the human by incorporating it into a flat hierarchy—I work to gain deeper understandings of human experience by situating it in context, which includes ecological and nonhuman as well as political forces.

At this stage of the discussion of the relationship between humans, animals and machines, it is important to expand upon a central neoliberal use of the overlaps between the three: *swarm intelligence*. One of the main aims of this thesis has been to explore the multifarious political and cultural applications of the swarm as a concept, image and metaphor, building on work done by cultural critics such as Sebastian Vehlken (2013), James Riley (2014) and Eugene Thacker and Alex Galloway (2004). Running alongside these cultural deployments of the swarm, the primary technological and scientific application of insights of swarm behaviour to the human and political realm is swarm intelligence.

As explored in the Introduction, swarm intelligence (SI) was coined in 1989 in the context of cellular robotic systems (Beni, 1989), since which time countless applications have been developed, both benign and troubling. SI algorithmically analyses swarming behaviours found in the natural world in order to create models that reproduce the swarm's qualities of self-organisation and emergent intelligence. The development of SI's 'agent-based modelling' was enabled by the 'reciprocal computerization of biology and biologization of computer science' (Vehlken, 2013, pp.123, 110). As such, the bringing together of biological life and machinic systems—the mutually informing combination of the animal and the machine—is foundational to the domain of SI.

The challenges that contemporary swarm technologies pose to human ontology and agency are addressed by two works in this chapter in particular. Ahead of a fuller exploration in the final section of this chapter, it will be helpful to outline here how *Foreign Parts* and

'Honeycomb' explore the deleterious impacts on vulnerable citizens of the anonymous control of swarm intelligence. *Foreign Parts* is located in a world on the brink of being lost to redevelopment led by SI. The thriving informal economy seen at the start of the film, which runs on its own systems of repurposing and recycling, is all but lost by its close. The redevelopment of the area is signalled by the foreboding presence of the new stadium. Once this is completed, the new Willets Point will be run by systems of SI. The polar opposite of the junkyard's ethos of re-using old car parts, these technological systems are founded on that most environmentally unjustifiable logic: planned obsolescence. If swarm intelligence is figured proleptically in *Foreign Parts*, it is the present reality of Jorie Graham's poem, 'Honeycomb'. Bridging the machinic and the digital, this poem attempts to address the computer through which ordinary citizens invite technological surveillance into their homes—surveillance that is enabled by SI programming among other forms of artificial intelligence.

Through my analyses of the films and poems gathered in this chapter, I hope to reveal how the questions that drive the field of political ecology can be—and indeed are—developed through the use of affective aesthetics. In particular, I will explore how the works use an aesthetic strategy first introduced in the introduction to this thesis as the 'disembodied sensory.' By this term, I mean a wrenching of affective aesthetics from an identifiable or expected subject used as a method of defamiliarisation. A masterly use of the disembodied sensory, discussed in the thesis's first chapter, is achieved by the embodied camera of *Leviathan* (2012), which, continually shifting between perspectives of flocks, shoals and humans, creates the visceral experience of being beyond a unitary human perspective. In the works studied here, the disembodied sensory is deployed differently. In *Foreign Parts* and 'High Tide', the distributed subjectivity of the swarm is sensed not in its entirety as a teeming mass but in isolated and fragmentary individual forms. I argue that by deploying the disembodied sensory the works under scrutiny in this chapter show the dyad of inclusion and exclusion to be a complex set of shifting and mutually constitutive relations.

In summary, this chapter will look at the different possibilities of social animation in which the potential of the swarmic is radically reassessed. In exploring the nexus of inclusion, exclusion and waste in the works selected for study, the chapter will at once draw on a broadened version of political ecology and focus it through the lens of the documentary form. Through this framework, the chapter also asks whether a political-ecological model of the swarm can offer a more inclusive model of community and social organisation. It posits that seeing waste—both human and nonhuman—as swarmic can elucidate both the political and

agentive aspects of that deemed surplus to societal need. The chapter asks to what extent a reworked talking-heads documentary can engender connection across difference rather than reifying societal limits and exclusions. Before moving on to my readings of the films and poems, in the section that follows I will outline how I seek to develop a swarmic political ecology through a study of the documentary form, highlighting the affinities of what are, in essence, complementary methodologies.

Political Ecology and Documentary Testimony

This chapter's dual focus on the documentary form and on political ecology draws on deep connections between these two apparently separate areas. As explained above, central to this chapter's primary works are issues of homelessness, poverty and border control. These have long been fertile ground for both documentaries and academic research in the field of political ecology. The links between political ecology and documentary are methodological as well as thematic. In drawing on insights from political ecology, I aim not only to elucidate the political-ecological aspects of the films and poems, but also to expand political ecology through more artistic methodologies.

Documentary film is particularly pertinent to this chapter's examination of social forms of organisation for, at heart, documentaries perform the function of exploring the workings and the boundaries of society. At worst, documentaries can police societal limits to regressive ends: the documentary form is historically implicated in, as Bill Nichols, terms it, 'the needs of the nation-state' (2010, xviii). [174] At best, however, by looking at those who in some way transgress, or perhaps transcend, a particular society's rules and barriers, progressive documentaries can explore or challenge these limits. Rather than the dissemination of information and the reaffirmation of hierarchies of power, it is the documentary's potential as a socially conscious, if not fully investigative, genre that is developed by the films and poems collected here. As Roxana Waterson reminds us, the documentary has also been a vehicle for

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[174] Early forms of documentary from the 1930s, as Nichols outlines, offered 'a romantic view of their working-class subjects' (Nichols, 2010, p.212). Here there are overlaps with the way in which what was termed the 'simple pastoral' idealises a youthful rural life (Marx [1964] 1999; see Chapter Two); except, rather than idealising a wished-for existence, the social and political issue films that form the early documentary canon portray their subjects as being in need of charity. Far from this paternalism, a portion of mainstream documentaries today are marked less by pity than by scorn. Programmes like Channel 4's controversial *Benefits Street* (2014-2015) draw on the reality TV genre in order to generate entertainment: rather than shocking the viewer into the need for remedial action, they are marked by voyeuristic complacency, inviting a chuckle at the plight of the poor. At its most crass, the documentary can be used to perform the basic function of the freak-show, comforting the viewer that they are within the acceptable limits of society by making entertainment out of those who flout those limits.

resistance, with filmmakers often 'digging up the evidence necessary to break official silences' (2007, p.56). Taking a critical approach, these types of documentaries, like political ecology, look at historical and contemporary social and geopolitical issues from below.

The documentary resonates with the aims of political ecology in its environmental as well as its socially investigative modes. Spanning from nature documentary to wildlife cinema, 'eco-film' has been central to both documentary and cinema since Eadward Muybridge photographed the racehorse 'Occident' in 1878 (see Bousé, 1998, p.123).[175] The documentary's ability to act as record has been used for both social and ecological causes, the latter evidenced in a plethora of environmental documentaries seeking to record environmental change and degradation.[176] Within this context, the documentary is deployed as an *environmental* as much as a social form. Of course, the two often overlap: as Derek Bousé points out, many documentaries about the natural world are in fact about 'the relationship of human beings have to [it] […] and thus about issues of political, economic, and social change' (1998, p.123). It is in this conviction that the social and the ecological are intertwined that I base my own—broadly multispecies—approach.

As in any medium, there are numerous forms and modes of documentary. The creative works I examine draw on several of these, but the interview, or more accurately, testimony, is central to all of them. A 'mainstay of documentary' (Leimbacher, 2009, p.57), the interview was notably absent in the films studied in previous chapters, which tended to de-emphasise or decentre human speech. In contrast, the rendering of life through speech—and the giving of testimony specifically—is central to all of the works studied in this chapter. The centrality of interviews to these works and to the history of documentary film is another of the confluences between documentary methodologies and those of political ecology, in which interviewing also plays an important role. Like the field of political ecology more broadly, the interview can be both a quantitative and a qualitative methodology. The latter is the relevant form here, and in order to distinguish the two, I shall use the term testimony rather than the more commonly used word interview.[177]

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[175] For an overview of the distinctions between wildlife cinema, natural history films such as *Blue Planet* (2001) that aim to reveal the wonders of the natural world, and nature documentaries influenced by 'blue chip' modes of entertainment, see Graham Huggan and others (Huggan, 2013; Burt, 2002; Bousé, 1998).

[176] For just one example, see Jeff Orlowski's *Chasing Ice* (2012).

[177] The quantitative interview—often used in market research as well as in more positivist social sciences—is characterised by closed questions and restricted answers. The qualitative interview or testimony is a more open, conversational form. In documentaries, the interviewer's

The classic form of nonfiction film that includes testimony is the talking-heads documentary. Initially greeted with excitement by dint of their holding the possibility of self-representation for those affected by the issue at hand, talking-heads testimonies were soon reduced to 'a documentary cliché—the boring mainstay of television news and television documentaries' (Ruby, 2000, pp.203-04). The narrator of Arundhati Roy's novel *Ministry of Utmost Happiness* sharply observes how superficial such interviews can be:

> young reporters […] spread across the city like a rash, asking urgent, empty questions; they asked the poor what it was like to be poor, the hungry what it was like to be hungry, the homeless what it was like to be homeless. (Roy, 2017, p.99)

Yet more concerning are the ways in which the talking-heads interview, in its parallels to confession (theorised by Foucault in distinction to discipline), can be seen as a strategy of consolidating existing power structures. While discipline produces 'docile bodies,' confession, as Ruth Wodak explains, 'subjectifies human beings, seemingly allowing them to talk freely about themselves and their own needs and promoting the illusion that emancipation and liberation are options' (2005, p.113). In actual fact, Wodak continues, 'confession is just another way of reinforcing and submitting to power, most obviously to the authority of the confessor' (2005, p.113; see also Foucault, 1979). If this is the risk of talking-heads testimony, there is much room to develop its potential as a vehicle of understanding and of liberation. In the same way as the works studied in previous chapters rework the lyric and the pastoral, the works studied here—both films and poems—invoke and rework the talking-heads motif in order to generate a more powerful form of testimony.

Testimonies in talking-heads documentaries come in two broad categories: those given by the people with direct past or present experience of the matter in question, and those given by experts on the subject. Since the films and poems under study are more interested in experience—in all its affective intensity—than information, the films and poems of this chapter challenge the interviewed expert's identity as a 'voice of authority' (Ruby, 2000, p.204), and invite and rework what could be termed the voice of *authenticity*, itself a loaded term. By combining the talking-heads mode with observational, poetic and reflexive modes (about which

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questions are commonly edited out, leaving an impression of the speaker having been given the space to shape their own story.

more later) these works grant the talking-heads motif greater depth and power at the same time as highlighting the limitations of authenticity in testimony.[178]

Focusing on the talking-heads motif in relation to the works at hand raises the question of what the swarm does to the talking-heads documentary. Does it enable this form to go beyond looking smugly out from a comfortable community at those who are ejected from it, or does it indulge in an imaginary idealised connection? Most pertinently, can it help us move away from an inward-looking protectionist view of community and work towards a conception of communities and groups that is closer to William E. Connolly's 'cross-regional pluralist assemblages' (2017)? The works examined in this chapter go some way toward realising this goal. Rather than exaggerating alterity and abjection in order to shock, or idealising the possibilities of immediate connection, they pay tribute to the resourcefulness of those abandoned by society.

The motif of the talking-heads documentary can appear in numerous modes of documentary film, and as well as displaying this overriding motif, the films and poems under study in this chapter invoke and rework various modes. The primary mode with which the talking-heads motif is associated is the expository. This was the first mode associated with the documentary and 'remains highly influential today' (Nichols, 2010 , p.138). A filmmaker working in the expository mode proceeds by emphasising 'verbal commentary and an argumentative logic' (Nichols, 2010, p.33). As will by now be clear, the ethnographic films and poems studied in this thesis operate largely on affective rather than informational levels, and work to defamiliarise language. Working against the authoritative assumptions of the expository mode, the films and poems offer a partial perspective, invoking affective insight rather than information-based argumentation.

Both the films under study and Graham's poems do this by drawing on several other modes of documentary film. These documentary modes are helpfully outlined by Nichols as the observational, participatory, poetic and performative, as well as the reflexive (2010, pp.143-157). The observational and participatory modes stem directly from the anthropological methodology of participant observation, in which ethnographers spend a prolonged time in the

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[178] Where an experience is being related after the fact testimonies are, by definition, retrospective accounts. Whilst historians often work with such constructions of the past, ethnographers commonly distrust the remembered narratives associated with the talking-heads motif. Ethnographic filmmaker David MacDougall's description of a filmed interviewee's memories as 'a mixture of dubious testimony, flawed evidence, and invention' is illustrative of such disciplinary scepticism (MacDougall, 1998, p.232).

community they are researching (Bernard, 2006, p.342). In the observational mode, famously used in the cinema verité movement, the filmmaker 'unobtrusively observ[es]' (Nichols, 2010, p.116). Meanwhile, in the participatory mode, used in direct cinema, the filmmaker 'actively engages with others' (Nichols, 2010, p.181). In this approach, for obvious reasons, the subjects must have what Bousé describes pragmatically as 'some degree of habituation to the presence of the camera team' (1998, p.122). Both of these forms are indebted to traditional forms of ethnographic realism that have been challenged since anthropology as a discipline engaged with postmodernism (Kaminsky, 1992, p.128), which—in its 'incredulity towards metanarratives' (Lyotard, 1984, xxiv)—put pressure on assumptions surrounding truth and direct representation.[179]

Engaging with these debates, other modes of documentary have arisen. The most pertinent here are the reflexive and performative modes, characterised by formal strategies of defamiliarisation and 'embodied knowledge' respectively (Nichols, 2010, pp.194, 201). Importantly for this study, both of these aesthetic strategies are foundational to lyric poetry. The affinities between performative and reflexive documentary modes on one hand, and Graham's poems—which are characterised by the performative voice of the lyric—on the other, are clear enough. A poetic and avant-garde lens, though, is anything but a recent addition to documentary history. In fact, the poetic mode, which 'poetically reconfigures' various 'fragments of the world' according to a logic of association and juxtaposition rather than argumentation, reaches back to the early developments of documentary film in the 1920s and 30s with city symphonies such as *The Man With a Movie-Camera* (Vertov, 1929; Nichols 2010, pp.116, 138, 102-03). As this thesis has been at pains to show, the forms of ethnographic film and lyric poetry are not hermetically sealed, but rather draw sustenance from shared contexts of theoretical and aesthetic development.

Transcending easy categorisation, the various modes of documentary—the observational, the participatory, the poetic and performative, and the reflexive—can be found to varying degrees in each poem and film. The works by Paravel, Sniadecki and Bonnetta studied here draw in different ways on traditional ethnographic and documentary methods of

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[179] See Hughes for a cogent overview of the ways in which attempts to acknowledge 'the process of distortion through observation' developed in both fields of representation and research (2014, p.55). Contemporaneous with debates around phenomenological approaches to social science, she explains, documentary and ethnographic film intersected with anthropology and social science, in turn merging with political and observational documentary in the United States (Hughes 2014, p.54-55). For a further overview of anthropology's 'textualist movement' and the field's engagement with thinkers such as Raymond Williams, Bakhtin, Foucault and Derrida in the mid-1980s, see Kaminsky (1992, p.128).

observation and testimony, rejuvenating them with aesthetic innovations in light of debates in anthropology and the arts around representation and 'corporeal knowledge' (Leimbacher, 2014, p.37). *El Mar* combines art film through its use of the poetic mode with traditional talking-heads testimonies. *Foreign Parts*, meanwhile, has been described as 'an almost purely observational film' (Gmelch, 2012, p.368), but Paravel and Sniadecki's film suffuses this with an aesthetic sensitivity and more-than-human perspective that creates a very different kind of viewing experience. Similarly, Graham's poems do not restrict themselves to the poetic but draw on cinematic, nonfiction, and observational modes. 'High Tide,' for example, can be seen as moving from the 'observational' mode to the 'participatory' at the hinge of the poem, when the speaker approaches the woman asleep on the street.

If *El Mar* is a self-described 'film poem,' to what extent can the poems by Graham selected here be described as 'poem films'? Graham's poems are cinematic in their aesthetics, and nonfiction and documentary in mode. The influences of cinema on Graham's poetry were outlined in the introduction to this thesis, her studies in film having preceded her discovery of poetry (Chaisson, 2015). Some of the ways in which Graham incorporates cinema into the fabric of her poems have been discussed in Helen Vendler's important early study of Graham's stylistic experiments, in which Vendler argues that in the collection *The End of Beauty* (Graham, 1987), it is 'the gaze,' rather than the breath, that is Graham's 'fundamental measure' (1995, p.82).

Explaining that the poetic line has conventionally been associated with the breath, Vendler notes that 'the gaze' can, unlike the breath, 'be prolonged at will' (1995, p.82). Capitalising on this, Graham uses as a model for the 'long line' characteristic of this collection 'the cinematic freeze-frame' wherein 'an action sequence in film is divided […] into minutely brief "shots," or elements' (Vendler, 1995, p.80). As such, Vendler claims, 'what utterance becomes is the tracking of the gaze' (Vendler, 1995, p.82). Building on Vendler's astute analysis in my current discussion of Graham's recent poems, I argue that Graham continues to use the gaze—that is, the *cinematic* gaze—as the measure of her poems. However, in these poems the cinematic mode invoked is no longer the dramatic fiction film characterised by action sequences and freeze-frames; rather it is the documentary.

Concomitant with Graham's mounting interest in the global environmental crisis is an increasingly strong presence of nonfiction modes in her poetry, at times scientific, often documentary. This is evident as early as *Never*, discussed in the first chapter of this thesis and now here again as the collection closes with 'High Tide'. It is clearest of all, however, in

Graham's most recent collection, *Fast*, from which 'Honeycomb' is taken. Fact-filled, with lines cramming the pages, at times alternated with blank space, in this collection the 'triple excess' Vendler sees in Graham's earlier 'long lines, her long pauses, and her long sentences' has reached its apogee (1995, p.94).

Albeit less directly than in the films under discussion, the talking-heads motif specifically is invoked through these two poems, both in their imagery and in the primacy given to testimony. 'High Tide' can be seen as a testimony offered by the lyric speaker on her putatively transformative encounter with the homeless woman. If the poem acts as a singular testimony by the speaker of the poem, the poem's subject remains—uncomfortably—voiceless. In Graham's poem 'Honeycomb', meanwhile, it is only the interviewer's questions that are recorded: in an impossible exchange, the speaker of the poem attempts to address her computer screen.

The conventions of the talking-heads documentary are 'strategies of containment'.[180] The naming of interviewees through on-screen subtitles and the standard medium shot both work to counter the unpredictability inherent in nonfiction filmmaking. The effect of formally staged and shot talking-heads interviews is to act as a dehumanising trope, reducing interviewees to a type or a conduit of information rather than recognising them as individuals. Both the poems and the films challenge these restrictions. In Graham's poems, the only images created are through text, but nevertheless the use of visual framing in both 'High Tide' and 'Honeycomb' is comparable to the visual rules of a formal talking-heads shot. As noted, 'Honeycomb' stages a futile attempt to get beyond the framing dictated by the screen of a computer to somehow reach the forces that lie behind it. A material barrier, like the cinema screen, the screen which the lyric subject 'tap[s] with [her] fork' operates through a pretence of immateriality. The digital forces behind the screen—imagined as sources of comfort and distrust by turns—are those of knowledge and surveillance. Protected by the barrier of the screen, these disembodied forces continue unchallenged and unabated.

The lyric subject of 'High Tide' is better able than her counterpart in 'Honeycomb' to step beyond the limitations prescribed by the framing of screens and cinematic shots. The

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[180] Fredric Jameson identifies 'strategies of containment' as means by which theoretical arguments 'project the illusion that their readings are somehow complete and self sufficient' (1984, p.85). In addition, his diagnosis of *ideologies* as strategies of containment is manifest in ways through which 'any marginalized identity or surface politics are co-opted in commercial culture' (Burnham, 2016, p.31).

poem's opening line describes the sight of the homeless woman holding 'a sign that said Emergency [nothing else]': this acts as a powerful tableau, akin to a static medium shot in film. This respectful, or rather prescribed, distance is maintained until the turning point in the poem when, motivated by pity or compassion, the speaker of the poem moves closer to the woman. At this point, the tableau—the archetypal 'shot' of the homeless woman—gives way to a series of 'close-ups' that capture the tactile encounter the speaker feels when she literally reaches out to this person whom her community has left unhoused. It is only through moving closer—by entering the frame—that the speaker feels the possibility of a connection. That this connection has been misplaced (the poem's conclusion reveals that the speaker has not approached a woman but a 'place holder') is all the more poignant. Despite moving closer, the exchange with this dummy is as impossible as the exchange attempted in 'Honeycomb'.

El Mar and *Foreign Parts* also jettison the prescribed formality of head and shoulders shots. Removing the motif's formal barriers through their different strategies, both films invite the viewer to feel more intimately connected with the interviewees. *Foreign Parts* takes an ethnographic approach to interviews, simply letting them unfold in the course of the time the filmmakers spent in the community.[181] These testimonies are taken not after the fact but in the present moment of the subjects' lives, and the boundaries between observation, conversation and interview are broken down. Despite the film's almost fictional treatment of its characters and its sensibility to the creaturely aspects of the junkyard's cars and other machines, *Foreign Parts* remains at root an ethnographic film.[182] In contrast, the combination of ethnographic, experimental and traditional documentary modes and methods in *El Mar* is weighted differently, resulting in a more formalist work that is closer to an art film than an ethnography. This work retains the traditional structure of the testimony (each interviewee offers one uninterrupted testimony, and the filmmakers' questions do not appear): the film's innovation is in keeping the camera firmly away from the its talking-heads. Playing these interviews to a black screen, thereby removing their visual context, makes the testimonies seem at once timeless and more urgent, as if they are being whispered in your ear.

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[181] As Paravel notes, *Foreign Parts* stands in the anthropological tradition of 'participant observation' (in Castaing-Taylor, 2016, p.43).

[182] As explained in the Introduction, the creaturely is commonly understood as the 'the bodily vulnerability [...] we share with other *animals*' (Pick, 2011, p.10: my emphasis). However, the uncannily lifelike movements of the cars on the junkyard as well as of the machines used to pull them apart gives the machinic bodies (of varying states disrepair) both a vitality and a vulnerability that justifies the description of them as the creaturely presences of the junkyard, a space in which animals are largely unseen.

The formalism of *El Mar*—long takes recorded on the traditional cinematic equipment of analogue film and tripod—lies in contrast with the intimacy of the hand-held camera in *Foreign Parts*. The defamiliarised formalism of *El Mar*'s testimonies and the raw immediacy of those in *Foreign Parts* both render the documentary testimony more than a mere informational tool. Both films forgo the use of subtitles to name the interviewees, but their relationship to anonymity and identification is very different. The central 'characters' in *Foreign Parts* become known: Luis, Sara, Joe and Julia are seen in different contexts, and their names are mentioned in conversation. At the same time, the film also raises them to the status of Shakespearean characters through a degree of fictionalisation: the film's synopsis describes Luis and Sara as '[t]wo lovers', Joe as 'a lost King Lear', and Julia as 'the homeless queen', reflecting the film's intention not to reduce its characters to types but to give them depth. *El Mar*, meanwhile, shies away from direct identification, seeking rather to marry intimacy with anonymity: the way it achieves this is by forgoing visual representation of its human subjects.

The nexus of inclusion and exclusion is not only a thematic within these works, but an integral dynamic of their making. For any nonfiction representation, the position of artists in relation to their subjects is marked by a complex dynamics of inclusion and exclusion. The nonfiction filmmaker can inhabit any number of positions ranging from one characterised by a relatively short period of 'embedding', traditionally followed by journalistic practitioners, to the extended periods spent with the community by those following the ethnographic method of 'participant observation'. In visual ethnography, it is vital that ethnographers be welcomed into the community they are studying. The 'access', to use the journalistic term, that filmmakers are granted to the community they are representing is a question of inclusion. Like consent, access can be revoked at any time and is a question of degrees; inclusion into more intimate spheres of the community life is entirely dependant on trust. There is no binary between inclusion and exclusion, but rather a complex set of shifting and continually negotiated relations.

The level of inclusion granted to the ethnographer may be greater than that previously afforded to a newcomer, but being invited in is not necessarily the same thing as being included. The anthropologist remains an outsider; the ethnographic filmmaker is visibly marked as such by the camera through which he or she has gained entry to the community. If the camera is a simultaneous marker of inclusion and exclusion for the nonfiction filmmaker, the tools of the poet's trade—pen, paper, observation and introspection—are less visible. The poet is famously solitary in the public imagination, pursuing an individual rather than a collaborative artistic process. Unlike the ethnographic filmmaker, the poet does not need to be invited into a

community in order to make his or her work. Just as free to write as an external observer as to observe from the inside, the poet negotiates the dynamics of inclusion and exclusion from a less clearly defined position.

The navigation of inclusion and exclusion is also present in the artist's creation to their work. The ideal of cinema verité—which would hold that the filmmaker is not part of 'the inclusion/exclusion game' but merely observes (Bauman, 2004, p.133)—has long been recognised as impossible.[183] Yet the assumption that documentary film is solely or primarily about the subjects on screen remains. As indicated by the prevalence of discussions of the 'auteur' (the presence of the filmmaker in the film as a driving creative force) in nonfiction film as well as fiction film indicates, a documentary film is no less a portrait of its maker than any other form of art or, indeed, research. Conversely, lyric poetry is often seen as operating solely in the mode of introspection, but like any form of expression, it is primarily a vehicle for communication. Graham's poetry is a fine example of lyric poetry that reaches beyond what Helen Vendler has diagnosed as the 'current lyric of personal circumscription' (1995). Just as a nonfiction film almost inevitably expresses the personal through its portrayal of its subjects, Graham's poetry commonly expresses what is most personal through the lens of the political.

Both of the poems discussed in this chapter stage—largely unsuccessful—attempts on the speaker's behalf to reach out to another: the homeless woman in 'High Tide', an anthropomorphised computer in 'Honeycomb'. Not written from the perspective of a speaker obviously excluded from a community, these poems attest to the feelings of exclusion experienced by those who appear to be in a secure social group. As a genre that can so closely inhabit the consciousness of its speaker, poetry is well placed to express feelings of exclusion that may not be clearly apparent from an external perspective. Documentary, in contrast, is a genre that begins outside the consciousness of its subjects. As such, testimony and the talking-heads motif, like the soliloquy in theatre, offer the possibility of, if not entering the mind of the speaker, at least hearing their experience related 'directly', albeit with an unavoidable 'performative aspect' (Waterson, 2007, p.53).

The 'inclusion/exclusion game', to repeat Bauman's term (2004, p.133), cannot be transcended by artist-observers, but it is mediated by them. Having inhabited the ambivalent space of included outsider, the ethnographic filmmaker is able to act as translator to a broader public. A poet meanwhile—writing alone, but gaining dialogue with the reader—can express

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[183] See Helen Hughes for a discussion of postmodernism's contribution to documentary and the social sciences' recognition of the impossibility of impartial observation (2014, p.55).

the experience of the excluded insider. Through their work, both filmmaker and poet give their audience access to the lives of their subjects. This luxury of nonfictional representation brings the challenge of avoiding voyeurism—when uninvited outsiders, both artist and audience, look in—and of negotiating power relations ethically.[184]

Turning now to my readings of the films and poems, I will explore the nexus of inclusion, exclusion and waste through the approach I have outlined as combining political ecology, documentary and aesthetics. I will first pair *Foreign Parts* and 'High Tide'—works that expand compassion to the 'wasted' others found in New York and Boston—before moving to a section that places *El Mar* alongside 'Honeycomb'. These latter two focus on the suffering of almost completely opposed subjects—migrants facing the lethal crossing of the Mexican border and an American citizen feeling unsafe indoors—yet both explore forms of control and surveillance undertaken by state and nonstate actors.

All four works are an attempt to imagine or inhabit the position of the outsider, be they whole social groups, dispersed individuals, or even discarded material objects. At the same time, they work to highlight the exclusions that run within seemingly unified communities. In other words, the films and poems brought together in this chapter reveal inclusion, exclusion and waste to operate contrapuntally. The chapter provides a similarly contrapuntal analysis of the metaphorical load of the swarm as a register of social organisation by juxtaposing two pairs of films and poems that invoke the swarm, in *Foreign Parts* and 'High Tide', as largely hopeful and beneficent and, in *El Mar* and 'Honeycomb', as a bleaker force of dissolution.

Inclusion and Exclusion in *Foreign Parts* and 'High Tide'

The two works to be discussed in this section are sympathetic if far from saccharine portraits of people who resolutely and resiliently live in amongst material waste. In their representations of human and machinic swarms, both Véréna Paravel's and J. P. Sniadecki's film *Foreign Parts* and Jorie Graham's poem 'High Tide' address questions of wasted lives, material waste and the possibilities of rejuvenation. 'High Tide' traces an attempt at compassionate connection with a woman living on the street, while *Foreign Parts*—a portrait of the community of a junkyard in New York that is slated for redevelopment—follows four main 'characters', three of whom are homeless, the fourth desperate to save the home he was born

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[184] For a discussion of the inherently unequal power relations in filmmaking, see Jay Ruby's discussion of collaboration and consent (Ruby, 2000, p.210-13).

in. These works reflect upon and creatively represent the principle of swarmic collectivity to reveal the community's internal bonds and divisions. Whilst a swarm is by one definition a group of '*social* insects,' human relations are stretched to breaking point in the context of these harsh political ecologies (Kosek, 2010, p.667: my emphasis). The precarious collectives constantly face disassembly and—in line with the swarmic principle of adaptability—are continually reassembling themselves on individual and communal—as well as, at times, ontological—levels.

Alongside the isolation within these swarms in crisis is the gulf between those living in precarity and those living in comfort. As Edward Said states, 'no identity can ever exist […] without an array of opposites […]: Greeks always require barbarians, and Europeans Africans' (1994, p.60). To this we can add that men require women, humans require nonhumans, and the housed require the unhoused. The works in question ask whether individuals can forge a connection across that divide and how communities can expand to incorporate the dispossessed. These questions are posed in relation to the subjects within the works but also with regard to the relationship between these subjects and the viewer or reader.

The onlooker's desire to bear witness to the hardships of the disenfranchised always risks becoming a distancing, even voyeuristic act of looking. Critical of the possibilities that vision alone offers for ethical engagement with seemingly alien subjects, Paravel's *Foreign Parts* and Graham's 'High Tide' strive for a more textured representation of swarming groups through the aesthetics of the disembodied sensory (see Introduction). At pivotal moments in both works, isolated members of the urban swarm reach a fleeting but compromised emotional connection that is experienced through a simultaneously embodied and disembodied sensory relation. A close-reading of these two moments will now demonstrate how Paravel and Graham deploy the ethical and aesthetic potential of the disembodied sensory.

Jorie Graham's poem 'High Tide' begins with a snapshot image of homelessness: 'She held a sign that said Emergency [nothing else].' As evocative as a tableau, this opening line contains the only use of language by the homeless woman who is the silent centre of the poem. Within the terms of the talking-heads documentary, the speaker of the poem acts as the talking-head, the interviewee who is tasked with conveying the powerful presence of the woman. The poem develops the original image of the woman as the speaker passes her in the street almost daily, culminating with an encounter that is transformative for the speaker of the poem and perhaps also for the reader.

Throughout, the poem operates affectively, through the senses. It is written in free verse full of internal rhyme, enjambment and shifting line lengths. This fluidity is separated into six sections of roughly twenty lines each. The poem formally stages the shifts between the nominally affective and the supposedly cognitive, with alternate sections emphasising one mode of response. However, there is no clear division between affective experience and mental contemplation. In line with Graham's description of her poems as 'an undergoing of an experience, not a report of an experience', in this poem the affective and the cognitive registers are combined across and within sections.[185] In my contrapuntal analysis, both registers continue throughout, with the emphasis shifting between the two: affect and cognition remain distinct in among the 'constant confusion' between them that is definitive of the lyric as it is of affect theory (Hardt, 2007, ix).[186] Even within the affective register, multiple senses are experienced simultaneously, even combined. The lyric subject senses the physicality of the homeless woman in haptic terms—'the steam from her lips / lifting blue off her tongue'—and senses the homeless woman watching her as a tangible force: '[gaze on my back / laid hard at first then weakening […]'. 'High Tide' offers an experience of the encounter between the two women— the rough sleeper and the lyric speaker—that is not merely visual and verbal but synaesthetic.

Through its synaesthetic way of seeing, the poem reveals forces of connection and disconnection that are all too often unseen. Despite their blatant visibility on the streets, the homeless—the city's human waste—are rendered all but invisible both politically and in the consciousness of the housed population. Challenging this wilful blindness, the poem presents the isolated figure on the street as an integral part of the urban ecology that would disown her: 'the whole city's buzzing / code […] around her'. The swarmic 'buzzing' of those included in the (housed) urban swarm, marked by noise and mobility, is juxtaposed with the silent and still homeless woman. If the city's house population is one 'swarm', there is another indefinite swarm that constitutes the underbelly of the city's political ecology: the invisible swarm of the city's human waste. These are the 'wasted lives' that form the disavowed counterpoint to the dominant theme of the buzzing city (Bauman, 2004). Washed up on the street like seaweed, the woman is an emblem of this unseen swarm. She is figured by the poem as a literalisation of flotsam and jetsam, her hair seen by the speaker of the poem as seaweed, containing 'sometimes some shells, / and always strands that looked like wool'.

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[185] In a radio interview on NPR, Graham describes her work as an attempt to 'capture and act of consciousness,' explicitly dissociating her work from the Wordsworthian model in which an occurrence is later 'recollected in tranquillity' (Flatow, 2003, 12min).
[186] For a fuller discussion of affect and cognition in the lyric, see Chapter One.

Whilst initially, the lyric subject feels guiltily removed from the excluded member of the urban swarm, the central section of the poem narrates a transformative encounter. This moment operates through a bewildering moment of sensory connection that repositions the lyric subject within the swarms of the city's political ecologies at the same time as revealing to her the irrevocable difference of their lives. The encounter occurs when, in an echo of the opening image of the homeless woman's cardboard sign on which she has written 'emergency', the speaker of the poem is returning from the 'emergency / room' on a bitterly cold night. Moved to approach the homeless woman rather than pass her by as she is accustomed to doing, the speaker of the poem attempts to cover the sleeping figure's face with the sleeping bag. Accidentally brushing her cheek, the speaker is filled with a 'sensation of having goodness' which is generated and felt through touch: it fills 'out to the very edges of my hand—touching her cheek'.

Yet this hesitant but budding potential to 'feel love' turns out to have been misplaced. It is only at the moment of touch that the lyric subject realises she has mistaken the 'puppet' created by her to 'hold[] a place' on the street for the living woman. The tactile connection is now recognised as disembodied. The uncanny echo of the real woman's hair as 'strands that looked like wool' is now literally felt in the 'admixture' of 'wool' and 'random yarns' the 'puppet' is made of—a moment that is as uncomfortable ethically as it is disconcerting physically. Has the lyric subject been exposed as morally suspect in seeing this person as made up of waste material, when in fact the homeless woman has resourcefully made waste materials into an object to stake her claim to 'eight feet of sidewalk in America'? What does it mean that the lyric subject can only feel a connection with the woman when she is not there?

These uncomfortable questions spur the lyrical 'I' to amend her initial aim to represent and so contain the homeless woman's presence, now paying tribute instead to the woman's experience on her own terms: 'must find the words: no: / must find what sparkles here, what virtue is existing'. This recognition of the life of the homeless woman as 'virtue' rather than simply waste generates an explicit critique of the American Dream. The poem closes by placing the failed personal connection between the homeless and the housed within the broader economic systems of 'the payable and / the unpayable.' The embodied encounter with the disembodied 'puppet' reveals to the lyric subject both her connectedness with the homeless woman within the political structures of her country, and the ways in which those political systems work to deny their common humanity: 'created: equal: look.'

Like Graham's 'High Tide', Véréna Paravel's and J. P. Sniadecki's *Foreign Parts* explores the life of the detritus of society. As indicated, the film is a portrait of the junkyard at Willets Point, which faces eviction to make way for New York's redevelopment. The film documents the gradual waning of an informal economy and a bustling community characterised by the constant movement of people and cars: by the end, Willets Point is all but abandoned. In a close parallel to 'High Tide', *Foreign Parts* follows four characters who have lost or are about to lose their home. Like Graham's poem, the film attempts to garner a sensed connection with the individuals who speak to the camera about the challenges they face, and shows their resilience in continuing with their lives on the junkyard. And like 'High Tide', the film leads to an explicit critique of the fantasies of America as the land of opportunity: in *Foreign Parts*, as Sharon Gmelch and Carolyn Hou note, this is voiced by the last of the voices heard over the credits, one of the junkyard's workers who accuses the Mayor who approved the redevelopment of Willets Point of being 'a traitor to the American Dream' (Gmelch, 2012, p.367). Extending a recognition of their struggle beyond the formalised routes of tokenistic government consultations to pay tribute to their daily lives, the film shares the new-found aim of Graham's 'High Tide' not to represent from an external perspective but to 'find what sparkles here.'

Paravel's description of the junkyard's community captures its peculiar combination of life and decay, energy and harshness: 'the rusted, pot-holed, post-industrializing but still then very vibrant—as well as violent and toxic—community in *Foreign Parts*' (in Castaing-Taylor, 2016, p.57). The violence within the community—including an attack on one of the central figures, Sara, which will be discussed below—shows it is that not only exclusion, but inclusion as well, that holds the potential to be violent. Even where the community bonds are felt as positive forces, they lie in counterpoint with the physical grind of existence on a New York junkyard. After the film's most joyful moment, the birthday celebrations for the homeless woman Julia in the junkyard bar, the film's sensory aesthetics makes the viewer feel this contrast affectively: a hard cut contrasts the warm colour palettes of a scene of Latin American music and dancing with an empty scene of the grey, silent junkyard. As in 'High Tide', the warmth of fleeting human connection is all too quickly numbed by the deadening reality of homelessness in winter on the East Coast.

Like the other poems and films in this chapter, this film occupies the borderlands of humanist and posthumanist thought. *Foreign Parts* in particular emphasises the creaturely aspects of waste material and its possibility for rejuvenation. The film features evocative long-takes of cars being dismantled, witnessed so viscerally as to suggest the dismemberment of a vulnerable

creature, while the still shots of car parts awaiting reassembly carry concomitant emotional weight. A posthumanist reading of the film might see it as attempting to evoke the death of the machines and so engender empathy for them. This intention may in fact be supported by Paravel in particular, who, as previously noted, studied with Bruno Latour. As previously discussed (see Chapter One), comments made by the filmmakers affiliated with the Sensory Ethnography Lab about their interest in reconceptualising the human have been reflected in a preponderance of posthumanist or new materialist critical responses (Leimbacher, 2014).[187] Seeing these interpretations as only one possible approach, I seek to complement them with alternative analyses of how machinic and swarming presences operate in their films. From such a perspective, *Foreign Parts*' portrait of the 'deaths' of the junkyard's machines act as a means of expressing the loss felt by the people who have worked with them rather than as an attempt to engender sympathy for the machines per se. This contrapuntal combination of posthumanist and humanist readings forms the basis of my stance of critical humanism.

To take one example, one scene follows a man walking along the corridor of an improvised warehouse lined with neatly ordered car doors. Speaking with a Spanish accent, he describes each type with the fondness of a circus trainer walking past his animals. Commenting on this scene, Gmelch and Hou note that 'the cars almost become personalities' as the worker recites 'each one's make and model year as if he knew the autos personally' (Gmelch, 2012, p.367). The poignancy of the scene lies in the awareness that the car parts will likely never be used. The environmental cost of discarding rather than reusing these parts is a comment quietly made throughout the film, but it is the man's wasted knowledge and his loss of personal meaning that is the real focus of the film's pathos. I interpret the dominant theme of both of these scenes in contrapuntal terms as illustrating Bauman's claim that the incursions of modernity leave in its wake 'human beings bereaved of their heretofore adequate ways and means of survival in both the biological and social/cultural sense of that notion' (2004, p.7). The creaturely vitality of the machines seen earlier runs as counterpoint to this Marxist-influenced interpretation. In another scene, Joe, the film's more elderly character, take a similar walk past rows of engines, bumper lights and what he explains are 'window regulators'.

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[187] See Introduction and Chapter One. Paravel's description of the collective mission of the Sensory Ethnography Lab does not show a lack of interest in the human: 'we're interested in the mutual constitution of the human and the non-human, whether animal, technological, or natural […] We try to relativize and resituate [humans] in a much wider ecological sphere' (in Castaing-Taylor, 2016, p.53). This approach does not imply, as some interpretations of the posthumanist perspective would, that the category of the human is redundant, but rather that is has been challenged and expanded.

Here, the emphasis is even more strongly weighted towards the situation's humanist pathos rather than its posthumanist possibilities. As the junkyard's oldest resident, who has, we later hear, lived at Willets Point all his life, this walk seems to be not only a farewell to a trade but a lifelong home.

Foreign Parts. Courtesy of Véréna Paravel. 6

As already observed, the interviews in *Foreign Parts* are much less formal than the studio-based talking-heads interview. Like the rest of the film, the interviews are shot on handheld cameras and, 'in a nod to reflexivity', the filmmakers are occasionally both heard and seen on screen (Gmelch, 2012, p.367). The advantages of such informality are described by Leimbacher in relation to Ed Pincus and Lucia Small's *The Axe in the Attic* (2007): 'their interviews, some planned, some completely spontaneous, are full of the messy rough edges and energy of life' (2009, p.54). In *Foreign Parts*, this energy is captured thanks to the filmmakers' ethnographic method, according to which the filmmakers remained in the field with their subjects long enough to establish trust. This familiarity with the camera and intimacy between filmmakers and subject both increases the likelihood of capturing unplanned moments and enables their subjects to behave with greater spontaneity in front of the camera.

The messiness of life, and of the film's testimonies, seems to run counter to the strict organisation of the swarm, which, for all it can appear chaotic to the human eye, is in fact a highly organised unit. If a swarm is highly organised but often perceived as disordered, a traditional documentary is a visual form that works to confer a—most often unseen—structure

onto an apparently chaotic situation. Whilst journalistic filmmakers are likely to enter a field with a largely predetermined rubric, to the visual anthropologist, the unforeseen is a welcome gift: as one master of the form, Robert Gardner, has explained, an ethnographic filmmaker operates largely through skills of anticipation (2001, pp. 36-37).[188] *Foreign Parts*, both in its form and content, shows the simultaneous existence of order and chaos in the Willets Point junkyard. In shots revealing carefully ordered and labelled car parts, the film shows many of those working on the junkyard to hold the lack of pre-established order at bay by creating their own systems. In the personal lives of the individuals followed by the film as they face eviction, order is less easily imposed. By incorporating the messiness of life into the structure of the film, Paravel and Sniadecki create a work that emulates the disorder of its subjects' lives.

The apogée of this disorder in the film is characterised by the figure of Julia, the self-described 'queen of the junkyard'. A striking correlate for Julia can be found in the character of Ventura in *Colossal Youth*, an experimental documentary film by Pedro Costa which, like *Foreign Parts*, portrays the lives of those evicted from urban slums. Jacques Rancière describes Ventura as 'a sort of sublime errant', a 'figure of tragedy', marked by 'the gaze of one abstracted, a mental patient' (2014, pp.139-40). Abstracted, and apparently a drug user with physical and metal health problems, *Foreign Parts*' Julia is just such a 'sublime errant'. Julia communicates largely through nonverbal communication, but she is nevertheless presented by the film as largely understood by the other members of the junkyard. Just as these most often tolerate and support her, the film invites a similar understanding from the viewer.

Rancière attests that, when representing 'sublime errants' such as Julia and Ventura, 'it is not a question of gathering evidence of a difficult life, or even of wondering how to share it'; rather 'it is a question of confronting the unshareable, the fissure that has separated an individual from himself' (2014, p.139). No amount of compassion or forbearance on the part of her community or the film can lead to understanding Julia's experience: the 'fissure' in her selfhood has left a portion 'unshareable' (Rancière, 2014, p.141).[189] Yet in its tribute to the warmth with which Julia is often greeted—at its height at her birthday celebration, the most joyful communal scene in the film—*Foreign Parts* asserts that a lack of comprehension need not

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[188] The use of 'treatments' and 'scripts' in journalistic work is shared by nature films that, as Bousé explains, go into the field 'seeking footage to *illustrate* preconceived ideas rather than to *reveal* something new' (Bousé, 1998, p.121: original emphasis).

[189] Rancière's powerful term 'fissure' can be generatively placed alongside the concept of cinematic surplus. As noted above, cinematic surplus refers to a film's inclusion of something without apparent reason, or lingering on a certain detail for a seemingly unjustified length of time (Thompson, 1999). The seemingly inexplicable actions of subjects tortured by what Rancière terms the 'fissure' could be termed 'surplus behaviour'.

preclude inclusion. In turn, such inclusion offers the possibility of empathy without understanding, connection through disconnection.

The relationship between interviewees and filmmakers is foundational to any documentary; all the more so when the subjects are, in Rancière's words, 'separated […] from [themselves]' (2014, p.139). The ease with which Julia dances with Paravel or Sniadecki holding the camera at her birthday party and shares with them the effects the following morning shows the strength of the intimacy gained. Stressing how important the relationship she has with those she films, and acknowledging the risks of exploitation in the filmmaker-subject relationship, Paravel avers that '[i]t can even be a kind of love, or a kind of beneficence, on both sides' (in Castaing-Taylor, 2016, p.71). Such beneficence can be felt in one particularly touching moment of *Foreign Parts*; the return of one of the film's main subjects, Luis, after a period in prison. Alongside Julia's birthday celebration, this is one of the film's most jubilant moments. The pleasure felt by his partner Sara on Luis's return—as well as the anticipation in the preceding scene—is shared with the filmmakers who enter the shot in their eagerness to welcome Luis back. This return of a member of the junkyard to the community figures the swarm as community, beneficence and love; as registering hope rather than loss.

However, there is a harsh underside to the community of Willets Point. Indeed, as Gmelch and Hou stress, it is far from clear to what extent to which the people who work on the junkyard consider it to be a community at all (2012, p.367). I shall now turn to a scene that precedes this return of Luis from prison, which is one of the bleakest points in the film. The scene is characterised by its unusual aesthetics, and it reveals the lines of inclusion and exclusion that run through each other in any community. In this scene, Paravel and Sniadecki deploy the aesthetics of the disembodied sensory to represent the separation between members of the junkyard (see Introduction and Chapter One). In this scene, one member of the junkyard, Sara, talks to the camera from the inside the van in which she lives. She tells of the bitter realities of sleeping with a knife by her head whilst her partner is in prison, lamenting that until he returns, 'I'm on my own'. Remarking that she is 'the only white girl in the junkyard', she explains that she has to defend herself since the police 'won't come down here', signalling both the tensions within diverse communities and the failures of state duty.

Sara is interrupted by a scene of equal distress, in which Joe—described by the film's synopsis as 'a lost King Lear'—rails against the unresponsiveness of the bureaucrats who have condemned the junkyard: 'What kind of a plan do you have? You have nothing.' The old man's desperate attempt to hold onto the home he was born in is the inverse of the young woman's

nightly struggle with homelessness. Both struggles are equally fraught, and have common enemies in the lack of both state and community support, but this does not create an alliance. Joe could easily have been one of the bystanders included in Sara's complaint that 'nobody did anything' when she was attacked. Equally, Sara is one member of the junkyard not present at the meeting Joe was earlier seen trying to organise to mobilise the community. Like the homeless woman and the lyric subject in Graham's poem, 'High Tide,' the protagonists in crisis on the junkyard are effectively removed from each other's suffering.

Whilst the film in general is edited with hard cuts, these two scenes of desperation are bridged by an unusual continuity cut: before cutting to the outdoor shot of Joe, the camera captures a hazy image of Joe in the van's passenger window and the microphone picks up his muffled voice.

Foreign Parts (46m). 7

The multiple framing of the shot of Joe seen through the window highlights the barriers to connection between these two people who are experiencing crisis in parallel: one in the van, one outside. A poignant example of the disembodied sensory, the sensory disorientation arising from Sara's and the viewer's attempts to see and hear through these obstructions reveals the distorted reflections of failed connection and the miscomprehension of people speaking past each other.

The transition from Sara's to Louis's expressions of suffering is a characteristically contrapuntal move: it allows the two testimonies to sit side by side without being reconciled.

These parallel stories of suffering confront each other and the viewer, not antagonistically but rather inviting the compassion that comes from mutual suffering, even if this is only gained retrospectively in the space created by the film. Moments before the cut through the window, seeing and partially hearing Joe moments before the viewer does, Sara smiles and comments, with half a laugh, 'he's funny.' Her brief smile, far from a snide dismissal of Joe's agitation, speaks of a fondness and a sad awareness that his attempts to save the junkyard will inevitably fail. Unable to see this humane response, Joe is instead faced with the unresponsiveness of the two men who have come to Willets Point as representatives of the faceless bureaucracy: the shot literally does not show the visitors' faces. He becomes more and more frantic as he continues with a monologue desperate for a response.

This makes the point that listening—which is counterpointed with the gaze as primary ethics of the talking-heads motif—is not enough if it does not lead to, first, a compassionate response, and secondly, effective action. As such, Joe's speech highlights the limitations of the documentary as a socially impactful medium. No matter how meaningful the connection between filmmakers and their subjects—and at one remove, the viewer and those on screen—documentary films only rarely benefit their subjects directly. Documentaries can influence popular opinion and in turn public policy, but such changes will likely come too late for the subjects whose struggles are seen on screen. Soon after the release of the film, we must assume, the people of the junkyard will have left like the swallows seen flying over the empty junkyard in the closing scene. It is important to stress that the scene I have discussed is perhaps the bleakest moment in the film. Given the context—that Joe and Sara are about to lose their homes—there is an admirable amount of resilience, humour and shared affection. *Foreign Parts* is not an activist film, calling for saving the junkyard. It is, rather, a record with the more indirect aim of imparting insights from this groups' suffering and resilience, in which there is as much to admire as to avoid. Combining the aims of 'salvage ethnography' and social issue documentary, the film both aims to 'salvage' something from the past and act as a tool for future struggles.

Far from being naïve about its ability to create social change, the film is also tentative about its ability to engender genuine empathy. The disorientations of this continuity cut in *Foreign Parts* also remind the audience of the limits of their own empathy, for its embodied yet disconnected aesthetics highlight the impossibility of attending to both stories of suffering at the same time. During the continuity cut through the passenger window, the viewer can see neither person clearly, and whilst Joe is overheard and Sara continues speaking, it is difficult to hear either of them. Alongside the distorted image of Joe through the window is the van's rear-view

mirror, which reflects the movements of numerous other people and cars. This reminds us that there are untold numbers of other stories of struggle that are well beyond the reach of the empathy of the film and the viewer film's subjects.

Both Paravel's ethnographic study and Graham's lyric poem deploy the aesthetics of the disembodied sensory to reveal the dislocations of urban collectives and the limitations of empathy. These representations of the swarm's internal divisions fashion moments of human connection that are fleeting rather than failed and are all the more poignant because of their brevity. The uses of the disembodied sensory discussed here affect the audience on a visceral level, placing them in an embodied relation with the film's disenfranchised and isolated subjects. These works aim to highlight our connectedness within a political ecology that includes the disenfranchised and aims to pay homage to their lives. Those favouring an approach rooted in activism might argue that doing this instead of advocating directly on behalf the people portrayed is tantamount to shirking political responsibility. Yet there can be no ethical politics, resistance or collective action without this sensitive acknowledgement of the lived experiences of those who have been deemed disposable.

The affective connections that Paravel's film and Graham's poem achieve through their swarmic aesthetics avoid positioning their subjects as passive objects of the audience's pity, placing the audience with them rather than above them. This refusal to make a sharp distinction between the spectator and the represented collective speaks to the broader ecological ethics of both *Foreign Parts* and 'High Tide'. By challenging the distinction between the human subject of the reader or viewer and the networked ecologies of swarmic humans, animals and machines, these works argue for a political-ecological responsibility that is inclusive rather than protective. This is the praxis of the disembodied sensory.

The possibility of only partially illuminating any given issue—made palpable by the disembodied sensory—indicates the formal relationship of waste to representation. Bauman claims that waste is a necessary by-product of story-telling or indeed of any form of design (2004, pp.9-33). Using the analogy of the spotlight on the theatre stage, Bauman contends that without achieving focus through exclusion, a narrative will be incomprehensible to the audience: 'Stories aid the seekers of comprehension by separating the relevant from the irrelevant [...] it is in their nature to include through exclusion' (Bauman, 2004, p.17). The extent to which stories should aid their audience in their search for comprehension has long

been debated across artistic forms and media.[190] The more traditional perspectives that Bauman seems to assume are challenged by forms of ethnographic cinema that, by withholding information, invite the audience to '[do] their own ethnography,' as Gardner terms it (2001, p.78). The same is true of lyric poetry: Graham's poetry in particular self-consciously includes digressions in the continual attempt to capture the vagaries of the mind.

In their representations of those deemed surplus to societal need, both the films and poems studied here work with different forms of *excess*. Differently inflected in each form, in lyric poetry, excess is characterised by the long line, long sentence or long pause (Vendler, 1995, p.94); while in film, cinematic excess denotes that which exceeds the film's unifying principles, where there is seemingly no or insufficient justification for its being incorporated (Thompson, 1999). Poetic excess is the attempt to incorporate everything: Helen Vendler describes the aim of all lyrics, and that of Graham's 'poetry of excess' in particular, as being to reach 'total coverage' (1995, p.85). But a poem can only ever be a partial rendering of the world. This presents a typically contrapuntal analysis of excess that accommodates unnecessary inclusion in film as well as the failure of full incorporation in poetry. This opposition stems from the originary attributes of the two forms. A camera's default mode is to capture everything within the frame, making the artistic process one of focus and selection; poetry's starting point, meanwhile, is an empty page from which the poem must construct the image.

To the extent to which the works reject the strictures of selection needed for immediate comprehension, they sit in the remit of 'waste literature', which Morrison argues, places value on departures from tight utilitarian plots with no so-called waste (2013, p.472). Comments made by Paravel are revealing here. Describing the 'profound attachment' to the 'real' as a guiding force of her and Castaing-Taylor's work, Paravel defines the 'real' as 'something, a kind of surplus or excess that exceeds the maker's intentions' (in Castaing-Taylor, 2016, p.78). Paravel's position bridges the two propositions of Bauman and Morrison. Her approach—similar in many ways to Graham's—recognises the limitations of how much 'surplus' can be included, whilst nevertheless continually seeking to expand the scope of her works. In my readings of 'High Tide' and *Foreign Parts*, I have shown how both these works' experimental aesthetics seek to both include more of 'the real', but also highlight the limits of

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[190] For an influential example of this debate in literary studies, see Peter Rabinowitz (1977); for a more recent example of the discussion in screen studies, see Sonia Livingstone (2007).

what is representable rather than obfuscating what has had to be cut out—excluded—from the final piece.

It seems inevitable that aesthetic innovations such as those performed by 'High Tide' and *Foreign Parts* will invite accusations of elitism. As discussed in the introduction to the thesis, both Graham's philosophically complex poetry and the Sensory Ethnography Lab's artistic, arguably art-house films have been accused of being accessible only to a niche audience, one presumed to be educated. Whilst these films and poems are more accessible than those studied in previous chapters, situating the talking-heads documentary within both an aesthetics of excess and a more-than-human purview is challengingly unfamiliar for many viewers. But the challenge of making people accustomed with such unfamiliarity, even discomfort, is precisely the task laid at the door of art in all forms, particularly those seeking to challenge social exclusion.

As I hope to have demonstrated in my readings, the disembodied sensory marries aesthetic experimentation with the usefulness of the documentary as a vehicle for social and environmental consciousness. At their best, these works combine the accessibility of the talking-heads documentary and the more enigmatic power of art to 'work on consciousness' itself, to follow Jonathan Bate's pragmatic description of the 'business of literature' (Bate, 2001, p.23; see Introduction). All of the films and poems studied in this chapter work to reduce the gaps between viewing and viewed communities, between observer and observed. What these works share is their attempt to listen, aurally, visually or otherwise. It is attention, rather than exposition, that forms the ethical drive behind principled talking-heads work.

There is hope and connectivity in these works' invocations of the swarm as a symbol of marginalised communities. In these works, the swarm is primarily a subject of compassion rather than fear; of pathos rather than horror. The swallows that fly across the sky in the closing scene of *Foreign Parts*, metonymic of the departing population of the junkyard, are a powerful example of this pathos. When swarms are made to appear as a beneficent force rather than a threat, like the gulls in Chapter One, they are more sinned against than sinning. Such works trace the loss of swarming communities as something to mourn rather than to celebrate. At the same time, these works highlight the isolation and lack of empathy that exists within as well as across collectivities: Paravel and Graham suggest that attempts to transcend such exclusions can only be partially embodied, partially successful.

A still more sombre note runs beneath these portraits of the disenfranchised. This consists in an awareness that a compassionate perspective is not shared by all—least of all state authorities—and that to many, such groups, like pests, represent the ever-present threat of

incursion. As ever with the swarm, such binaries are no sooner raised than they are challenged: the simultaneous awareness of fear and the self-recognition that comes with pathos render the swarming presences disconcerting, at times uncanny. In 'High Tide' and *Foreign Parts* the uncanny is most strongly invoked in relation to the material and machinic presences—the uncomfortably life-like dummy and the zoomorphic dismemberments of cars in the junkyard respectively—rather than through its nonhuman animals, as in the works discussed in previous chapters. The uncanny is also a central feature of the final two works to which I now turn, in which machinic and zoomorphic presences are simultaneously personified or anthropomorphised and irrefutably alien.

Tracking and Surveillance in *El Mar La Mar* and 'Honeycomb'

If the swarm of *Foreign Parts* and 'High Tide', as argued by the previous section's close-readings, is one of tempered optimism, the swarms in these final two works (the most contemporary studied in this thesis) offer a more sinister vision of contemporary social organisation. The swarm in Graham's poem 'High Tide' embodies an attempt—sincere albeit unsuccessful—at interpersonal connection across social divides; while in *Foreign Parts*, a film that witnesses the death of an informal economy and community, the swarm signals the wasted potential of alternative forms of peri-urban collectivity. In both of these works, the swarm is dying or dead, and stands for a lost feeling of connectedness and belonging that once emerged from local knowledge and belonging. Turning now to the final two works of this study, the swarm is at once more powerful and more sinister. Moreover, these portraits of pernicious inclusion and lethal exclusion are characterised by an aesthetics of excess that is yet more marked than that observed in *Foreign Parts* and 'High Tide'. In 'Honeycomb', Graham's long lines almost completely cover the page; while *El Mar* draws on the aesthetics of 'slow cinema', extending single takes over many minutes.

In Graham's recent poem 'Honeycomb' (2017), the swarm is a model of anonymised control, digital surveillance and personal fear. In Joshua Bonnetta's and J.P. Sniadecki's layered portrait of the US-Mexican border, *El Mar La Mar* (2017), the swarm is closer to a portent of destruction. The subjects of these two works—undocumented migrants crossing the Sonoran desert and an American citizen sitting at a computer—sit at opposite ends of the spectrum of security and privilege, but they are nevertheless corralled by the same forces and objectives. The forces of exclusion in both *El Mar La Mar* (henceforth *El Mar*) and 'Honeycomb' are examples of what Zygmunt Bauman calls the 'new Big Brother' (2004, p.131). It is worth

spending some time exploring Bauman's distinction between 'old' and 'new' Big Brothers. The 'old Big Brother', 'the one penned by George Orwell', is of course still alive and well, though it (or 'he') now operates mainly in 'marginalized parts of social space such as urban ghettoes, refugee camps or prisons' (Bauman, 2004, pp.131-32). This 'Big Brother's' presence can be sensed in the material and social barriers that have kept the community of the junkyard documented in *Foreign Parts* from more well-served areas of the city.

If the 'old' Big Brother 'was preoccupied with inclusion—integration, getting people into line and keeping them there'—the 'new' Big Brother is bent on '*exclusion*—spotting the people who 'do not fit' […] banishing them […] deporting them […], or […] never allowing them to come anywhere near in the first place' (Bauman, 2004, p.132: original emphasis). In *El Mar*, the 'new Big Brother' takes on the role of border control, whilst in Graham's poem 'Honeycomb' it continues his work of 'protecting' citizens and the assets of the elite through increasingly intrusive means. In Sniadecki's and Bonnetta's film, the 'new Big Brother' 'supplies immigration officers with the list of people they should not let in'; in Graham's poem he 'offers homeowners closed circuit television to keep the undesirables away from the door' (Bauman, 2004, p.132). These are two sides of the same coin.

The control exerted on US citizens that is explored in Graham's poem 'Honeycomb' operates through high tech digital tracking of swarm intelligence. In contrast, one of the most striking lessons of *El Mar* is the anachronism of the physical tracking methods used to trace unwelcome migrants. For all the government of the United States (like other governments elsewhere) would like to pretend its forms of control are impersonal, dehumanised and digital, they are still reliant on living breathing humans to use instinctive skills to track those threatening incursion onto their land—and, once found, to round them up and expel them. Just as the rhetoric of drone warfare—that key use of SI overseas—is of relative safety, sanity and blamelessness, the mainstream narrative of domestic uses of swarm intelligence is one of impersonal and largely unseen forces. Operating in digital space and through mobile phones and other devices we claim to be unable to live without, these forces have no clear focal point on which to focus resistance: they seek refuge from potential vulnerability in invisibility.

El Mar and 'Honeycomb' work to reveal the impacts of these anonymous forces by offering the testimonies of those who are on the receiving end of them. Like those discussed in the previous section, Bonnetta and Sniadecki's film and Graham's recent poem do so by reworking the talking-heads documentary into a form capable of expressing sensations and depths of emotion that cannot always be put into words or caught by a microphone or camera.

The film and poem, respectively, offer vehicles for communicating the experiences of those involved in the human flow across the Mexican-US border and the anxious user of a computer. Whilst *El Mar* takes the testimonies of those caught up in the geopolitical tensions and migrations currently defining the US-Mexican border, 'Honeycomb' is a portrait of an emblematic member of a population that is safe and protected by being completely tracked, but still remains fearful and isolated by excessive digital connectivity.

The title of *El Mar La Mar*—'the sea, the sea'—suggests that this thesis has come full circle to the aqueous ecologies with which it began. In fact, *El Mar* documents the brutal passage of migrants from Central and Latin America to the United States through the Sonoran desert on the Mexico-US border. The title is taken from Rafael Alberti's 'El Mar, La Mar', a poem that laments the feelings of disconnection felt by a migrant forced to leave a beloved coastal home to move to a city.[191] The counterpoint of the urban and the coastal in Alberti's poem is more acute still in the context of the journey that Bonnetta and Sniadecki's film documents and to which it pays tribute. Migrants set off on this journey aiming for a safer, more prosperous life in American cities, but for many the parched landscape of the desert deals fatal doses of thirst and exhaustion. The Sonoran desert and its current population movements are territory ripe for both investigative forms of journalism and documentary and academic field research by scholars working within political ecology. The desert also long been a spur to the creative imagination, and alongside documentary and political ecology, a central force of the film is poetry.[192]

El Mar's marriage of politics and poetry is announced by its synopsis, which describes it as 'a multi-faceted panorama of a highly politicised stretch of land, a film poem that conjures up the ocean' (Bonnetta, 2017b). As explored above, the film's title succinctly illustrates its powerful combination of a subject central to political ecology (migration) with poetic emotion and expression. In addition, the film's closing section offers a sustained contemplation of a thunderstorm to a voice reading an excerpt of the iconic Mexican poem, 'Primero Suno' (First Dream).[193] More fundamental to the film is the poetry of the speech of ordinary people as captured by its testimonies, epitomised in one migrant's lyrical description of the desert at night as 'an illuminated room' where 'your sky is like a roof of light'. Yet it is the visuals and the

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[191] 'Why did you bring me, father, / to the city? / Why did you unearth me / from sea?' ('¿Por qué me trajiste, padre, / a la ciudad? / ¿Por qué me desenterraste / del mar?' (Alberti, [1924] 1987, p.1).

[192] See Catrin Gersdorf's illuminating study of the place of the desert in the American imagination and national identity (2009).

[193] The opening and closing poems are by Raphael Alberti and Sor Juana Ines de la Cruz (1692) respectively.

sound design that truly make *El Mar* a poetic film: returning to Nichols' categorisations of documentary modes, in the poetic mode we learn 'by affect or feeling, by gaining a sense of what it feels like to see and experience the world in a particular, poetic way' (2010, p.162). Added to the durational quality of the film's long-takes, a highly wrought sound design—recorded in part with contact microphones that literally 'hear' the desert's flora—builds a sense of the inescapability of the landscape.

Counterpointed with these powerful renderings of the landscape are the film's 'talking-heads'. In what is perhaps the film's most immediately striking aesthetic move, the film pointedly keeps its camera away from the interviewees, overlaying the beginnings of their testimony with the preceding long-take before plunging the viewer into blackness. By denying viewers a visual correlate, *El Mar* heightens their humanity: they are unable to make the immediate, almost automatic, judgements that accompany our visual comprehension of someone. This aesthetic innovation is juxtaposed with what is an otherwise relatively traditional use of the talking-heads motif as an uninterrupted single narrative from each interviewee. The testimonies are undoubtedly affecting, but it is in the aesthetic experiments and the footage of the landscape, rather than in what is said, that the film's real strength lies.

In the same way as *Foreign Parts* is a dual portrait of the junkyard and the people who live there, *El Mar* is just as much a portrait of the desert as of the people who live and pass through it. To an even more extreme degree than was the case in the parched landscapes of Jorie Graham's collection *Swarm* (see Chapter Two), here land is imbued with a brutal, dehumanising force. Despite housing up to a seventh of the world's population, the desert has long been figured as an empty space (Hebdige, 2012, np): its very etymology (*desertus*) means abandoned or deserted (OED Online 2014, desert n.2). As Catrin Gersdorf attests, 'removed from its geo-ecological referent, the [desert] terrain became a trope, a cipher signifying deficiency, lack, absence' (2009, p.16). As such, the desert seems to be the direct inverse of the swarm, most commonly used as a signifier of excess and profusion. Indeed, the swarms in *El Mar* are the first beings to fill the screen in an otherwise sparsely populated landscape; human figures and animals are seen only occasionally and never in groups. Yet, for all that the desert may seem 'empty' to a casual observer, the film works to reveal human presences and political forces in the desert zone.

Its supposed emptiness has lent power to the trope of the desert, not only as the *locus classicus* of the anti-pastoral (see Chapter Two), but also as a motif of (human) extinction. As Bert Rebhandl remarks in his review of *El Mar*, the Sonoran desert is 'a space predating man and

also one foreboding a planet without the human race' (2017, np). Indeed, the film's opening invokes the myths of the desert as a place of nonhuman habitation: the first testimony recounts an encounter with a monster, a 'beast' '15 feet high'. In Dick Hebdige's description, the desert is constructed as 'an imaginary non-place against which actual places get to define themselves' (2012, np); in my interpretation, the desert is more specifically figured as a *nonhuman* place, a nonhuman environment. At the same time as the planet's deserts suggest a geological space and time beyond human existence, a parallel discourse surrounding North America's deserts constructs them as 'a clean slate that absorbs the sins of America', a trope that performs an effacement of the historical and political forces that have played out in these spaces from '[a]tom bombs, genocidal slaughter [to] military exercises' (Bell in Lipper, 2018). As noted in the description of the Cold War's bomber planes in Graham's poem, 'What The End Is For' (1987; discussed in Chapter Two), 'they drop practice bombs called shapes over Nevada'. These two tropes of absence—imagined effacement of the human species as a whole and erasure of human habitation and activities in desert spaces—operate in historical and geological time.

Working against historical effacements even as it invokes geological ones, *El Mar* emphasises both 'the desert's vitality' (Keller, 2017, np) and the political human struggles currently being played out there.[194] The vitality of the desert is at once a force of life and death, and within this configuration the swarm features as a vital force of processing death. The film contemplates 'not the oscillation between these seemingly opposite forces—life and death, day and night, sky and earth—but their perpetual convergence and co-emergence' (Keller, 2017, np). This contrapuntal process—of uncovering life in among death, of registering moments of welcome to those who have been excluded—is in synergy with what Sean Cubitt has highlighted as 'a key strategy in ecocinema' (2013, p.282). This, Cubitt writes, is the possibility of 'integrating the oscillation between modes of imaging' in films that oscillate between 'demand and nostalgia, populism and humanism' (2013, p.282).[195] To this I add the human and nonhuman, and life and death itself.

The desert has often inspired a science-fiction view of the future, evident in cultural works from *Star Wars*' desert planet (Lucas, 1977) to Susan Lipper's photobook *Domesticated Land* (2018). Whilst its contemplations of the desert landscape almost unavoidably hint at an uncertain ecological future, the emphasis in *El Mar* is on a present rooted in the past. Through

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[194] Keller continues: 'death lurking in every corner, the camera continually uncovers life' (Keller, 2017, np).
[195] Cubitt continues by arguing that this strategy 'allows us to expand ecocriticism beyond the exclusive terrain of environmentally explicitly cinema' (Cubitt, 2013, p.282).

its foregrounding of the medium of film and particularly through its closing section's focus on a seventeenth-century poem, the film's anchor is in the past rather than a speculative future, dystopian, posthuman or otherwise. This is counterpointed with the testimonies which—in line with forms of investigative social documentary—root the film in its highly political contemporary moment. As such, the trope of extinction is less important to *El Mar* than is its attempt to uncover the traces of present struggles and the remains of the recent past. In this way, the film shares its driving force with academic research in the field of political ecology and forms of investigative social documentary. At the same time, as Patty Keller puts it, the film is 'a *poetic elegy* to what remains […] hidden deep beneath […] our visible horizon' (2017, np: my emphases). The film's elegiac quality emerges from its anthropological as much as its poetic influences. This again raises the question of to what extent anthropology can escape the nostalgia associated with what Michael Renov describes as 'its zeal for the salvaging of "endangered authenticities"' ([1993] 2016, p.745; see also Chapter Two).

However, more like *Leviathan*'s stomach-churning critique of the relentless killing machine of industrial fishing than *Sweetgrass*'s and *Foreign Parts*' more traditional forms of 'salvage ethnography', the focus in *El Mar* is not on a community on the verge of collapse but rather a brutal system that is all too robust: the use of the Sonoran desert as the US border control's most effective tool. Insofar as the desert has been figured as 'the topographical manifestation of difference' within the 'logic of America-as-fresh-green-breast' promulgated since colonial settlement (Gersdorf, 2009, p.14), *El Mar* reveals how the desert as 'Other' combines lethally with the othering of migrant populations. Waste, as we have already seen, has been 'long marked' by the West 'as "Other"' (Morrison, 2013, p.464) and, in the context of social organisation, 'the waste is human beings', those people deemed 'superfluous […] unneeded and unwanted' by both countries of origin and arrival (Bauman, 2004, pp.30, 40). In fact, it would not be hyperbolic to describe the Sonoran Desert as one of the most effective waste disposal sites for unwanted populations of the contemporary moment.

The policy of 'Prevention By Deterrence', exposed by anthropologist Jason de León (2015), calculatingly uses the desert as a killing machine, neatly evading responsibility by placing it on the migrants who 'choose' to make the crossing.[196] Responsibility here clearly lies with the US government (much as it seeks to blame drug cartels and individual migrants) but, as

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[196] This policy, implemented by the Obama administration, left the US-Mexican border unguarded in areas where terrain is the most hostile to human life, thereby encouraging migrants to cross at high risk of death without apparent direct involvement from federal border enforcement.

Bauman argues, it is equally the countries of *origin* who use emigration as a means of waste disposal for human lives (2004, p.5). In Bauman's vision, when previously 'underdeveloped' countries—long considered 'ready-made dumping sites for the human / waste of modernization'—themselves began to seek places to send their unwanted populations, it created an '*acute crisis in the human disposal industry*' (2004, pp.5-6: original emphases). It is in this context that the full extent of the Sonoran's utility for the control of human movements must be understood, for as a biome the desert is capable of *subsuming* the very bodies who die within it. If the way in which deserts across the world house human and nonhuman life is largely unacknowledged, the Sonoran desert is also acting—or more properly, being used—as a mass, albeit dispersed, grave: in De León's haunting description, the Sonoran is the 'Land of Graves' (2015).

In this desert, it is not only the landscape that is dangerous. Inhospitable as the environments are in which the fishermen and ranchers scrape a living in *Leviathan* and *Sweetgrass*, these are nevertheless environments in which humans are the hunters not the hunted. *El Mar* traces a world where there may be cowboys, but where more commonly people are hunted by animals and, most disturbingly, by other people, both state and non-state actors. Like Graham's early poem 'What The End Is For,' discussed in Chapter Two, *El Mar* works to make visible the presence of a specific contemporary conflict on US soil that is all too present in political rhetoric but insufficiently visible in terms of on the ground reporting: from the Cold War to the War on Drugs. *El Mar* also holds parallels with the film *Sweetgrass*, a similarly sustained engagement with the mountainous American landscape that also gestures towards historical genocide. Whilst the ranchers of *Sweetgrass* momentarily transform into the eager cowboys of their boyish imaginations when they find Native Indian arrowheads, the present-day cowboy of *El Mar* and the military personnel of the border force continually find *contemporary* remains, bodies and possessions of those who have recently attempted to cross the desert.

In Sniadecki and Bonnetta's film, the camera does not show these human remains: instead, shots of carpet shoes and rucksacks stand in for their lost owners. The shoes and bags cannot help but evoke memories of the Holocaust, although here the victims and their remains are dispersed rather than gathered up, for it is the desert itself that incinerates the victims. The rucksacks, an unmistakably contemporary item, are all the more poignant for the strong association they hold with children's school bags.

As I have been arguing, part of the ethical work *El Mar* does is to excavate the extent of the human crisis beneath the apparently empty landscape of the desert. The film does this through its testimonies, its shots of the detritus of human life, but also through swarmic presences, heavy with symbolic freight. As already argued, the particular power of the swarm as a conceptual tool lies in its ontological position between the human and geophysical worlds.[197] Commonly held as a foil to human individuality, the size, speed and life cycle of swarms are nevertheless closer to the human than to the expansive scale and temporality of environmental forces (see Clark, 2011). As such, swarms can be used metonymically to help understand those forces that apparently lie beyond human comprehension.[198]

The swarms of ants, wasps and bats form an absolute contrast to the desert's apparent emptiness: uncountable numbers fill the screen, exceeding the boundaries of the frame. The swarm in *El Mar* is, like the desert itself, antithetical to human presence. Bonnetta, in response to my question at a screening of *El Mar*, said that with the shots of the swarms in the film, he and his collaborator were 'focussed on the biome […] of the Sonoran desert as […] a tool of processing death', explaining that as people pass through the desert and 'bodies are left, the

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[197] See the first chapter's discussion of the shoal of minnows in Jorie Graham's 'Prayer'.
[198] See the discussion in the Introduction of the extent to which swarms can aid perception of 'hyperobjects', in Timothy Morton's sense (2013), and of 'slow violence' (Nixon, 2006).

environment consumes them' (2017).[199] Invoking the swarm as synecdochic for the desert's means of 'processing death,' the swarm comes to be an epitome of threat to the human: not only does it physically and aurally bombard, it also literally consumes the human.

The horror of the desert's consumption of human bodies is expressed by the Samaritan worker who describes herself as being 'enraged' that the human body they found was in essence 'no different than the various cattle corpses' they had passed. To the biome of the desert, human bodies are no different to nonhuman bodies, but this is an expression of indifference rather than hostility to the human. The consumption of bodies by the desert is an essential ecological function of waste disposal: it is in the *political* processes—those that led to people crossing the desert in the first place—that the horror lies. The film's political message is latent but nevertheless palpable. Not content with invoking in its viewers an automatic reaction of dismay, by leaving the broader political context implicit the film prompts the viewer to question the reasons for what they are witnessing.

As Nichols argues of Fred Wiseman's films, the 'mysteries' posed by unexplained actions in the nonfiction film sparks curiosity and an analytical response in the viewer (1981, pp.211-12). Rather than solving this mystery within the film itself, *El Mar* assumes a general political awareness of what is a widely discussed and explosive topic (one that was central to the 2016 US presidential election campaign). The film seeks to make what is perhaps a somewhat passive consciousness more deeply felt by working on the *conscience* of its viewer through its poignant testimonies and its images of abandoned belongings and swarming presences.[200] The film combines these 'filmed segments' (Renov, [1993] 2016, p.746) with the accumulative logic of montage. In Renov's analysis, this structure draws on the viewer's 'deep-seated cognitive functions' ([1993] 2016, p.746) for it 'assumes that social events have multiple causes and must be analysed as webs of interconnecting influences and patterns' (Williams, 1976, p.278; quoted in Renov, [1993] 2016, p.746). As well as prompting the analytic mode of response, this non-narrative, associative structure is also characteristic of what Nichols categorises as the 'poetic mode'. Indicative of the 'mutuality [of] documentary functions' (Renov, [1993] 2016, p.749), this reaffirms that the responses of intellect and emotion are not distinct but rather mutually constitutive (see also Chapter One). Working on the *conscience* as well as on *consciousness* through

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[199] Biomes, which include desert, forest and marine spaces, are defined as 'the world's major communities, classified according to the predominant vegetation and characterized by adaptations of organisms to that particular environment' (Campbell, 1996).

[200] Similarly, in her post-millennial poems, Graham increasingly assumes public awareness of the ecological crisis, making her later poems a call to action more than awareness (see Chapter One).

both cognitive and affective modes, the film shares an ethic with all of the works studied in this thesis.

I will close my analysis by turning to the two sequences in which *El Mar*'s focus is on its swarms. The earlier sequence is of two swarms of insects appearing in contiguous shots. In the first of these, trails of ants are seen from above, swarming over sand, dust, rocks and twigs. This shot is immediately followed by a shot of innumerable wasps seemingly pressed right up against the camera, massing towards the right of the screen. It is notable that the wasps, like the ants, are seen crawling rather than flying. In this pedestrian movement, there is none of the freedom commonly associated with aerial swarms. Instead, the connotations are of incursion, voracity and destruction. Moreover, the power of swarms to *kill* is invoked by the echo the wasps hold of the bees' attack on the donkey in Luis Buñuel's *Las Hurdes* (Land Without Bread; 1933).

The use of swarms to describe human populations, and particularly migrants, is highly charged. Such uses of swarmic metaphor have a long and unsavoury history, from Nazi descriptions of the Jews as cockroaches to the former British Prime Minister's warning that something must be done to quell the 'swarm of migrants' entering Europe (see Introduction). In evoking this metaphor through its shots of ants and wasps, *El Mar* points critically to the dangers of repeating history in our treatment of migrants. It is the counterpoint with the surrounding testimonies that gives film's shots of ants and crawling wasps a critical rather than regressive function. These are testimonies that stress the ways in which migrants are not the swarming animals of xenophobic rhetoric, but are treated as unwanted animals. The testimony that precedes the appearance of the ants is the film's first testimony from a migrant. In this, we hear a man describe his narrow escape from being seen by 'a patrol loading fifteen to twenty people into trucks'. In the desert, people are treated like cattle, not only by the biome of the indifferent landscape but by the border guard as well. Within this context, the saturated images of swarms can be seen to act as a metaphorical stand-in for the migrating people who remain off-screen.

The third and most striking swarm of the film, which appears some fifteen minutes after the shots of ants and wasps, is an enormous colony of bats seen leaving a cave at dusk.[201] The most striking attribute of *El Mar*'s swarming bats is their vitality. Unlike the swarms captured, farmed and tamed in the works previously studied, this is a swarm at its most alive,

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[201] The collective noun, a colony of bats, is all too apt for this chapter's investigation of borders, population movements and political ecology.

free and uncontrollable. At first, the bats are seen as disconcertingly large shapes against a black background. Their movement makes them so abstracted that they are perceived as blurred, as can be seen in the lack of clarity in the official still below. Only in the second shot is the viewer granted the context of the mouth of the cave and the comfort of seeing the bats at a distance more familiar to observers both on screen and in life. The third and final shot offers an archetypal image of the colony of bats flying out into the sunset: bats stream over the camera, joining the distant shapes that continually form and dissolve like murmurations of starlings.[202]

El Mar La Mar. Courtesy of Joshua Bonnetta. 9

The triangle of close, medium and wide angle shots of the bats perfectly demonstrates the two alternatives of representing the swarm on screen first discussed in relation to *Leviathan* in Chapter One: immersing the camera in the swarm, and so recording it as white noise; and of mapping it visually in a frame. As I argued then, *Leviathan*'s winged swarm stays within the mode of bombardment without respite. Whilst *Leviathan*'s flocking gulls are rendered claustrophobic through an effect of perception (with the night sky appearing as a flat black backdrop to the flocking gulls), in *El Mar* it is because of the material environment of the cave that the hurtling bats bombard both camera and viewer. As the bats swirl in their cavernous home, the human observer is dwarfed by the sublime expanse of both the swarm and the

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[202] The abstraction of the bats in this sequence raises the question again of the extent to which swarms are hyperobjects in Timothy Morton's sense (2013). Whilst some more disembodied forms of swarms (and their correlates in swarm intelligence) might be hyperobjects—entities that can be sensed but not seen—more proximate and local forms of the swarm are not. This colony of bats is the largest swarm discussed in the thesis and can barely be seen as a single mass even in the most distant shot, but it nevertheless is a materially visible and tangible swarm.

swarm's habitat. The swarmic attribute of dissolution is heightened in this alien enclosure of hollowed rock, challenging the viewer's own sense of boundedness, unity and protection. As the bats leave the cave and fly out into the expanse of the sky, in the second and third shots the camera frames the bats as a singular entity within the screen. This greater distance enables the viewer to regain their bearings and, as such, their sense of ontological control.

El Mar La Mar. Courtesy of Joshua Bonnetta. 10

This shift from the mode of bombardment to the strategy of visual framing is typical of the sublime, which works to control the uncontrollable through aesthetic framing (see also Chapter Two). As well as being emblematic of swarmic vitality, the bats are uncontrollable and awe-inspiring: here, the sublimity of the swarm returns in full force. The sequence (nearly four times as long as the earlier shots of ants and wasps combined) is marked by a durational quality that gives space for the encounter with the bats—disorientating, exhilarating, sublime—to continue to reverberate as they are seen to fly away from the camera. Experienced by the viewer as a single sequence rather than sharply defined individual shots, the overall mode is that of immersive contemplation.[203]

The sequence of the bats in *El Mar* is followed by the most unsettling testimony of the film: that of the vigilante. It is possible—but only implied—that the portrait of a moustached man looking into the distance which directly precedes the bats is the visual referent for the

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[203] See Chapter One for my argument that immersion and contemplation are not opposite but rather simultaneous modes of experience.

testimony; that this is the face of the man who describes with apparent lack of concern discovering burned and mutilated bodies in the course of his unregulated efforts to police the border. This ambiguity is enabled by the film's separation and counterpointing of sound and image: the oral testimony is, as Chick Strand claims of films in which the sound is not 'related one to one with the picture', 'presented in counterpoint or fugue with the information conveyed by the image' ([1978] 2016, p.734). Coming directly after the sequence of the bats, this testimony makes it hard to dismiss the uncomfortable reading of the swarms as a mass metaphor for the migrants: the vigilante may well see the migrants as no more than an out-of-control colony of escaping bats.

As he explains in his testimony, foundational to the vigilante's ability to 'track' humans moving across the desert is a recognition of whether a broken branch is from a tree like those 'around here', or if it is not from 'further south', inadvertently carried by a migrant, 'hooked up on burlap'. This is an example on a micro-scale of how specific geographical knowledge is used to police human movement. Such scrutiny of non-native flora and fauna and human populations can be deployed not only practically but conceptually and ideologically, such is the power of the invasive species trope. As Groves explains, hostility to 'invasive species'—typified by the 'seemingly apolitical "protective hand" of the gardener' (Adorno, 1984, p.34)—is in striking contiguity with 'an extreme hostility to immigration' (Groves, 2012, np). Groves goes on to argue that policies authorising control of invasive species in 1999 and the militarisation of the US-Mexico border in 1994 are both symptoms of nativism (2012, np). The political and ecological are shown to be inextricably bound, both at the level of state-enforced policy and at the level of individual non-state actors.

If the vigilante in *El Mar* is a self-appointed 'protector' of the US border, the official border-guards register an important absence in among *El Mar*'s testimonies. The appearance of these uniformed men is a threat to all who make the crossing, and the sense of unease they cause is made uncomfortably palpable although they themselves remain off-camera. Whilst the testimonies of the border guards themselves are not taken, their voices are *overheard*; their communications are intercepted on the radio waves. Their voices rendered machinic by the static, these operatives of an inhumane governmental policy are themselves figured as quasi-machinic forces. The oblique visual referents for these disembodied voices are the pylons shown on screen. Through their association with the voices of the border guards, the pylons that tower all-seeing above the desert like etiolated, metallic trees act as the distributed panopticons of a dispersed population. Returning to Bauman's comparison between the old 'Big Brother' who

works to keep people in, confined and controlled, and the 'new Big Brother', who works to keep people out, to exclude (2004, p.132), these pylons are both 'Brothers'. They keep people *in* the desert and *out* of the United States.

In *El Mar,* the pylons and voices caught over the radio waves act as cyborg-like human stand-ins for the border patrol policing the southern US border. Similarly disembodied forces of control can be seen to monitor human actions on US soil in the final poem studied in this chapter. In 'Honeycomb', which takes place in a North American home (implicitly the affluent Massachusetts home of the poet, but by extension, any home with an internet connection), the forces of surveillance and control are figured in a singular machine, not electricity pylons towering over the landscape as in *El Mar* but rather the speaker's personal computer.[204] As we have seen, the border police in *El Mar*, remaining off-camera and figured through the etiolated pylons, are nevertheless a known physical human presence. In contrast, in 'Honeycomb' there is no clear person or persons behind the computer screen. The contrast between 'boots on the ground' policing the border and the digital forces that enact surveillance in 'Honeycomb' is central to the apparent opposition of these two works.

Graham's 'Honeycomb' is a lyric addressed to a computer, a talking-heads documentary without an interviewee. The poem operates, to return to Nichols' categorisations of documentary, in the 'performative' mode. Nichols notes the similarities of the performative mode and the poetic mode in which *El Mar* operates (2010, p.159), suggesting once again that the works placed in conversation with each other in this study share much in their approaches when we look beyond their form. The performative mode, says Nichols, 'animates the personal so that it may become our port of entry to the political' (2010, p.209). Whilst the addressee of the poem is the faceless 'new Big Brother' of swarm intelligence, the true focus of the poem is the deleterious effect this has on the anxious, isolated, if apparently secure, subject. Remaining impenetrable, the screen merely succeeds in reflecting the needs and anxieties of its user.

The speaker of the poem addresses the device throughout the poem in a series of questions, but the screen itself remains voiceless, faceless, anonymous. This is the challenge the poem makes to the conventional form of the talking-heads documentary: who is accountable when there is apparently no-one to interview; when the only interaction possible is with the reflective surface of an 'interface'? The speaker's questions begin calmly ('Have you found me yet') though soon reveal an anxious dependence: 'can you please / track me I do not feel safe'.

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[204] Referred to only as 'my screen', that the device is a desktop or laptop computer rather than an iPad or mobile phone is suggested by the reference to tapping the screen with a fork.

As well as figuring a hive of bees, the poem's title, 'Honeycomb', echoes the name of CIA information capture software as released on WikiLeaks. As such, 'Honeycomb' is suffused with an uneasy awareness of the capabilities of surveillance—by government, corporate, or 'rogue' actors—through the devices that increasingly become essential to our homes: 'This is / the order of the day. To be visited secretly.'

Highlighting the fact that 'technologized (and culturally mediated) surveillance has become an integral part [of] questions about the relationship between self and society' (Jansson, 2014, p.2), the poem's domesticity is counterpointed with its *political* intervention into debates surrounding contemporary network culture (see Castells, 2000; also Guzel, 2016).[205] As Alexander Galloway and Eugene Thacker observe, network society is constituted of 'simultaneously technical and political topologies' such as the Internet or financial networks that are characterised by the 'property of being both ubiquitous and absent' (2005, p.2). Behind the familiarity of the scene (a person at home splitting her attention between a search engine and a novel) run the unseen forces of digital surveillance. In this context, the poem captures the ambivalent relationship users of personal devices have with technologies that invade our privacy: 'You have the names of my friends my markers my markets my late night / queries'. Importantly, since the era of the 'old' Big Brother, when, as David Lyon observes, 'the major threat […] came from the state,' there has been a fundamental shift to '*consumer* surveillance' (1994, p.61: my emphasis; see also Lyon, 2001).[206] In this network society, exchanges are not only closely monitored but relentlessly monetised. 'I know you can / see the purchases, but who is it is purchasing me→can you please track that', the speaker asks: 'I want to know how much I am worth'.

Rather than containing potential excess, the operating principle of digital surveillance (like swarm intelligence) is the creation of more information, which will enable more interventions: data is its lifeblood.[207] As the maxim goes, if knowledge is power, information is control. Personal information is given in exchange for services that purport to establish a

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[205] As Manuel Castells writes: 'A network society is a society whose social structure is made of networks powered by microelectronics-based information and communication technologies' (2004, p.3).
[206] Lyon continues: 'since Orwell's time […] consumption, for the masses, has emerged as the new inclusionary reality. Only the minority, the so-called underclass […] now experience the hard edge of exclusionary and punitive surveillance' (1994, p.61). This is the distinction between what Bauman describes as the 'old' and the 'new' Big Brothers.
[207] Swarm intelligence, as Peter Miller outlines, is used in big data computing and information commerce (2010, xvi), both applications that can be used to enable digital surveillance.

person's value ('I want / to know how much I am worth') and in a trade-off for supposed threats to personal safety ('steps approaching', 'bot says hide'). Fears such as these, Bauman argues, are strategically emphasised to shift attention 'away from the economic and social roots of trouble' (2004, 7): anxiety becomes individualised.

Later, the speaker reveals a frustration that digital connectivity cannot alleviate emotional isolation: 'I offer myself up. For you to see. Can you not see?' Once again, Bauman is pertinent: 'We talk compulsively about networks and try obsessively to conjure them […] out of "speed dating" […] and […] "messaging" because we painfully miss the safety nets which […] true networks of kinship […] used to provide' (2004, p129). At a turn in the poem, the speaker's questions wax accusatory: 'are you / surveilling—we would not want you to miss the woman kicked in order to abort the / rape'. The poem's incisive comment is that these supposed external threats ('steps approaching') also distract from threats much closer to home, in the form of domestic violence. The poem is a warning against blind belief that the threats that 'bot' tells you to hide from are more pernicious than those it does not register.

Towards the end of the poem, a cluster of typical swarms appear: a single fly heralds the appearance of locusts and bees. As with *El Mar*'s ants, wasps and bats, these swarms appear after the poem's most shocking description of human abuse, neglect and indirect murder. Here the hidden context is that of domestic abuse: 'the woman kicked in order to abort the rape'. Meanwhile, 'the locusts start up', biblical harbingers of destruction and death. The bees, for their part, appear not as emblems of relentless vitality like the bats in *El Mar*, but as direction-hindered objects of concern and loss: 'the bees that did return to the hive today → those that did not lose / their way'. The digital swarm of SI that the poem addresses may seem invulnerable, but the biological swarms to which the speaker turns her attention are far from secure. They are, rather, portents of widespread death: 'count death → each death → very small'. Here we return to the incomprehensibility of death on a large scale that *El Mar* ponders, with the bees that 'los[t] / their way' occupying the same semantic field as the 'statistic' of each newly fallen migrant in the Sonoran desert, each a mere droplet in the vast tide of life.

In 'Honeycomb', as in *El Mar*, the sea makes an unexpected appearance: 'In the screen / there is sea. Your fiberoptic cables line its floor.' Here, Jorie Graham continues her consideration of the costs of 'indiscriminate' information capture that we first saw in Chapter One (see her poem 'Deep Water Trawling'). Both poems draw attention to the insatiable appetite of data collection and the physicality behind the apparently purely digital connectivity of the internet. As explored in Chapter One, 'Deep Water Trawling' makes the link between

data trawling and the nets that trawl the ocean for its fishing stocks, two forms of capitalist voracity. Meanwhile, in line with the current chapter's focus on political ecology, 'Honeycomb' explores the effect on human psychology of being continually connected digitally, suggesting that such 'network culture' only increases human fear and isolation and hides real violence.

In closing, it is worth further exploring the implications of swarm intelligence. SI is applied to both organic and machinic objects, although public perception is arguably most aware of how SI has been used to develop cooperative behaviour between multiple robots (see Hoppe, 2015; Bonabeau, 1999). One such application that is particularly present in the public consciousness is the development of drone warfare. As Jake Kosek explains in his study of SI applications in the post-9/11 'war on terror', swarming is 'a form of collective action that has been recently appropriated by Pentagon strategists' (2010, p.652). A private military contractor tells Kosek how his team developed an '"autonomous collaboration network"' capable of 'coordinated swarm drone attacks': in the first of these attacks, which took place in December 2009, five drones combined to kill fifteen people (2010, p.668). These machinic developments self-evidently hold serious implications for human populations.

Of greater pertinence to this thesis than applications of SI to robotic objects are the applications of swarm intelligence to humans. Particularly pertinent to the current chapter are the ways in which SI is used to manage human social organisation. Such applications of SI's big data computing are commonly seen as offering 'solutions' and 'smarter' ways of working, typified by Peter Miller's popular science book *Smart Swarm*, subtitled 'How Understanding Flocks, Schools and Colonies Can Make Us Better at Communicating, Decision Making and Getting Things Done' (2010). However, the applications of SI in the realm of artificial engineering spread much further into our daily lives than we realise.

Those with the requisite data are able to predict and accordingly manage human behaviour in areas beyond the more internal scope of organisational management, to the public remits of town planning and commerce. Examples of the latter two include the prediction of footfall in subway systems to targeting what is shown on digital advertising boards according to the demographic of who is currently nearby. These applications operate largely without people's knowledge through a technological apparatus that has become an extension of our bodies, such as mobile phones or credit cards. The myth that Facebook targets advertising to users by monitoring their conversations through their mobile phone speaker is widespread but unsubstantiated. It is, however, indicative of a yet more disconcerting reality: the uncanny appearance of an advert following a specific conversation reveals, not snooping, but such a

depth of knowledge of the user's interests that the app can seem to predict what conversations that specific user will be having at any given time (BBC World Service, 12.04.2018).

Whilst we may ponder the ethical quandaries posed by drone warfare comfortable in the conviction that it will not directly affect 'us', the implications of swarm intelligence's domestic applications may seem more troubling once they have entered our home towns and even our pockets. Karl Ove Knausgaard ponders the implications of such forms of predictive algorithms in his discussion of the 'vanishing point' of compassion, first discussed in Chapter One. Knausgaard invites us to imagine looking out from a seventeenth-floor flat and seeing 'dark, ant-like little figures', be they commuters or elderly locals, all of whom 'follow the same roads and paths, according to a rhythm over which none of them has control' (2015, np). These 'movements can easily be simulated by a computer with few variables' since, as Knausgaard reminds us, no matter how original our thoughts, 'we are at the same time completely predictable, always part of some greater movement, like a bird in an enormous flock' (2015, np). Without naming swarm intelligence specifically, Knausgaard's description perfectly explains the workings of SI in domestic town planning.

It is an uncomfortable truth that applications of swarm intelligence for neoliberal profit, surveillance and warfare are not a future possibility but a present reality. The junkyard of Willets Point, described in *Foreign Parts* as a bustling informal economy in its final months before redevelopment, will by now have been replaced by a newer New York run on SI. In place of the junkyard's local knowledge, the new quarter will be controlled remotely and anonymously by data-driven models of town planning and advertising. If SI is the unknown future for Willet Point, it is the present reality for the speaker of the poem 'Honeycomb'. Swarm intelligence is the 'new Big Brother' in 'Honeycomb' and, as such, the swarm becomes a form of anonymous control rather than the embodied form of collective empowerment for which this thesis has been advocating.

'Growth for the sake of growth *is* the ideology of the cancer cell' (Abbey, 1977 p.183: original emphasis): as much as this famous quotation applies to capitalism in general, it applies equally to the network, a force that figures itself as the contemporary form of late-capitalism (see Castells, 2004). As Thacker and Galloway explain, 'a network fails only when it works too well, when it provides too little room for change within its grand robustness, as the computer virus example illustrates' (2005, p.2). Perniciously all-encompassing, the network is the inverse of the swarm as theorised in this chapter, i.e. a localised community whose resilience comes from its adaptability. In addressing this technological appropriation of swarm behaviour and its

widespread applications at the close of this chapter, I hope to temper utopian optimism at the same time as renewing a call for the urgency of alternative formulations of the swarm.

Conclusion

The swarms that appear in these works are paradigmatically polysemous, both in their metaphorical usage and in their literal forms. The combination of the talking-heads documentary, political ecology's focus on social exclusion and the poetic and affective approach of the works themselves has given rise to swarms as signifiers of the dispersal of losing a home (in *El Mar*, *Foreign Parts* and 'High Tide'), the destructive voracity of an all-consuming mass body (in *El Mar*), and the resilience of individuals and of a regenerative community (in 'High Tide' and *Foreign Parts*). If the works discussed in Chapter Two, in their reworkings of the pastoral mode, navigated the risks of *nostalgia*, in this chapter, the gravitational pull is toward the mode of *despair*. This is the desolation felt by those who have been, in various senses, excluded. As Jean-Luc Nancy has it, 'the gravest and most painful testimony of the modern world […] is the testimony of the dissolution, the dislocation, or the conflagration of community' (1991, p.1; quoted in Clark, 2011, p.138).

The first pairing of works, *Foreign Parts* and 'High Tide', respond to the loss of community not with despair but by paying tribute to the resilience of those who have been excluded from society. The people who gathered around *Foreign Parts*' junkyard—including migrants, the homeless and drug users—form a community characterised by 'improvisation', and for all its 'raw exposures and rough edges', the film finds much to admire in it (Clark, 2011, pp.139-40). Without minimising the violence internal to the community, the film pays tribute to the junkyard community's resilience, adaptability and self-organisation, as well as self-regulation; all of these are key attributes of the swarm. Even when these bonds of community are apparently broken, as for the homeless woman in 'High Tide', there is 'virtue' in the sheer determination to survive.

If the first pairing of works pays homage to the resilience of those who have lost—or are on the point of losing—their homes, *El Mar* remains in the suspended middle, and as such is a bleaker portrait of human struggle. The experience of loss is central to all journeys across the Sonoran desert, from the loss of the home left behind to the almost inevitable losses (of one's guide, one's bearings, even one's life) encountered on the journey. Each testimony refers to these losses, inscribing the crossing as a series of absences rather than the 'new beginning' of the idealised migrant narrative. In focussing on the ordeals faced by migrants making an

unimaginably terrible journey, rather than the reasons they left their home country or what they go on to achieve, there is a risk of contributing to dominant discourses of refugees as objects of pity rather than admiration. *Foreign Parts*, as a portrait of a primarily Latino community in New York, shows the lives such migrants can go on to lead: difficult, certainly, but by no means hopeless.

What connects the two films—and perhaps the poems as well—is their evocation of the *inhuman* and the *inhumane*. These go beyond either anthropomorphic or zoomorphic registers. Previous chapters addressed the possibility of re-humanising and re-individualising the swarm. The context of both *El Mar* and *Foreign Parts* is one in which the swarm is used as a dehumanising trope for the purposes of exclusion. The question here is to what extent the swarm is inhuman and in what ways it can be deployed for inhumane aims. In *Foreign Parts*, the destruction of a community is expressed through its focus on car parts represented as creaturely in their vulnerability. In *El Mar*, we have stand-ins for humans, detritus and swarms scattered across an inhuman landscape. Through its use of animal swarms, *El Mar* returns pernicious uses of this metaphor to its original biological context within the biome of the desert. In this way, it makes a powerful rebuttal of the political rhetoric surrounding migration as swarming humans.

In *El Mar* and 'Honeycomb', the swarm, as conceived of in this thesis, is almost subsumed by its obverse: that of the faceless, de-individualised mass (in the film) and the all-encompassing reach of the network (in the poem). Both works are cautionary. *El Mar* warns of the dangers of regressive invocations of the swarm, while 'Honeycomb' offers a two-fold warning of the dangers of surveillance and isolation fostered by network culture and the ecological risk of losing the fragile biological swarms on which the earth's ecosystems depend.

The combination of a focused attention on social issues, narrative and aesthetics is enabled by these films' and poems' use of the documentary—a form described by Grierson as one that 'with its streets and cities and slums […], has given itself the job of making poetry where no poet has gone before it' ([1946] 1966, p.41). Whilst Grierson's assertion that 'no poet' has strayed into the grittier sides of urban life is questionable, 'High Tide' and 'Honeycomb' show that contemporary lyric poetry is more than capable of going into such areas of life. Importantly, these poems gain much of their visual power and societal critique from their use of cinematic and documentary modes, as I have shown. *Foreign Parts*—realist in its observational mode, but also aesthetically experimental and more-than-human—is perhaps closer to what Grierson originally envisaged. Its success in revealing the poetry of the junkyard is illustrated by a comment made to the filmmakers (passed on to me by Castaing-Taylor) on

the private premier of the film held at the junkyard with the community of Willets Point: that they had captured 'the beauty of the junkyard' (Castaing-Taylor, 2015, 75min). Similarly, the beauty of the images in *El Mar* is its most powerful aspect. A less intimate portrait than *Foreign Parts*, the later film is characterised by oblique documentation. Through its more distant approach—continually moving between partial revelation and partial concealment—it goes some way to meeting the call made long ago by Grierson for the development of imagist films, a form he defines as 'the telling of story or illumination of theme by images, as poetry is the story or theme told by images' ([1946] 1966, p.42).

In each of the films and poems, the talking-heads motif is reworked such that the taking of testimony might closer to what Irina Leimbacher describes as 'a manifestation of life' (Leimbacher, 2009, p.57). Defending the continued worth of testimony as a tool for both understanding and challenging forces of social exclusion, the works use 'talking-heads' interviews as a central affirmation of life, even when surrounded by death. Operating through visual imagery as well as verbal testimony, both the poems and the films place these exclusions in their environmental context, revealing the material and metaphorical ways in which people are wasted, animals are used, and machines used to control. This chapter's—and indeed this thesis's—contrapuntal approach is therefore one that incorporates composites of life *and* death, inclusion *and* exclusion, the human *and* the nonhuman.

Conclusion

This project began with doubt. The swarm as a concept arose from a deep questioning of faith in the human subject. Deeply concerned by the position of humanity as a species bound to an earth we have damaged, and disillusioned with the codified subject of identity politics, to me both individual and communal modes of human subjectivity seemed insufficient. In essence, this thesis emerged from what William Connolly has described as 'a vague sense of loss' attendant on the realisation of the extent of the ecological crisis and the continuing human injustices involved (2017, p.166). Connolly warns that, if unaddressed, such mourning can lead to 'passive nihilism'—the outlook that deems the situation hopeless and so flounders in futility (2017, p.165). This thesis has taken up Connolly's invocation to 'mov[e] beyond' a sense of loss towards a place from which the individual feels able to act (2017, p.166). Cultivating such existential resilience requires reflective *work*. Far from self-indulgent, such individual work is the origins of sustained *communal* action, and thus, politics: in Foucauldian terms, such 'arts of the self' are the very substance of 'constituency micropolitics' (Connolly, 2017, p.140). This is the work that my thesis has attempted to perform and hopes to enable in others.

This project has analysed the swarm as an aesthetic, as an analogue and analytic; and to borrow Lawrence Buell's description of the pastoral, as 'a species of cultural equipment' (1995, p.32). Examining the implications of the swarm—endlessly mutable but nevertheless intentional—has required this thesis to move through distinct, and sometimes polarised, areas. Accordingly, the project has been an eclectic endeavour, combining poetry, film and anthropology; environmental aesthetics and politics; numerous literary and cinematic forms and modes; and 'old' and new materialist approaches. Crucially, I have endeavoured to overcome tired dichotomies through the contrapuntal method. This methodology argues that careful balance enables seemingly contradictory approaches to work more productively together, or rather, to use the musical term appropriate to the contrapuntal, *in unison*. As such, it resists both the bluster of straw categories and the relativism of suggesting that this thesis's component parts are all ultimately one and the same.

Taking intellectual risks is a prerequisite for interdisciplinary work. Throughout, I have remained committed to the environmental humanities project of forging new forms of scholarship through the very gaps that arise between different bodies of disciplinary

knowledge.[208] The resulting piece of materialist ecocriticism might make for unexpected reading (anthropologists do not speak of 'the subject' in the way that literary scholars do, to take but one central example); but since comfort zones and siloes are inimical to discovery, this project holds the potential to be all the more valuable for that. Over the course of the thesis, questions of influence between the artists studied have arisen and institutional histories have become clearer. At the same time, like all research—creative, academic and combinations of the two—this is a deeply personal project. These strands, the historical and the individual, have formed the implicit undergirding for my inquiry into the aesthetics of the swarm, and in closing I would like to bring them into sharper focus.

This project has at least in part been a critical overview of Jorie Graham's poetry and the films of the collective enterprise of the Sensory Ethnography Lab. As such, a brief overview of the evolution and legacy of these two bodies of work is warranted. At the time of beginning this project in 2014, the Sensory Ethnography Lab had been established for eight years and was in some ways at its peak, with *Leviathan*'s success two years before garnering broad attention and the key players in the Lab still highly involved. Now, twelve years after its inception, the project seems not so much to be ending as dispersing. Castaing-Taylor and Paravel are no longer teaching their graduate course in sensory ethnography. Ernst Karel, seen by many as the heart of the Lab, has left the university, though returns to teach his course in sonic ethnography every other year. The initial cohort of students, most notably Stephanie Spray and JP Sniadecki, have graduated and left Harvard. That these students have taken academic posts at other universities (the University of Colorado, Boulder and Northwestern University, Illinois respectively) shows that the legacy of sensory ethnography, while no longer centralised at Harvard, is strong. It is this new generation of ethnographic filmmakers and artists that is the legacy of the SEL as a graduate school, and it is their work—arguably more so than Castaing-Taylor and Paravel's more recent projects—that shows the possibilities for sensory ethnography in the future.

Like Castaing-Taylor and Paravel, Graham has had considerable influence as a teacher and mentor—first at the Iowa Writer's Workshop and continuing at Harvard, where she remains an important presence. But for Graham, her hugely significant body of work is its own legacy. If it is approaching thirteen years since the Sensory Ethnography Lab was established,

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[208] One such opening is in the contrapuntal gap between the impetus felt among certain film scholars and filmmakers to escape the verbal *language* with which we are continually bombarded and the equal sensitivity among literary scholars to the plethora of visual *images* by which we are surrounded.

Jorie Graham has written some thirteen collections of poetry.[209] Her recently released collection *From The New World: Poems 1976-2014* selects poems from a period of nearly four decades (2015). This thesis has taken a selection of poems that outlines the evolution of her oeuvre, beginning with 'Salmon' (1982) and closing each chapter with a poem from her most recent collection, *Fast* (2017): 'Deep Water Trawling', 'Reading To My Father' and 'Honeycomb'. This collection, *Fast*, is arguably unmatched in the urgency of its engagement with crises facing both the bereaved individual and the beleaguered human species bereft of former certainties. In placing the emphasis on her later work—in a way I have not done with Castaing-Taylor and Paravel's more recent projects—I argue that Graham's poetry only continues to increase in urgency.

At the outset of this thesis, I laid out the challenge the Anthropocene poses to familiar understandings of human as a contrapuntal refiguring of *agency*: at once the unthinkable impacts humans as a *species* have on the environment and the seeming futility of actions we can undertake as *individuals*. Such questioning of agency spurs a broader challenge to human self-conceptualisation, and one central problem becomes how to reconcile the subjectivity of the individual with the identity of the mass. In the key humanist model of collectivity, the crowd, the most unsettling characteristic is its *facelessness*. This is true from the modernist lyric—'A crowd flowed over London Bridge, so many […] And each man fixed his eyes before his feet' (Eliot, 1982, p.62)—to early ethnographic film, in which racialised subjects appeared 'faceless, nameless, all the same' (Strand, [1978] 2016, p.734). Working, instead, through the body of the *swarm*, this project has argued for the compassionate recognition of both agency and subjectivity without the need for identification. In other words, by transposing the attempt to reindividualise the collective into a more-than-human realm, this thesis has moved away from the need to identify a *face*.[210]

The swarm as a force of beneficence and destruction, life and death, ethics and corruption, has run through this contrapuntal thesis. My analysis began with the swarm's potential as an enabling, 'resingularising' swarm and closes with a vision of a beneficent swarmic community as the converse to an indifferent networked society. At the same time, the first two chapters' discussion of the aesthetics of bombardment explored the way in which the material swarm intrudes on the human when it comes too close *physically*. The closing chapter

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[209] Thirteen collections excludes Graham's two collections of selected works (1995, 2015).
[210] If 'the face is what forbids us to kill' (Lévinas, 1985, p.86), encountering the swarm requires we expand the ethics attributed to the face-to-face encounter as conceived by Emmanuel Lévinas in his phenomenological description of intersubjectivity.

shows that when the swarm as analogue is applied too literally to the human—be it as derogatory and racist invocations or the digital reductions of swarm intelligence—it can be far more dangerous than material swarms. Treating human populations as a stream of ants to be crushed or 'simple agents' to be analysed as data encourages a cruel disregard of both human populations and material, ecologically fragile swarms.

As with all analogies, the danger of the swarm is that the very simplifications that make it a powerful tool are also those that render it imprecise. When the material referent of the collective or network is too far from the zoological analogue, the power of the swarm as metaphor and critical tool is put under pressure. Unhappily, its power is not so much reduced as corrupted, as the all too familiar negative deployments of swarmic rhetoric continue to demonstrate. Nevertheless, attempting to recognise the individuality within seemingly impenetrable collectives remains a laudable, if daunting, goal and the swarm is not a self-defeating concept. In using the swarm as a tool to think with as part of a project of reconciling individual and communal action and agency, the onus is on the scholar—and likewise on the artist—to use it in the right way: to keep it sharp when it is deployed as an enabling analogue; and, when it is corrupted, to repurpose it for critical use by exposing its flaws.

This thesis has counterpointed a hopeful perspective on the aesthetics of the swarm with a more critical analysis of the dangers of misusing it. Its Deleuzian inspiration has been tempered by the more critical perspective required by the current ecological moment and its biopolitical climate of control. Yet the project's trajectory remains, at root, an optimistic one: as hope in the swarm has been moderated, hope in the human subject has increased. The human subject at its current ecological and biopolitical juncture is perceived in this thesis as one that exists surrounded by violence, injustice and fear, but nevertheless retains as a natural state a core of compassion. Rather than a view that chooses only to see or emphasise the negative, the thesis's contrapuntal analysis gives equal weight to each aspect of life. This is simultaneously an idealist and a critical humanism. The human subject, seen through the aesthetics of the swarm, is reaffirmed as being connected to the world but not master of it: a component part of a composite that retains its own attributes and—unlike the 'simple agents' of SI's statistical analysis—its depths.

I have been at pains to reassert the political valency of cultivating a faith in humanity through compassion and awareness. When granted enough space, an aesthetics of *perception* can lead to an ethics of *compassion*, even where the subject of compassion remains unknowable or

alien.[211] Such an ethics of compassion leads to a very different politics to that which arises from the presumptive identification that undergirds empathy or the distancing look of pity. Its desire to alleviate suffering is coupled with a recognition of the equality of others, regardless of their similarity or difference: this is a politics of *sentience*. I have counterpointed this with a structural, macro-analysis of biopolitics in a more-than-human context. This materialist critique of social and political structures of control has allowed me to address the broader destruction of non-sentient entities and damage done to planetary systems of the biosphere, which, as Sean Cubitt argues, is itself subject to biopolitical control and must be granted inclusion in the political sphere (2013, p.284). It is from this standpoint that this thesis argues that humanist environmental politics does indeed have the space to incorporate more-than-human agency without losing the distinction between the human and the nonhuman.

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[211] It is no coincidence that compassion and awareness are central tenets of the practice of meditation: the writing of this thesis has been accompanied and illuminated by a personal journey in mindfulness. Interpreted as a practice of micropolitics, meditation resonates with both the paradigm for change across levels of self, society and environment outlined in Guattari's manifesto, *The Three Ecologies* (1989), and the Foucauldian project of cultivating the self.

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