UMEÅ UNIVERSITY

Atmospheric and Geological Entanglements:

North American Ecopoetry and the Anthropocene

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"song outlasts poetry, words
are breath bricks to
support the guardless singing
project." (Hillman 2005)

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Abstract

This thesis studies examples of contemporary North American ecopoetry: poems that in various ways build on, renegotiate, and offer alternatives to established cultural representations of nature and the environment. The thesis takes its starting point in these established representations and connected poetic forms, such as lyric, pastoral and elegy. Through close readings of a selection of twentieth-century poems and collections, it is demonstrated how both traditions and poetic forms are reused, but also how they are criticized and deconstructed, not least through a questioning of well-established categories such as human and nature. The studied poems, characterized by an experimentation with form, instead emphasize relationships and connections between the human, other organisms, and inorganic agents; they highlight entanglements that can lead to greater care for others and the planet. Approaches and methods thus create poetry that can help the reader see and understand the world as varied, complex and interconnected, a poetry that draws attention to the presence of others. Ecopoetry is discussed as one of several results of the poets' artistic and critical practice. Based on a commitment to environmental issues, their poetics also includes community-building of various kinds. Of particular salience in the thesis is how the creation of and thinking about poetry relates to the atmospheric and geological dimensions of the Anthropocene, the epoch marked by human impact on the Earth's ecosystems, climate and geology. Since these dimensions are both material and aesthetic, ecopoetry is seen in relation to concrete atmospheres and geological places, but also to cultural history and poetic models. Geological concepts, images and metaphors have dominated discussions about and in the Anthropocene, but ecopoetry emphasizes song, breathing and air as liberating atmospheric figures for communication and relationships, and for thinking with others and the planet. Atmospheric entanglements in ecopoetry and ecopoetics can therefore contribute to epistemologies in the environmental humanities.

Sammanfattning på svenska

I denna avhandling studeras exempel på nutida nordamerikansk ekopoesi: dikter som på olika sätt bygger på, omförhandlar, och erbjuder alternativ till etablerade kulturella framställningar av natur och miljö. Avhandlingen tar avstamp i dessa etablerade framställningar och de poetiska uttrycksformer som använts, såsom lyrisk poesi, pastoral och elegi. Via närläsning av ett urval dikter och diktsamlingar publicerade på tjugohundratalet undersöks hur både traditionen och de poetiska formerna återanvänds, men också hur de kritiseras och dekonstrueras, inte minst genom ett ifrågasättande av väletablerade kategorier som människa och natur. I de studerade dikterna betonas istället relationer och kopplingar mellan människan, andra organismer, och icke-organisk materia. I förlängningen kan dessa sammanflätningar leda till en större omsorg om andra och om vår planet. Ekopoesi diskuteras här som ett av flera uttryck i poeternas artistiska och kritiska praktik - deras poetik - som med utgångspunkt i ett engagemang i miljöfrågor också innefattar gemenskapsbyggande av olika slag. Ekopoetik och nutida ekopoesi kan därför tillföra produktiva perspektiv inom det framväxande fältet miljöhumaniora.

En röd tråd i avhandlingen är hur ekopoesi växer fram ur spänningen mellan historiskt etablerade framställningar av natur och människa och samtida idéer om fragmentiserade och förkroppsligade former av kunskap. De studerade dikterna ses därför som resultat av en poetik där emfas ligger på utforskandet av språk, kulturella konstruktioner, historia, och av materiella atmosfäriska och geologiska sammanflätningar i antropocen: den tidsålder som utmärks av människans påverkan på både isolerade ekosystem och globala fenomen som klimatförändringar. Resultaten av detta utforskande syns både i dikternas innehåll och former och karaktäriseras av öppenhet och mångfald. Språklig fragmentering destabiliserar den synbart linjära och entydiga antropocen; inslag av dokumentär och historisk forskning komplicerar hur epoken kulturellt och språkligt konstruerats. Flera av dikterna står i direkt dialog med naturvetenskaperna, både genom en kritik av vetenskaplig objektivitet och genom att framföra affektiv, kroppslig och situerad kunskap *som* kunskap. I samspel med teman knutna till relationer och kommunikation skapar dessa angreppssätt och metoder poesi som kan hjälpa läsaren se och förstå världen som

varierad, komplex och sammanlänkad och som drar uppmärksamheten till andras närvaro.

Den övervägande delen poesi som studeras i avhandlingen är skriven av kvinnliga poeter: Allison Cobb, Brenda Hillman, Kathy Jetn̄il-Kijiner, Jena Osman, Evelyn Reilly, Lisa Robertson och Juliana Spahr. På olika sätt illustrerar de en kritik av de kulturella och vetenskapliga paradigmen för framställningar av naturen, de experimenterar med form och språk, och de deltar i ett mer omfattande etiskt engagemang i människor, andra organismer och ekosystem. Den studerade ekopoesin läses utifrån modellen att ”tänka med”, med inspiration från Stacy Alaimos argument att processer i antropocen bäst kan förstås genom ett erkännande av att verkande krafter (den mänskliga, den icke-mänskliga, den organiska, den oorganiska) är intimt sammanflätade. De experimentella teknikerna och kompositionsmetoderna som används, liksom de teman som aktualiseras, är alla förenade med denna praktik att ”tänka med”: ekopoesi och ekopoetik sjunger med atmosfärer, geologier, kroppar, kritiker och texter som medskapar antropocen. Eftersom ekopoesi tänker och sjunger med dessa andra uppstår nya förståelser för vad det innebär att vara människa i en mer-än-mänsklig-värld. Ett övergripande mål med avhandlingen är därför att identifiera möjligheterna med ekopoesi som ett kritiskt verktyg, en poesi som ifrågasätter produktion av kunskap och mening och sätt att tänka och relatera till planeten.

Det första kapitlet behandlar hur nordamerikanska litterära och kulturella paradigm påverkat framställningar av naturen. Diskussionerna i kapitlet rör sig från hur vildmark har återgetts och via inflytande av pastoralen förvandlats till en kontrollerad trädgård eller odlingsmark, hur ekologiska diskurser växt fram, och hur miljörörelserna betonat de destruktiva konsekvenserna av mänskliga handlingar. I det andra kapitlet ligger fokus på poeternas praktik, eller poetik, som karaktäriseras av olika former av gemenskapsbyggande och kommunikation mellan de många entiteterna som existerar i antropocen. De två första kapitlen placerar ekopoeter, deras poesi och deras poetik, i en längre tradition och i förhållande till modeller för framställningar av naturen och till olika typer av relationer och nätverk.

I avhandlingens tredje och fjärde kapitel undersöks hur skapandet av och tänkandet kring poesi relaterar till de atmosfäriska och geologiska dimensionerna i antropocen. Eftersom dessa dimensioner är både materiella och estetiska ses ekopoesi i relation till och i dialog med konkreta atmosfärer och geologiska platser, men också i relation till kulturhistoria och poetiska modeller. Geologiska koncept, bilder och metaforer har varit dominerande i diskussioner om och i antropocen, men ekopoesi framhåller sång, andning och luft som frigörande atmosfäriska tankefigurer för kommunikation, relationer, och för att tänka med andra och vår planet. I detta ansluter avhandlingen till diskussioner inom miljövetenskap och ekokritik som försöker destabilisera ett dominerande

geologiskt angreppssätt på materialitet i antropocen. Argumentationen i dessa analyskapitel syntetiseras i avhandlingens avslutande del, där de atmosfäriska sammanflätningarna ses som ekopoesins bidrag till en ny epistemologi inom miljöhumaniora.

Introduction

The poetry in this thesis is full of air. Air flows through syntax, sentences, and form showing that text and world are materially entangled and continue in each other, because poetry, like air, is at the same time ethereal and material. This is what Brenda Hillman points to in the poem "Street Corner," writing that "words / are breath bricks to / support the guardless singing / project" (4). Sounds, syllables, syntax, words are the breath bricks of poetry. Breath bricks are light, ethereal, malleable. They do not enclose, nor do they guard, because their materiality, as sound and as printed syllables, is transformed by the airy nature of the poet's singing project. And in thinking with Hillman when we are talking about air, we are also talking about form. Such as the rhythms, intensities and variations of breath, form is plastic and malleable in the relation and negotiation between the poet's breath and the atmosphere it is a part of. The material and sonic characteristics of air affect the poem that, in turn, made of air, relates with it. In this thesis I study the particulars of this "guardless singing project" that I extend to the work of other ecopoets. I especially note the implications of having a guardless ecopoetic project, which I see reflecting the poetic, critical, environmental and political stance of the poets discussed here. To be guardless is to be open to entanglement, to confusion, to multiple participation, to others and to many, rather than closed in separation, clarity, homogeneity, unicity. In an epoch in which critical thinking is guided by geological concepts, images, and metaphors, this project proposes singing, breath and air, as guiding figures for communicating, relating and thinking with others and the planet.

This is ecopoetry, which I understand as poetry that works with cultural representations of nature, both criticizing, deconstructing and reappraising them while also offering alternatives. I see ecopoetry also as an expression of ecopoetics, a critical and artistic practice of environmental engagement that repositions and questions categories of nature and human towards integrated relationships between all those that co-create and co-coinhabit the planet. Ecopoetics is the guardless project of community-making, of care of ourselves rather than of myself, of transformation of cultural paradigms of representing and relating with nature. In this thesis I focus specifically on the ways in which, in the making and thinking of poetry, ecopoets relate with the atmosphere and the geology of the Anthropocene. Because these are material and aesthetic dimensions of this epoch, ecopoetry is here put in relation and dialogue with

tangible atmospheres and geological sites, as well as with cultural history and poetic models. It is thus a poetry that speaks to and with culture and that also breathes and digs the complex realities of the Anthropocene that entangle air, rocks, bodies, chemicals, histories.

The poetry discussed in this thesis is screamed, sung, breathed. Poets for whom nature is fractured, non-cyclical, toxic and non-transcendental wail. Poets scream and sing to breach linguistic structures of meaning and open language to emotional communication. Poets sing to communicate and to heal, to help understand and overcome the suffering caused by environmental exploitation. This is a poetry that comes from breathing the air in the atmosphere we all live in, differently according to location, race, gender, class, and species, but commonly as members of multispecies communities that co-create the atmosphere. This poetry also comes from breathing the air of the tradition of North American poetry, or compost as Jed Rasula puts it (2002). And it is also a poetry that consciously breathes into that compost, blowing into it new forms, new words, new rhythms, images and metaphors. Living within this compost, the poets in focus in this thesis are metaphorical plants, that chemically transform sunlight into oxygen, and they are metaphorical worms, insects or fungi that alter its composition. They lack, however, the certainty of nature's cyclicality that has structured poetry over the centuries. These poets as plants, worms, breathers, open their words and the syntax and structure of their poems to the open air and the breaths and voices of others that are members of this contemporary anthropogenic community, without cyclical structures, without transcendental nature, without tradition, without convention.

The ways in which ecopoetry develops from the tension between inherited universal models of nature and the human into contemporary fragmentary and embodied knowledges are important threads in this thesis. The poetry in focus, therefore, results from an embodied poetics of investigation of language, cultural constructions, history, and of the material atmospheric and geological connections with the Anthropocene. The poets I discuss build knowledge and form perspectives in ways that are distinctive to poetry. On the page they use visual dimensions to represent and perform ideas of openness. Juxtaposition and collage relate multiple voices within the field of the poem which then represents the agency of those multiple voices: organic, inorganic, bacterial. Fragments of phrases destabilize the linear and univocal Anthropocene. Documentary and historical research complicate the cultural and linguistic construction of the Anthropocene, as well as narratives of environmental disaster. This artistic process of research and composition also equates scientific and poetic languages. Several poems are in direct dialogue with science, both through a critique of the claim of scientific objectivity, and by proposing affective, bodily and situated knowledge *as* knowledge. These techniques and methods of poetic work are

combined with themes of interconnection and communication creating poems that shape how we see and understand the world as varied, complex, and interrelated, alerting us to the presence and suffering of others and to the agency of other organisms and agents. As Stacy Alaimo writes, the Anthropocene demands a practice of thinking with others through an acknowledgment of the "extent to which human agencies are entangled with those of nonhuman creatures and inhuman substances and systems" ("Your Shell on Acid" 90). I read the selected ecopoetry from this starting point, paying particular attention to the use of different experimental techniques and compositional methods employed to move toward a practice of thinking with. While discussing ecopoets' critique of literary constructions of nature, and of the material conditions of the Anthropocene, I attempt to apply a thinking with approach that stresses that ecopoetry and ecopoetics sing with atmospheres, geologies, bodies, critters, and texts that live and co-create the Anthropocene. Because ecopoetry thinks and sings with these others it formulates new understandings of what it means to be human in a more than human world.

I think with ecopoems in their sense of connection and community in breathing toxic and contaminated atmospheres, poems that also critically import the Romantic sense of sublime and transcendental representation, which interrelate ecopoetry with mind and air, reason and world, imagination and cosmos. I think with gardens and disrupted landscapes of the pastoral in the first chapter, with the human communities of North American ecopoets and lichens in the second chapter, with aerial communities, plastics and chemicals in the third chapter, and with bio- and geopolitical formations, fossils and strata in the last chapter. I think with poems that unearth the multiple voices and bodies glossed over by the geological sublime of the Anthropocene. I have a particular focus on how ecopoets work with language to produce alternative perspectives of the homogenizing concept of the Anthropocene and to foster environmental action and care. I center the discussions on the ways in which ecopoetry relates with the environmental imagination. My aim is to position ecopoetry as a critical tool, a poetry that questions production of knowledge and meaning and ways of thinking and relating to the planet.

But I also discuss the making, saying and sharing of ecopoetry as a form of environmental activism. In particular, I pay attention to some ecopoems that relate to environmental justice issues, which I term environmental justice poetry. I follow Melissa Tuckey's definition in the "Introduction" of *Ghost Fishing: An Eco-Justice Poetry Anthology* (2018):

> Eco-Justice poetry is poetry born of deep cultural attachment to the land and poetry born of crisis. Aligned with environmental justice activism and thought, eco-justice poetry defines

> environment as "the place we work, live, play, and worship." [...] It is a poetry at the intersection of culture, social justice, and the environment. (1)

Some examples of eco-justice poetry I discuss show that the agency of poetry extends beyond the page to the readers/listeners of poems, communities of poets and communities in which poets are members and where poetry has the social function of generating affective structures and conveying senses of community.

I think predominantly with female ecopoets: Allison Cobb, Brenda Hillman, Kathy Jetn̄il-Kijiner, Jena Osman, Evelyn Reilly, Lisa Robertson, and Juliana Spahr, because they practice, differently, a critique of the cultural and scientific paradigms of the representation of nature, and illustrate an experimentation with form and language that includes a feminist critique of technoscience. I also examine how the studied authors take part in a larger ethical commitment toward humans, other organisms and inorganic agents and systems. These poets come from a North American tradition of experimental poetry that, grounded in ideas of openness and of the poem as field, has developed earlier possibilities of ecopoetics. Their works return in the thesis because each of them reflect particular aspects of contemporary North American ecopoetry that I want to examine. I analyze Allison Cobb's *Green-Wood* (2010), *Plastic: An Autobiography* (2015) and *After We All Died* (2016), Brenda Hillman's *Cascadia* (2001), *Pieces of Air in the Epic* (2005) and *Practical Water* (2009), from her tetralogy on the elements, as well as her poem "Composition: Fringe Lichen: Tilde & Mãe" (2015). I analyze Jetn̄il-Kijiner's *Iep Jāltok: Poems from a Marshallese Daughter* (2017), Jena Osman's *The Network* (2010), Evelyn Reilly's *Styrofoam* (2009) and *Echolocation* (2018), Lisa Robertson's *The Weather* (2014), and Juliana Spahr's *Well Then There Now* (2011) and *That Winter the Wolf Came* (2015).

Accordingly, the scope of the contemporary ecopoetry in focus is the period between 2001 and 2018, during which time several anthologies were published giving visibility to ecopoetry that departs from traditional nature poetry in the North American tradition.[1] I situate these collections in interrelation with other ecopoetry collections and in dialogue with cultural theory and discussions on ideas of nature and the Anthropocene, new materialism, material ecocriticism and poetics. Therefore, this thesis is not a detailed study of the works of the poets mentioned above, but rather, of particular aspects of ecopoetics and ecopoetry that are exemplified by those works. Other poems and texts are also discussed but in less detail. They serve to illustrate some points I make or relevant aspects of

[1] There are other contexts and communities that contribute important work on ecopoetics, including writing and translating poetry, and other experiments in community building which I will return to in chapter II.

the discussions presented and that are addressed differently or in parallel ways to the main corpus. These are Mary Rowlandson's *The Narrative of the Captivity and Restoration of Ms. Mary Rowlandson* (1682), Michael McClure's *Ghost Tantras* (1964), Susan Howe's "Articulation of Sound Forms in Time" (1990), A. R. Ammons' *Garbage* (1993), John Cage's "Overpopulation and Art" (1992), Gary Snyder's "Dillingham, Alaska, The Willow Tree Bar" (2000), Kenneth Goldsmith's *The Weather* (2005), Jonathan Skinner's "Auger" (2011), and Gabriel Gudding's "Jeremiad" (2015). This is a reading of entanglements in which I focus on the dialogue that works in this thesis have with each other, with models and ideas of nature and the human, and with the communities that make up the atmospheric and the geological. The works demonstrate some of the particular ways in which ecopoetry answers to the challenges posed by the Anthropocene to poetics, cultural criticism and environmental activism.

I argue that the poets attend to negative effects of the Anthropocene, but do so in order to promote ideas and practices of community, interrelation and depth rather than homogeneity, universalism and superficiality. In the first chapter, "Singing with Nature in North America," I focus on song in mourning, elegy and other modes that create awareness of lives and deaths of others, expressing relations between multiple temporalities and species. The second chapter, "Song of Ourselves," suggests communication between these multiple species, both metaphorically and materially, as another practice of undoing the separation between self and others in shared ecologies, to promote sense of care and responsibility towards and with the planet and its multiple members. The third and fourth chapters, "Atmospheres" and "Layers," interrogate the discursive construction of the Anthropocene proposing non-anthropocentric alternatives to inherited models of thinking with and representing nature, as well as engaging with environmental justice issues. In "Atmospheres," I analyze the presence and import of some of the main atmospheric metaphors in ecopoetry and the ways ecopoets work with language to either reappraise, or rewrite them, sometimes doing both at the same time. In "Layers" I discuss geological metaphors centering on the ways in which ecopoetry contends with the geological sublime. In this thesis therefore, attention is paid to how ecopoetry is characterized by its effort toward and practice of communication and openness to humans, other organisms, inorganic agents, atmospheres and geologies, as well as by its critique of language and exploration of the possibilities and limitations of language toward a relation with nature.

The thesis is aligned with trends in the environmental humanities and ecocriticism that try to destabilize and decenter the geological in the thinking about materiality in the Anthropocene. We can look to ecopoetry for a reappraisal of dominant figures for thinking about this epoch such as geology and deep time, as I do in the "Layers" chapter, and for alternatives too, such as atmosphere and

song, as I do in the "Atmospheres" chapter. The atmosphere is not an empty space or only a vehicle of transport for toxins and chemicals, it is also a multispecies social space in which living things participate, from microbes to large organisms. Nor is it just a place where climate happens but rather a "habitat for micro-organisms," and a complex biological entity (Womack, Brendan and Green 3645). Each breath is a relation in the atmosphere, a dialogue in this multispecies society. Accordingly, I flip the expected order of thinking about this epoch, which is essentially geological, to emphasize the atmospheric and aerial discussions taking place in ecopoetry. I propose that they offer alternatives to the geological focus with a critique of received ideas of sublime and transcendental representations of nature, of which breath and thought are two main figures for expressing interaction between humans and the planet. I see creativity and potential in the ways in which poets relate with the atmospheric dimension of the Anthropocene. Not only do they contribute new figures and images such as foam, weather, and breath but they also turn our attention to the aural and sonic dimensions of poetry, song and language, which materially relate poetry and world. Ecopoetry can also contribute to discussions about the geological focus of the Anthropocene with its embodied and investigative practices that expose effects of extractivism and the entanglement of human and geological histories. In particular, ecopoetry excavates the cultural representations of toxic sites of the Anthropocene, and unearths their layers of suffering and exploitation. Attention to the ways in which ecopoetry relates to both the atmosphere and geology highlights a critique of the disembodied, universalizing and heterogenous Anthropocene concept.

Ecopoets offer alternatives to this universalism with embodied and situated poetry, employing methods of fragmentation and opening texts to multiple ecologies and communities. I try to show that from this general critique of the Anthropocene concept we can argue for specific ecopoetic contributions to thinking about this epoch such as complexity, situatedness, embodiment, and, particularly related with the atmosphere, critiques of cultural models, exploration in language for ways of communicating and building community, and proposals for alternative metaphors and images for thinking and relating with all beings and agents that co-inhabit the planet.

The first chapter, "Singing with Nature," centers on North American literary and cultural paradigms of representations of nature. I address the ways in which wilderness has been rendered, the influence of the pastoral that transformed the wilderness into the controlled garden or farm, the ecological insistence on biological systems, and the environmental movements' emphasis on destructive consequences of human actions. This chapter reveals starting points and developments of each aspect and their connected poetic forms and I exemplify how they are negotiated and transformed in contemporary texts. The landscapes

of the pastoral (the garden, the countryside) become conflict areas in the Anthropocene (the plantation, the oilfield), “environments that have undergone radical anthropogenic transformation” and the violence inherent in these places is foregrounded in poetic representations (Keller *Recomposing Ecopoetics* 3). The works of Spahr and Cobb, among others, trace the cultural and environmental history of this transformation and face the implications of thinking with such areas showing a continuum from the pastoral nostalgia to the Anthropocene melancholia. Nostalgia and melancholia either promote destructive action or inhibit action, and the ecopoetics of the poets I discuss illustrates a practice of environmental action by moving from representation to entanglement. Grief and mourning take center stage here and I discus the elegy in contemporary ecopoetry.

Traditionally, elegy moves from loss to consolation by framing death within larger regenerative cycles of nature. But in the current time of ecological disruption, nature as a source of regeneration is no longer available, and this absence hinders the process of mourning, not allowing consolation. In parallel, the large scale of the environmental crisis creates a sense of futility of action. Both the inability to overcome mourning and the lack of will to act for environmental change create a permanent state of grief that Spahr (with Joshua Clover), and Cobb term West Melancholia. How can ecopoetry overcome the process of mourning for lost ecosystems, and species and instead contribute to action? I propose that in North American ecopoetry, consolation is given by poetic research on the possibilities and limits of language for communicating and relating with the world, and by activist engagement. Spahr’s poem “Gentle Now, Don’t Add to Heartache,” (2011) and the manifesto *#Misanthropocene: 24 Theses* (2014), co-authored with Clover, tie grief to the failure of inherited models of representing nature and instead suggest consolation in ecopoetry as activist practice. Cobb’s *After We All Died* grounds consolation in a practice of starting from failure to researching language for modes of overcoming grief.

I show how ecology and systems theory complicated distinctions between human and nature and fostered non-anthropocentric ways of thinking about the relation between them. These include new ideas of community (extended to other organisms, modelled after definitions of ecosystems and systems regulation) and nature (that also comprises natural and artificial unseen elements of ecosystems). I point to a continuum of ideas in which ecology combined with the modernist decentering of the “I”, leading to the acknowledgement of the impossibility of control and the ontological sense of frailty in ecopoetry. Robert Duncan explored these early ecopoetics in experimental poetry that worked with openness and fragment, as did Michael McClure, whose work with sound in *Ghost Tantras* I discuss for the material and aural dimensions of song as communication.

I then move to environmentalist discourses that brought ethics to the foreground of the relation between members of ecological systems, and between systems. Here I find in John Cage's "Overpopulation and Art" an example of experimental poetry imbued with an environmental ethics influenced by earlier ecopoetics. The poem proposes an ecological anarchist model of society and uses openness as method (through chance composition) which radiates to formal experimentation in contemporary ecopoetry. The idea of community takes shape in contemporary experiments with form in ecopoetry. These experiments develop from previous models and infuse them with a practice of entanglement between poet, poem, and other human, nonhuman and artificial agents.

In the chapter "A Song of Ourselves" I argue that ecopoetry is one dimension of the ecopoetic practice parallel to that of community-making. I extend the notion of community-making beyond activist engagements to works by Hillman and Reilly. Hillman's use of animism and Reilly's criticism of transcendental ideas of beauty are seen as ways of decentering poetry from the human self. Reilly will be a constant fellow traveler in this thesis because she succinctly captures the state of the discussions about ecopoetics, and raises insightful questions about it in her essays, especially "Eco-Noise and the Flux of Lux" (2010). In the same way, Hillman returns in the thesis because her poetry exemplifies ideas and practices of community-making, and of the relation with the atmospheric and the geologic dimension of the Anthropocene. The poets share a project of ecopoetry as communication and relation between the multiple species that coinhabit the Anthropocene. I explore ideas and practices of touch in Reilly and Hillman's work as different ways of thinking about communication. This chapter concludes the first part of thesis by showing how ecopoetics is positioned as a practice of investigation, exploration and creation of community. Thus, having situated North American ecopoetry in the relation with models of representing nature, and established its main characteristics and contemporary developments, I move on to the second part of the thesis and to the applied study of how ecopoetry criticizes and relates with the atmospheric and geological dimensions of the Anthropocene.

The chapter "Atmospheres" evidences contemporary ecopoetic critiques of notions of transcendental beauty and suggests the metaphorical atmosphere as another figure for conceptualizing the Anthropocene. I turn to Robertson's *The Weather* to point out the line of weather poems it follows that entangle the poet's mind with the atmosphere. Here I propose that Robertson reinstates the atmospheric poem in the lyric mode after a critique of the gendered construction of meteorology and the proximity between this science and Romantic poetry. I then look in greater detail at Reilly's *Styrofoam* and its creation of a metaphorical atmosphere. I propose that *Styrofoam* reinforces the atmospheric dimension by insisting on the aesthetics of plastic and chartering a network of degraded

plastics, an artificial world where the bodies the poet brings into the poem relate with each other through different temporalities. *Styrofoam* conveys the globality of the planet, of others, both humans, nonhumans and other agents, and of the Anthropocene as "immersive onto-epistemology" (Alaimo "Your Shell on Acid" 90). Resembling the plasticized world, the poem can be read as an artificial atmosphere in which images of touch foster acknowledgment of the existence of others.

In the chapter "Layers" I discuss how ecopoetry brings irradiated bodies, and sites scarred by extractivist industries into the geology of the Anthropocene as way to fracture and complicate notions of entanglement with the geological. Stepping out of the North American geographical context but moving to a region where the impact of U.S. military industry is very strong, I discuss Jetn̄il-Kijiner's collection *Iep Jāltok: Poems from a Marshallese Daughter*, arguing that the use of song and lyric potentialities of poetry exposes the long term effects of racialized relations of power that grounded nuclear colonialism in the Marshall Islands. Turning to the cultural representation of geological relations I develop the argument for ecopoetry as a geological epistemology that creates an investigative poetics of unlayering, in the wake of documentary poetry and Ed Sanders' investigative poetics, which is a practice of poetic research that assumes "responsibility for the description of history" (9). As an example of poetry resulting from investigative poetics, I examine Osman's *The Network* that excavates the layers of significant sites transformed by anthropogenic action. I also read Spahr's prose text "Brent Crude" and the poem "Dynamic Positioning" as examples of how elements from investigative poetics and of innovation of the lyric convey the urgency of ecopoetic practices in times of corporeal, atmospheric and geological toxicity. The lyric not only offers the thickness of multiple temporalities but also the possibilities of song and the intensity of feeling to create instances of affect between poet and *geo* in all its complexities, as biopolitical formation, as marker of exploitation histories, as agential matter and regenerative practice. Developing from the potentialities of the lyric, the chapter finishes with a discussion about Hillman's *Cascadia* that builds an affective geology of California from fragments by practicing and showing a type of animist relation to the geological that extends notions of entanglement.

In the coda I show that analyzing cultural constructions of the atmosphere is an important step in the process of offering alternatives to the geological focus of the environmental humanities. The larger project I envision for an atmospheric thinking is thus a practice of thinking with aerial communities. I address the possibility of poetry as an epistemology for the environmental humanities asking in what ways atmospheric thinking in ecopoetry can contribute to this epistemology. I also include a reflection on accessibility of ecopoetry, in terms of availability to readers, and on its agency in society.

A large part of this thesis concerns the ecopoetic modes of engagement with cultural representations of nature and the environmental imagination in general, as well as with natural sciences. Ecopoetry relates to ecocriticism by the common study of the relation between representations of nature in literature and other cultural objects and their environmental consequences. Therefore, I will now offer a brief overview of ecocriticism and ecopoetics.

Ecopoetry, Ecocriticism and Ecopoetics

Early ecocriticism strived to establish the recognition of "the interconnectedness between human life/history and physical environments to which works of imagination (in all media, including literature) bear witness" (Buell, Heise and Thornber 420). Accordingly, ecocritics incorporated literary tropes of North American nature writing, such as the retreat into wild nature and its resulting religious experience. More recent scholarship has been concerned with questions of gender, class, race and colonialism, globalization studies, animal studies, materiality, environmental justice, and post-colonial studies.

Discussions about ecopoetry have moved from ecocriticism's initial focus on the lyric and expectations on the likeness of literary representations of nature, to a more recent inclusion of experimental poetry. The discussions around the term ecopoetry have mostly concerned the ways in which poetry has incorporated ideas about nature (or not), and addressed models from ecology in form, method and content. This discussion is evident in *Ecopoetry: a Critical Introduction* (2002), the first collection of critical essays on ecopoetry. Editor Scott Bryson defines ecopoetry according to three main characteristics: an ecocentric perspective that reflects the interdependent nature of the world; a deep humility that sustains the positioning before the relations with human and non-human nature, in the poem; and a skepticism toward overreliance in technology (5-7). In this definition we see a continuity of nature poetry. Pointing out the same continuity, Terry Gifford focuses on ecopoetry's engagement with environmentalism. For Gifford, ecopoems or "green poems" are "those recent nature poems which engage directly with environmental issues" (qtd. in Bryson *Ecopoetry* 5). Adopting models and metaphors from ecology, Leonard Scigaj defines ecopoetry as "poetry that persistently stresses human cooperation with nature conceived as a dynamic, interrelated series of cyclic feedback systems" (qtd. in Bryson *Ecopoetry* 5).

For Ann Fisher-Wirth and Laura-Gray, the editors of *The Ecopoetry Anthology* (2013) ecopoetry is "poetry that in some way is shaped by and responds specifically" to the environmental crisis, and "written since the rise of environmentalism in the 1960s" (xxviii). This inclusive definition aims to avoid restrictive definitions of ecopoetry as something other than nature poetry, and to

create a common ground from where to look at poetry that deals with the relation between humans and the planet. This common ground is, according to Robert Hass, "the necessity of imagining a livable earth," the urgency of writing poetry that has an influence on human images of the planet ("American Ecopoetry: an Introduction" lxv). In particular, Wirth and Gray group contemporary North American ecopoetry as nature poetry, environmental poetry and ecological poetry. However, these different proposals for definitions of ecopoetry "continued to favor poets working largely in a traditionally lyric or narrative vein," as Angela Hume and Gillian Osborne argue in the recent *Ecopoetics: Essays in the Field* (2018, 8).

Leonard Scigaj's *Sustainable Poetry* (1999) is exemplary of the problems faced by the first critics working with ecopoetry. On one hand, *Sustainable Poetry* seeks to ground poetry and language in nature, criticizing the postmodern poetic forms via post-structuralism. On the other hand, the book replicates the expectation that nature poetry should follow the conventions of the lyric, here understood as poetry that expresses intense feeling and emotion in the poet's relation with nature. Scigaj's work includes essays on Gary Snyder and Wendell Berry, A .R. Ammons and W. S. Merwin, authors whose work has been profusely studied in connection with specific places and regions (Snyder with Japan and Sierra Nevada, Berry with his farm) or according to their rewriting of Transcendentalism's notion of movement (Ammons in *Tape For the Turn of the Year* and *Garbage)*. For Scigaj, the work of these poets emphasizes "a phenomenological approach that grants nature the status of a separate and equal other in the search for biocentric harmony" (xv). This critical approach acknowledges that language is grounded in nature rather than a human construct, completely independent of the world. This means that ecopoetry promotes a biocentric — not anthropocentric — perspective that the critic must consider. For Scigaj, committed to the critique of post-modernism, ecopoetry shows how ecocriticism can overcome the "aestheticist position in contemporary poetry criticism," a position he understands to be one that points to the separation of language and nature (xv). Ecopoetry, it follows, can show an alternative to the post-structuralist move away from the "the authentic nature that grounds language and supports every human instant of aesthetic as well as ordinary consciousness" (6). Authentic here should be understood as not culturally constructed. Scigaj does not explain how poets accomplish this project of stripping nature from its cultural constructions and allowing *authentic nature* to become a part of their poems. As counterproductive as it is to try to answer to the question "what is authentic nature," it is revealing that this is a concern of early ecocriticism. The ghost of a lost connection with nature, that same inflection of nostalgia at the core of the pastoral and that has guided representations of nature which ultimately sponsored behaviors destructive to it, keeps appearing,

illustrating the strength of the cultural and literary paradigms of representation of nature.

As Lynn Keller argues:

> North American experimental poets of the late twentieth century, most notably the Language writers, were not merely extending the experimental impulses and techniques of high modernism; they were also developing their poetics in explicit conversation with poststructuralist theory. Their postmodern forms of contemporary poetic experimentation were widely (and, to my mind, mistakenly) seen as occupying what Scigaj called a "hermetically sealed textuality" that runs counter to environmentalist engagement. (*Recomposing Ecopoetics* 11)

At the same time, *Sustainable Poetry* shows how taking preconceived notions of authenticity of experience of nature as rule of thumb for ecopoetry lead to the dismissal of experimental poetry:

> Ecocritical concerns about environmental politics easily mapped themselves onto ongoing contests within the poetry scene, contests that pitted experimental poetry, particularly Language poetry, against the so-called "mainstream" expressive lyric. (Keller *Recomposing Ecopoetics* 11)

As Keller states, in the creation of a critical canon of nature poetry, it was more obvious to work with the lyric than with experimental forms seeing what the former could bring towards the creation of a biocentric perspective. Keller gives a thorough and illuminating account of the prevalence of nature poetry and the lyric in the first discussions on ecopoetry and ecopoetics in *Recomposing Ecopoetics: North American Poetry of the Self-Conscious Anthropocene* (2017), a comprehensive work that tackles all the main discussions in the field, such as the scale of the Anthropocene, the material agency of inorganic elements, the apocalyptic rhetoric of environmental texts, interspecies communication and environmental justice poetry.

Recent ecopoetry publications, as well as ecocritical works, explicitly present ecopoetry as part of ecopoetics, a critical practice, rather than as an isolated literary mode. The breaking point for this discussion was the journal *ecopoetics*, founded by Jonathan Skinner, that has become the *de facto* platform for publishing experimental ecopoetry. The journal provides a crucial context for poets from previously less referenced traditions, and creates a publication and discussion platform around which many of the poets later anthologized gathered, thus offering a rallying point, a communal space. The work from poets published in *ecopoetics*, and from others in the experimental tradition, is included in recent anthologies as *Black Nature: Four Centuries of African American Nature Poetry*

(2009), *The Arcadia Project: North American Postmodern Pastoral* (2012)*, Big Energy Poets: Ecopoetry Thinks Climate Change* (2017), and *Ghost Fishing: An Eco-Justice Poetry Anthology* (2018). These compilations are the most representative of North American ecopoetry, but I want to note that there are other anthologies of ecopoetry, too numerous to discuss here in detail, such as *Earth Songs: A Resurgence Anthology of Contemporary Eco-Poetry* (2003), *Natural in Verso* (2015), *What Nature* (2018); and *Fire and Rain: Ecopoetry of California* (2018).

Critical thought on ecopoetics is currently experiencing a significant impulse, illustrated, among others, by the publication of Hume and Osborne's *Ecopoetics: Essays in the Field* (2018) and Keller's *Recomposing Ecopoetics* which focus specifically on experimental poetry. These works are relevant for this thesis since they concern the materiality of the Anthropocene, particularly Keller's work on how ecopoetry infuses apocalyptic rhetoric with "an intermittent hope that humans might have the will and the ability to change course" (23). For Keller, ecopoetry can "convey awareness of embodiedness and embeddedness in increasingly vulnerable ecosystems" (23). Discussing Reilly's *Apocalypso* and Jorie Graham's *Sea Change*, Keller argues that contrary to previous nature poetry, these poems "counterbalance cataclysmic vision with kinds of perception that make it more bearable and less emotionally exhausting" (23). Other relevant works are Sarah Nolan's *Unnatural Ecopoetics: Unlikely Spaces in Contemporary Poetry* (2017) which discusses in detail Susan Howe's and Lyn Hejinian's work, and also rereads Ammons' *Garbage* in the light of the relation between categories of natural and artificial it highlights, David Farrier's *Anthropocene Poetics: Deep Time, Sacrifice Zones, and Extinction* (2019), that discusses Reilly's *Styrofoam* in detail and employs notions of deep time in a new materialist reading of ecopoetry; and the *)((eco(lang)(uage(reader))* (2010), edited by Brenda Iijima, which collects essays from ecopoets whose work does not follow traditional modes of representing nature.

The anthologies featuring poetry and critical thought are in close dialogue with each other. The majority of the essays in the *)((eco(lang)(uage(reader)),* for instance, are written by poets published in all the anthologies, and many of these poets are also scholars, therefore practicing ecopoetics in two dimensions. I read this as an example of how contemporary North American ecopoetics is the fruit of the dialogue between and practices among scholars, poets, artists, and activists, therefore showing the centrality of creating community and of a poetic and scholarly environmentally oriented praxis. The theoretical body of work on ecopoetry is a dimension of ecopoetics, as is the poetry, and they inform, complement and challenge each other. The anthology *Big Energy Poets* is structured around these two dimensions.

As editors Heidi Lynn Staples and Amy King explain:

> Each poet offers a representative sampling of poetry, a description of the writing process, an ecopoetics statement, a perceptual challenge, and a suggested reading list. The perceptual challenges and reading lists are written as invitations into the collective yet individual process of cultivating wholistic attention to our ecological predicament while situated within large-scale popular denial. (13)

The editors, poets and artists contributing to this anthology see the poems, poetic theory, and importantly perceptual challenges, as equally important. Poem, theory and challenge are presented as complementary dimensions of the same practice, and by extending poetic language to the theoretical texts, distinctions between them are troubled. The challenges are meant to decenter the reader/poet/artist from the human self in multiple ways. Some of these practices of decentering include physically moving out of one's geography and getting lost as way of opening perception to other spaces and other beings (Cooperman and Kaupang 63). Other challenges take one's situated perspective as method to "originate new words that excite new ways of interrelating with the ecological surround;" including imagining how "your words begin to reimagine institutional spaces" (Ijima 107). Other challenges are of seeing writing as way to perceive communication in other organisms, such as writing as a biosemiotic exercise of attention to meaning in communication from animals and plants (Dickinson 75). Regarding method other challenges are to write a poem "that has the entire world in it [and] that has intense feeling, research and an abstract sound" (Hillman 101); or to use "lyric as sustained observation" (Phillips Bell 114).

Donald Allen's landmark poetry anthology *The New American Poetry 1945-1960* (1960) breathes in the pages of *Big Energy* and situates this work. *New American Poetry* gathered poets from high modernism to postmodernism and ended with a section on Statements on Poetics*,* that framed the poems and vice-versa. Meant to be "aids to a more exact understanding of literary history" these statements resulted from a postmodern concern with process (Allen 13). Some statements are given by Robert Duncan, Denise Levertov, Michael McClure, and Gary Snyder that propose early ecopoetics differently. The focus on process in *Big Energy* is paralleled by the effort made by critics to "articulate how, arguably, ecopoetics is not so much a subcategory or a school within but rather a coextension of post-1945 poetry and poetics" (Hume and Osborne 3). Recent critical readings, such as the collection *Ecopoetics*, extend beyond post-war poetry, "suggesting the influence of twentieth-century experimental practices like Olson's and Duncan's on environmental thinking and ecopoetics today" (4). Hume and Osborne situate most recent ecopoetics in the history of ideas of field

composition, in particular Charles Olson and Robert Duncan's composition by field, and later postmodern poetry, a proposition I follow in this thesis.

Anthropocene Entanglements

The Anthropocene denotes an epoch in which the human species is the agent who has the deepest impact on the geology, atmosphere and chemistry of the planet. The term was coined in 1980 by biologist Eugene F. Stoermer and popularized by meteorologist Paul Crutzen in 2002, but there have been other proponents of the idea of a geological era dominated by the human species. In the formulations of Comte de Buffon (1788), George Perkins Marsh (1864), Antonio Stoppani (1873), Robert Sherlok (1922), and Vladimir Vernadsky (1945), human action was diminished in the timescale of the planet's life and in comparison with events such as meteors, volcanoes, and mountain formation. The Anthropocene brings a different scale to the entanglement of human and natural history. The "human-driven chemical, physical, and biological changes to the earth's atmosphere, land surface, and oceans" happen at a faster rate and with more impact than other geological forming events, thus making human agency a geological force (Waters, and Zalasiewicz 14). The Anthropocene concept situates the present time within a progression of technological events that entangles human and planetary histories and naturalizes the suffering and exploitation of humans and nature during colonial and imperial histories and, more recently, industrialization. In this technologically altered planet, Crutzen writes, "the environmentally sustainable management" of the planet in the epoch of the Anthropocene "will require appropriate human behaviour at all scales, and may well involve internationally accepted, large-scale geo-engineering projects, for instance to 'optimize' climate" (23). It is a given, in Crutzen's article, that the decision-making processes of those large-scale geo-engineering projects are taken by an abstract universal human.

Having gained traction beyond natural science, the Anthropocene concept has become current in contemporary debates about environmental policies, popular debates about climate, as well as in academic humanist settings.[2] For the purposes of this thesis, it is important to note that to "describe the human agency as a geophysical force is perhaps the major conceptual challenge the

[2] The concept can be found in UNESCO's 2016 World Social Report, for instance, that explicitly argues that "The Life in the Anthropocene is creating new inequalities on environmental lines, and exacerbating existing inequalities in some settings" (27). The 2018 IPCC's Special Reports on *Global Warming of 1.5 °C,* on *Climate Change and Land*, and on *The Ocean and Cryosphere in a Changing Climate*, adopt the concept and discuss its implications both to the understanding of climate change and the uneven regional and historical responsibilities and possibilities to change drivers of climate change. For a popular discussion of the term (in English) see Wesley Yang's 2017 piece "Is the 'Anthropocene' Epoch a Condemnation of Human Interference — or a Call for More?," in *The New York Times*, and Nicola Davidson's 2019 piece in *The Guardian*: "The Anthropocene Epoch: have we Entered a New Phase of Planetary History?".

Anthropocene poses" for humanities in general and for their articulation within sciences in the field of the environmental humanities (Oppermann and Iovino 10). The challenge in particular is posed by the speciesist and universalist representation of human geological agency that obliterates the conditions of exploitation and suffering sustaining the technological developments leading to the Anthropocene and informing the contemporary unequal distribution of environmental risk. In fact, with the Anthropocene, the *anthropos,* the universal human, returns from the environment to where ecology had located it, back to the center of nature. This is a unified, flat human, once again gathered from the multiple constellations into which feminist and cultural theories and post-colonialisms had fragmented it. As Kathryn Yusoff writes "to be included in the "we" of the Anthropocene is to be silenced by a claim to universalism that fails to notice its subjugations, taking part in a planetary condition in *which no part* was accorded in terms of subjectivity" (*A Billion Black Anthropocenes or None* 16).[3] In this thesis I propose that ecopoetry fragments this universalism of human agency on the planet into multiple humans, considering questions of class, gender and race, voicing and giving voice to those silenced by the Anthropocene's "we". In this move, ecopoetry relates with other critical terms for this epoch that highlight the unequal distribution of the environmental consequences of technological events.

The *Capitalocene* suggested by Andreas Malm adopts a Marxist critique, situating the current bio-historical moment of the planet in the specific time period of the development of capitalism through the transformation of nature (Malm and Hornborg 2014). A related post-colonial critique generated Anna Tsing's *Plantationocene,* a sub-period of the *Capitalocene* pointing out the combination of the plantation system, slave labor, and corporate capitalism. Another critical discussion is found in new materialism which removes the *anthropos:* seen in Donna Haraway's proposed *Chthulucene* that "entangles myriad temporalities and spatialities and myriad intra-active entities-in assemblages—including the more-than-human, other-than-human, inhuman, and human-ashumus" (*Staying With the Trouble* 101). Despite particular agendas or contention points, these terms share the critique of the homogenizing thought about human and nature present in the Anthropocene concept. To different degrees, they also contend with the idea of history it presents. In this thesis I adopt the term Anthropocene because the poets I discuss explicitly relate their work with this term, criticizing its biases while also adopting a hopeful perspective on its potential to generate intuition of others, and environmental engagement.

[3] All formatting in quotations corresponds to the original.

The Anthropocene concept is supported by visual, literary, philosophical, and historical rhetoric. Visual representations such as maps and videos gain prominence in the discussion on the Anthropocene, often homogenizing cultural, racial, class, geographic and species differences into a universal human. An example is found in the opening line of the *Welcome to the Anthropocene* video made by Globaïa, a NGO for "Planetary Awareness through Science and Art" that states: "this is the story of how one species changed the planet" (globaia.org/anthropocene).[4] Visual representations of the Anthropocene support this universalizing move exemplifying a homogenization of cultural, racial, class, geographic and species differences into a universal human. Globaïa illustrates this visual rhetoric. The videos, charts and graphs it produces are examples of "geophanies:"

> 1- Visual representations—based on science yet driven by the arts and humanities— of planet **Earth** as a whole, interconnected, multifaceted and co-evolving realm. 2- Impressionistic depictions of our shared Home-World aimed at providing a sense of love, awe and care about life and its future on the *Blue Marvel*, Planet **Earth**. (*globaia.org*)

These "geophanies" are a set of visual representations on subjects such as Thermo-industrial Civilisation, Hydroplanet and Humans, Global Urban Footprint, and the Global Ecological Footprint. Globaïa's goal "to promote global environmental awareness" is here present in the characterization of the planet as "whole," "Home-World," "*Blue Marvel*," and "**Earth**" (*globaia.org*).[5] The name of the NGO also shows that goal colliding *globe* and *Gaia*. The *Blue Marvel* reference in the definition of "geophanies" is a word play on the *Blue Marble* picture, and its influence on the environmental movements and the creation of an idea of global citizenship (Heise *Sense of Place* 23-4). As the *Blue Marble* picture, also adopted in Globaïa's blue *O* logo, obliterated all differences under the universal, although hopeful, banner of one humanity on one planet, so do these "impressionistic depictions," simplify the interrelations and entanglements that comprise the Anthropocene. Furthermore, with the allusion to theophanies, religious revelations and manifestations of deities to humans, the "geophanies" add another layer of power to their message by turning these maps and videos in revelations of hidden truth.These are disembodied representations of the Anthropocene that, although aiming at creating a sense of globality and the

[4] This is a high-profile organization whose collaborators and partners include, among others, The Stockholm Resilience Centre, the Leonardo DiCaprio Foundation, Future Earth and One Earth, groups with strong impact in the IPCC and in environmental agencies. The visualizations Globaïa's team creates offer an insight into the cultural and political constructions of the Anthropocene.

[5] The "geophanies" and their definitions can be found at: https://globaia.org/geophanies. Accessed 03 Jan. 2020.

acknowledgement of a shared planet, end up reassuringly detaching the information they give from the materiality and organicity of its subjects.

This is a perspective from above: from the layering of multiple maps and charts, through the accumulation of highly detailed data files presented as flat information, without depth (Demos 2017). The amount of information and the scales of Globaïa's videos, animated charts and maps (billions of years, millions of tons) are too large for an understanding of the complexity of the environmental and social realities they represent. Representations like these "ask nothing from the human spectator; they make no claim; they neither involve nor implore. The images make risk, harm, and suffering undetectable [...] The perspective is predictable and reassuring, despite its claim to novelty and cataclysm" (Alaimo "Your Shell on Acid" 92). In the "geophanies," the bird's eye perspective is adopted in visualization technologies in a history "of science tied to militarism, capitalism, colonialism, and male supremacy—[that] distance the knowing subject from everybody and everything in the interests of unfettered power" (Haraway "Situated Knowledges" 188). Vision is ubiquitous and disembodied. The bird's eye perspective inhibits political and social debate about environmental justice because it represents a unidirectional agency of human action on the planet disregarding particulars of geography, class, gender and race. However, when inverted "into a lithic-eye view to produce a geologic commons from below, [...] the unification of [the Anthropocene's] vision across the time and space of geologic practices seemingly offers an undifferentiating and indifferent politic" (Yusoff *A Billion Black Anthropocenes or None"* 13). Starting from above in the anthropogenic atmosphere or from below from the geological layers to the anthropocentric center of the Anthropocene, both movements sweep aside differences, particularities, histories of exploitation, slavery, colonialism, and practices of extraction and accumulation. Both an atmospheric and a geologic perspective on the Anthropocene represent environmental problems on a global level, promoting the idea that these can only be solved globally.

While seemingly transparent and clear, visualizations of the Anthropocene obscure the amount of data needed to create them, collection methods and practices, as well as the historical relation between the infrastructure of data collection and the transformation of the planet. The images act "as a mechanism of universalization [...] which enables the military-state-corporate apparatus to disavow responsibility for the differentiated impacts of climate change" (Demos 19). Because they are supported by a rhetoric of universals (human, technology), these visualizations also obscure the subjectivity that undermines its conclusions. In fact, the data that informs its scientific backbone is under dispute: the thresholds of the systems that regulate the Earth System, the whole planet as a system of innumerable interacting parts, are not clearly defined and the methods for their calculation are problematic. The origin in time of this geological epoch

is not clear and it can vary several thousands of years, and its supported project of "a science-based management of human-environment systems" has unforeseeable results, that might even put in risk those systems (Uhrqvist and Linnér 159).

In ecopoetry I see a counternarrative to these visualizations in the form of embodied perception of the entanglements and the exploration of the multiple temporalities of the Anthropocene through poetic research. Subjectivity, complexity and fragmentation are brought to view in the poetic method that leads to the poetry I discuss in this thesis. We can read Haraway's project of a feminist science here, a science "and politics of interpretation, translation, stuttering, and the partly understood" ("Situated Knowledges" 195). The critical method of research and investigating through language and form adopted by the ecopoets discussed in this thesis have strong affinities with Haraway's proposed method for a feminist science. In particular the thesis explores the ways in which the complex, the fragmented, the open and the multiple are called on to generate perspectives and perceptions of the contemporary environmental time offering alternatives to the monologic and universal concept of the Anthropocene. Haraway argues for politics and epistemologies of location, positioning, and situating, where partiality rather than universality is required in order to be heard and to make rational knowledge claims (195). This is where I situate my thesis: in ecopoetry's exploration of the multilayered, fractured, complex and material character of the Anthropocene. Concurrently, ecopoetry does not communicate acritically science as in the "geophanies," it both translates it into its own language as well as offers embodied, fractured, sensorial, and complex epistemologies.

Echoing Haraway I see in ecopoetry a "view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity" (195). In this method of relating with the complexities that underlie the Anthropocene, "only the god-trick is forbidden" (195). This poetics, like feminist science, makes "claims on people's lives," claims that the ecopoets extend to other organisms and inorganic materials. Ecopoets take the networks across species, the entanglements among materials and subjects on a global scale as a hopeful dimension of the Anthropocene because to recognize those networks and entanglements is also to recognize mutual participation in the world. As Haraway writes, this is "making oddkin [requiring] each other in unexpected collaborations and combinations" in a "kind of material semiotics [that] is always situated, someplace and not noplace, entangled and worldly" (*Staying with the Trouble* 4). Anna Tsing's anthropological method of researching and narrating adds to this situated perspective a focus on "insistent, if humble, details" (*The Mushroom at the End of the World* 111). Untying the knots and the connections that humble details show (the mushroom, the plastic

piece) and from which they are created illuminates the complexities of the Anthropocene while giving voice to those silenced by its "we" (the workers and animals in deforested areas and in intensive farming, bodies contaminated by plastics and chemicals are some). Ecopoets follow and adopt these methods of research into their poetics and the resulting poetry promotes affect towards these silenced ones, also offering alternative forms of perception (visual and aural) of the constitutive interrelations of the Anthropocene. Ecopoets *feel* and *think* with the atmosphere and the geology of the Anthropocene in a relation extended to their readers and listeners. Furthermore, ecopoetry moves beyond apocalyptical discourses and narratives of environmental disaster that contribute to the universalizing move of the Anthropocene and inhibit action. Ecopoets counter these discourses with a critique of language and with embodied and situated perspectives.

To exemplify ecopoets' practice of depth and situated writing I now turn to one of my primary sources, Cobb's *Plastic: An Autobiography*. In this poetic essay the poet explores the material interconnections between the atmosphere and the geology of the Anthropocene, between place, body and the global networks with which they are entangled, and the possibilities of writing and knowing oneself in this environmental context. *Plastic* combines the forms of investigative essay and poetry, and illustrates how writing can be used as a research process that creates an awareness of the poet's own body and situatedness. Cobb uses the same combination of forms in *Green-Wood*, a cultural and environmental poetic historiography of Green Wood cemetery in Brooklyn, New York, and in *After We All Died*, a collection of poems that transforms the apocalyptic rhetoric of the Anthropocene into a reflection about the future, thus infusing that rhetoric with hope. In *Plastic*, the embodied perception of the Anthropocene, via the relation between Cobb's biography and the history of plastics, drives the creative process. As she writes in the introduction to the poem:

> It started with an irritant, like a splinter, or an itch.
> In my work for an environmental group, I kept
> encountering snippets of news about the extent of
> plastic contamination around the planet. Each one
> stuck into me, a little hook. I heard about the mass
> of plastic swirling at the center of the Pacific. I read
> about a dead albatross chick filled with plastic bits,
> one dating back to World War II. I learned about
> plastic shards in Arctic ice cores, in the bodies of
> lugworms, in the deepest sea canyons, and in every
> single sample of the top ten brands of German

> beer. I learned about plastic chemicals in people's
> bodies (a U.S. government study found nine of ten
> people carry constituents of plastic inside them)
> and that babies come out of the birth canal with
> 232 industrial chemicals already circulating through
> their bloodstreams. (v)

Emphasizing entanglement, Cobb uses the terms "irritant," "splinter," and "itch" to describe the presence of plastic in her life, and the process of becoming aware of that presence through the humble details that Tsing points out and that reveal the global networks of the Anthropocene. From this initial eruption of the material through the surface of the poet's life she then moves to a research on her own entanglement within those plastic networks:

> "I'm going to write about plastic, an autobiography."
> I didn't really know what this meant. But I had some
> sense (because plastic is so ubiquitous, everywhere
> out there and also inside me) that I could probably
> uncover a direct link between my body and the
> plastic inside a dead albatross chick some three
> thousand miles across the ocean. If I could that,
> maybe I could also draw the net wider. I could see
> how wide, how far, how long I could stretch this net
> connecting my own body to this substance: plastic,
> which barely existed one hundred years ago and
> which now is so amorphous, so omnipresent, it
> seems to disappear if one tries to look directly at it. (v-vi)

Cobb personally interviews and has contact with relatives of Stanislav Ulam, with the staff at a local Honda dealership and with photographer Susan Middleton: individuals showing the entanglement between Cobb's own life and body and plastic. Cobb was born in Los Alamos where Ulam, with Edward Teller, invented the hydrogen bomb and its polyethylene ignition device. Polyethylene is a plastic that would become the most common in the planet, present in Cobb's daily life since childhood. A discarded car bumper in her back yard leads her to the local Honda dealership. To locate it, she studies the area via Google maps, zooming in on the warehouse just to end up wondering if the company is still really there. This mapping exercise captures the problem of focus, of what to look at, when the object of poetic research is "so amorphous, so omnipresent, it / seems to disappear if one tries to look directly at it" (vi). In a way, this mapping exercise is a comment on the poetry of place: zooming in, focusing, looking for the detail, getting to know, are actions that are all set in motion by the tangible presence of

the car part. While the "geophanies" rely on the disembodied visuality of the information that narrates the Anthropocene (geological data, charts, graphs, models, saturated satellite and GPS images), Cobb contacts people, moves her body closer to the bodies of others (of Ulam's daughter, for instance), touches the material that brings the Anthropocene to her driveway, to her body, to her text.

In *Plastic* we have the reverse movement of the "geophanies:" the poet moves from the fragment, the detached, toward the total and the connected. One of the main drivers of the text is the attempt to trace the history of one of the pieces of plastic found in the stomach of an albatross chick, photographed by Middleton on Kure Island, to show the ways in which plastic creates connections between geographically distant parts of the planet. But as in the other attempts to grasp the materiality of her relations with objects and of objects with her body or biography, every attempt at depth leads Cobb up to the atmosphere of the invisible networks that plastics reveal. The car part directs her to abstractions and networks (Google maps, intercontinental transport of cars and car parts) but ends in the inability to communicate with the car manufacturing company. The piece of plastic in the albatross' stomach leads her to the history of the airplane that it belonged to, which was shot down in the Pacific during the Second World War, dramatically showing the timelessness of plastic and the network of interconnections it reveals. In its history, "[t]his persistent little bit of death in life," interacted with living beings and artificial materials. That interaction was its agency in the planet: the moments in which it penetrated other bodies and in which its own structure was broken down or consumed. Importantly, acting in the world, plastics create suffering. Recalling the interview with Middleton, Cobb writes: "The albatross filled with plastic suffered. Susan wants to make sure I understand this" (23). This suffering grounds the poet's attempt to trace connections, and the conclusion that the biographies that structure the poem are interrelated by chains of suffering and participation in each other's lives through plastic. In the same painful way in which the little piece erupted from the stomach of the bird, micro particles of plastic penetrate the blood systems of other organisms.

Cobb's focus on the literal fragments of plastic on the planet illustrates how ecopoetry uses fragments to interfere with ideas of sublimity, and transcendental nature in the Anthropocene. *Plastic* dramatizes this interference of the fragment and its agency with an account of the explosion of the thermonuclear bomb, which included polyethylene in its casing that drifted in the atmosphere after the explosion and, the poet hints, penetrated structures and bodies, including Cobb's own:

> polyethylene, just carbon and hydrogen,
> made from the bodies of ancient sea
> creatures, out of the same molecules that make up

> every living being.
>
> The Los Alamos builders nailed thick slabs of polyethylene inside a cylinder-shaped casing that contained deuterium fuel. A relatively new material in 1951, polyethylene would soon become the most common plastic on the planet – used in shrink wrap, Hula hoops, Tupperware, water bottles, plastic bags and the car part that ended up one day tangled against my fence.
>
> ………………………………………………………………………
>
> When the atomic bomb goes off, it heats the plastic to a million degrees in an instant, creating a plasma that expands explosively, squeezing the deuterium and igniting a thermonuclear fire.
>
> The result of Ulam's idea that day was Mike, the first thermonuclear device. Ignited at Eniwetok Atoll in the Pacific on November 1, 1952, Mike exploded with the force of a thousand Hiroshima bombs. It vaporized the island of Elugelab, leaving a dark crater in the tropical waters and lifting tons of coral and sand—the remains of sea creatures—into the atmosphere. Alive with deadly radiation, the tiny particles drifted around the world and fell back down. (68-9)

The poems I focus on work differently with these "tiny particles" in contrast to the "geophanies" and the rhetoric of the Anthropocene. Each fragment is not limited to being interpreted as a symbol of the whole, but rather the focus is on its agency, its narrative potential. We can trace the notions of globality and connection of the "geophanies" in a line of allegories for the global, such as Buckminster Fuller's concept of the *Spaceship Earth* and Marshall McLuhan's *Global Village* and their "romanticisations of global connectedness as mergers with a technological or ecological sublime" (Heise *Sense of Place* 20). The technological sublime of the Anthropocene is present in the entanglement between technology and the planet, which is at the same time a condition for this epoch and the argument for stewardship of the planet through technological solutions. Crutzen's explicit formulation of the Anthropocene as an argument for the use of technology to manage the planet relies in the already existing

technology to collect and manage large quantities of data, such as the network of satellites and other technologies of remote sensing and mapping. This network not only collects data but also translates that data to a plethora of visual images that homogenize human influence on the planet. In contrast, fragments, in the poetic line and in the world, evidence the multiple agencies the Anthropocene is built from, their irreducible immanent character, the materiality of this epoch. In the stratigraphy of Anthropocene, nuclear residue as a marker for the era gives a universalist vision of the distribution of the uses and consequences of nuclear energy and nuclear testing. In contrast, Cobb's stress on the connections created by contaminated fragments is an example of ecopoetic strategy of building community in toxic times.

Plastic is an example of how the entangled materiality of the global environmental crisis affects an exploration of the connections between the poets' body and her place. As plastic enmeshes with biological structures and bodies, it invalidates the boundaries between natural and artificial and contributes to creating the atmosphere of the Anthropocene. At the same time, community is created because of the awareness of entanglement. This work also shows how writing about the porosity of bodies and matter in our contemporary time leads poets to look at their own contaminated bodies as evidence of the presence of plastic, a visible node in a perceived net of shared materialities that connects distant bodies, humans, animals, and places, with the albatross chick, with plastic. This work shows how ecopoetry takes the focus on place and body to build community from the knowledge of living in the shared, multispecies materiality of the Anthropocene. In this community the human is dissolved in myriad entanglements and relations with other organisms and inorganic agents.

Cobb translates this dissolution when prompted in an interview to "reduce the main ideas in *Plastic* to five words," answering that "Plastic is all of us" (qtd. in M. Anderson). To be all of plastic is both to be made of plastic, or to have plastic in our bodies, and to be a member of the community created by plastic. The focus of the poem and of the poet's answer is the material, which is formed by the relations it establishes between everyone in the planet. As noted, in Cobb's foreword, plastic is described as "so amorphous, so omnipresent, it //seems to disappear if one tries to look directly at it" (vi). In a sense the poet imports ideas of sublimity to the poem, replacing the universal category of human with the category of plastic. There is an amplification here of the connections and complex interrelation between plastic and the planet to a point at which it is impossible not only to think of relations not permeated by plastic as well as alternatives to those relations, or even to imagine what type of actions to take to deal with the responsibilities demanded by the permeability and toxicity of plastic. Cobb deals indirectly with those questions in this work but in the first chapter of this thesis I follow her work to see them answered in *After We All Died*. In this collection, she

proposes to develop ecopoetry from the limits of language exposed by the lament toward modes of overcoming grief. I see in this amplification an example of how a concern with entanglement in the Anthropocene can move into its own version of the sublime. As with other poems in this thesis, the conflict between criticizing transcendental and sublime notions of nature and conveying perceptions of entanglement generates a vital tension in ecopoetry.

I take the notion of entanglement from new materialism to focus on the ways in which ecopoetry relates with the atmospheric and geologic materiality of the Anthropocene and with the multiple species, organisms and artificial agents that comprise it. Entanglements are present both thematically in ecopoetry when poets explore complex interrelations as well as formally when poetic form is affected by and relates with the Anthropocene. Entanglement is here understood both metaphorically and materially as an interrelation that transforms its agents at a fundamental level. Matter is critically engaged as agent rather than as vehicle for constructions and cultural representations. Notions of entanglement are put forward by new materialists that "turn to matter as a necessary critical engagement" from discontentment with "the linguistic turn and social constructionism to adequately address material realities for humans and nonhumans alike" (Sanzo par. 1). The idea of entanglements irradiates differently in new materialist thinking. In Alaimo's work we can find it in the notion of trans-corporeality: "a new materialist and posthumanist sense of the human as perpetually interconnected with the flows of substances and the agencies of environments" (*Oceanic Origins* 112). For Karen Barad the agency of matter is seen in its entanglements, which are created and enacted by matter's performativity, the point here being Barad's movement from representationalism to performativity of nature (*Meeting the Universe* 46-50). For Jane Bennet this performativity is preceded by liveliness of matter, which is "intrinsic to the materiality of the thing formerly known as an object" (xvii). Matter thus, can have distributed agency in assemblages of human and inorganic agents, such as the "electrical power grid as agentic assemblage" (21).

New materialisms are driven to rethink matter by advances in the natural sciences "that make it impossible to understand matter any longer in ways that were inspired by classical science," posing ethical questions about the ways in which they are materially and conceptually reconstituting the environment, and contributing to policy making (Coole and Frost 5). These materialisms have an ontological orientation "that is posthumanist in the sense it conceives of matter itself as lively or as exhibiting agency; a biopolitical and bioethical orientation concerning the status of life and of the human;" and a "reengagement with political economy" that explores the relation between the materiality of everyday life and "broader geopolitical and socioeconomic structures" (5). As Eva Giraud notes, the idea and narratives of entanglement are important to implicate "human

activities in eco-logically damaging situations and calling for more responsible relations to be forged with other species, environments, and communities" (1).

As with the other poems I focus on in this thesis, Cobb's *Plastic* shows all of these perspectives. Plastic is lively and exhibits agency, generates multiple material-discursive entanglements (the biographical interrelation of the human and other organisms and inorganic agents in the poem). There is a dissolution of the human in a network of plastics that raises bioethical concerns, and the poem points to the relation between everyday objects and life (the car part, the pieces of plastic in the albatross' stomach) and broader structures (the war in the Pacific, the military industrial complex, the presence of plastic on a structural level on the planet after the explosion of the bomb). While the poem, as new materialisms, calls for more responsible relations with other species, environments, and communities from the entanglements it explores, "actually meeting these responsibilities," Giraud writes, "is not a straightforward task" (1). Cobb's exploration of entanglements in *Plastic*, is a poetic answer to imagined, more responsible relations, which she extends in other works developing ecopoetry as research for modes of overcoming grief caused by environmental destruction. In fact, the historiography of her work shows a move from the acknowledgement of the loss of nature as referential for overcoming grief in *Green-Wood*, to the exploration of the material-discursive entanglements of contemporaneity in *Plastic* to the recent proposal of ecopoetry as a practice of failure to overcome grief in *After We All Died*. These moves highlight a critical relation with the idea of entanglements present in the poems I discuss here. Ecopoets recognize the potentiality and necessity of the term entanglement to engage with the materiality of the Anthropocene. However, they are also suspicious of its potential sublime connotations and, therefore, situate and embody entanglement as way to foster the need to meet the responsibilities conveyed by the term.

Ideas of entanglement are also used by the ecopoets in focus to address the scale and magnitude of the Anthropocene. In *Plastic*, scale leads to disorientation which is the starting point for a contemporary ecopoetics. Disorientation comes from the double movement dramatized in the poem from fragment to totality and from totality to fragment, in which the singular always leads to the multiple, the local to the global, the place to nonplace, the material to dissolution. For ecopoets the scale and magnitude of time and space of the Anthropocene are productive critical poetic tools that also lead to the acknowledgement of others. It is here, in this doubling move that ecopoetics resides. The starting point for critique, Haraway states, is learning to be "truly present, not as a vanishing pivot between awful or Edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings" (*Staying with the Trouble* 1).

In the same spirit, and turning this disorientation into a starting point for a criticism of the Anthropocene, Alaimo writes that while:

> the geological origins of the term *Anthropocene* have spawned stark terrestrial figurations of man and rock in which other life-forms and biological processes are strangely absent, the acidifying seas, the liquid index of the Anthropocene, are disregarded, even as billions of tiny shelled creatures will meet their end in a catastrophic dissolve, reverberating through the food webs of the ocean. Thinking with these aquatic creatures provokes an "ecodelic", scale-shifting dis/identification, which insists that whatever the "anthro" of the "Anthropocene" was, is, or will be, the Anthropocene must be thought with the multitude of creatures that will not be reconstituted, will not be safely ensconced, but will, instead, dissolve. ("Your Shell on Acid" 89)

Alaimo is here calling our attention to aquatic creatures and to how the acidification of sea water and the destruction it causes erase species and beings and, therefore, also other temporalities and realities. Inviting us to think with these dissolving creatures brings back a sense of urgency that fights the inertia caused by disorientation in the Anthropocene. Thinking with is the key to make this disorientation a creative tool rather than an inhibitor of action. Thinking with sea creatures as in Alaimo's article, or with aerial communities and beings, helps us understand that our own immersion in the Anthropocene, our own dissolution, our own slow inertia, are shared with those others and, therefore, also understand that the lives of others are at risk. Thinking with becomes a methodology of dissolving older categories, decentering critical practices from the human and opening them to other creatures, other beings and things.

In this thesis I propose that ecopoetry gives us examples of thinking with the atmosphere of the Anthropocene. My argument is not just for a shift of perspective, but also for considering the critique of the Anthropocene and its absolutes which is visible in ecopoets' work with ideas and representations of the atmosphere. Throughout the thesis I exemplify and explore ways in which aural dimensions of poetry contribute to atmospheric thinking. I discuss lament in ecopoetic elegies and the materiality of sound in experimental poetry. I address communication through sound in poetry as a way of making community. I explore ways in which ecopoetry relates poem and atmosphere materially in form and poetic line. I also show how the critique of received notions of atmospheric beauty and the sublime points to the materiality and entanglement of lungs, breath and atmosphere as a shared multispecies space. As sound and air are fundamental elements of poetry I argue that poetry is ideally poised for thinking with the Anthropocene from an atmospheric stance.

Alaimo notes that "[f]eminist theory, especially material feminisms and posthumanist feminisms, offer cautionary tales, counterpoints and alternative figurations for thinking the Anthropocene subject in immersive onto-epistemologies" (90). Following this critical stance I align this thesis with material ecocriticism that discusses the formative relations between matter, considering the human within the material relations of which it is formed. As Serenella Iovino and Serpil Oppermann clarify, this direction in ecocritical studies is

> the study of the way material forms—bodies, things, elements, toxic substances, chemicals, organic and inorganic matter, landscapes and biological entities— intra-act with each other and with the human dimension, producing configurations of meanings and discourses that we can interpret as stories. (*Material Ecocriticism* 7)

Underlying this project of interpreting the narratives of matter is, therefore, the aim of de-centering relations between humans, other organisms and inorganic materials, from an anthropocentric perspective, and from a defined and stable human. This critical direction "dissolves the singular figure of the human subject, distinguished by unique properties (soul, reason, mind, free will or intentionality), into the dense web of material relations in which all things are enmeshed." (Bergthaller 37). At the same time, as the poets in this thesis remind us, the feminist strategy of asking "who speaks, for whom, and whose subjectivity is presupposed in the grammar of that question," is employed to guard critical discourse from new ideas of sublime (geological, atmospheric) or from enmeshment in the dense web of materials (Colebrook, "We have Always Been Post-Anthropocene" 9). Accordingly, this thesis shows ecopoetic critiques of the import of classical and Romantic ideas of the sublime to contemporary thought and poetry.

The Anthropocene, Claire Colebrook argues "also raises the problem of intersecting scales, combining the human time of historical periods [...] with a geological time of the planet [and] requires us to open the classically feminist question of the scale of the personal" because the personal fragments the universalized "we" ("We Have Always Been Post Anthropocene" 2). "Rather than think of this line [the Anthropocene] as privileged and epochal," Colebrook states, "we might ask for whom this stratum becomes definitive of the human" (10). I show how ecopoetry adopts this situated point of view and the scale of the personal to tackle questions of environmental justice related with extractivist industries to effectively dismantle the geological sublime while essaying affective forms of connection with the geologic. The poems in this thesis, therefore, show a feminist critique of technoscience, and employ feminist methods of research

and production of knowledge, namely in relation to the material and discursive constructions of the atmospheric and the geological dimensions of the Anthropocene.

Atmosphere and Geology

Reading ecopoetry in the light of its relation with atmospheric and geological dimensions allows us to understand the specificities of contemporary North American ecopoetry and the ways in which, to different degrees, poets criticize, appraise and transform the literary and cultural paradigms of representation of nature, while evidencing the entanglement between poetry and culture at large and these dimensions of the Anthropocene, materially, culturally, ecologically and psychologically.

The perception of the Anthropocene as an atmosphere, both materially and metaphorically, is illustrated by ideas of climate change, global connection, and digital clouds. The Anthropocene is also a form of melancholia, as Spahr and Clover state in their manifesto *#Misanthropocene: 24 Theses*. These poets explore the aesthetic possibilities of the atmospheric dimension, this mood or melancholia, to convey how it is co-created by humans and others: other organisms, substances, narratives. While doing so they redirect their work to the materiality of the Anthropocene, such as the cables that cross the oceans and enable communications between continents and the different extractive industries that fuel the Anthropocene: mining, oil, tourism, large-scale monocrop agriculture, industrial animal production. At the same time, I argue, attempts at focusing on the materiality of the Anthropocene direct poets to its atmospheric dimension: to networks that connect objects and beings, to routes, to maps, to visible and invisible connections and histories. In fact, the atmosphere is not only a cultural space, but also a space of multispecies cohabitation.

In recent ecocriticism we see the critical effort of negotiating paradigms of representation of nature and the need to study a poetry that criticizes transcendental notions of the planet and the naturalization of technology. In 2000 Jonathan Bate used the notions of atmosphere and ambience in his reading of John Keats' "To Autumn" as an ecosystem, in line with his argument that ecopoetry is "not a description of dwelling with the earth, not a disengaged thinking about it, but an experiencing of it" (42). In this sense, "To Autumn" is an experiencing of the earth that conveys the sense of the atmosphere. As Bate states:

> In contrast to Keats's earlier odes, there is no "I" listening to a nightingale or looking at an urn: the self is dissolved into the ecosystem. In his journal-letter, Keats wrote of his ideal of interassimilation between men; in the poem he is interassimilated with the environment. Indeed, environment is probably the

> wrong word, because it presupposes an image of man at the center, *surrounded* by things; ecosystem is the better word exactly because an ecosystem does not have a center, it is a network of relations. (107)

Here links are established between weather, atmosphere and ecosystem since all of these terms promote the absence of a center: there is nothing that surrounds the "I" of the poem, on the contrary, all the elements of the poem create this atmosphere. More recently Timothy Morton, in *Ecology Without Nature* (2007), extends this notion of atmosphere to propose an "ambient poetics," a poetry of the Anthropocene. Ambience, from where *ambient* originates, "denotes a sense of a circumambient, or surrounding, *world*" (33). Morton elaborates on *ecomimesis*, a way of communication between text and environment, or surroundings, and the central question of the inside/outside of the text is reframed as background and foreground. Rather than relating the poem with something outside of itself, something out there, the poem is a part of the *ambient* (or *mesh*) that it creates and within which it is situated. Therefore, the poem is situated in an environment which is "something material and physical, though somewhat intangible, as if space itself had a material aspect," an atmosphere (33). For Morton, poem and atmosphere are embedded in different forms: there is not *a* nature that is represented in texts, but rather texts and world that constitute an inter-acting ambient. In this sense the poem is not separated from the world, the poem and world mirror each other while creating within each other and among themselves an ambient, an atmosphere.

The analytical engagement with air from an ecocritical perspective finds correlates in the medical humanities and the environmental humanities in ways that "suggest how lives and materialities in and of the air represent specific forms of human and nonhuman intertwining" (Bhojvaid 2020). The recent *Reading Breath in Literature* (2019) works with "breath as a phenomenon that blends physiology with culturally rich metaphors" from a medical humanities perspective (Rose, Heine et al. 2). This focus, the editors propose, "attends to the breath's interactions across body-environment boundaries, disclosing the intensities, pleasures and pains of air's materiality, and questioning whether the affects produced are necessarily useful or desirable" (6-7). From an environmental humanities perspective, *Life of Air* (2001) brings together the "social history of air and the natural history of airborne life" in its biological, political, philosophical and artistic dimensions (Bakke, "Introduction" par. 7"). The focus of this collection is the multispecies dimension of air which is "full of life [and] apart from being a means of transport and communication, air is a habitat in its own right." Air is a space where species meet and interact. "Airborne microbial life," Bakke writes "is in constant interaction with human life not only in a pathogenic but also in a beneficial way— directly and indirectly— as it affects

the atmospheric processes." A large part of this interaction happens between the "molecular messages being exchanged by nonhumans" expressing "desires, warnings and survival instructions [...] by plants and animals," making air a means of communication ("Introduction" par. 2). Human breath relates intimately with this space of communication and transspecies environment.

The consequences of anthropogenic action for the earth's atmosphere are known and expressed in terms that denote their global impact such as global warming, later replaced by climate change. Nonetheless, perhaps on account of air's invisibility, the focus for thinking about entanglements and interrelations between humans and the planet has lied in the geological, as the Anthropocene concept exemplifies. Perhaps, Bakke suggests, "the preference for solids in philosophy may be paired with the preference for an interest in those life forms which dwell, like us, on the surface of the lithosphere." ("Introduction" par. 3).[6] The poets in this thesis not only invite readers to notice and experience immersion in air, but also question the cultural and material constructions of air, in ways that offer new metaphors and figures for thinking about entanglement in the environmental humanities. Engaging with the atmosphere from an environmental humanities perspective decenters discussions from the previous geological focus and opens up possibilities for thinking about interrelation and entanglement from situated perspectives, asking: who breathes? In what conditions? What does sh/e breathe? Thinking about air therefore extends to questions of environmental justice (the right to clean air), questions of multispecies communication and the interrelation between humans and microbial organisms and chemicals living and transported in the air. The ecopoetry in this thesis engages with air and atmosphere both by critically importing Romantic metaphors of sublime and transcendental connection and by exploring breath and song as tenets of poetry.

The ecopoets in focus relate poems and atmosphere as material and cultural dimensions of the Anthropocene. They develop from previous examples that connect the air with poetry. By the end of the nineteenth century, for instance, Walt Whitman contrasted the fragrance of "houses and rooms" to the atmosphere which "is not/ a perfume, it has no taste of the / distillation, it is odorless," and that he was "mad for it to be in contact / with me." ("Preface to the Leaves of Grass" 75). Later, high modernism addressed the creation of the atmosphere as a cultural layer, as seen in Wallace Stevens' "metaphorical meteorology [that] makes the climate a product of both human and material phenomena" (Griffiths 61). Charles Olson made the atmosphere an explicit agent of the creation of poems claiming in "Projective Verse" that "breath allows *all* the speech force of language

[6] See *The Forgetting of Air in Martin Heidegger*, in which philosopher Luce Irigaray criticizes Western metaphysics, in particular in Heidegger's thought, that "always supposes, in some manner, a solid crust from which to raise a construction" (2).

back in [because] a poem has, by speech, solidity [and, therefore] everything in it can now be treated as solids, objects, things." (391). To Olson the atmosphere was projected into culture through poets' bodies and materialized in the poetic line; in a certain sense making the American avant-garde a poetics of breath. An important element of ecopoets' focus on the atmosphere is the impact contaminated air has on bodies, and environmental justice poetry is concerned with raising awareness of the suffering and destruction caused by atmospheric pollution and climate change.

Air is present in poetry because of its roots in song and music, because breath holds the measure for the line, or because poetry is the outcome of the relation between poet and world, of which breath is an intimate dimension. Hymns, work songs and laments are the origin of sonnets, the blues, and elegies. The poems I discuss in this thesis show how contemporary ecopoetry develops from experimental poetics of the post-war, particularly from Language poetry's focus on the materiality of sound. At the same time, poetry here reappraises poetry's aural dimension and possibilities for communication and relation, as well as specific social functions of song. Closely tied to the atmospheric dimension of the Anthropocene and ecopoetic methods of working and relating with it, the lyric, song and breath nevertheless cross all the chapters in this thesis. In the first chapter, song comes in the form of the elegy in contemporary ecopoetry as way to go beyond linguistic limitations to express and overcome ecological grief. Later, I discuss the use of sound to communicate and the opening of poems to sounds of animals like birds through the incorporation of audio files and transcripts. In the chapter "Song of Ourselves," I explore the material dimension of sound with examples in which soundwaves touch plants, people, and rocks, illustrating the materiality of sound as communication and community-making, and the "Layers" chapter includes a discussion on the social function of song in communities, particularly as an expression of protest.

Connected to the aural dimension of poetry, the lyric is present in different ways in the experimental ecopoetry at focus in this thesis. Spahr's work, which I analyze in detail in the first chapter with focus on her rereading of the pastoral, "simultaneously deploys and resists traditional lyric devices" by the transformation of the "I" into the "we" structuring many of her poems (Altieri 131). Hillman, whose geological ecopoetry I study in the chapter "Layers" explicitly uses the lyric by tying it to animism and the creation of a moment of perception and shared communication between the reader, the poet and the subjects of her poems: geological accidents, lichens, animals, plants. Both Spahr and Hillman work with "the lyric's capacity to put multiple temporalities and scales within a single frame, to 'thicken' the present with an awareness of other times and places" (Farrier 9).

Discussed in the final chapter, the geological conveys notions of deep time, the long history of the planet measured in both past and future geological time, and evidences the coexistence of different temporalities. In the recently published *Anthropocene Poetics: Deep Time, Sacrifice Zones, and Extinction*, David Farrier states that “Poetry can tacitly assist in the difficult task of approaching the Anthropocene’s complex, paradoxical temporality” (6). I see ecopoetry working from this paradoxical temporality as a form of disorientation that opens poems to the perception of others. The perception and intuition of the complex temporalities fragment and destabilize the flat geological line of the Anthropocene concept that subsumes all temporalities into one. Past fossils co-exist with technofossils, the future fossils of human agency on the planet whose lifespan extends beyond all probable human existence on the planet, such as nuclear residue and plastics. In this thesis I am concerned with the ways in which ecopoetry excavates this chronology of the Anthropocene and burrows through its flat and homogenizing geological line. I focus specifically on an ecopoetics of research and investigation that unearths the cultural constructions of important sites of the Anthropocene, such as the Marshall Islands as a space of nuclear colonialism, and the conflicting temporalities they exhibit.

Ecopoets develop from tradition to carry out this research and to write an investigative poetry. Clover and Spahr write in “Gender Abolition and Ecotone War” (2017) that poetry has a thick precapitalistic history (in distinction to the novel, and, of course, to newer media) and therefore a historically privileged position from which to relate with the Anthropocene, because it “is at its beginnings often an anthropogenic mode for formalizing and cataloging ecological data such as the sorts of fish and winds” (147). The use of lists, catalogs, and formal and thematic accretion reflects this practice of layering. More recently, documentary poetry takes the possibilities of cataloging, and working with archives and lists to unlayer loaded cultural representations of nature. Developing from modernist poetry it uses collage, fragment and the inclusion of multiple voices in the text (Thurston 173). Documentary poetry and ecopoetics, Robert Hass argues “have both, in a range of ways, taken up the tasks of being an alternative history and a place to present useful ideas [because the modes share] “twinned concerns with environmental crisis and evident social injustice” (*A Little Book on Form*, 341). I focus specifically on how ecopoetic practices of research concerned with social injustice inherent to the processes that generate the Anthropocene take up that task of presenting alternatives to social injustice. This investigative poetics performs a cultural stratigraphy reading and rewriting the cultural and geological lines and layers of the Anthropocene connected with environmental and social degradation and exploitation.

The poetry examined in this thesis shows connections between the atmospheric and the geologic that reflect the interrelation between these two

dimensions. I am not proposing a new set of binaries to the analysis of poetry (earth/air; solid/vapor). Rather I propose that ecopoetry offers perspectives of thinking about the Anthropocene atmospherically that complement the current focus on the geological. Not wanting to build new sets of binaries, I want to look specifically at the ways that the cultural critique of the atmospheric dimension of the Anthropocene can be supported by ecopoetry. Notions of the sublime, for instance, present in Romantic poetry to affirm imagination and organicism in response to the Enlightenment's mechanicist views of nature are reappraised or rewritten by ecopoets in works that I here discuss both according to their atmospheric or geologic character. When considering the infrastructures of the Anthropocene, it is not possible to disentangle geological extractivist practices from their atmospheric impact. Likewise, the infrastructure of collection and measuring of data, of refrigeration and the internet, all fields with atmospheric connotations, is fundamentally geological. In this sense, even if I stress the atmospheric dimension of some collections I want to make clear that they are connected with the geological, even if I do not explore those connections in detail.

My discussions in the thesis also show that ecopoetry highlights the complexities of moving beyond a simplistic rejection of previous models of nature or the acritical acceptance of new ones. Lisa Robertson's image of infiltration in the "Atmospheres" chapter illustrates the relation ecopoets have with inherited poetic modes and genres, and with metaphors and images of nature. I see infiltration as an atmospheric image for the ecopoetic work of, like air, vapor or gas, slipping into the pastoral and the gendered constructions of nature in order to change their structures from the interior, while maintaining their potentialities. This image has similarities with Evelyn Reilly's metaphor of foam which relates ecopoetics with tradition and exploration of the malleability of language and form. Foam is one of the "provisional metaphors" Reilly sees "discarded [...] each day," but which she recuperates in an ecopoetic effort to investigate in and with language forms of permeable relationality, as well as nonbinary and environmentally aware ways of relation (*Echolocation* 15). I see here a strength in ecopoetry that does not become trapped in fixed forms, but rather adopts transformation and malleability into method itself. In this way, borrowing the title of Hillman's collection, I see ecopoetry infusing *Pieces of Air in the Epic*, the epic here standing for the historical and cultural history of representations of nature. Cobb and Spahr infiltrate the elegy with their lament that grounds poetic language in wailing rather than in symbolical, mythical and allegorical constructions of nature as regeneration for pain. Reilly infiltrates the sublime and the transcendental with the material and tangible. Robertson's infiltration method opens received forms and models, infiltrates through their porous structure and connects poetry with the atmosphere of the Anthropocene. Her composition method opens fractures for further infiltrators.

I point to a different form of infiltration in the "Layers" chapter with examples of ecopoetry that infiltrate the cultural constructions of the geology of the Anthropocene. Ecopoetry exposes the layers hidden in the homogeneity of the Anthropocene and voices the suffering and exploitation that comprise them. In a way, ecopoetry metaphorically infiltrates and fractures the anthropos, the flatness, the nowhere and everywhere, the timelessness and the disembodiment of the Anthropocene. All these poets as spies or ghosts, infiltrating tradition, reflect the general move in ecopoetry of transforming tradition while reappraising the powers and possibilities of language and poetry to contribute to the discussions on the Anthropocene. Accordingly, in this thesis I show that in ecopoetry we can find both a reappraisal of dominant figures for thinking about this epoch such as geology and deep time, and alternatives, too, such as atmosphere and song. Ecopoetry blows softly and explodes loudly, cries painfully and sings happily through its exposed fractures and opened structures. Everyone is invited to this lament and to this celebration.

In the next chapter I ground ecopoetry in relation with inherited models and poetic genres of nature. The first chapter, therefore, is an opportunity to bring some main formal and thematic aspects of North American ecopoetry in focus. I start with the notion of vitality of language that supports the ecopoetic project of working in language forms of relating with and accounting for the complexities of the Anthropocene. I then move to the work of the lyric in ecological elegies that grounds this project in the impossibility of traditional forms to convey loss of nature in contemporaneity. I then move toward ideas of openness and availability that foster communication and entanglement and finish with environmental justice poetry and activism that situate ecopoetry in a communitarian political and environmental project.

I – Singing with Nature in North America

In this chapter I relate contemporary ecopoetry to a longer literary and cultural history of representations of nature and particular motifs, ideas and poetic genres negotiated, repeated or transformed by the ecopoets at focus in this thesis. The chapter starts with the idea of wilderness and the colonial project that involved the inscription of European values onto the landscape conceived as a religious task by the Puritans. I then move onto pastoralism that entered North American cultural representations of nature, shifting from early Puritan models of confrontation with and fear of nature to immersion in landscape as vehicle for transcendence. Here I discuss the continuum from the pastoral's nostalgia to contemporary melancholia. I read works by Allison Cobb, Juliana Spahr and Joshua Clover, and address their ecopoetics of experimentation with language and activist action. I move on to post-war open verse poetry and discuss its relation with ecology that opened poetry to entanglement with ecosystems and a decentering of the lyrical "I". In this context I discuss Michael McClure's' poetry of sound as an early example of ecopoetry. I conclude the chapter by addressing the influence of environmentalism in poetry thematically and formally reflected in openness to others, as well as how environmentalism calls for political engagement.

The main motifs and tropes of cultural representations of nature I discuss here are best thought of as malleable and in interrelation with each other, not exclusive to particular time periods. Ideas of wilderness expand beyond the Puritan notion of desolated spaces and are equated with the vitality of nature, language and culture found in works by contemporary poets Susan Howe and Gary Snyder. This vitality continues in the affirmation of contemporary ecopoetics as a practice of research and investigation of language, which assumes its plasticity. The pastoral idea of nature as refuge from industrialization, urban life and grief permeates the entire history of representations of nature from texts of the colonial era to contemporary ecopoetry. Ideas and models from physics, chemistry and ecology had a direct influence on thinking about nature, extending to poetry, but Walt Whitman had already anticipated ecological notions (Hass, "American Ecopoetry" l). Quantum physics and cybernetics, that developed from ecology, had a direct impact on post-war poetics concerning form and ideas of the poem as field that extend to contemporary ecopoetry. However, ecopoets like Stephen Collis position their poetry as a practice of pataphysics, or anti-science,

not following a chronological line of relation between ecopoetry and science. In his work, ideas of vitalism, magic and alchemy are preferred to models and metaphors from the sciences of the great acceleration. The loosely historical organization of this chapter, therefore, aims to facilitate situating contemporary ecopoetry within these shifting models of relations with nature which it criticizes, appraises and offers alternatives to, while also presenting the dynamism of this relation.

The examined poets relate explicitly with inherited models of nature, often with an ironic distance that recognizes the tensions that result from adopting them. Brenda Hillman situates her ecopoetics in a line of lyric and animist poetry as a project of communication. Spahr also critically relates with lyric poetry, at once recognizing the troubled relation between the lyric's anthropocentric focus and the pastoral ideology found in the elegy. The elegiac mode continues in Cobb's work that frames the poet's grief within the exploitation of nature on the North American continent, while exploring the histories of colonialism and technology associated with that exploitation and recognizing the tensions of the relation. Lisa Robertson situates her work as a reworking of the pastoral, the lyric, and Romantic weather rhetoric associated with meteorology while maintaining a distance from gendered construction of nature. Evelyn Reilly fragments notions of the sublime in Herman Melville's work juxtaposing and cutting-up chapters from *Moby Dick*, while building her own conflicted sense of sublime beauty conveyed by plastics. She also ironizes the use of Samuel Taylor Coleridge's albatross as "the stand in of choice" for representing the destruction of nature in environmental literature (*Styrofoam* 11). The metaphorical representation of birds as vehicles to the divine and transcendent is complicated in *Styrofoam* with pictures of birds eating trash, of birds as roadkill, of fragmented birds' bones, and with names of extinct hummingbirds. Reilly also imports Walt Whitman's democratic project as a song of *ourselves* rather than a song of *myself*, thus opening the *self* to voice the organic and inorganic multiplicity of the Anthropocene. Jena Osman focuses on histories of colonialism in *The Network*, adopting conventions of documentary poetry but troubling the immersion in nature of the exploited subjects of her research. The common thread between these works is the critique of the idea of nature as vessel for ideology and ground for cultural models.

Jed Rasula prefers "compost" to "tradition" in his study of *Ecological Imperatives in American Poetry* (2002). While compost is lively, organic, and in continuous transformation, tradition is less malleable and imposes fixed forms on the present. Gary Snyder likened compost to culture, a term that is "never far from a biological root meaning as in 'yogurt culture'—a nourishing habitat" ("The Etiquette of Freedom" 16). As distinct from tradition, a "culture is a network of neighborhoods or communities that is rooted and tended," Snyder writes. "It has

limits, it is ordinary, [to be] 'very cultured' shouldn't mean elite, but more like 'well- fertilized'," he later explains in the essay "Survival and Sacrament" (191). Fertilizing and nurturing are metaphors for thinking about poetry as, Rasula states, "the immense reserve of language, a claim on the underground and the underworld where a new prospect is grounded" (*This Compost* 27). The claim ecopoets make regarding the possibility of renovating language toward complex ways of thinking and connecting humans, other organisms and inorganic agents, assumes poetry as a reserve of language, a vitality that grounds and nurtures their projects. Approaching the tradition of North American poetry as compost, or nurturing ground, we can look at poets as metaphorical worms, fungi, or microbes, that burrow through the composting mound of ideas for nature and ventilate them, infusing air in its amalgamations and letting its effluences evaporate. Since my overarching claim is that poetry *participates* in the making of culture, and particularly in the discussions about ideas of nature, human and others, the idea of compost, something 'hot,' alive and organic is closer to my work than the idea of tradition, something 'cold,' fixed and authoritative. Worms chew and transform the composting soil that nurtures life, decomposing is to create compost.

With ecopoetry new fermentations begin, and the soil—the compost of ideas and models of nature—becomes lively and transformed. What grows in this compost? The intimate, bodily and situated perspective that rereads the transcendental notions of the sublime, the animist stance that opens poems to communication with organisms, nonorganic materials, chemicals and plastics floating in the air. Formally, ecopoets use cut-up, juxtaposition, sound transcription and open verse as material ways to burrow through the compost, ventilating form, and metaphorically and materially breathing the atmosphere of the Anthropocene. Contrary to tradition, compost has no predetermined direction, shoots and roots can take many shapes and move in unexpected directions. We see, as an example, the different ways in which the self is being contested and or appraised in contemporary ecopoetry. While for Reilly, it is a distributed agency that hopes for communication, for Hillman it is an animated composition of multiple agencies that exists in shared ecologies and in communication. Both poets' work situates the self in its larger interrelations with biological and cultural systems, the first within a history of gendered science and cultural constructions of identity, the second within atmospheric and geological histories of place, myths and dreams. These two poets transform the compost in different ways making it lively and organic, a making of culture.

Decomp, a performance poem by Canadian poets Stephen Collis and Jordan Scott literally decomposes this compost by including the agency of soil, insects, trees and weather in the making of the work. For their performance, Collis and Scott left copies of Charles Darwin's *On the Origin of Species* in

different forests in British Columbia "to be read by these biogeoclimatic zones for a calendar year" and later photographed the results from that act of decomposition/reading (Skinner, "Earth Works" 4). *Decomp,* the printed book, is a performance, a photographic essay, a visual poem. The visuality of the decomposition process shows the material imprint of a region on a text. Because no text is actually written, the poets act as curators, and the work consequently questions authorship and radically shows the exterior forces that historically, socially and environmentally situate the work of art. The ironic juxtaposition of the scientific discourse, evidenced in the choice of book to be decomposed, and the one-year rhythms of the regions where it was left, question the authority of the former. Collis and Scott's performance suggests a correlation between the work of the artist and the idea of nature as process, of culture as compost, focusing the work in its incompleteness, in its becoming a poem, an object. Collis and Scott use form in its material dimension, that of the printed books, that is penetrated/read by the forests. The poet/artist is only an observer, and to create, to compose, to say, is already too much. Their work is a comment on a certain inability to write ecopoetically, maybe pointing to the need for a decomposition of forms before language. The work suggests an invisible community that includes insects, fungi and aerial beings that also have their say in the making of the work. *Decomp* illuminates the fundamental concern of creating community-making practices in ecopoetics, a solidarity among species.

Rasula writes that his project "wanted to restore to the poetics at hand that solidarity in anonymity which is the deep issue of planetary time, for that *is* the 'issue' in several senses of the poetry" he discusses in his work, and the one in this thesis (9). All of the above examples effectively extend ideas of community to include the biotic and the abiotic and open the poems to various instances of communication with the members of those communities. But solidarity and community are articulated also in other, more prosaic ways, and there is a commonality of practice among ecopoets in a more global setting. While I do not explore the relation between the North American poets at focus and other poetic systems, we can see an intercultural dialogue already taking place in anthologies and other publications. Examples of this dialogue include the work of Chilean poet Vicuña in the *ecopoetics* journal, the work of the Swedish poet Aase Berg and the Icelandic poet Gyrðir Elíasson in the anthology *What Nature* (2018), the work of the Portuguese poets Margarida Vale de Gato, Jorge Menezes and António Poppe, among others, in the anthology *Natural in Verso* (2015); and the work of Chinese poet Jiang Tao, the Nigerian poet Togu Ogulesi and many others from other nationalities in the *Ghost Fishing* (2018) anthology. There is solidarity also in activist practices that extend ecopoetics beyond the written text to participation in protests, community and political hearings, and engagement with environmental movements. All these are burrowing and ventilation practices that

make the compost of ecological ideas in North American culture lively and characteristically under negotiation. Poets bring in new air.

Compost is a useful term to generate ideas of interconnection, solidarity, nurturing, and transformation, but it also conveys ideas of regeneration, cyclical relations, soil, roots and place. Rasula's work and John Feltiner's *Can Poetry Save the Earth?* (2010) address these issues. Furthermore, Robert Hass points out that "the most influential American poems, Whitman's 'Song of Myself' and Eliot's 'The Waste Land' are both rooted in vegetation myth," although the latter portrays a disrupted natural cycle ("American Ecopoetry" l). Nonetheless, as the ecopoetic elegies show by mourning the loss of nature, cycles of regeneration in nature are no longer available to structure poetry of mourning. In fact, the Anthropocene inherently puts the responsibility for the regulation of those cycles on humans. How can a critical perspective accommodate a poetry that is written precisely from this lack of cyclicality of nature? My suggestion is not that there is not a 'compost'—on the contrary, the relation with inherited modes of nature is fundamental for ecopoets—but rather that we might move from the soil up to the air. Disruption of environments and anthropogenic disturbance to the cyclicality of nature become visible in the atmosphere, in the form of global warming and climate change. Rather than relating with the geology, the ground and the soil with their inherent stability in cyclicality ecopoets practice and illustrate an entanglement with the Anthropocene by relating with the unpredictability of the atmosphere. On an important level, the ecopoetry in this thesis *grows,* mixes and composes the compost of ecological imperatives in North American poetry. But it also breathes in the anthropogenic atmosphere, to where it releases its breath, its songs, its wailings and melodies and from where it brings the voices of others.

In this chapter, the relation with 'ecological imperatives' in this compost is structured by the aural dimension of poetry – I look into song and sound as atmospheric elements of poetry. I start with elegies and laments, which are songs for the dead, to argue that wailing and mourning are starting points for a contemporary ecopoetry that moves beyond the desire for closure and resolution of pain. Elegy is the poetic genre in which nostalgia for loss of connection with nature and melancholia for the loss of nature are conveyed. I see in ecopoetry an investment in this genre to overcome the environmental sense of loss, including a future sense of loss that the Anthropocene causes by extending its temporalities into unimaginable time frames. I move on to show that the sense of frailty caused by loss and mourning that structures the elegy translates into a vulnerability of poets to the world. Looking at the work of Cobb, Spahr and Clover, I point out their proposal of grounding ecopoetry in the failure of language to overcome ecological grief. Cobb's work is a prime example of a distended lament, a cry that extends in her work into a poetics of lament, creating an intuition of ecological interrelation among all those who died and those who live in the contemporary

complex entangled time. In Cobb's works, language breaks, the discursive line falters, and the poems vindicate a language of failure as the starting point for ecopoetry. Conversely, Spahr positions the impossibility of overcoming grief in ecologies as a failure of language in her manifesto written with Clover which situates the activist stance of ecopoetry. Discussing the exploration of sound as a way of metaphorically and materially communicating within ecosystems, I turn to precursors of contemporary ecopoetry. In McClure's poetry, sound is a way to convey interconnection between biological beings through generation of energy and feeling, pointing to a biological language that is not contained in meaning. The aural dimensions of poetry are given yet another early ecological perspective by Language poets who focused on the materiality of sound to evidence poems as elements of political ecologies, aiming to release poetry from the linguistic and cultural constraints of those ecologies. The chapter finishes with the influence environmental movements had on ecopoetry by positing the possibility of intervening in political systems. Songs and sound can induce action and create community.

The Anthropocene concept and its proposed alternatives situate the current epoch within the transition from natural sciences to positivism and the Enlightenment period, as well as from colonialism to early capitalism. In *The Song of the Earth* (2000), Jonathan Bate traces the history of the idea of nature in the Enlightenment by focusing on Rosseau and Voltaire's thought, showing that in this period the idea of society was "the negation of nature." Yet at the same time, those thinkers saw that the human presumption of "apartness from nature is the prime cause of the environmental degradation of the earth" (32, 36). Bate's point is that "it may be necessary to critique the values of Enlightenment, but to reject Enlightenment altogether would be to reject its values of justice, political liberty and altruism" (37). In the same way, to reject the ideas of nature built from the Enlightenment would be to reject the ways in which nature has been thought of in relation to those values, namely as an expression of efforts of constitution of civil society, although there is the need for a deep criticism of the universalistic values conveyed by the epoch's thought. It is, therefore, "profoundly unhelpful to say '*There is no nature*' at a time when our most urgent need is to address and redress the consequences of human civilization" (91). The idea of community is fundamental for ecopoetry that enlarges this civil contract to other species and inorganic agents. Likewise, ecopoets relate this acknowledgement of entangled others in the materiality of the Anthropocene, which leads to a critique and deconstruction of transcendental and idealist representations of nature. As Raymond Williams accurately points out in "Ideas of Nature," there is a constitutive conflict in this term between its physical and material, and its idealist, metaphysical or religious interpretations. Nature can be devoid of substance or transcendence, purely material, or it can be a symbol for the divine.

Williams shows how nature has become a "singular abstracted and often personified" (69) term for the physical world, that has developed in relation with the singular abstract idea of God, putting human societies as the arbiter and mediator between both. In order to think about nature, it is necessary to be clear about "whether it includes man" or not (75). In fact, whether natural and social history are separated defines the relation between nature and the human and is fundamental to understand literary and other cultural representations of nature. The relation between nature and culture also affects the design of the future of and on Earth for all species. Ecopoetry contributes understandings of this relation through concrete proposals, both within the specificity of its field and within the range of other environmental actions taken by poets, artists and scholars to counterbalance the environmentally destructive consequences of human action.

Inscribing

The idea of wilderness is fundamental in formative North American texts that carry the connotations of nature as something that is to be both transformed and colonized. This concept is embedded within U.S. national identity and is an example of a western model of relation with nature from which indigenous knowledges are commonly excluded (William Cronon, 1996 and Leo Marx, 2000).[7] The specificity of this idea has its origins in the European experience of North American nature which was one of displacement through various forms of contact with the immensity of the continent, either by traveling, being lost, or kidnapped. These experiences of displacement demanded new notions of space from explorers and colonizers, which are reflected in accounts of exploration and captivity that mark the emergence of "a new [literary] language, neither entirely of the Old World or the New" (Gray 19-20). Captivity accounts from the colonial period, and scientific and political texts of the colonial and revolutionary periods offer early examples of this new language. In Puritan texts the experience of nature was the experience of wilderness, which was also perceived of as the place of the Devil, an emptiness, an absence of God, thus justifying the cultural transformation of the landscape. Contact with wilderness was traumatic on several levels: the trauma of leaving England, the hardships of colonial life and the metaphysical trauma of the fall from Paradise. "The Puritans came with the

[7] On the idea of wilderness as an example of the western model of relation to nature and consequent disregard of indigenous knowledges, see (in India) Ramachandra Guha "Radical American Environmentalism and Wilderness Preservation: A Third World Critique" (1989) and (in Mexico) Arturo Gómez-Pompa and Andrea Kaus "Taming the Wilderness Myth" (1992). Concerning North America, Scott Momaday points out the differences in representations of nature between European and indigenous models: "No traditional Native American would intuitively think of nature in the way the nineteenth century "nature poets" thought of looking at nature and writing about it. [...] They employed a kind of aesthetic distance [...] alien to the Indian" (qtd. in Buell *Environmental Imagination* 212).

fear of the dark forest curled inside their minds," writes Cobb in *Green-Wood* expressing the projection of culture onto nature (18). At that time forests covered the continent:

> When the colonists stepped onto the shores of North America, they beheld a sight they could never have imagined in the long-cleared lands of their ancestors: A vast forest stretched as far as one could walk in every direction. Trees covered half the continent, spreading a thousand miles from the Mississippi River in the West to the Atlantic in the East, and from Maine south to the Gulf of Mexico (18).

Although Puritans saw them as *wild*, untouched by human hand, the forests of North America had long been subject to transformation by native societies who "cleared the soil for crops, planted orchards, and burned the forest to flush out game" (18). Cobb reframes the encounter between settlers and the continent as a type of misreading: it was not just that religion supported the colonizing project, but also that it needed those forests to be wild. To assume that others farmed and transformed the soil was to elevate them to the status of human. As late as 1830, Lewis Cass, "the man in charge of Indian Removal," the forced relocation of First Nation people into reservations, would write that the "Indian is *perhaps destined to disappear with the forest*" thus noting the erasure of nature and people needed to inscribe culture in wilderness (qtd. in Cobb, *Green Wood* 43). Seen as colonized nature, devoid of voice and agency, First Nations had a marginal influence on the central constructions of nature in North America. Thus we can find in contemporary ecopoetry by First Nations poets a rereading of representations of nature that infuses them with those historically silenced voices.[8] For settlers wilderness was "a place devoid of materiality and signification" (Mazel 47). Proximity in colonial North America implied cutting down trees, transforming the landscape, including peoples that lived there, into culture, from an anonymous mass into an enlightened land.

The captivity account of Mary Rowlandson is an early example of how the experience of wilderness bears witness to the cultural transformation of landscape. Rowlandson, a citizen of New England, was captured during the armed conflict of 1675-8 between the forces of Metacomet (the First Nation leader

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[8] As an example, Matt Hooley notes that ecology is used in the work of contemporary Diné poet Sherwin Bitsui, as "theater for anticolonial invention" targeting "fantasies of the ontic and epistemic enclosure— the map, the liberal subject, the order of the law— that constitute [...] the possessive investments of settlement" (147, 148). The menacing wilderness now takes the form of polluted nature around the poet and the community, a contemporary return of the oppressive surroundings, but now as a result of the transformation of nature. Ecology in Bitsui's poetry is an opening, a participation of the poet and the poetry in the world, in contrast to enclosure and "postures of witnessing and rearguard" in canonical twentieth-century nature poetry, which represents a "rehearsal of the scene of settlement" (148).

known as King Philip) and New England colonists, and her traumatic experience is described in *The Narrative of the Captivity and Restoration of Ms. Mary Rowlandson* (1682). The moral framework of the captivity account aimed to instruct Puritans on God in the new land, showing the process of recognizing the divine intervention that helped the captive escape wilderness as a place of evil. In the same way that the captive's soul was transformed by the recognition of divine intervention, nature was converted from desolate wilderness to known nature, thus becoming a cultural landscape. A first-person narrative of going through a "wilderness condition," the text depicts wilderness as "vast, desolate" and "howling" (4, 10). Rowlandson follows the group that holds her captive through a landscape full of "wild beasts" in a descent into hell (8). She crosses swamps, one like "a deep dungeon," others in which she almost gets lost, and her captors, "those black creatures [whose dancing and singing in the night] made the place a lively resemblance of hell," are described as "hell-hounds" and "inhuman creatures" (10, 3, 4). At one point, Rowlandson encounters her son who brings her a copy of the Bible and subsequently her descriptions of nature are commented by biblical passages. The narrative thus becomes, David Mazel argues, "in part a narrative of the captivity of the sacred word, and it is this primal word circulating where previously there was none, that begins the transformation [...] into a sort of legible wilderness" (51). From this point on, the description of the landscape is framed by biblical passages, reread for the purpose of Rowlandson's enlightenment. The crossing of a river is for instance commented with Psalm 137:1: "By the rivers of Babylon, there we sat down; yea, we wept when we remembered Zion" (11). Here the Bible enlightens the wilderness by offering comfort, a frame through which to interpret and recreate the lived experience. New England becomes Babylon, nature is loaded with meaning becoming something other than the experienced surroundings. The written word in this way transforms wilderness into land that could be understood, represented, lived on, cultivated. In a larger sense, Puritans could make sense of their reality through texts as Rowlandson's that framed the experience of wilderness as a story of conversion (Mazel 48). The experience of nature in colonial period texts, as exemplified by the account, was one of fear and confrontation, and the revision of the landscape enacted by the colonial experience set the stage for the history of exploitation of nature that would take shape in the following centuries.

Grounded in the colonial idea of wilderness, the exercise of rewriting nature parallels the editing of those narratives and the literary construction of nature in North America. Most captives were women and, as Susan Howe writes, "as time went on and their popularity increased, they were increasingly structured and written down by men, although generally narrated by women (*The Birth-Mark* 89). In the same way, the myth of the frontier and the nostalgia of the lost frontier associated with the idea of wilderness have been shown to convey a crisis of

masculinity, thus underlining the gendered representations of nature in the North American tradition (Cronon). Howe works against this effort of silencing in *The Birth-Mark* (1993), particularly in the essay on "The Restoration and Captivity of Mary Rowlandson," which concerns the writings of women during the Puritan era (in addition to Rowlandson, Anne Bradstreet and Anne Hutchinson). In the earlier *Articulation of Sound Forms in Time* (1987), Howe also works with the first-person narrative of Reverend Hope Atherton who accompanied a colonial army that massacred about 300 First Nation individuals shortly after King Philip's war. After the confrontation, Atherton became lost and wandered for some days in the woods, before surrendering with other survivors. Spared from death, he later returned to the Hatfield colony. Arranged in three parts, *Articulation* begins with the historical narrative and with an extract from a 1781 letter that accompanies Atherton's account of the events. *Articulation* then moves into poetry sections that rework, cut, juxtapose, read, comment, and fragment the account. In this exercise, the poet inverts the process of revising and editing of Rowlandson's account. This practice ties to issues of femininity, inherited western tradition and power present in *Articulation*, including their projection in the North American literary present, and that extend to the ways nature has been historically construed in that continent.

Howe also works with "the sound of words, the difficulty of making meaning, and [her] experience of Atherton's language" (Knickerbocker 174). In the poetry sections of *Articulation*, Howe cuts words, introduces fragments, concentrates on the "Sign of sound" creating unintelligibility (29). In her poems, she is "Taking to the forest," the title of the second section of *Articulation*, in the same way as Atherton, both writers metaphorically lost in the conflation between the western tradition and North American wilderness (29). Wilderness becomes a vitality derived from the impossibility of inherited language to describe and relate with the landscape. Atherton's experience, replicated by Howe, is contrary to Rowlandson's in that for the former language develops, grows and is animated by that landscape, while for the captive language is left suspended until the Bible arrives. For Howe, the vital possibility of transformation of language predates the colonial enterprise. Puritans were "believers in God and grammar," she writes in *Thorow* when thinking about the sense of place at Lake George in the Adirondacks, and explains: "They have renamed it several times since. In paternal colonial systems a positivist efficiency appropriates primal indeterminacy" (40). It is this primal indeterminacy that her work with language reaches for, releasing sound and image from grammar and positivist efficiency, showing the vitality of language.[9]

[9] See http://pippoetry.blogspot.com/2011/08/susan-howe.html for an example of the Howe's work with the text as visual form in *Thorow*.

Gary Snyder's Buddhist, ecological and mythically informed poetry represents another process by which the idea of wilderness is applied to language and poetry. For Snyder, the creative potential of language is equaled with the idea of wildness. If wilderness is a spatial, geographical and environmental term, wildness, for Snyder, is its root, containing the ideas of vitality, strength, inventiveness, energy, and undomesticated. Language is therefore actualized by the creative potential of poetry, which introduces to language its elements of spontaneity, creativity, vitality and wildness. Poetry should, he writes, "study mind and language – language as wild system, mind as wild habitat, world as a 'making' (poem), poem as a creature of the wild mind" ("Unnatural Writing" 260). Snyder extends the idea of vitality to energy and breath, and as much of his work concerns work, hunting, love and protest songs, the wildness of language is equaled to the aural dimension of poetry. "Language is not carving, it's curl of breath, a breeze in the pines" he writes in "Tawny Grammar" moving from inscription of values onto howling wilderness to singing and breathing with nature (74). These two short examples show how the idea of wilderness as terror and landscape of colonization is transformed into vitality and possibility of transformation in language, and consequently in poetry. Both Howe and Snyder work with the possibilities of sound, either as a signifier in itself, drawing attention to the materiality of the words, as Howe's "Sign of sound," or as possibility of communication, as Snyder's idea that language and wind (nature) are equivalent (Howe, *Articulation* 28). Wilderness, therefore, as historical construction of nature imbricated with the colonial project, morphed into contemporary notions of vitality and invention in language. The Transcendentalist rereading of wilderness as a possibility of religious relation with nature and visibility of the divine is an intermediate step in this movement.

The Transcendentalist relation with nature develops from the Puritan and was framed as the product of a dialectic. As Tina Darragh notes, Henry David "Thoreau framed our relationship to the environment as a balancing (see: management) act with wilderness and civilization seen as distinct categories that bring out the best in the other as Nature is 'rightly read'" (2). In the long run, contentions about the right way to read nature impacted the debates around the creation of natural parks, nature preservation and environmental policies in the United States (3-8). Of relevance here is Thoreau's idea that the "objective discernment of Nature results in the improved moral status of individuals" which left an imprint on the pastoral as the mechanism of reading and constructing nature (2). While the political and economic structures of the relation between wilderness and civilization are not addressed in early nature poetry that adopts the pastoral's nostalgia, they are foregrounded in contemporary ecopoetry.

By the nineteenth century, in Transcendentalist texts such as Ralph Waldo Emerson's *Nature* (1837) and Thoreau's *Walden* (1854) and *Walking* (1862),

wilderness had become the vehicle for transcendence. With the Transcendentalists, as Cronon points out, there came the "sense of the wilderness as a landscape where the supernatural lay just beneath the surface," reflecting the influence of the Romantic sublime (10). Wilderness as place for encounters with the divine morphed into an appreciation of nature for its religious and aesthetic qualities, and for wild places as antidotes to corrupted civilization, which are pastoral forms of representations of nature. Wilderness becomes not a confrontation with unknown nature, but a place outside of the political and psychological crisis, a place for soothing the pains of politics and war. This religious, aesthetic and medical relation reflects the pastoral nostalgia for a lost connection with nature, and the desire for "a retreat from politics into an apparently aesthetic landscape that is devoid of conflict and tension," an essential feature of North American constructions of nature (Gifford 10). Nostalgia is central to the pastoral ethos which has its roots in early Greek and Roman poetry in which "shepherds spoke to each other, usually in pentameter verse, about their work or their loves, with (mostly) idealized descriptions of their countryside" with life structured by and in harmony with nature (1). In time the pastoral became a form of cultural construction of nature celebrating "the ethos of nature/rurality over against the ethos of the town or city" rather than "the specific set of obsolescent conventions" of the original literary form (Buell, *Environmental Imagination* 23, 32. Thus, the pastoral become a "cultural equipment," central to the construction of nature and national identity as the "American incarnation" of the pastoral ethos (Mikkelsen 22). This ethos is present in John Muir's *The Mountains of California* (1894), for instance, in which wilderness offers the possibility of healing from the evils of urbanity, and in Aldo Leopold's *Sand County Almanac* (1949) that grounds its land ethics in the existence of the wilderness. More recently, in Barbara Kingsolver's *Small Wonder* (2002), walking in wilderness, as way to reconnect with nature, was a palliative to the crisis and pain created by the attacks on the World Trade Center.

Taking a leap of one hundred years from Emerson and Thoreau's works, we can see in A. R. Ammons' *Garbage* (1993) an example of the persistence of transcendentalism in nature poetry, and consequent use of the lyric and the pastoral. Garbage is an image from which the poet derives the connections between what is discarded and transformed and the function of poetry and the nature of poetic language. In the eighteen sections of the poem, garbage and poetry are submitted to the same processes of transformation that Ammons sees in nature. The poem shows traces of the Emersonian concept of transcendental nature describing transference of energy between the components of an ecosystem. Ammons sees in the processes of the transformation of garbage the equivalent to the poetic process: "in the poet's mind dead language is hauled / off to and burned down on, the energy held and // shaped into new turns and

clusters" (20). The form, tone and structure of *Garbage* replicate the mound of trash that inspired it with its assorted and chaotic disposition of materials communicating in decomposition, penetrating each other. The poem as whole, such as life, or the idea of systems, is fractured by minor forms and accidents, which Ammons associates with decay, loss of structure, breaking of forms. These minor forms, these accidents, are in fact what structure the poem, as seen in the broken couplet, and they thematically address decomposition.

The subject matter and neo-transcendentalist tone of the poem show a moment of transition from canonical nature poetry to contemporary ecopoetry.[10] *Garbage* relies on the devices of the lyric and employs a vision of the universe as energy spiraling from material to immaterial, and the poet uses form to replicate and, in fact, assimilate the poem into the material world. However, the choice of its subject and its main image of material decay and pollution bring to mind other contemporary forms of interconnection and motion such as contaminated waters and winds that flow from the landfill, and it allows us to read here, in anticipation, a suspicion toward the pastoral. By using the pastoral trope of relation with nature as a moment of spiritual revelation and enacting it in a contaminated site, Ammons forces us to question concepts of nature and beauty. The poem, published some years after the first publications on the human impact on the ozone layer, also depicts an early anthropocentric atmosphere, polluted and disrupted by the burning of trash. Reading the spiraling of smoke into the atmosphere merely as an image for the elevation of language from material to immaterial is therefore complicated by the environmental consequences of the management of garbage in dumps, including burning it. Ammons' meditation on old age and death sees nature, or the processes of nature, as renovation, as a healer of grief. Thus it keeps to structures of representation of nature that, while adopting notions and models from ecology such as the idea of energy transference, do not overtly question the environmental implication of the relation between humans and the planet. In recent ecopoetry the knowledge of anthropogenic action on the planet invalidates the pastoral's nostalgic foundation. Ecopoets also aim to overcome the state of inaction and melancholia, by proposing ecopoetry as engaged practice of activism.

In the Anthropocene, wilderness loses its status of refuge, and ecopoets revisit places like parks, gardens, and touristic destinations, rereading them as landscapes of tension and conflict. I see an important direction of contemporary ecopoetry in this critique of the pastoral nostalgia and its environmental results. Contemporary ecopoets develop the classical mode of the elegy to perform the mourning process both for landscapes of conflict and for the loss of nature as

[10] Ammons is a key figure to understand this transition and his work has been widely studied from an ecocritical perspective. See Leonard Scigaj's *Sustainable Poetry*, for a comprehensive reading of Ammons' work.

possibility of healing. Because ecopoetic elegies cannot rely on cyclicality of nature, mourning becomes the ecological stance from where to write ecopoetry. Mourning, therefore, becomes an active way to acknowledge the suffering of others, and develop an ecological community. Thus, proponents of a language of failure and wailing such as Cobb, Spahr and Clover, reread the elegy not as a process of overcoming pain, but a creative principle of writing an open and participative poetry of pain. Cobb's *Green-Wood* and Spahr's *Well Then There Now*, illustrate the effort of unwriting the colonial inscriptions of cultural values on nature on the North American continent and Hawaii, while mourning for the loss, destruction and death they caused. Cobb's *After We All Died* and Spahr and Clover's *#Misanthropocene: 24 Thesis*, exemplify ecopoetry as research into a language of pain and failure and as an activist action.

Mourning

Recognizing the pastoral's strength as cultural mechanism, its history and presence in the relation with nature in North American cultural history and poetry, ecopoets work with it toward contemporary forms of anthropogenic entanglement. The importance of the pastoral to contemporary ecopoetry is attested to by the publication of the anthology *The Arcadia Project: North American Postmodern Pastoral* (2012). As the editors argue, the pastoral as a model of representing nature is so prevalent that much ecopoetry can best be understood as an update of it with the inclusion of postmodern techniques. In the introduction to this anthology, Joshua Corey and G. C. Waldrep argue that "[p]ostmodern pastoral retains certain allegiances to the lyric and individual subjectivity while insisting on the reality of a world whose objects are all equally natural and therefore equally unnatural" (xxiii). Contemporary poets expand the pastoral and the lyric to postmodern poetic forms: "after Language poetry, words and syntax, like the pastoral itself, form a hybrid terrain of human and nonhuman elements to be negotiated and explored" (xxii). Contemporary ecopoetry that works with the pastoral quotes and comments on tradition.

Pastoral constructions are ingrained in colonial models of relation with nature (to be transformed into a landscape without conflict) with dire environmental consequences. In North America, ecopoets tackle those disastrous effects by counter reading landscapes of the pastoral, rereading the ocean through the effects of the 2010 oil disaster in the Gulf of Mexico, the nuclear tests on Pacific Islands, the Pacific Garbage Patch, or rereading the mountain through the effects of mountaintop removal mining in Appalachia on human and other

populations of those areas.[11] Counter reading the landscapes of the pastoral as sites of contamination and conflict, rather than as *loci amoeni*, underlines environmental loss and death resulting from processes that are constitutive rather than unintended consequences of the Anthropocene. As example, Gabriel Gudding's "Jeremiad" (2015) ties the pastoral to the suffering of animals raised for consumption. The poem opens with the assertion that

> There can be no pastoral as long as there is a slaughterhouse.
>
> It is in the basement of all oppressions.
>
> It's at the ignored forefront of every assertion
> and definition
> as to what "nature" is.
> ……………………………………………………………………………
>
> When you consume the muscles of animals
> your anus is a tunnel to the slaughterhouse.
>
> If you eat any part of an animal
> your rectum is an atrium
> of the slaughterhouses.
>
> The beginning of the wilderness is the end of the wilderness
> as long as there is a slaughterhouse. (25)

In the final lines of the poem this suffering is detailed as a continuation of these opening lines. The poem explicitly exposes the violence inherent to representations of nature that support a relation of exploitation, here seen through the suffering of animals. It, thus, argues against the possibility of aesthetic and medical consolation in pastoral ideals of nature in which conflict and violence are absent. The poem then moves on to show how violence is present in other iconic images of the pastoral:

> Wherever still in a comic book a frontier contains a bush or a star

[11] The Great Pacific Garbage Patch (GPGP) refers to the oceanic accumulation zone of plastic in subtropical waters between California and Hawaii. Captain Charles Moore first reported on it in his 2003 feature "Trashed: Across the Pacific Ocean, Plastics, Plastics, Everywhere." The albatross chick that died suffocated by plastics and that Cobb mentions in *Plastic* died on the Kure atoll, situated in these waters. For a report on rising numbers of plastic debris in the patch, see Lebreton et al.: "at least 79 (45–129) thousand tonnes of ocean plastic are floating inside an area of 1.6 million km2; a figure four to sixteen times higher than previously reported" (1).

> on the top of every peddle of every bicycle
> there is a slaughterhouse
> inside every sack and clock, on every piece of piss on every monocle,
> on the aerosols, on each puddle, at the sled, on the back of the jam
> jar, in the folds of vulvas. An entire slaughterhouse if founded each
> morning on the clitoris of every girl. (25)

The pastoral is here framed within masculine connotations of nature as adventure, freedom and exploration in popular culture, as in comic books and outdoor recreation. The poem then extends the violence at the basis of these nostalgic constructions of nature to the violence to which female animals are subjected in industrial production units. Gudding adds a note to the two final lines quoted above, citing from Carolyn Zailowski's essay "The Master's Tools Will Never Dismantle the Master's Rape Rack: Feminism and Animal Rights" (2017). As the note reads "animal farming is the most large-scale, institutionalized control of female reproduction, sex, and bodies-in-general that has ever existed" (par. 27). [12]The poem, therefore relates nostalgic constructions of nature present in the pastoral with the structures of patriarchy and heteronormativity and their violent practices and outcomes. Exposing environmental destruction, death and suffering, caused by pastoral nostalgia risks entrapping poets in melancholia and inaction that overwhelms the will to act, a state of melancholia pointed out in Spahr and Cobb's works and in Spahr and Clover's manifesto *#Misanthropocene*. These poets rework the nostalgic function of the pastoral differently, stressing its environmental results, specifically the anthropogenic transformation of the planet. Yet, they also negotiate ways to overcome melancholia and find meaningful ways to act. To Gudding's call to "Come out of the human appeal," that concludes "Jeremiad," Cobb, Spahr and Clover's propose a poetry grounded but not trapped in mourning and lament.

These works illustrate that mourning and violence have the power to create community. Mourning in ecopoetry is a practice of creating community through the acknowledgment of the loss of other organisms and ecosystems and the ways in which these losses are entangled with human agency. Violence is at the center of these entanglements, becoming, as Judith Butler writes, a form of relationality "as an ongoing normative dimension of our social and political lives" ("Violence, Mourning, Politics" 27).

[12] For the rape of women and the butchering of animals as processes that turn them in absent referents, objects not subjects, parts and not wholes, see the chapter "The Rape of Animals, the Butchering of Women" of Carol J. Adams *The Sexual Politics of Meat*.

By depicting violence as a form of relationality, ecopoets point to the sense of vulnerability conveyed by violence. Butler's argument that through grieving we are "returned to a sense of human vulnerability, to our collective responsibility for the ethical lives of one another" can, therefore, be extended to ecopoetry (30). Ecopoets expose the cultural constructions of nature and other organisms that render them absent. Mourning for them points to the collective responsibility for their ethical lives and makes them and "our relationships to those who are now gone, intelligible," and present (Gruen 137). In particular, Cobb, Spahr and Clover's works develop ecopoetic elegies that, while not offering closure of mourning, propose inhabiting the language of pain as an ecopoetic generative means of action.

Many examples of ecopoetry reappraise the possibilities of the elegy to overcome ecological grief in complex ways that show the troubled relation ecopoets have with inherited modes and genres.[13] As the pastoral mode integrates human life into the rhythms of nature, it connects to the genre of the elegy that integrates loss and death into natural cycles of regeneration, offering a structure of closure for mourning. Modern poetry's "preference for exposure over resolution of problems," modified the pastoral elegy with its "lack of closure and consolation in the work of mourning" (Costello 325). For ecopoets, on the other hand, exposure and lack of closure is not a consequence of reworking traditional genres but the ontological condition of the Anthropocene. Costello notes this as a recent "development of the pastoral elegy, which practices mourning not *in* nature but *for* nature" (329). For ecopoets to whom there is no cyclical structure of renewal in nature to look for consolation, the practice of mourning becomes an open process. The elegy seeks communication between the world of the mourner, devastated and unreadable because of loss, and the silent and unreadable world of the dead "beyond the reach of figures of speech" (329). In this sense, the elegy expresses a tension between wanting to speak and being unable to, a deepening of the sense of loss, to which nature traditionally offers images and symbols that speak to the mourner. The ecopoetic elegies of Cobb and Spahr exemplify this tension in which nature does not speak, and the text does not move on from suffering. Without closure, mourning becomes melancholia, or lack of will to act. However, Cobb and Spahr propose a vitality in going deeper into grief and recognizing the impossibility of closure. Ecopoetry becomes a practice of writing from beyond the reach of figures of speech.

These poets also reclaim a traditional feminine role of mourner in society, with which they relate their elegies. Traditionally, laments are sung by "a female

[13] Keller also suggests there is a sense of mourning in *Styrofoam*, a collection I discuss in chapters II and IV conveyed by Reilly "writing a kind of a requiem mass necessitated by global warming and associated mass extinctions consequent partly on products like styrene (an endocrine-disrupting petroleum byproduct that mimics estrogen, found in, among other plastic products Styrofoam" (*Recomposing* 86).

lamenter who articulates the inarticulate, forming a bridge between the living and the dead that is recognized by the community" (Holst-Warhaft 7). In the western world, when laments became articulated in tragedies by male poets, in fifth-century Athens, they lost their "functional quality as a communal expression of grief" (7). I suggest that ecopoets reclaim this quality of communal expression of lament. Perceiving the structural fracture of the elegy deprived of the regenerative powers of nature, their laments create an ecological community. Loss of nature and the prolonged state of mourning become a possibility to create community with others. The powers of mourning are those of creating community: poets look to others and to language, rather than to nature, for consolation. Consolation instead comes from practicing an engaged poetry. This engagement takes the form of renegotiating inherited models of nature, creating community and rallying it to act in environmentally responsible ways.

In Cobb and Spahr's elegies, mourning in the absence of nature's regenerative cycles becomes the possibility to write from a position of grief beyond the reaches of speech. Cobb's work is particularly useful to understand ecological grief and mourning which the author connects with the weaponization of nature and the impacts of the military-industrial complex. In *Plastic: An Autobiography*, the persistence of death in the author's life and in the lives of other animals and organisms is rendered by the exploration of plastic contamination of bodies and the planet. The poem is structured by a moment of crisis and fracture that is materially and metaphorically created by the eruption of plastics in those bodies. The poem finishes by leaving the reader in an atmosphere of tiny particles "alive with deadly radiation" created by nuclear testing (69). *Plastic* marks a transition in the poet's work from the loss of nature as regenerative of grief in *Green-Wood*, to the full immersion and exploration of the Anthropogenic atmosphere in which to breathe is to be a member of a materially contaminated atmosphere, up to the recent *After We All Died* that essays possibilities to overcome ecological grief by developing an ecopoetics from the failure of language to write pain. Similarly, Spahr's work shows ideas of community exploring the shared toxic atmosphere after the attacks on World Trade Center in *This Connection of Everyone With Lungs*, ideas that in her work with the elegy in *Well Then There Now* lead to ecopoetry's participation in society by using the powers of unintelligibility to overcome grief. From this political role of the poet, Spahr and Clover develop modes of participation in *#Misanthropocene*, and Spahr comments on and testifies to her own engagement with environmental activism in the more recent *The Winter the Wolf Came*. These poets' works thus represent the elegy in a moment when nature as source of regeneration is no longer available to overcome grief for environmental disaster, showing that this mode assists in conveying the multiple temporalities of what is lost, including the sense of future losses, therefore possibly contributing towards

a perception of environmental disaster that leads to changed responsible behaviors.

The elegy structures Cobb's *Green-Wood*, a meditation on grief and suffering after the attacks on the World Trade Center, a period that coincided with her mother's cancer treatment and the poet's failed attempt at pregnancy through in vitro fertilization. These different types of contamination and destruction mirror and amplify each other, in a common failure of the state and the body. Through the work, which I see divided in two parts, the first a historiography of Green-Wood cemetery written in poetic prose, and the second a lyric poem in elegiac mode, the poet also traces a history of colonization and exploitation of nature on the North American continent. In this way, her own suffering is also mirrored and amplified by the destruction and transformation of nature. Several connecting threads structure the work: the use of chemicals in the Vietnam War, in daily life and in the keeping of the garden, in relation to cancer; the gendered character of natural sciences seen in taxonomies in relation to the pharmaceutical industry, fertility clinics, and ideas of motherhood; and the Transcendentalist's construction of nature as wilderness at a time of rapid industrialization in relation to contemporary notions of natural sites as places of healing and refuge. These threads are juxtaposed creating an atmosphere of death, suffering and desolation. This first part of the work, therefore, is directed at the historical and cultural constructions of nature and their relations with environmentally disruptive practices. Cobb's work with etymologies, such as of the word tree, and historical sources (on the Puritans' relation to nature, on the life of Emerson, on the history of the cemetery) fragments those constructions, an action I see taking place also in Spahr's *Well Then There Now*.

Well Then There Now reaches a turning point in the form of elegy in the second to last poem "Gentle Now, Don't Add to Heartache." Up to that poem, the collection shows the poet's work with the cultural construction of Hawaii, its colonial history and corresponding history of anthropogenic transformation. In the introduction to the collection Spahr argues that the historical, archival, and cultural work that guides the poems is a move from nature poetry to ecopoetics:

> I was more suspicious of nature poetry because even when it got the birds and plants and the animals right it tended to show the beautiful bird but not so often the bulldozer off to the side that was destroying the bird's habitat. And it wasn't talking about how the bird, often a bird which had arrived [in Hawaii] recently from somewhere else, interacted with and changed the larger system of this small part of the world we live in and on. (69)

The ecopoetic answer to the perceived absence of the troubled relations between members of ecosystems including colonial history and extractivist practices, is to

explore those relations through work with "the tradition of ecopoetics— a poetics full of systemic analysis that questions the divisions between nature and culture— instead of a nature poetry" (Keller, *Recomposing Ecopoetics* 71). Spahr analyses complex systems of interrelations between colonial histories, and touristic constructions of the islands as refuge and paradise, that follow pastoral modes of representing nature in the collection, and have direct environmental impact on the islands.

Both Cobb and Spahr use the elegy in the concluding moments of their works to essay modes of overcoming the grief of the environmental destruction they previously identified. In the second part of Cobb's *Green-Wood*, which I consider to begin on page 102, the poet moves beyond critical engagement with the historical and cultural apparatus toward a cry of grief. Spahr's "Gentle Now," illustrates both a critique of the pastoral tropes and an affirmation of the role of ecopoetry in the contemporary environmental crisis. This lyric poem deviates from tropes of the romanticized natural world because nature "as the figurative resource that regulates the mourning process" is no longer available, questioning the elegy in contemporary ecopoetry (Ronda, *Remainders* 96). Cobb's poem establishes an ontological state of grief, and Spahr's a language of lament, that later she suggests as potency of the elegy, by reworking language through unintelligibility. Both poets offer alternatives to this state of melancholia, here understood as a paralysis, in later works.

The first part of Cobb's work finishes a narrative arc in which the poet seeks refuge from pain in the nature of the cemetery, tries to overcome grief and move to Portland where the first part of the work finishes with the poet "in the yard with my hands in the landlord's dirt // crumbl[ing] soil and smell[ing] its bacterial funk... thinking about things growing" (102). After this narrative she reflects on her writing and introduces an elegiac poem in which she moves from artifice to the unintelligibility of wailing as truthful by looking at the limitations of her technique and method. Ideas of breath and being breathed guide this poem, interrelating inner and outer pain and suffering in a shared atmosphere of grief. The union of interior and exterior becomes a cry, the mourner's wailing that concludes the poem. The elegy starts by questioning the authenticity of what was written before:

> No.
>
> That arc, it's fake. Nothing dies   not the years   fear
> breathed me   no air   not the shiver
> of impact (102)

The arc is fake because there is no healing since, while looking for nature as regenerative source, the poet learned about the deforestation and industrialization of the continent, a fast-spreading barrenness that hindered regeneration and left the poet breathing fear. This breath of fear is a metaphorical atmosphere of violence, destruction and death and a material atmosphere of chemicals used in wars, farming, gardening and medicine. Lists of tree names in section II, "The Fence," are substituted by the New York state pesticide registry in section III, "The Foreign Birds." Arranged alphabetically the names of pesticides are distributed through the text conveying this chemical atmosphere that replaces the oxygen rich atmosphere created by trees.

In this atmosphere of fear, the attack on the World Trade Center is the last event in a sequence of wars. Wars between settlers and First Nations, the War of Independence, the Vietnam War, are framed within the development of private property, the industrialization of the continent, and the development of natural sciences tied to colonialism. The poet cannot overcome grief because she is immersed in the atmosphere of the falling towers and in the atmosphere of this history:

> a smell the brain contains
> no name for. Diesel I guess. Steel, carpeting and
> furniture, clothing, bones
> and skin also
> nothing now breathed in. (102)

As this dust and death was breathed in, the atmosphere of fear also breathed the poet:

> But breath
> itself took over. Breathed me everyone
> else's air like it might disappear (102-3)

To be breathed is to become a part of an atmosphere, to be moved by an outside air, to become part of that air. In this sense, as the work advances, the poet becomes situated outside herself and in the exteriority of the atmosphere that breathes her. Breath here equals the inability to speak, a drive toward unintelligibility. This is why the poet writes that text is not enough, that artifice does not suffice. The moment of crisis demands from her a poetics of exceptionality because old models of representing and thinking nature do not

work, as the entire first part of *Green-Wood* intends to show. Cobb turns to nature to speak:

> –trees–there
> I could breathe.   I could choose to.   *Speak*,
> she said, *from the trees' point of view*. But I'm cursed. I
> didn't know how. I buried myself in dead trees instead.
> ……………………………………………………………………………
>
> Like a good worker I produced, like a poet I put
> things together. But my shaky edifice collapsed. I failed
> to keep faith with facts. I just wanted them (to
> splinter to give up
> their ghosts (that's rage, to tear apart).   (104)

The poet does not know how to speak from the trees' point of view, to move beyond the human and therefore seeks to overcome grief through her archival research in the books at the New York Public Library. Ultimately her own research project is here presented as having the same purpose as looking at nature. The disbelief in words, and the inability to speak from outside her own pain, show the state of desolation of the poet for whom "For-real-fear small + ugly // became my blasted life and nothing would grow there" (104). Here the poet frames her pain and desolation within the desolation of nature, blasted by human action, and desolated – infertile. The use of dashes and the plus sign show a concretion of language into symbol, a visualization of the poet's disbelief in the powers of language to express grief.

Cobb again negates previous statements, in a cleansing of language, to approximate the elegy and her suffering to breath, voice, and ultimately, wailing. Taken over by grief, the poet unites interior and exterior pain:

> That's not true either. It's the voice that demands a
> body
> ……………………………………………………………………
>
> But something
> kept the flesh in its shape. Kept me breathing and
> stocked the fucking pulse. Maybe the voice itself.   (105)

The voice becomes the vehicle of transition between Cobb's inner pain and the outer atmosphere of death, and the poet dreams she eats her own skin. This autophagic process is then reversed: "Awake I ate myself // from the inside" in a

movement of renovation, like a chrysalis ripping of her cocoon (105). The elegy concludes with a final remark on the inaccuracy of language: "That fails. It's metaphor," to which the poet opposes the need for sounding, delivering herself into pain:

> Not fact, a sense, from to find one's way: a body
> in pain   or joy   without thought   before
>
> thought   wants to sound
>
>   resound. So I open my mouth
>
> and become that breath-forced wail *common*
> *to many cultures*, red muscle threads pumping, rib
> bellows sounding the bone-bridged instrument I am–
> chest hollow, throat tube, the holes
> behind the face – not
> history   the law   not comfort,
> logic, or custom – not
> poetry. I have
> no ritual for this, no place
> to exist. I grow strange, a cry
> and nothing else, the force that
> through the darkness moves the breath.
>   I let it go
> it comes back.   (106)

Assuming her bodily, visceral pain, and becoming an organic instrument, the poet moves out of poetry into pure sound. There is no closure in *Green-Wood*, the poet and the reader are left inhabiting pain, language becomes inarticulate voice, a wailing. The two final lines visually display this echo of interior and exterior pain, as a breath. The first is an exhalation (I let it go) written outside of the margin, blown off from the text by Cobb's wailing, and the second is an inhalation (it comes back), marking the rhythm of breathing and the interconnection between interior and exterior pain. The poet and the reader are left breathing this pain. *Green-Wood* thus illustrates a move in contemporary ecopoetry from a critique of inherited models, in its first part, to a recognition that consolation is impossible within those models in the second part. In Cobb's later *After We All Died* inarticulation develops into an exploration of the ways in which language fails to convey grief and ecological destruction and argues for the need to learn how to live in failure as the possibility to develop an ecopoetic language.

In Spahr's "Gentle Now" the inability to complete the work of mourning is figured by the inability to sing, a metaphor for the inability to overcome grief using inherited models of representing nature. The fourth section of this poem rereads pastoral connections with nature in the light of contamination:

> It was not all long lines of connection and utopia.
> It was a brackish stream and it went through the field beside our house.
> But we let into our hearts the brackish parts of it also.
> Some of it knowingly.
> We let in soda cans and we let in cigarette butts and we let in pink tampon applicators and we let in six pack of beer connectors and we let in various other pieces of plastic that would travel through the stream.
> And some of it unknowingly.
> We let the runoff from agriculture, surface mines, forestry, home wastewater treatment systems, construction sites, urban yards, and roadways into our hearts.
> We let chloride, magnesium, sulfate, manganese, iron, nitrite/ nitrate, aluminum, suspended solids, zinc, phosphorus, fertilizers, animal wastes, oil, grease, dioxins, heavy metals and lead go through our skin and into our tissues.
> We were born at the beginning of these things, at the time of chemicals combining, at the time of stream run off.
> These things were a part of us and would become more a part of us but we did not know it yet. (130-1)

The poem comments on the failure of the pastoral by undermining the conditions that allow for connections with nature. Connection here has a double meaning produced by the transcendental, with the bucolic scene of the house by a stream, and by a re-reading of the scene, because the stream is not pristine but rather brackish with water, contaminated by industry. The material meaning of connection is created by the "cigarette butts / pink tampon applicators / six pack of beer connectors and // various other pieces of plastic" that visibly connect the place by the stream to other places. Human and other bodies are here penetrated by "oil, grease, dioxins, heavy metals," thus rereading the aesthetic connection with the natural as a relation of contamination. The third section celebrates the communion and connection between the "we" of the poem and the river: "We immersed ourselves in the shallow stream. We ... let the water pass over us and / our heart was bathed in glochida and other things that attach to the flesh" (128). The transcendent is substituted by the immanent: the hearts no longer hold God,

but runoff and chemicals. Still "we noticed enough to sing a lament" writes the poet, directing the reader to the elegiac mode of the poem, a lament, which because emptied of the regenerative power of nature, cannot heal and overcome melancholia.

The elegiac mode of the poem develops from the powers of song to expand on the possibilities of ecopoetry to overcome melancholia and promote environmental action in poets and readers. The third section addresses song thematically, recounting what the "we" of the poem sang, and structurally, as the refrain "gentle now … don't add to heartache" adds rhythm and repetition. The first line of the song is followed by the animals, plants, and insects of the river named in the previous section:

> And as we did this we sang.
> We sang gentle now.
> Gentle now clubshell,
> don't add to heartache.
> Gentle now warmouth, mayfly nymph,
> don't add to heartache.
> Gentle now willow, freshwater drum, ohio pigtoe,
> don't add to heartache.
> Gentle now walnut, gold fish, butterfly, striped fly larva,
> don't add to heartache.
> Gentle now black fly larva, redside dace, tree-of-heaven, orange-
> foot pimpleback, dragonfly larva,
> don't add to heartache. (128-9)
> ……………………………………………………………………………………
>
> Gentle now, we sang,
> Circle our heart in rapture, in love-ache. Circle our heart. (130)

The use of we in the poem is noteworthy since it enacts a transformation of the "fictive speaker of traditional lyric, [to] a generic subject position that could be inhabited by anyone" (Altieri 131). With this move, Spahr dramatizes the search for community in ecopoetry extending the elegy to a communal feeling of grief and pain (131). As Altieri also points out regarding the rest of the collection, the poems in *Well Then There Now*, "blur 'I' and 'you' and 'we'—private meanings and public situations [which] are not distinct," and these poems can be "read as offerings in search of community" (132). The same non-distinction between private and public grief is present in this poem as the poet extends mourning to a collective dimension of pain.

In the fourth section, the ”we” sings of the loss of the animals, plants and birds of the river:

> in lament for whoever lost her elephant ear lost her
> mountain madtom
> and whoever lost her butterfly lost her harelip sucker
> and whoever lost her white catspaw lost her rabbitsfoot
> and whoever lost her monkeyface lost her speckled chub
> and whoever lost her wartyback lost her ebonyshell
> and whoever lost her pirate perch lost her ohio pigtoe lost her
> clubshell. (131)

Finally, in the fifth section this lament, that had a redeeming role in mourning, is silenced, and the connection is lost. As the poem progresses, this song of grief sung by a community in pain is broken into silence when the poet faces the evidence of death, rather than the general feeling of environmental loss. The lament moves from collective song to individual silence and unintelligibility:

> What I did not know as I sang the lament of what was becoming lost
> and what was already lost was how this loss would happen.
> I did not know that I would turn from the stream to each other.
> ....
> I turned to each other.
> ....
> And I did not sing.
> I did not sing otototoi; dark, all merged together, oi.
> I did not sing groaning words.
> I did not sing o wo, wo, wo!
> I did not sing I see, I see.
> I did not sing wo, wo! (132-3)

Singing structures the poem in different ways. In the third section, the song punctuates the poem celebrating diversity and communion. In the fourth, loss leads to lament, and the poem finishes by acknowledging that permanent mourning can lead to inaction, or silence, when singing is most needed. While the poem seems to leave the reader and the poet in that state of “guilty recognition that cannot lead to reparative action,” it also indicates what that action would be by stating what the poet did not accomplish (Ronda, *Remainders* 97).

The song that the poet is unable to sing is an ululation like Cassandra’s cry in Aeschylus’s *Agamemnon*. Cassandra is taken by madness and speaks

unintelligibly in another tongue or only in syllables (otototoi).[14] It is from this moment of pain in which language is not enough that language also displays its powers of relationality. In Cassandra's speech, the relation is with the dead; in ecopoetry, it is with others who might read/listen to the poem/song and with the others who died. The possibilities of ecopoetry in environmentally disrupted times are thus found in a poetry that makes language unintelligible, forced out of forms and linguistic structures by the bio-historical context. For Margaret Ronda, the poem also expresses the loss of poetry's power to act within the environmental crisis, since the poet does not sing in the fifth section, and therefore does not fulfill the function of the mourning:

> "I did not sing," the speaker insists, acknowledging her failure to undertake the work of mourning that would master this grief. Uttered by the poem yet left unsung by the narrator, these primitive cries signify a pain that can never be worked through and thus does not end. This is the "heartache" that points back to the poem's first section, with its impossible fantasy of original connection without harm, to begin the negative work of mourning anew. (*Remainders* 105)

This circular logic, Ronda argues, leads to melancholia originating from the acknowledgment of the profound influence of human action on the planet and the impossibility to counteract it with poetry. In this way, "melancholy in 'Gentle Now' definitively refuses 'enchantment,' refusing to turn away from the work of impossible mourning" (106). However, I propose that while the poem seems to leave the reader and the poet in that state of "guilty recognition that cannot lead to reparative action," it also indicates that singing like Cassandra would be the action to take, although the poet fails at it. This singing from beyond the reaches of speech brings back Cobb's wailing: both poets end their elegies moving language to unintelligibility.

Timothy Morton points out that the ecological elegy "asks us to mourn for something that has not completely passed, that perhaps has not even passed yet," making readers "occupy two places at once: projecting through imagination into the future, looking back on the present, and reading the elegy, in the time of reading, the 'here and now'" ("The Dark Ecology of the Elegy" 254). This movement, Morton notes, reproduces dualism since the readers are set facing nature, the one that was lost and the one that will be lost. An ecological position would not allow a perspective out of time, it would rather interrelate loss, grief and mourning. Morton, moving beyond the idea of nature and its dualisms towards ideas of ecology and interrelation, argues that "ecological poetry must

[14] See Yopie Prins' "OTOTOTOI: Virginia Woolf and 'The Naked Cry'" for a description of the scene and the question of language.

thus transcend the elegiac mode," as we "lose nature, but gain ecology" (254). "It might be possible," he follows, "to bring elegy and ecology together by thinking through [...] the radical intimacy with radical strangers that the idea of the interrelatedness of all things implies, at its extreme" (254). I see this move taking place in contemporary ecopoetry, as Cobb and Spahr's work exemplifies, in which mourning becomes an exploration of the possibilities of language to convey interconnection with other mourners and sufferers. Their ecological elegies expose both past and future losses, thus using the elegiac perception of time to foster ecological ideas of interconnection and care. While mourning is not completed, ecoelegies show how the elegiac perception of mixed temporalities can convey an ecological ethics. Ecological elegy imports environmental devastation to future losses, thus conveying notions of deep time. This re-orientation of perspective revises the traditional temporality of the elegy, in which mourning is for something or someone lost. We cry for something that was lost but when the processes that lead to that loss are still occurring, the elegy becomes a cry for the present. This unintelligibility is the starting point for ecopoetry that opens for love with the ugly others pointed out by Morton's dark ecology.

Contemporary ecopoetry recognizes the complex interrelations between humans, other organisms, and inorganic agents, echoing Morton's dark ecology's proposal to "love the other precisely in their artificiality, rather than seeking their naturalness and authenticity" (269). As "dark ecology refuses to digest plants and animals and humans into ideal forms," so too does ecopoetry distrust inherited models and ideal forms. Morton suggests an attention to form that "would open a [...] presence to the idea that something is happening, right now, not at some impossible future" (254). Experimentation with form is a central tenet of contemporary ecopoetry, not just ecological elegies, because, I argue, it conveys metaphorical, material and politized notions of entanglement and interrelation in the Anthropocene. Ecopoetry conveys those notions while performing a revision of traditional models for thinking and representing that relation, moving toward affective and engaged environmental action. The sense of loss is a strong impulse in ecopoetry, but the inability to find closure for mourning can lead to a continuous state of mourning. I see this state as melancholia, not in Morton's sense of "a primordial relationship to objects [that] may provide the basis for an ecological fidelity to objects," but as a lack of will to act generated by knowledge of the environmental devastation (253). While ecopoetry recognizes interrelations and entanglements promoting care, rather than following ideal models of nature, ecopoetic elegies direct our attention to the ways in which mourning and grief lead to a revision of those traditional models.

If for Spahr and Cobb poetry becomes unintelligible because the poet as seer, the poet as Cassandra, as wailer, moves out of herself because of agony, just like language and sound move out of structures and meaning because of agony,

how can poetry be a call for action? Here Spahr and Clover's *#Misanthropocene: 24 Theses*, a manifesto read live in Oakland and later published in 2014, is instructive. The theses try to make their readers move beyond their desires or despair and take environmental action, becoming misanthropes. Because of nostalgia, western culture "makes endless small plastic representations of the African jungle or plains animals and fish ingest them and vomit them up or don't and there they sit in their stomachs and then they die" (4). The plastic copies of animals that risk extinction because of the industry that builds them are products of a form of nostalgic relation with the world. They evoke the symbolic nature while destroying the organic, living models for it.

In *#Misanthropocene*, ecopoetry is one of the ways to build alternative narratives to destruction and promote different types of action. The final thesis reads: "This is how the misanthropocene ends. We go to war against it. My friends go to war against it. They run howling with joy and terror against it." This call for action is followed by examples of direct action against the extractive industries (oil, gas) and the military complex, introduced by the injunction "here is how to" (set an oil well on fire, take out the electrical grid), finishing with the statement: "Twentyfourth of all. Here is how to kill a policeman here is how to abolish culture here is how to knock down a Boeing AH-64D Apache Longbow here is how to loot a grocery store here is how to levitate the Pentagon" (9). As the thesis progresses it becomes clear that the "here is how to" refers to the writing of the theses itself and that this writing is integral to an artistic ethics of living and writing committed to the planet and the environment: an ecopoetics. Here the authors dramatize the action taken to include direct action and sabotage, thus claiming for ecopoetry the same possibility of direct intervention in the structures of control and exploitation that have resulted in the Anthropocene.

The connection between the Anthropocene, catastrophe and trauma is represented by the need to learn to live with (environmental) death, which becomes a possibility rather than a condemnation. Cobb takes this melancholia as the subject of *After We All Died*, which I read as the final stage of her exploration of grief and mourning in her work. The poem "You were born" includes the following lines:

> maybe more insidious forms of
> poison have invaded all of us alive on the planet, plant,
> human, and animal, and one poison is how we know we
> kind of want that
> melancholy that lets we who are wealthy in the West
> relax into our sadness about the end
> of all the stuff we destroyed without knowing or trying, that
> clipped and clever cynicism that is a kind of rubbernecking

for we who are
well-off (99)

This willingness to experience melancholy is described as a poison in Cobb's text, on the same level as radiation from the nuclear industry, as plastics, lead and chemicals. Poison is a material and metaphorical atmosphere in which we breathe, materially it corresponds to the transformed atmosphere of the Anthropocene, metaphorically it conveys its psychological dimension. In this sense, fighting melancholy is an environmentally responsible act. As in the *Theses,* melancholy is diagnosed as a sign of its time, a call for action as part of the ways of learning how to live in the Anthropocene, and creating an ecopoetics:

> This is our death. We share it, we who come after the future. With our bodies we nurse our machine that killed us. We give it all of our words. We give it our births to continue, and we who live in privilege: we devour the births out of everything else. The task of such selves is not to live. It is to refuse all the terms of this death into which we were birthed. Maybe then, learning to be dead, something can live. (107)

I read "learning to be dead" as learning how to inhabit fully the contemporary biosocial moment of the planet, which demands an ability to relate with its present condition. But does this mean that the Anthropocene is a time of mourning? If the acknowledgement of the many deaths that compose this epoch is present in every action, what does knowing about them do to the writing of poetry? To "refuse all the terms of this death into which we were birthed" is to move one step further from an ecopoetry of elegy for the dead because elegy might be "a form of relaxing into our sadness about the end / of all the stuff we destroyed without knowing or trying"– a melancholia (99).

In "You Were Born," Cobb also explicitly engages with the idyllic representations of nature of the pastoral by changing the focal point toward the suffering they hide:

They come to breed
in shallow seas each spring
in the bay of Delaware, named for the Lord
De la Warr. So the crabs crowd up
in the bay to breed beneath the new
and full moons in the months of May and June,
and the watermen –
the watermen wade in, grab them by the shell
and toss them on trucks
to a lab where lab

> people strap them to a steel table, insert a needle
> to the heart, drain 30% of the blood,
> and send them back to the water of the war. One quart
> goes for $15k. (95-6)

The shortcomings of the representation of the idyllic setting of the bay in the full moon period with the breeding crabs are revealed to the reader. The unseen suffering of animals and human workers beneath the surface of that representation is made clear as the poem progresses. All this suffering and death opens a wound that transforms ecopoetry into an investigation of language on how to change representations of humans, other organisms and inorganic agents. Ecopoetry thus seeks to promote connections and acknowledgement of the suffering of others, rather than naturalizing those deaths or glossing over them while the full moon rises in the idyllic bay.

Looking at Cobb's work, I see this wound becoming the central concern of her poems affecting their structure and form. In the collection *After We All Died*, cancer and the death of others break the discursive line. In "You were born," that Cobb states was influenced by *#Misanthropocene*, the idea of melancholy leads her to YouTube videos of advertisements for sandals named melancholia, and away from the poem's focus on the fear of death, and the "new mode of poetry / called West Melancholy" (93). In the poem Cobb shows melancholia as an emotional value of merchandise. West Melancholia is this moment of recognizing entanglements between the sandals and the immense networks of production and distribution and their environmental impact, while enjoying the sandals' beauty. This is the perspective of the consumer, the one who can meditate on the implications of her or his sources of pleasure. As Cobb writes, melancholy "lets we who are wealthy in the West /relax into our sadness about the end /of all the stuff we destroyed without knowing or trying" (99). It is a luxury that underpaid workers and populations in areas characterized by the production and disposal sites of products cannot have.

Further exploring the idea of poison and contamination, Cobb returns to YouTube later in the poem, to videos of horseshoe crabs, and how their blue blood is used to measure contamination of plastic prosthetics. After watching documentaries about sandals and the industry around the crabs' blood, she acknowledges that she "did not mean for this to be a poem / about horseshoe crabs and caged booties" (96). Cobb's digression into the relation between the blood of horseshoe crabs and people whose prostheses were checked for bacterial contamination by the use of that blood, highlights the relation between bodies and suffering of humans and other organisms. Later, after exploring how the crabs in those videos are portrayed as donors of blood, not as subjects of exploitation, Cobb sees herself being caught in a form of melancholy

contradicting the direction of the poem again: "I meant to end this poem with a tight / metaphor about the band Poison from the eighties" (98). The metaphor could not be written because the death of the crabs does not leave space for adding layers of representation of suffering. Ecopoetry, therefore, is called to negotiate and question language, by grounding ecopoetic practices in an ethical commitment to the deaths of others. Here, I understand Cobb to be directing the reader toward the starting point of her ecopoetry and the result of "learning how to die". Cobb later writes: "So I am failing / at this poem. But maybe failure / is a good place to dwell" (99). Perhaps we can extend this starting point to ecopoetry in general. Embracing failure, then, is a way in which ecopoetry takes the Anthropocene as an opportunity and a challenge.

A poetry of failure implies hope in the possibilities of poetry to contribute to better relations with humans, nonhumans and other organisms, hope for an ecologically better future, for environmental justice, for creating beauty. And so, here at this point of conflict, in the Delaware bay, as crabs, watermen, birds, and trucks relate violently with each other, I turn to Donna Haraway's *Staying with the Trouble*. In this work, she argues that we must acknowledge the tension of the paradox, the failure of previous models, the failures and the possibilities of poetry, as a starting point for action. Inhabiting its paradox is more vital than, as Spahr and Clover argue in the *#Misanthropocene*, inhabiting West Melancholia, and becoming trapped in mourning. But can someone act against this comfortable numbness? Ecopoetry can act through a language of inarticulation that displays the agony of the current bio-historical moment and pushes language out of inherited forms of representing nature. It is through this disruption, when the immense scale of the environmental crisis takes hold and inhibits action, that the agonic cry becomes a source of energy and renovation. In Spahr's "Gentle Now," inarticulation leads to the overcoming of mourning: a new language is needed. In Cobb's poems the wound of death opens up failure as a starting point. This is where I situate the role of ecopoetry in the environmental crisis: as a practice of research to find ways of saying and writing connections between humans, nonhumans and others that move beyond the anthropocentric perspective of previous poetic and cultural models of representing nature.

There is a vitality in this movement: living with these continuous deaths, the poets bring readers and poems closer to the dead, to the idea of other deaths. Poems therefore, might inspire the desire to stop future deaths. Ecopoetry then, is a practice of staying with failure and with the dead by acknowledging the complexity of relations of the Anthropocene and, with care, learning to live with them with the hope that, as Cobb writes "learning to be dead, something can live" (source 107). This wound of the knowledge of death is a starting point for writing ecopoetry that reflects entanglements between ecopoetry and the Anthropocene. The answer is to work with the power of poetry to overcome mourning and lament

as a generative tool of action and regeneration. Cobb and Spahr develop the lament from mourning for Anthropocene deaths, which are constitutive of this proposed epoch, rather than an unintended consequence of it.

These elegies extend a sense of loss of nature as a regenerative source to loss of nature as represented by Romantic ideals and values, but also develop from Romanticism's critique of industrialization and Enlightenment thinking. The Romantic pastoral, with its idealized constructions of nature, was "a source of resistance to social injustice" (Tuckey 8). However, the Romantics "valued individualism and saw nature as a resource in support of new ideals," extending ideals of the Enlightenment and industrialization more than radically opposing them (7). While Romantics infused poetry with social conscience that the natural world offered, contemporary ecopoetry draws social conscience and environmental activism from the material evidence of anthropogenic action. And while the elegy might be depleted of its regenerative powers because nature is absent, it nonetheless offers the possibility to articulate the multiple voices of the Anthropocene. An important step in this project is that poets adopt a standpoint for writing ecopoetry that situates them in what Robert Duncan has termed "a vulnerable availability" to the world and all its elements (Nieman 84). This availability reflects on the entanglements between ecopoetry, the atmosphere and the geology of the Anthropocene and develops from the conflation between the decentering from the lyric "I" in late modernist poetry, the science of ecology, and techniques of opening the poem through fragmentation and open verse.

Echoing

Ecopoetic elegies show a move in poetry from idealized nature to ecology and its ideas of interrelation and multispecies communities. The ideological load of the pastoral thus gives way to silence and unintelligibility of the ecopoetic elegy that develops from ideas of ecology. Some key ideas and metaphors of the Romantic rhetoric are explicitly rewritten by contemporary ecopoets present in this thesis such as Lisa Robertson, whose *The Weather* infiltrates the rhetoric of sincerity and Evelyn Reilly, whose *Styrofoam* reworks metaphors of sublimity and transcendence. I discuss their work in greater detail in the *Atmospheres* chapter precisely due to the aerial character of the Romantic ideal of nature and the implications its rhetoric has for cultural perspectives on nature. Here I want to focus on how ideas and models from ecology lead to a fragmentation of the Romantic idealized nature, in particular by the critique of the lyric "I", and developing ideas of organicism in accordance with ideas of ecosystems. Sound and breath are central in this process because they materially convey ideas of energy, communication and interrelation between the poem as field and the exterior ecosystems with which it relates.

In modernity, the idea of nature as a cyclical background to human life gradually lost its status of an *other* to become inseparable from human action on the planet. For the modernists, nature is no longer an "ontological, aesthetic, or moral certainty and is an open, urgent question" (Schuster 21). Nature, in this sense ended, and ecology began. Ecology, a branch of biology that studies the interaction between organisms and their biophysical environments, transformed nature in ecosystems, life into interaction within systems. Poetry of high modernism and post-war poetry expanded on these ideas of system, field, and interaction between poet and world as exchanges of energy de-centering the lyric "I", a move started in the 1900s both in Europe and in the United States. Ezra Pound proposed poetry without the Self that kept poetry in the realm of emotion and not of the material world with which it was related. T. S. Eliot used poetic techniques that depersonalized poetry such as extensive citation and reference in *The Waste Land*, F. T. Marinetti argued for a non-human focus in poetry in the *Manifesto of Futurism*, and Guillaume Apollinaire worked with sound poetry, visual poetry, automatic writing and machine poetry that likewise removed focus from the human. The decentering of the human, inherent to ecological thought, "engages questions of form most directly, not only poetic form but also a form historically taken for granted—that of the singular, coherent self," important for promoting ideas of community building in contemporary ecopoetry (Wirth and Gray xxix). Also imported to poetry, ecological notions of entanglement materially opened poems to the world through the use of open verse and fragmentation.

Charles Olson's "Projective Verse" (1950) also aimed at a poetry without "the lyrical interference of the individual as ego" and its line was measured by breath as the medium of interconnection between poet and the world (395). The poet's self gave way to the "energy transferred from where the poet got it (he will have some several causations) by way of the poem itself to, all the way over to, the reader" (387). For Olson the shape of a poem ought to track, or map, the movement of its thought or set of thoughts. Thus form is created by this relation, making the poem an event, rather than a fixed and closed object. As Duncan says in an interview: "Even if we posit a closed form, its readings aren't closed, and never have been. And when we have an open form we let the poem ride the vitality that language always has, and we ourselves adventure into that" (qtd. in Faas 4). Openness for Duncan is thus an inevitable condition of language and poetry. As Michelle Nieman points out, "Duncan's work is central to the projectivist ecopoetics that Black Mountain poets developed in the 1950s and 60s" and is centered around the impossibility of control of meaning and a consequent vulnerability, thus influential to contemporary ecopoetry (84-5). Duncan's stress on vulnerability asserts a relation of openness between poet and world, in which the "poet's role is to practice and model a participation that respects the agency

of others, humans or more than human, in the compositional field" (85). For Duncan, this compositional field is the result of a relation between multiple agents, not overseen by the poet, as for Olson, but rather where the poet "enters only by invitation of its own lively orders" (86). Although cybernetics, process philosophy and systems thinking that developed from the science of ecology were adopted both by Olson and Duncan, the latter extended the idea of field to the agency of multiple others to whom the poet remains available.

In McClure's work availability to these others implies communication. Energy becomes tied to the idea of poems as biological systems and sound as communicative transmission of energy. "Poetry is biological," we read in "Blake and the Yogin," McClure's essay on poetry as embodied practice, as sound results from movements of the body and in accordance to its states. Like meditative states in several traditions, William Blake's poetry also resulted from meditation practices, McClure argues. Accordingly, poetry is also embodied meditative practices such as to "writher, twist, groan, cry, sing, chant, kick, twist, moan, weep, or laugh" (140). In the 2013 introduction to *Ghost Tantras* McClure develops ideas underlying his sound poetry instructing his readers to: "READ ALOUD AND SING" the poems. "These are spontaneous stanzas published in the order and with the natural sound in which they were first written. If there is an 'OOOOOOOOOOOOOH' simply say a long loud 'oooh'. These are his 'personal songs'."

Here is an example:

SILENCE THE EYES ! BECALM THE SENSES !

Drive droor from the fresh repugnance, thou whole,
thouh feeling creature. Live not for others but affect thyself
from thy enhanced interior – believing what thou carry.
Thy trillionic multitude of grahh, vhooshes, and silences.
Oh you are heavier and dimmer than you knew
and more solid and full of pleasure.
Grahhr! Grahhhr! Grahhhrrr ! Grahhr. Grahhrrr.
Grahhrr-grahhhrr ! Grahhr. Gahrahhrr Ghrahhhrrrr.
Ghrarrrr. Ghrahhr ! Ghrarrrr. Gharrrr. Ghrahhhrr.
Ghrahhrr. Ghrahr. Grahhr. Grahharrr. Grahhrr.
Grahhhhr. Grahhhr. Gahar. Ghrahhr. Grahhr. Grahhr.
Ghrahhr. Grahhhr. Grahhr. Gratharrr ! Grahhr.

Ghahrr. Ghraaaaaaahrr. Grhar. Ghhrarrr ! Grahhrr.
Ghrahrr. Gharr ! Ghrahhhhr. Grahhrr. Ghraherrr. (49)

The poem invites performance by readers by reading out loud, sonically reproducing McClure's embodied poetics of biology and organic entanglements. The body is the connecting thread between the fields combined by the poet in his work: biology, chemistry, anthropology, Asian philosophies, performance art, music and psychedelic research. For the poet, these different fields, including poetry, are also connected by a type of research that reverses traditional scientific methods from a mechanistic perspective to an organic, developmental, and relational one:

> The new scientific vision sees life creating itself *outward* from the minutest physical level to the macroscopic world of muscles, organs, perceptions of the senses, and animal activities. Till now man has looked into himself to see technically ho HE *works*. The process is in reversal. We look to the submicroscopic to discover how we are *created* – how the molecules become structures in a cell, how they coil themselves and move strings of acids carrying messages and directions, how the cells make the types of meat. At last, finally, the CREATURE is visible. This is an absolute shift in vision that alters our relationship to the bodies, atoms, and subatomic practices in our finger as well as to those in outer and distant space. ("Pieces of Being" 129)

McClure's poetry corresponds formally to this organic structuring and development of life in lineation which grows from interactions between accretive lines relating somewhat organically, exchanging energy, stress, and informing each other. The poem grows, like a structure formed from nuclear interrelations that create bodies. As Jonathan Skinner illuminates in an essay on Olson and McClure's poetics and embodiment: "Unlike the projective poetry line that comes 'from the breath' McClure's lines suck breath into their twisting vortices ('swirls,' as he likes to call them) of exclamation, observation, invocation, assertion, confession" ("Visceral Ecopoetics" 70). These vortices are then energy and breath performing the exchanges that chemically happen between and within cells. The influence of ecology on McClure's poetry is profound and extends the possibility of interrelating poetry with other biological systems. Sound represents how interrelation materially manifests as energy transference, body and poetry are biological, poets are mammals communicating. As McClure writes in "Pieces of Being:" "As we are clusters in a multiplex structure, we are also not a SELF or an INTELLIGENCE. We are congresses of SELVES and of INTELLIGENCES" (128). Here I read an early multispecies poetics that extends to contemporary ecopoetic practices of creating community and searching for trans-species communication

and collaboration. The attentiveness to sound is also a way of positioning oneself in a place of vulnerable availably, as Duncan termed it, from where it is expected that poetic form evolves. Sound grows from within the cells and the body of the poet in interrelation with its surrounding and echoes back into the poem, in a type of echolocation.

Contemporary ecopoet Skinner proposes a poetics of slow listening that "can turn our lumbering ears into instruments for unwinding the musical microcosm inside a sparrow's ear [and we can] at least begin to hear what we aren't hearing" ("Slow Listening" 244). His own practice of slow listening includes working with echolocation to have poems echoing birds' songs in ways that affect form. In his "Blackbird Stanzas" birds' songs are recorded, played and slowed down, and, Skinner explains, they model "variety, density, and rhythm for the five to eight lines of each stanza" (243). Spectrograms of the recordings create a second layer of echo within the poem, the poetic line reverberating in the images as means of comparison. The reader/listener is thus left with a field of communication in which sound waves are translated visually and into poetic line echoing back to sound, which is imagined if we do not listen to the recordings of birds, or real if we do. Sound waves have a dual role, Skinner writes, "to communicate but also to echo back" which is used by the oil and fishing industries by sonar and by "the percussive generation of controlled seismic energy sources" through explosions and other forms of sonic mapping (236). Extending from Olson and McClure's work with sound and ideas of communication and interaction, Skinner's practice of using sound forms and soundwaves poetically is intent on communication and ideas of community. There is a political and environmental stance that we can read as another way in which the Misanthropocene ends: by listening to these others and if not promoting forms of communication, at least recognition of these other languages.

Singing in Protest

In addition to studying the relations within systems, ecology provided technical knowledge to manage them, both in agriculture, land management, and later in society. Ecology

> became a tool to manage the future. [...] whether the emphasis fell on conserving soil or expanding production, in the mid-twentieth century ecology was viewed by many of its practitioners as an applied discipline and one that might even decide the future

> progress of society— and the world as a whole (Warde, Robin and Sörlin 74, 77-8).

Ecology made clear the possibility of transforming and managing nature according to scientific principles which were also imported to political models and social life. Ideas of ecosystems, networks, and distributed agency flowed into social and political organization. The environmental movements of the post-war period reclaimed the intrinsic rather than instrumental value of nature, and poetry gave early examples of ecopoetics. The ecopoetry I discuss in this thesis connects to early ecopoetics formulated by Lorine Niedecker, McClure, Snyder, and others, who in different ways imported and reworked ideas of ecology in their poetry, both thematically and formally. However, these poets were also critical of the application of ecology to the management of society that extends to today's argument in favor of bioengineering that derives from the Anthropocene concept. The poetic line is thus both a place for enacting ideas of ecology and a place of political and environmentalist contestation. Poets associated with the Beat Generation and the San Francisco Renaissance shaped a poetic response to science, promoting an early environmentalism and exerting a strong influence on the environmental movements of the 60s. Poets like Allen Ginsberg ("Plutonium Ode"), Gregory Corso ("Bomb"), Anne Waldman ("Uh-Oh Plutonium!") and others have directly addressed the consequences of nuclear energy, in the form of elegies or satires, in their critique of post-war western society.

Early environmentalism integrated science and spirituality, and demonstrated an awareness of the interdependent relation between humans, other organisms, and the world. Ecological notions of interrelation echo Duncan's ecopoetics that sees the individual as an element of a system which she or he does not control and therefore "invites us not to seek technoscientific mastery of Earth and Cosmos but to participate in them playfully by cultivating vulnerability and a 'vital weakness'" (Niemann 86). This is an ecopoetics of syncretism between biology, cybernetics and spirituality, that posits a relational place for humans in the larger complex world. Moving forward to the end of the century we find in John Cage's "Overpopulation and Art", an example of a poem that takes the environmental problem of overpopulation as an opportunity to propose alternative political, poetic and environmental models of society.

Cage's manipulation and appropriation of texts are practices shared with contemporary ecopoets, such as Reilly, Osman, and Cobb. There are affinities between Cage and Susan Howe, but whereas the latter's excerpting and rewriting of Puritan sources points to a vitality of language and an editorial exercise she wishes to overturn, Cage's is directed toward randomness and chance. Both authors, nonetheless, see their work opening language beyond its political and

discursive constraints. For Cage this meant adopting what he considers the structures of nature. As Joan Retallack points out:

> Cagean experimental strategy, which from the fifties on always began with this question: What can we discover when we stop trying to describe nature through our emotions or as if holding up a mirror to reflect her forms? Cage felt that we should not attempt to imitate nature's appearance (always saturated with our desires), but instead adopt her manner of operation. In that way we no longer stand apart from the rest of the world but participate in it as one among many. We join in the ecodynamics of what Cage liked to refer to as the global village whose inhabitants—human and others—have equal value. ("What is Experimental Poetry" par. 38)

Ideas of networks, ecosystems, communities, ecodynamics and globality are, therefore, foundational to Cage's poetics. In "Overpopulation," Cage adopted chance composition to a mesostic, a poem in which the medial letter of each line spells out a word. It has three main themes: the first is that time is an advent—the past is a continuous present always being narrated by the planet itself—the second is that metaphors for the imagination of the global are a departing point for action, and the third is the idea that reality is composed by chance, unpredictability and uncertainty.[15] "Overpopulation" begins by stating that:

abOut 1948 or 50 the number of people
liVing
all at oncE
equaled the numbeR who had ever lived at any time all added together
the Present as far as numbers
gO
became equal to the Past
we are now in the fUture
it is something eLse
hAs
iT doubled
has It quadrupled
all we nOw
kNow for sure is
the deAd
are iN the minority
they are outnumbereD by us who're living

[15] See Jaeger for an interpretation regarding "the related pursuits of avant-garde art-making practice, non-violent anarchism, Buddhist awareness, and the revival of esoteric western spirituality" (103).

whAt does this do to
ouR
way of communicaTing (14)

The first lines of the poem establish the fall of the distinctions between present and past. From this temporality Cage later in the poem develops a theory of anarchy in the globalized world, which he sees as the creative expression and exercise of individual liberty. Overpopulation becomes then, the possibility for a utopia. As the poem continues

in this situatiOn what's the artist's
proper behaVior
[...]
getting rid of the principles
of lAw
of coNtrol increasing
worlD
And life enjoyment
seem moRe radical (18)

In concrete terms, Cage's utopia would be supported by a sensible use of resources, by the development of energy sources other than fossil fuels and a totally automated industry to provide "creative unemployment." As Ursula Heise points out, this poem reflects "the question of how global ecological and technological systems might be represented, what kinds of human collectivity they enable, and what modes of inhabitation planet-wide communities entail" (*Sense of Place* 81). The thrust to move in this direction is given, in Cage's utopia, by the knowledge of the planet and the human species as one integrated entity, also expressed in Buckminster Fuller's allegory of Spaceship Earth, and Marshall McLuhan's notion of the global mind:

All of us live in
The same place the planet earth
there Is
nO
differeNce between
whAt
happeNs to some of us
anD
whAt
happens to the otheRs

whaTever happens happens
tO all of us   our problems
are not Various
thEy
aRe identical   (26-7)

Heise argues that Cage's text does not denote paranoia about global surveillance and anxiety over loss of identity and sense of self in a global ecosystem, as other works of the period, but rather early ideas of global citizenship (88). In my reading of the poem, another relevant aspect of Cage's sense of a global citizenship is the link it establishes with contemporary ecopoetry, in which this citizenship is extended beyond the human to include the nonhuman. The poem does not follow the apocalyptical rhetoric of the environmental movements. On the contrary, Cage's starting point is not that we live in the end of times, but that we might communicate and relate differently, because of the global citizenship and technology brought by the great acceleration. His poetic anarchic ideal is:

tO overcome
the Patriarchical thinking
the aUthoritarian structures
and the coLdness
humAn
noT togetherness
the necessIty
tO develop a culture
that coNsciously opposes the ruling culture (23)

In its proposal to appropriate culture (media, language, poetic forms) the poem is close to the theses of the *#Misanthropocene* and to Cobb's notion of ecopoetry that starts from failed linguistic structures. Answering Cage's question about what climate change does to our way of communicating, ecopoetry proposes communication from new poetic and linguistic structures, sound and touch. McClure's embodied biological poetry is also guided by communication and multispecies togetherness, however, and as for Cage, the *naturalization* of poetry is not available for contemporary ecopoets. McClure's biologism of poetry and Cage's method of adopting structures from nature are difficult to adopt by contemporary ecopoets for whom the poem starts from nature as fractured, non-cyclical, toxic and non-transcendental. The structure that both poets see in nature, either cyclical or random, is tinged by anthropogenic action. The poems I study in this thesis are influenced by the revolutionary intensity of McClure and Cage's proposals of poetry as embodied practice and his anarchist ideals of society to counterbalance environmental disaster.

Ecopoetry relates to a history of political and environmental activism that has envisioned alternatives to environmental disaster rather than focusing on apocalyptic discourses. Grief is a staple in environmental writing to which the apocalyptical discourse that permeates much of environmental literature and nature poetry testifies. As Cobb, Spahr and Clover's work shows, ecopoets move from tradition towards poetry that explores ways of overcoming grief and suggesting connections with and emotions for others. Contrary to apocalyptic discourses and to melancholia that does not foresee meaningful action in face of environmental crisis, ecopoetry in fact develops from this rupture, this suffering, toward experimentation in language and activist practices. I relate Spahr and Clover's *#Misanthropocene* with Lawrence Ferlinghetti's 1976 "Populist Manifesto" illuminating the tradition of poetic interventions. As Ferlinghetti wrote: "Poets, come out of your closets / no time now for our paranoias & hypochondrias, / no time now for fear & loathing, / time now only for light & love" (45). Both works illustrate poetry's role in history, politics and social change, by writing and sharing it, and by becoming part of a larger movement of change in environmental activism.

Hillman's work shows the use of poetry as social protest against war and in pro-environmental movements, as well as the conditions and consequences of that engagement, for poetry and for herself in her poetry. It is with some humor and pragmatism that Hillman discusses how to employ what she terms "reportorial poetry" while "one is doing an action & thinking about something else" in "Reportorial Poetry, Trance & Activism" from *Practical Water* (33). Action is here understood as a protest action or some form of activism, and as the poet writes:

> Meditative states can be used to cross material boundaries, to allow you to be in several places at once, such as Congress & ancient Babylon.
>
> I recorded notes in Washington while attending hearings & participating in actions to make the record collective & personal. Working with trance while sitting in Congressional hearings i recorded details into a notebook.
>
> If bees can detect ultraviolet rays, there are surely more possibilities in language & government. The possible is boundless. (33)

Hillman's meditative and trance states infuse the poetic field with an openness to the boundless possibilities of language. This method not only inhabits the fracture of paradigms of narration and representation, but it also actively fractures them by proposing meditative states as ways of crossing material boundaries, and therefore of breaking form. The possibility to cross material

boundaries allows for active relations with others that Hillman extends to the geological in *Cascadia*.

Certainly the aggregated effects of anthropogenic action on the planet lead to melancholia from a deep sense of fracture and crisis. Furthermore, published after the attacks on the World Trade Center and the war on Iraq, that for North American poets opened a metaphorical and material space of crisis, several of the poems in my sample address the colonial legacies of the military industrial complex and the imperialistic background to the war, and its relation to the fossil fuel industry. Spahr connects suffering from the attacks and war in a common atmosphere in *This Connection of Everyone with Lungs*, Hillman infuses the epic narrative of the war in Iraq with air in *Pieces of Air in the Epic*. Both works show how particular atmospheres surround and penetrate domesticity and daily life, excluding the possibility of places of refuge from it. Newspaper headlines about dead Guamanians in the War on Iraq are inserted in Craig Santos Perez "ta(la)ya" and combined with Chamorro expressions of grief; the juxtaposition of languages reflects the legacy of military colonialism on the island.

However, ecopoetry brings a vitality to literary environmentalism from the poets' engagement with experiences of collectivism and radical organization in a move beyond melancholia toward committed action. Ecopoets work with cultural constructions, poetic forms and language to propose healing, forms of embodiment, acknowledgment of others and sense of community. All these actions invest poetry and language with the power to give alternatives to environmental destruction and suffering while intervening culturally, socially and politically through readings, the sharing of texts and protests. I see vitality as a common feature in ecopoetry. It is possible, a hopeful Reilly writes, that

> we are in a moment of amplification, of more, just more and more poetry related to the ecological, that, in an inverse of 'no poetry after Auschwitz,' we are in a moment of 'all poetry after Katrina,' or the Deepwater Horizon, or Sandy or whatever it is that comes next ("Environmental Dreamscapes" par. 5).

This amplification answers to the amplification of the environmental crisis to which ecopoets uphold the aesthetical, ethical, political and affective dimensions of poetry needed to revert the scale of environmental destruction. The poems I analyzed seek to move and touch their readers and listeners, but also to rework and explore language as a larger project of contributing to a change in paradigms of relation with the planet.

The work with paradigms of representation and thinking about nature in contemporary ecopoetry I delineated in this chapter shows how they are present in ecopoetry more as shifting models than fixed values. Vitality of language, possibility to overcome grief, relation to body and planet and communication

with its multiple species, its atmosphere and geology, and environmental activism, are all present and in different ways negotiated in ecopoetry. Thinking atmospherically, I suggest ecopoetics as an open field of interrelations, rather than a chronological development, or an organic or cyclical arrangement. Chronologically, ecopoetry is the most recent development of a poetic relation with nature in North American culture; it recycles some of its fundamental paradigms as way to engage poetry with the contemporary bio-geo-physical moment. But these perspectives obliterate the openness of relation between those paradigms and poetry, as well as the continuous presence of wilderness, pastoral, ecological and environmental ideas. These ideas are not transformed linearly, they can be asynchronous with context, as the importance of animism and magic to some contemporary ecopoets, or even the prevalence of the pastoral, show. The ideas and models of nature in North American culture I have traced in this chapter privilege ideas of community and communication that I will now expand on by looking at the ways in which ecopoetry creates community and the practices of communication it proposes.

II – A Song of Ourselves

Ideas of community are central in ecopoetics' environmentalist ethics. Mourning in ecological elegies grounds the perception of others in suffering, creating a community of loss. Ecological models of interrelation are reflected in poetic techniques of decentering the text from an anthropocentric perspective and shifting into an ecological community. Activist practices are communitarian at root and purpose. Here I discuss how ecopoets explore, in poetics and form, ideas of multispecies, organic and inorganic atmospheric and geologic communities. I start by characterizing the community of ecopoets whose work I discuss in this thesis, and move on to ideas of community and ways of communication in the work of Evelyn Reilly and Brenda Hillman.

Writing ecopoetry is one among other actions taken by ecopoets in a larger commitment to environmental activism. As part of ecopoetics, this activism is extended to the fight for women's rights, the LGBTIQA struggle, and efforts to battle racial and disability discrimination, that is, social movements opposed to the same cultural patriarchal paradigms of nature exploitation that lead to the current environmental crisis. The work of poets, artists, activists and scholars shows that community-building is at the core of ecopoetics, considered as a critical practice of being in the world and with others. Ecopoetry thus becomes one of the tools of community-building. Ecopoets create community by starting from the materiality and situatedness of their own bodies to recognize the existence of others, human and nonhuman, in whose bodies the environmental, cultural and political complexities of the globalized world also become visible. As Angela Hume and Gillian Osborne show, a 2013 conference at University of California at Berkeley stressed how the writing of poetry and the formulation of ecopoetics coexist with other environmentally oriented forms of community action and activism:

> One thing the Conference on Ecopoetics illustrated is how capaciously poets and critics understand the concepts both of an ecological perspective and of poetics. Participants demonstrated that ecopoetics can encompass experiments in community-making, ranging from poetry and visual art, literary criticism, and performance to walking, foraging, farming, cooking, and being

> alongside each other, whether human or other than human, in space and place. (2)

The conference, that is, made a community of poets, artists and scholars who came together around ecopoetics. Looking specifically at literary criticism and other scholarly forms of critique, we see a constant string of papers and publications by poets and scholars of this community have further influenced the discussion. The *)((eco(lang)(uage(reader))* (Iijima 2010) and *Ecopoetics* (Hume and Osborne 2108) show this community effort and its particular stance. Both anthologies explicitly extend the discussion on ecopoetics beyond the lyric tradition and post-war canonical authors such as Robison Jeffers, Gary Snyder and Wendell Berry, situating it as a development of avant-garde, experimental, feminist, and investigative poetry. Both works explicitly engage with activist practices and environmental justice developing from earlier ecopoetic work, such as that of Robert Duncan, Michael McClure, Lorine Niedecker, Charles Olson, George Oppen, and others. Hume and Osborne's collection of essays addresses representations of the end of nature and the human; the relation between ecopoetics with science, queer, disability and critical racial studies; the uneven distribution of environmental risk; and ecopoetics as an ethical and imaginative counterpoint to paradigms of environmental management and sustainable development (7). The poets and artists behind the (poetic) essays in *)((eco(lang)(uage(reader))* share a similar preoccupation, foregrounding language, structure and form. The make-up of the community echoes Cheryl Glotfelty's statement in the introduction to the *Ecocriticism Reader* (1996) predicting that ecocriticism will be "ever more interdisciplinary, multicultural, and international" (xxv). Ecocriticism, she writes, "has been predominantly a white movement [that] will become a multi-ethnic movement when stronger connections are made between the environment and issues of social justice, and when a diversity of voices are encouraged to contribute to the discussion" (xxv). The conference and the critical and poetic works point toward this contemporary direction of ecopoetics similar to that of ecocriticism.

The community in focus here expands to South America, Canada and territories under North American administration. The ecopoetry anthologies speak to the question of national identity which is important among the (human) members of the community, because of the situated contexts of many of the poets included. The main themes of Craig Santos Perez's poetry, for instance, are Guam's colonial history, the environmental and social impacts of the U. S. military presence in the Pacific, and the unequal distribution of environmental risk on the Pacific Islands.[16] Particular environmental disasters constitute

[16] Craig Santos Perez poetry has also been anthologized in *Ghost Fishing* ("*ginen* the Micronesian kingsfisher [*I sihek*]" and *Big Energy Poets* ("The Age of Plastics").

another context, like the 2010 Deepwater Horizon spill in the Gulf of Mexico, which prompted the creation of a "co-edited, online international poetry response" entitled *Poets for Living Waters*, whereas the printed anthology *Big Energy Poets: Ecopoetry Thinks Climate Change* which followed in 2017 focuses on the American continent, including South America (Brazil and Chile) and Canada (Staples and King 13).

Publication policies for these anthologies, as well as the editorial process, illustrate how community is built. *The Arcadia Project: North American Postmodern Pastoral* was backed by a Kickstarter crowdfunding campaign to help with publishing and printing costs. It had an accompanying teaching website, now unfortunately down, showing a pedagogic intention behind the anthology, which I relate to a project of community building. The *Poets For Living Waters* poetry forum, from which the *Big Energy* anthology resulted, and the later public reading in Washington DC were a community activist response of poets and artists. *Natural in Verso*, which includes Gabriel Gudding's poem "Jeremiad," that I mention in the "Mourning" section of the first chapter, in particular, illustrates another practice of community-making. This anthology comprises poems by Portuguese and North American poets, some of them descendants from migrants or migrants themselves in both Portugal and the U.S., and is divided in two parts: one in Portuguese, the other in English. All the poems are in the two languages. The poets wrote and translated their own and each other's poetry practicing a form of cultural exchange and sharing that also promoted an idea of community. *What Nature* includes poetry from Sweden, Iceland and other countries besides North America, thus also engaging in a kind of translational dialogue showing that environmental issues and ecopoetic ideas are globally connected. Poets also individually write and publish ecopoetry as part of an effort to build community by making their works available online for free. Some of these include Joshua Clover and Juliana Spahr's *#Misanthropocene: 24 Theses*, and Spahr's *That Winter the Wolf Came*, published by Commune Editions, and Allison Cobb's *Plastic: An Autobiography,* published by Essay Press. All issues of the journal *ecopoetics* are also available online for free. [17] In a related example, both Evelyn Reilly and Allison Cobb authorized me to translate their work waiving their royalties as authors. Reilly's *Styrofoam* and *Echolocation* will be published by the Portuguese publisher Douda Correria and will be sold at a price calculated to cover only printing costs, and Cobb's *Plastic* will be made freely available online. Neither authors, translator or publishing

[17] For the *Arcadia* anthology Kickstarter campaign see: https://www.kickstarter.com/projects/1538145008/the-arcadia-project-north-american-postmodern-past; with editor Corey's webpage here (including the link to the teaching site): http://www.joshua-corey.com/new-page; for Spahr's work see: http://communeeditions.com/that-winter-the-wolf-came-juliana-spahr/; for Cobb's see: http://www.essaypress.org/ep-35/; and here: https://communeeditions.com/misanthropocene/; for *ecopoetics* see here: https://ecopoetics.wordpress.com/, [Accessed July 17, 2020].

house will be paid or make any profit from these works. In an e-mail exchange concerning the authorization to translate her works, Reilly wrote that she authorized the translation because "Poetry is a labor of love in all fronts," which then became the opening statement and justification for the signed authorization form between poet, translator and publisher. In a similar way, Cobb authorized and enthused about the translation of her work.[18] Summing up the communitarian effort of ecopoetry as a labor of love evidences the engaged writing and publishing of ecopoetry as a larger environmentalist and communitarian project, with which ecopoets are committed.

Poetics of community

Jed Rasula's idea of "compost" that I see ecopoets metaphorically transforming and opening to the atmosphere of the Anthropocene synthetizes ideas of community and practices of community-making in ecopoetry. A compost is a community of multiple beings and organisms relating with each other, burrowing and airing the ground. Modes of relation between composters are examples of community-making. Importing terminology from biology, we see these relations are "symbiotic assemblages, [...] knots of diverse intra-active relatings in dynamic complex systems" (Haraway, *Staying with the Trouble* 60). Haraway's definition of *holobiont* develops from evolutionary theorist and biologist Lynn Margulis' pioneering work on symbiosis evolution, that proposes that life evolves from collaboration rather than competition. Collaboration is thus turned into the fundamental organizing principle of life in Margulis' argument that cells with nuclei result from mergers of bacteria that maintain their traits and collaborate to form symbiotic entities. Holobionts live and develop in symbiosis, "living together in physical contact of organisms of different species," and, bringing us back to the compost, these relations happen between "fellow symbionts [who] abide in the same place at the same time, literally touching each other or even inside each other "(Margulis, *The Symbiotic Planet* 2). In this sense, life at the most fundamental level of cellules and bacteria, develops from generative collaboration, intimacy, and touch. Importing these ideas to the airy compost of North American poetry I want to think in this chapter in forms of relationality in ecopoetry that show a community in the making and essaying of ideas of community as open and unstable.

Margulis, who also co-developed the *Gaia Hypothesis* with James Lovelock, expanded the concept of symbiosis to the systems of the planet, making Earth an holobiont, an assemblage of a host and the other species living in or

[18] Reilly, Evelyn. "Re: Nuno from Portugal /Sweden asking permission to translate and publish Styrofoam and Echolocation to Portuguese." Received by Nuno Marques, 21 Feb. 2019.
Cobb, Allison. "Re: permission to translate Plastic an Autobiography and (maybe) some other texts to Portuguese." Received by Nuno Marques, 23 Aug. 2018.

around it. When thinking about Gaia and homeostasis, the tendency of the Earth System to keep its temperature and atmosphere composition stable, it is important to underline that this is an ongoing process of adaption and reformulation. As Margulis explains, Gaia is "neither vicious nor nurturing in relation to humanity; it is a convenient name for an Earthwide phenomena of regulation of temperature, acidity, alkalinity and gas composition," and if the planet tends toward stabilization it is not to support human life (149). This type of non-anthropocentrism, that sees the planet as a collaboration of multiple beings, from the tiniest single cell organisms to complex systems in ever changing regulatory processes, favors unexpected relations, openness, change, creativity. Because there is not a single system it becomes nearly impossible to point out defined 'selves' or unities when all beings are composed, already at the cellular level, by multiple organisms in collaborations. Intra- and inter-action, collaboration and symbiosis, decentering and multiplicity are imported by ecopoets as ideas of community, which reflect on poetics and poetry. Ecopoems can be holobionts, symbiotic assemblages, intra-active relations between a text and other texts, traditional or contemporary, and between texts and multiple organisms, as in the example of Stephan Collis and Jordan Scott's *Decomp*, written by microbes, insects, fungi and weather. Ecopoems can also metaphorically convey symbiosis between poets and other organisms and inorganic agents in a larger community. I suggest that the poetics and poetic forms of Reilly and Hillman represent two different approaches to symbiosis, what Hillman writes as to "live simultaneously. As mitochondria, as rhizomes, as the roots of words, with abandonment and error" ("Beyond Emergency" 95). I position Reilly and Hillman's poetics differently within the compost; Reilly's is characterized by her commitment to rework metaphor and inherited models of nature and Hillman's by her exploration of the potentialities of the lyric to convey the perception of others.

Looking specifically at poetics we see Reilly developing Walt Whitman's ideas of democratic community toward ideas of symbiosis when she asks:

> What might happen if the multitudinous, utopian-democratic, polymorphically-erotic Whitman poetic "Self" were re-constituted within the context of our post-colonial, post-humanist, globally inter-tangled and genderly profusional era? Could there be a new "song of ourselves" that expands to include many more kinds of permeable relationality, including cross-species relationality? And what kind of language critique, experimentation and innovation would that require? ("Poetics" 178)

This community of ourselves is formed by a "permeable relationality," a breaking down of barriers between self and others, interior and exterior, body and other

bodies. "And why should our bodies end at our skin?" asks Reilly in "Song of," the first poem of the section entitled "Self" in the collection *Echolocation* (15). Bodies are permeable and unstable because they do not end at the skin but rather extend to the relations in which they are constituted. Reilly relates this idea of relationality with communication, because when relating to, with and in each other, bodies communicate. Turning to language and poetry, the poet later writes "we engage /in perpetual exchange / of provisional metaphors […] discarding one each day," thus pointing to the same instability and transformation of language through communication (15-16). Inherited models and metaphors for nature become provisional when submitted to language critique, experimentation and innovation. We see this provisionality in contemporary North American poetry that is guided by an explicit effort to renovate language. Ecopoets try to disrupt the cultural paradigms of representation of nature and their inherent ecological consequences, and to find new words, to expand language to embrace nonbinary distinctions. In a blog post, Allison Cobb sums up the effort of ecopoets: "So we can sing with Walt [Whitman] a new song: My tongue, every atom of my blood, form'd from this soil, this air, and polymers" ("Between that Disgust and this"). Community-making guides ecopoetic practice: critically because it aims to bring the voices of others to the community of ecopoets, and in poetic practice because it is situated within a "post-colonial, post-humanist, globally inter-tangled and genderly profusional era" (Reilly, "Poetics" 178). In the same way, the writing of ecopoetry foregrounds the ways in which this entanglement is visible in the places and bodies of each member of this community.

Forrest Gander and John Kinsella, two contemporary ecopoets, frame this ecopoetics as an open question, a method, in *Redstart: An Ecological Poetics* (2012) asking if aside "from issues of theme and reference, how might syntax, line break, or the shape of the poem on the page express an ecological ethics? […] how does poetry register the complex interdependency that draws us into a dialogue with the world?" (1-2). While the tendency here is to relate poetic language with a search for the fragment and interdependency, Reilly seems to offer an answer to these questions in *Styrofoam* by representing the fragment in a network, and by creating a metaphorical atmosphere. Gander, Kinsella, Reilly and Hillman share the notion that there is an ethics to the writing of ecopoetry or, as Reilly states, see writing as a "correction, an amendment," a form of reparation of harms done to the environment ("Eco Noise" 257). To her, "ecopoetics must be a matter of finding formal strategies that effect a larger paradigm shift and that actually participate in the task of abolishing the aesthetic use of nature as a mirror for human narcissism" (257). The task of finding formal strategies that bring poetry to the social field, to the discussion about the relation between humans, other organisms and inorganic agents, simultaneously gives environmental agency to poems, poets, their readers and other organisms and inorganic agents that enter

and relate with the poem. In Reilly's ecopoetics the search for formal poetic strategies plays a major role in giving agency to the poem. Formal experimentation is done with an "effort to change the way we think, write, and thus act in regards to the world we share with other living things" (255). Ecopoetics is, then, a way to change discourses and open language to the multiple others—human, other organisms and inorganic agents—that constitute reality, and a way to criticize and understand the cultural roots of the ecological crisis, or, as Reilly argues, what is made possible by the ontological "self-separation of humans 'from'" nature (257).

For Reilly, the sinking of the *Pequod* in *Moby Dick* dramatizes the dialogue between contemporary ecopoetics and inherited poetic models:

> An ecopoetic silence fills the page as the *Pequod* descends to the ocean's depths. The deranged captain has been destroyed. The polyglot crew (excepting, of course, Ishmael) is about to meet its end. Perched on the top of the mast, Tashtego, a descendent of the tribe that first encountered the Pilgrims, is the last to disappear, and along with him, a compendium of benighted metaphors: whiteness as soul, leviathan as human overreaching, beast as mirror of the darkness in the human heart. ("Eco Noise" 255)

Silence substitutes all representations of the whale that sustained the exploitative relation between humans and whales, here a metaphor for nature. What is left, is

> Ishmael, floating in his cradle-like coffin, in the wake of an exercise in factory-hunting gone terribly awry. The only silence of course, is that of the machinery of slaughter. What actually fills the air is the noise of a world larger than the self-reflecting symbols we, Ahabs all, would make of it. (255)

The moment of silence that fills the page is key in Reilly's ecopoetics. This takes us to a familiar idea in the representations of nature in North American literature: nature is where civilization ends. But Reilly gives a different spin to the civilization/wilderness duality. Because when the machinery is silent, the noise that fills the page is not the sound of wilderness, or of pristine and benign nature, but rather the echoes of slaughter, the waves rolling in with toxic residues, the new structures born from decomposing plastics and plankton. The materiality of human agency on the planet forces the poet to be open to all forms and elements in the noise of the world. In other words, language must be reworked to move further from the binary conceptions of natural/artificial; nature/culture; humans/world.

But here we are at the moment when the *Pequod* goes down, with all its equipment and crew, the moment of, as Reilly writes, the failure of a factory-

hunting exercise. This is where Reilly choses to situate her ecopoetics, at the end of the whaling industry, just before the oil industry began. The whaling industry in itself was not Melville's focal point in *Moby Dick*, except for what it showed of the traits of the American character that he wished to portray. As Charles Olson states in *Call Me Ishmael* (1967) Melville was concerned with the main tropes of that character: the ideas of energy, potential, velocity, quantity and space (69). These ideas are ingrained in North American culture and are used to represent nature and the relation of the national character with it. However, Melville focused on one particular expression of these ideas, which is, according to Olson,

> the will to overwhelm nature that lies at the bottom of [the Americans] as individuals and a people [...] if you want to know why Melville nailed us in Moby Dick, consider whaling. Consider whaling as FRONTIER, and INDUSTRY [...] The whaleship as factory, the whaleboat the precision instrument (12, 23).

This is also the starting point of Reilly's ecopoetics: the beginning of modern capitalism, and the discourse of American exceptionalism, a type of communitarian relation with nature established through exploitation. This particular point of Olson's analysis is not new since it directs us to the fundamental idea of hubris present in *Moby Dick*. However, it connects with Reilly's explicit criticism when situating her ecopoetics in the consequences of hegemonizing power structures and extractivism sustained by the will to conquer nature. It is expected that a new multispecies community is formed when the machines of language and violence are silent, formed by collaboration rather than exploitation.

Reilly's work shows an effort to ground ideas of beauty in the materiality of bodies and their ecological contexts and entanglements, rather than relying on ideas of transcendental beauty. Returning to that moment of silence and the noise that fills the page, for Reilly, ecopoetics is a practice of openness to that noise. She articulates a practice of changing discourses and opening language to the multiple others, human and nonhuman, organic and inorganic that constitute reality. It is also a way for her to depart from the cultural constructions and representations of nature, made possible by the ontological "self-separation of humans 'from'" nature ("Eco Noise" 257). The ecopoetic point of departure for the relation with the world would be, Reilly implies, to build community with the "world larger than the self-reflecting symbols we would make of it" (255). In other words, to create texts from a non-anthropocentric perspective that enact this de-centering of the human. This ecopoetics is thus qualified by Reilly as:

> an investigation into how language can be renovated or expanded as part of the effort to change the way we think, write, and thus

> act in regards to the world we share with other living things [...] an exploration of what human use of the word "n/Nature" makes and has made possible — starting perhaps with the history of naming and separation, with the concept of original sin reinterpreted as the self-separation of humans "from." [...] a search for a poetry that is firmly attached to earthly being and that is thus dis-enchanted, in the sense of being free of the mesmerizing spell of the transcendent. (255-7)

Investigating, exploring, and searching: Reilly's ecopoetics advocates a poetry of experimentation and process, situated in a world that cannot be materially separated from the poet nor from the text, and that the poet aims to relate with the text. In Reilly's poetics the prefix eco- signifies more than the awareness of the consequences of human action in the planet and the aim to counterbalance them through the writing of poetry. Eco- qualifies *poetics* and its materiality, asserting that poets, poems and language share the ecological condition of other organisms and elements on the planet. Poets, poems, and language exist in an ecological condition of interaction with other organisms and their surroundings. Ecopoetry, Reilly argues, is something that "*happens* as poets participate in realizing the full implications of our position as language-using animals in a world composed of interconnection" (261). With its focus on process and interaction within systems, her ecopoetics consequently implies an abandonment of the idea of center in favor of the idea of network, the fall of the idea of the lyrical "I" and the rise of the idea of the multiple. In this ecopoetics, the ecological principles of interconnection, and interrelation between organisms and elements in a system, point to the potential language has to express the ecological perspective and reality of contemporary times. It is assumed that by "renovating" or "expanding" language via poetry, poets might improve the relation between humans, other organisms and inorganic agents, and create a language that is more attuned to the world. Working with these questions leads Reilly to an exploratory method: poetry becomes investigation, exploration, search. In her work the terms of relation are metaphorical; the reader perceives existing relations through language and in language.

Hillman's work, on the other hand, shows an interest in the classical elements of earth, air, water, and fire, in her tetralogy consisting of *Cascadia* (2001), *Pieces of Air in the Epic* (2005), *Practical Water* (2009), and *Seasonal Works with Letters on Fire* (2014), without deconstructing their symbolical, mythical or spiritual connotations. Thematically, therefore, the work also develops a complex relation with inherited models and metaphors. Hillman's line break, use of fragment and visual disposition of text on page reflect the presence of others than the poet, like lichens, rocks, rivers, humans. Communication between the poet and these others generates the poem and is expected to inspire

and convey perception of ecological interrelations. In a poetics statement titled "Beyond Emergency," Hillman concurs with the idea that ecopoetry can overcome the melancholia and lack of will in the Anthropocene, while acknowledging the limits of her own political intervention:

> How does poetry move past models of emergency to models of chronic imagination so that we can abandon ideas of progress and salvation? Ethical practice & anarchy. Are there interventions writers are equipped to make in times of ecological disaster? It all feels useless and we act into the uselessness. For 40 years i've been reading verses to short plants. i read to short plants that cannot hear because i cannot bomb Monsanto. (94).

There is here a nurturing dimension of the communication in poetry that the poet further explores in ideas of touch and sound, acknowledging the poetic history of songs, mantras and lullabies that cheer, nurture, enchant and heal. Hillman's "song of ourselves" is an activist practice that overcomes melancholia and inaction. While for Juliana Spahr and Allison Cobb it is important to start from productive silence because suffering leads to the inability to speak, for Hillman sound has a nurturing dimension that can heal, and that moves beyond intelligibility toward communication.

In Hillman's work, entanglement among multiple species leads to a poetics of relation and communication between the poet and the others that constitute the world. The poet situates her work in the lyric's potentialities to develop, in her terms, "metaphors for emotion in relation to matter and the non-human," through imagination ("Beyond Emergency" 89). And she continues:

> Imagination is neither creative nor destructive in itself. Through empathic observation of the nonhuman, the imaginer lives simultaneously, in multiple bodies, as the not-us, outside of enclosure, to greet the enigma with what Gary Snyder calls etiquette. John Clare's badger. Ed Robertson's city eclogues. Forrest Gander's core samples. To live simultaneously. As mitochondria, as rhizomes, as the roots of words, with abandonment and error, as Flaubert writes, "on the rocks of unachieved certainty." John Ruskin, coining the term *pathetic fallacy*, did not condemn the practice but asked that poets do not confer excessive emotion on the talking rose. There is pathetic fallacy needs rehab. My animism does not embrace the talking cars of Chevron's SuperBowl commercials in which the squat cute car makes sexual innuendoes to the owner. (95)

Hillman's poetic and critical tradition is here clearly established: Snyder's environmental ethics is translated into an etiquette of living promoting the acknowledgement of and respect for others, including animals and their possible

imaginations and languages. John Clare's poem "The Badger" is an example of shared perception. Angus Fletcher, in *Theory of American Poetry* (2004), dedicates a chapter to John Ashbery's reading of Clare's poetry and "The Badger" in particular as an early example of a nakedness of vision, that is, of a poetry of immediacy, that continuously shifts center to adopt a "neutrality of vision [...]not abandoning the idea of center *per se,* [...] but rather allowing a general denial of privilege to permit a paramount role to perception itself." Accordingly, "when the badger is caught and killed, the poet adopts no dominant 'higher' stance from which he judges or prejudges the value or seriousness of the event" (58-9). The poet rather creates the poem as an illuminated perception, a full presence. Hillman's reference to the badger calls our attention to the moments of unmediated vision and displacement of center in her poetry. Ed Robertson's *Eclogues* is an example of urban environmentalism and Forrest Gander's core samples are examples of depth and time, following the lyric tradition. John Ruskin's *pathetic fallacy* stands out in Hillman's formulation because of the dilemma of anthropomorphizing nature.

For Ruskin the attribution of an excess of emotion to nature was a fallacy, an exaggeration of human pathos that crossed from the poet to nature, leading to the anthropomorphizing of matter. This, Ruskin saw as weak poetry: poetry that was taken over by emotion and could not create an elevated aesthetic representation of both the thing in nature and the emotion in the poet, ultimately leading to a sort of falseness (26-31). Keeping one's eyes "on the pure fact," on the other hand avoids excess of emotion and sentimentality, while also grounding the degree of truth of feelings conveyed by poetry in the perception and representation of the thing itself, on which no human emotion is imposed. We can read in Ruskin, the criticism of Romanticism from the perspective of a mechanistic vision of nature. As Rasula comments, "The 'fallacy' in John Ruskin's term is the attribution of feeling to the mechanical operations of 'nature'. It's basically an objection to anthropomorphism run amok" (qtd. in Reilly, "Interview with Jed Rasula" 132). Recent attempts to deploy the concept migrated "the pathetic fallacy into more subjective renderings of individual perception that privilege a kind of 'middle ground' between the object we perceive and the act of perception itself" (Burris 1010). Hillman's work shows examples of this middle ground. She tries not to endow matter with emotions, while still conveying emotion as a way of relation with the world, writing about and showing the vulnerability shared with other organisms and inorganic agents. The conflict between representing and conveying a sense of connection with the world through emotion, and the inherent risk of anthropomorphizing nature creates a powerful tension in Hillman's work. "I don't know what matter is," the poet states, "I don't know what consciousness is. But my sense that you can live with an animated presence" (qtd in Maa par. 36). Living with becomes in her poetry,

communicating with: "For me it is very important to speak to that non-human inhabitadeness that we're always accompanied by" (qtd in Maa). Her poems develop from these instances of communication.

I see in Hillman's investigation of language, that is paired with an exploration of animism, a practice of worlding, through what Martha Nussbaum calls "transformational empathy." Nussbaum "sees poetry as playing an essential role in fostering tolerance, a political emotion that must exist to counter the human tendency to respond to pluralism with greed and aggressive behavior" (Darragh 4). Empathy with others revealed in the poem and through the relation with it, either reading or hearing, transforms attitudes toward the planet. For Hillman, empathy derives from the possibility of communication between species and ecosystems through emotion. In her work, the use of fragment as a formal technique is a way of creating of a sense of shared ecologies, allowing for communication and creating empathy. The use of fragment is discussed in her poetics statement:

> Can poetry address environmental degradation using any formal technique? Is the "fragmentary" writing more suitable for ecopoetics? The same question was asked about feminist experimental poetry on the early 90s—is the use of partial or disjunctive techniques more suitable to women writing about their discontinuous days, poets asked? As i began to write "like this", i encountered mostly a male tradition in the kinds of environmental writing that were out there. *Cascadia* came from an impulse to record process-oriented emotional states, the half finished, the notational, the ragged, the syntactically scrambled that made up psychological and emotional experience in the geologic features. ("Beyond Emergency" 95-6)

The use of lowercase i affirms the decentering of the self, a self-reflexive gesture of thinking of the western I as the origin of environmental degradation. Hillman's statement shows that her use of fragment and disjunctive techniques is environmentally oriented, as in the writing of the poems in *Pieces of Air in the Epic*, in which fragmentation opens the poems to the atmosphere, and *Cascadia* in which it relates the poems with geological incidents. The poet explores this method further in the other collections of the tetratology on the elements, depicting different instances of communication with water and fire. The "half finished, the notational, the ragged" relate her method to a feminist practice "of stuttering, and the partly understood," here deployed to promote connection with nature (Haraway, "Situated Knowledges" 195). In her work, this method is paired with a poetics of animism that further creates non-anthropocentric poetry. In Hillman's work, animism establishes a connection between humans and the nonhuman, allowing for communication by representing a shared consciousness,

a middle ground, a field shared between human and nonhuman. The poet then expects that this temporary field of communication extends to the reader of the poem. When creating this field of communication, the poem is an example of the "simultaneously" living of humans, other organisms and inorganic agents as "mitochondria, as rhizomes" ("Beyond Emergency" 95).

Touching

Both Reilly and Hillman figuratively and materially work with touch as instance of communication and as evidence of community. In Reilly's work texts touch each other through her practices of quotation and cut-up. Touch is also present thematically as histories of touch in the inherently violent relation between animals and humans, and in the relation between science and bodies of women. Touch in Hillman's work is an explicit poetic practice of communication: lichens, walls, animals, objects and humans touch each other and the poems. In *Pieces of Air in the Epic*, atmospheres touch the poem and the cultural and political narrative of the war in Iraq, and in *Cascadia* the text and the geology of California touch each other. Looking at these two practices of touching illuminates their complementary ideas of community. Atmosphere enters these poets' work metaphorically when Reilly titles her collection *Echolocation* and her ecopoetic project as the making of a *song of ourselves*, and literally when Hillman opens the poem to the relation with others' consciousness. *Echolocation* takes its title from a quote by historian Calvin Martin's *In The Spirit of the Earth* (1992) that Reilly uses in the last poem of the collection: "For mankind is fundamentally an echo-locator, like our distant relatives the porpoise and the bat" (136). The same passage is quoted by Rasula in *This Compost* and influences his idea that "[p]oetry is a kind of echo-location" (8). For the historian "words and artifice of specific place and place-beings [...] constitute humanity's primary instruments of self-location". For Rasula, on the other hand, language's "repertoire of echoes is bewildering diverse [because] poetry infuses language with complexity, paradox, estrangement and uncanniness" (8). These elements oppose the clarity of perception suggested by Martin. Reilly further complicates the possibility of self-location through language by situating her work in these complexities and pointing out the adequacy and inadequacy of inherited metaphors to represent and relate with nature. I see her poems in *Echolocation* as emissions of sounds and listening to echoes, in language and within language, as ways to situate, not a self but selves in permeable relationality. The echoes draw a linguistic and cultural map of representations of nature, humans, other organisms and inorganic agents, and relations between them. The echoes come from a cultural atmosphere within which the poet also situates herself by appropriating and manipulating texts from tradition. Song and aural dimensions of poetry are

metaphorically reread through the poet's skepticism of the lyric's potentialities. Song becomes a residue of the lyric, an echo of language within language, making Reilly's poetry lively and rich with commentary, appropriation, juxtaposition and quotation, while conveying beauty in artificiality, and appraising the plasticity of form and invention. In Hillman's work, the lyric is reappraised for its possibility to relate multiple others and temporalities, investing in emotion, and by making inner and outer worlds, perceptions, and memories co-exist. By practicing close attention and openness to sound and relation with others as poetic practice, Hillman entangles her poems with the atmosphere, co-inhabited by multiple others. Both poets develop a sense of distributed selves in symbiosis that touch and penetrate each other

Hillman's poem "Composition: Fringe Lichen: Tilde & Mãe" is an account of how she sang and drew the word mãe (Portuguese for mother) to a fringe lichen on a rock. The poem shows the poet connecting the rock, the lichen, her body (by voice and touch), and identity (by the memory of her mother who was born in Brazil), with sound and gesture. The lichen that Hillman found on a rock had "tilde-like edges" and is visually represented by the tilde in the poem. Stressing the materiality of her subject matter by the use of the tilde, the poet creates a continuity or relation between language and nature. The close resemblances between the grapheme and the lichen are more than visual: they exist only in cooperation. The lichen has a symbiotic relationship with the rock and the grapheme gains meaning by being attached to a letter of the alphabet. Thereby, the reader is invited to see the lichen as a grapheme; a tilde on the rock, a small unit of organic language, and the grapheme, which is the smallest unit of a writing system, as a lichen. The tilde indicates nasalization, thus using sound to create a continuity between page, rock and lichen by extending "a sound were other life form could hear" (136). The reader is, in the lyric tradition, invited to watch this relation, and because of the visual disposition of words and symbols on the page, sh/e can relive the relation between the poet and the lichen, a relation that re-situates the human within a larger timescale. The performative aspects of the poem, suggested by the movement of the hand that "recited the tildes by lifting a finger," and the speaking of the word, also suggest the embodiment of the relation between poet and lichen. The poem results from that embodiment.

BRENDA HILLMAN

COMPOSITION: FRINGE LICHEN: TILDE & MÃE

As i have since i was a child in summer, found a rock with a fine
example of life; this time *Flavopunctelia soredica* with tilde-like
edges;

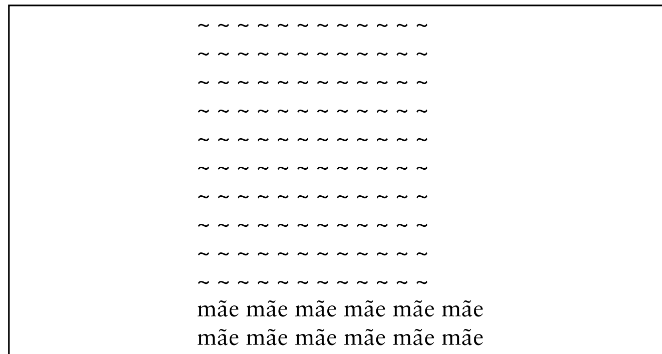
to extend a sound where other life could hear,

in hopes of accomplishing nothing, offered punctuation to the
lichen, to my mother who was very quiet at the time

so it would be heard & not heard in the heavenly sphere, at least,
as the brain imagined it there, making absolute motion, in a
harmless frame, as the granite has spoken since i was a child, in
other words,

i said *mãe*

with 10 rows of 12 tildes & 2 rows of *mãe*, in Portuguese,
i recited the tildes by lifting a finger, recited the “mãe” lines,
tapping toward Tucson, where she lives, very quietly in days she
creates . . .



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The poem relates Hillman's childhood's memories, by reenacting a gesture she made "since I was a child in summer," as well connecting her mother and ancestry with the material memory of lichens, that have existed on the planet for at least 400 million years (136). The timescale makes the poet perform and write the poem as an offering made "in the hopes of accomplishing nothing;" underlying the poem is a gesture of productive futility (136). Hillman's finger drawing the tildes on the air, and the waves of her voice touching the lichen and reaching the reader takes the latter outside the page to forms of cooperation between organisms. Poetry here functions as the medium, as John Taggart writes in the poem "Slash," to "bring closer just a little bit closer the true the truth of that body" to the perception of the reader(s) (11). The tilde, a visual, non-verbal element of the poem is the key to understanding the poem as a multispecies collaboration, an example of symbiosis. The tilde is also the aural element of the poem, the conveyor of communication and the element that connects poet and rock. Hillman does not impose on the rock, rather the lichen with 'tilde-like' edges in a way *writes* the poem. In fact, since poems are ways to relate to "this other experience of plants and animals, rocks, dirt, the things that humans are actually not inhabiting," the act of writing becomes a collaboration between poet and lichen (qtd in Maa par. 40). The agent in the line "to extend the sound where other life could hear" can be both the poet and the lichen (136). This collaboration is reflected in the nature of lichens which are a fungus and an algae living in symbiosis, expanding ideas of communication and collaboration in the poem (Taylor 244). In this sense, we can ask who is this "other life" that might hear Hillman's healing song: the poet, the lichen, or the fungus and the algae echoing to their symbiotic partner? Questions of poetic authority are here dislocated from textual semiotics to ecosemiotics, meaning is derived from the encounter, the author is dissolved in collaboration.

The composition is a string of moments of intense attention from finding the lichen on the rock, looking at it to notice its species by distinguishing its details, to stopping and performing a type of meditation. Every action in the poem concerns slowing down, looking with attention and care, a counter action to the times of urgency of the Anthropocene. Hillman's statement that the poems in the collection *Seasonal Works with Letters on Fire* are "acts of micro-consciousness" can be extended to this composition. Hillman maintains that "consciousness is varied, not one thing, not human" and accordingly rejects "the idea that human consciousness is the ultimate progress." The poet continues that it "is possible that the lichen *Evernia prunastri* knows more than a brenda" ("Beyond Emergency" 94 -99). "Composition: Fringe Lichen" can, therefore, be read as a representation of a shared consciousness, micro here meaning extreme focused attention, visually and metaphorically represented by the tilde and the lichen in an intense relational moment.

We are invited to share the poet's offering of "punctuation to the /lichen, to my mother who was very quiet at the time," a domestic dimension later evidenced with the Portuguese word *mãe* conveying family and ancestry, repeated in the final lines of the poem (136). In the first part of the poem, the reader enters this intimate space and the poem extends domesticity to the world. I understand this as an invitation to look at the structure of the poem and to reread the lyric in the way Hillman does. The heart of this process lies in the dialectic relation between the domestic and intimate dimension of the first part and the visual poetry of the second part. Visually represented and performed touch nurtures both the rock, the lichen and Brenda's mother. Touch is thus associated with the healing powers of sound. "Composition: Fringe Lichen" is one of the poems the poet has been reading to rocks for the past 40 years and demonstrates a practice of nurturing and care rather than a practice of violence and hatred, as it would be bombing Monsanto.

The relations between rock and lichen and between poet and her family, text and world, are represented by the communication full of emotion between all the agents in the poem. The granite speaks as it "has spoken since I was a child," the poet speaks and draws "a sound where other life could hear," and the relation between the granite and the lichen replicates the relation between daughter and mother (136).[19] It is likely not a coincidence that one of Hillman's communication partners is a lichen. As Haraway, puts it "lichens, are also the earliest instances of symbiosis recognized by biologists; these are the critters that taught biologists to understand the parochialism of their own ideas of individuals and collectives" (*Staying with the Trouble* 72). Hillman's poem suggests a multispecies collective with different temporalities, the lichen's deep time and the poet's biographical time. Communication is made by spoken language, gesture and emotion in a hopeful nurturing practice.

Reilly's recent poem "The Age of Loneliness" from *Echolocation* is dedicated to Hillman and a comment on "Composition: Fringe Lichen." In Reilly's poem, the encounter between lichen and poet is predated by the question of "Who stands / in these woods / feeling feelings / taught by the German / Romantic tradition" (131-2). This is a comment on the possibility of communication, redirecting the moment of the encounter entirely into the mind, as in the Romantic tradition, and emphasizing the loneliness of the contemporary subject unable to communicate with the world. The "Self as lichen" of the poem is in "ruined/ landscapes / with their / silenced canopies / and emptied / branches" which are the result of the cultural constructions of nature as mirror of the mind.

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[19] The poem's title when published in 2015, "Composition: Fringe Lichen: Tilde & Mãe," was changed by the poet in 2017 for publication in the anthology *Big Energy Poets* becoming "Composition of Fringes: Tilde & Mãe," thus reinforcing the idea of communication between the fringes of poem and world, connecting and interlacing both.

In this lonely landscape, Reilly refers to "*This Bitter Earth* / sung by Dinah Washington" (132) that asks "*What good is love?* / that leaves / us just / this glowing / solitude?" (131-3). Loneliness, thus, is the loneliness of the human species in an anthropocentric world, from which all other species have been eradicated or transformed by human action. The poem is prefaced by an epigraph from naturalist E. O. Wilson that proposes that if action is not taken, the Anthropocene will cause irreversible damages to life on the planet resulting in what he calls the "Age of Loneliness." Reilly's poem is an exercise of imagining communication in this age, an acknowledgment of what would be lost in this bleak future. Dinah Washington's song, written by Clyde Otis, is the guide here. Although the last verse of the song is not included in the poem, we can bring it to this discussion. It says: "But while a voice within me cries / I'm sure someone may answer my call / And this bitter earth / Ooh, may not, oh, be so bitter after all". Reilly's poem hints to this sense of hope, although not explicitly stating it, a sense of hope for connection, hope that while the poet cries someone might hear and answer the call. For Reilly, who often uses humor to show the material root of moments of sublimity and transcendence, this poem surprises with its simplicity and its acknowledgement of Hillman's effort to promote communication and awareness of nature. At the same time, the meta-commentary one poet gives on the work of the other illustrates that community is created by a shared goal of experimentation with language to promote an environmental awareness. The conversation between the poets also shows how this community is engaged in the discussion about ways to write and act ecopoetically. Experimentation takes place as in shared workshop.

Hope for possibilities created by communication is also present in the image of touch in Reilly's work. In *Styrofoam* touch is introduced in the section titled "A Key to the Families of Thermoplastics." Here, the poet confronts scientific language "look / cut / burn the sample" with a poetic language "touch / caress / stroke" that posits a sensual and erotic relation with the world, rather than a disengaged objective one (49). There seems to be a redeeming aspect of touch, in the sense that it might bring knowledge about the world, that it might cut through the artificiality of the surrounding environment to a more truthful sense of reality:

Look at the sample *(touch the sample)*
Cut the sample *(caress the sample)*
Burn the sample *(stroke the sample)*

pass your hands feelingly

> These experiences (sensous, sensational, contrario-
> compatico sympatico)
>
> will guide the seeker
> to some fair idea
> of what each polymer *is* (49-50)

In this example, different ways of touching are a meta-commentary on ideas of sublimity, ecstasy and transcendental knowledge. The example relates these ideas with the idea of plastic as the perfect material. In other parts of the collection, Reilly invests in the idea of touch as a way of knowing about others and expressing solidarity with others in the community created by the shared artificial and chemical atmosphere of the Anthropocene. Using the image of touch, *Styrofoam* juxtaposes the natural and the artificial, the confrontation that is at the core of the poem. The first section of the poem entitled "Hence Mystical Cosmetic Over Sunset Landfill" presents another sense of touch: "holding hands for the briefest moment of shared materiality /among longtermheritage styrene" (12). Holding hands emphasizes the possibility of touch, of feeling the other, of knowing and relating with others within an atmosphere created by an artificial material. The materially ubiquitous plastic urges the recognition of the existence of others, human and nonhuman alike, in this toxic environment created by the changes to the elements that constitute the planet, the interference of plastics in the geology of the planet, in the oceans, in the reproductive cycle of organisms. Touch acquires here a nurturing dimension: it nurtures others through the recognition of the artificial atmosphere within which all live and that all co-create.

Reilly's *Styrofoam* and *Echolocation* parallel exploitation of nature with gendered science through examples of violent touch. The body of Henrietta Lacks, a woman afflicted by cervical cancer and from whose biopsy all the cells grown today in laboratories derive, is central to the seventh section of *Styrofoam* entitled "Plastic Plenitude Supernatant." The section is structured as a comment to a toxicology report on the presence of plastic residues from noodle boxes in noodles, and their impact on the female reproductive system. This section opens with a note introducing the HeLa cells, "the most widely used cells in medical research" (42). This line of cells was taken from a biopsy of a cell carcinoma from the cervix of Henrietta Lacks, an African American woman who died of cervical cancer in 1951, and used without her "knowledge or permission" (42).[20] Although

[20] Concerning questions of race and gender related to the cultural implications of the HeLa cells see Sandra Harvey's "The HeLa Bomb and the Science of Unveiling." Harvey traces the "shaping and ordering concepts of blackness and gender within even scientific discourse. This grammar overdetermines black women as at once commodities, laborers, hypersexualized objects, and duplicitous subjects." (4)

all sections combine different types of language (poetic, scientific, visual) this single introductory note uniquely frames the entire section. Parallels between the exploitation of nature and of women are dramatized by the choice of the toxicology report with which Reilly juxtaposes comments and poetic language: the report focuses on the effects of Styrene on the estrogen levels of young and adolescent girls and the poem relates them with female lab mice and with Henrietta Lacks' cervix, from where the cells where taken:

> Then they inserted a tiny straw
>
> and said *just a little bit more*, Henrietta
>
> and *we will lower the stirrups*, Henrietta
>
> petri dish to petri dish
>
> thine to mine
>
> line to line (44)

The connections established in the last three lines allow the reader to draw on the knowledge of the suffering of others in the contemporary world which is "*being filled with untold substances"* (42). This is essential to the ethical dimension of Reilly's ecopoetics. In this section, in particular, by directly addressing Henrietta (thine to mine), the poet brings the suffering other into the text, especially of female others. As Keller writes, the line of cells "has been used along with prepubertal female rats to test the effects of polystyrene packaging on the female reproductive system" (*Recomposing* 89). The female bodies and lives affected and therefore entangled by science bring an ethical dimension to the section. This ethical dimension expands beyond content since the repetition of the word Henrietta throughout the entire section not only calls forth the presence of this other, but also structures the section. One line reads: "(anaphylaxis, anaphora, Henrietta" which establishes the relation between suffering and the other mediated by the text (44). Anaphylaxis relates to the mice that die of anaphylactic shock in laboratories, while anaphora refers to the repetition of the name Henrietta that structures the section. As this repetition seems to represent the same scientific process of examining samples in laboratory, it also connects the poem and the poet with the suffering other. Violent touch is further explored in "Moo," a poem that works through the several ways humans have touched cows throughout the history of the co-existence of both species. These forms of touch

include sharing diseases (cowpox), genetic manipulation, milking, killing and eating.

Violent touch is materially exemplified in Reilly's take on tradition, especially Melville's *Moby Dick*, in "Minor Leviathans" from *Echolocation*. Parts of "The Wheelbarrow" and "The Grand Armada" are reworked through cut-up, erasure and juxtaposition.

1.

Woke up love in my side	*We were occasionally visited*	In a state of heavily arm
gash to report	*by small tame cows and calves;*	nooks
As you know,	*the women and children of this*	and crannies
the stutter	***routed*** **host.**	rifles and

2.

finally the balance	*Being so young, unsophisticated,*	amid apparent
and harm	*and every way* ***innocent and***	
	inexperienced; however it may have	intoxication
	been, these smaller whales — now and	en, women, and childr
exactly the temperature	*then visiting our becalmed boat from*	
of human	*the margin of the lake — evidence a*	other personnel trailing out
	wondrous fearlessness and confidence,	aerial b
predators	*or else a still* ***bechermed panic***	
	which it was impossible not to	remnants of trees, vines, the
awake with	*marvel at.*	lake obl
memories and hunger		(121)

Here Melville's chapter is the text in the center column, disturbed by the right and left columns that are made up of fragmented texts, pieces of language that grow from the highlighted words in the center column to give it an impressionist, emotive, and contrary background voice. In the eight pages of the section, the scene of the disruption of female whales and their calves in *Moby Dick* is portrayed as a slaughter. The military terms in the right column ("rifles", "aerial b[ombings]," recreate it as a scene of aerial bombings, while, in the left column, the text works through ideas of bodies touching. On the quoted page bodies touch by predating and eating. Later in the poem bodies touch by insemination, pregnancy, and birth ("nourishment", "the threshol // that insemination / soon yields") evoking the industry of animal farming, one of the main themes of *Echolocation* (121, 125, 127). The violence of the military industry and factory farming is given visibility here as forms of violent touch that the poet brings to the foreground to relate forms of suffering of others. In this larger community of suffering, violent touch imposes on the text breaking its linearity and cutting through its narrative.

Hillman and Reilly thus engage with poetic inheritance in their poetry, Reilly by paraphrasing and juxtaposing chapters from *Moby Dick*, and Hillman by continuing the lyric while removing the focus on the "I". They both metaphorically open inherited models of representing nature to the anthropogenic atmosphere in order to communicate with other species, organisms and agents, and foster ideas of community. While for Reilly, the work with language reflects a skepticism of the possibility to communicate with others, for Hillman, ecologies of others can open and transform language. Reilly's aestheticism and Hillman's animism are two ways of thinking and working with language toward ideas of community and communication. The work of both poets shows how poetry invites us to breach the distance "from our sense of our own bodily life and our capacity to respond to and to imagine the bodily life of others" (Diamond 53). Violent and nurturing touch are forms of communicating that start by the acknowledgment of shared vulnerabilities between human and nonhuman agents and lead to the imagination of the suffering of others (animal, plants, organisms) as way to bridge the distance between them.

We can also think about communication at a chemical level, that makes the atmosphere "a crowded and busy air full of life and full of molecular messages being exchanged by nonhumans" (Bakke, "Introduction"). This lively exchange of information turns the Earth's atmosphere, Margulis writes, in a proprioceptive system, a system of sensing of self:

> The Earth has enjoyed a proprioceptive system for millennia, since long before humans evolved. Small mammals communicate the coming earthquake or cloud burst. Trees release 'volatiles',

> substances that warn their neighbors that gypsy moth larvae are attacking their leaves. Proprioception, the sensing of self, probably is as old as self itself. (142).

But how can one write a self that is composed of multiple selves in collaboration and symbiosis? Reilly's exploratory method situates proprioception in a metaphorical atmosphere composed by language, cultural and historical constructions of nature and their material implications. Echolocation is a mode of proprioception, and Reilly's bat, or Reilly as a bat, receives the echoes of metaphors and models that are provisory, under debate, being cut. Both Hillman and Reilly materially or metaphorically relate with a lively atmosphere, composed of multiple visible or invisible others, or of myriad texts and cultural constructions, and with which they both communicate. Both poets' ecopoetics relates with the atmosphere of the Anthropocene not only as a space of communication but also as a material community. In the next chapter, I develop how ecopoetry is entangled with the atmosphere of the Anthropocene, seen as a cultural and social space, either construed by language or lived and created by aerial communities of molecules, microbes, other organisms, and humans.

III – Atmospheres

The atmospheric dimension of the Anthropocene is material, as it is created by the fundamental changes to the atmosphere of the planet, and psychological, as these changes convey feelings of toxicity, disaster and connectedness. Engaging with and interrelating these different dimensions, ecopoets investigate and critique material and cultural constructions of the atmosphere and offer modes of thinking about the Anthropocene that provide alternatives to geological discourses.

In this chapter, I look at ecopoems that relate to and engage with the atmosphere through both form and content. The first two examples, Brenda Hillman's *Pieces of Air in the Epic* (2005) and Julianna Spahr's *This Connection of Everyone with Lungs* (2005), illustrate how the psychologic dimension of atmosphere affects form, in particular during the War on Iraq and after the attacks on the World Trade Center. I then discuss how the atmosphere enters into culture via atmospheric sciences and the rhetoric of weather. I discuss Kenneth Goldsmith's *The Weather* (2005) for its use of politicized and ideological constructions of weather in weather reports during the War on Iraq and analyze Lisa Robertson's *The Weather* (2001) showing that it develops from a critique of the gendered construction of meteorology and highlights the proximity between this science and Romantic poetry. The chapter finishes with an analysis of Evelyn Reilly's *Styrofoam* in which the material atmosphere of the Anthropocene is imported to the plasticity of poetic form through combination and recombination, mimicking the plasticity of the material in focus in the collection. These works show how form can be used in different ways to materially entangle poem and world, a fundamental move in ecopoetics.

Cultural Atmosphere

Hillman's *Pieces of Air in the Epic* explores the relations between poetry and the materiality of air, atmosphere as culture, and environmental issues. The collection is divided into two parts, the first immersing poems in a psychological atmosphere: the subjective experience of living in U. S. during the Iraq War, and the second connecting air and mind through poems in which sounds, smells and wind mix with book contents in libraries, metaphorically bringing pieces of air to western knowledge. The collection entangles air with syntax, sentences and form

of the poems, which I read as an ecopoetic practice. Plasticity of form in the collection translates the materiality of air in onomatopoeias and visual representations of sound interrelating poems with air and atmosphere. Here is an example from "Reversible Wind":

> Night sprinkler   fsss   fssssss   fs-s-s-s-s-s-s
> Vowels dropped in the tree-branched world
>
> A backward wind tips Tahoe to the left ~~ (7)

We see the sound of a sprinkler and the image of wind on a lake formally relayed with the same effect they have on nature. Sound enters the poem and alters syntax, it creates vowels in a tree and in the poem, and as the wind directs the waves of the lake to the left so the reader's eyes turn from the tildes at the end of the sentence back to its adjacent words. In "Doppler Effect in Diagram Three" Hillman uses parentheses to visually represent airwaves:

> How does air feel with waves inside it
> Does it feel more
> With the radio on
> How do airwaves get through all the numbers
> & how does the ((((((((do it   (17)

The parentheses here visually signify the relative motion of sound waves that cause the doppler effect, which is the difference between the frequency at which sound waves leave a source and that at which they reach a listener. The idea of movement of sound guides the poem with Hillman relating the movement of soundwaves with the idea of fleetingness of communication. The movement of soundwaves is at once an expression of the materiality of sound, a metaphor for touching and relating in the air where waves travel, and an allegory for life as movement: "How lovely we seem as the passenger pulls away // But in fact he is lost to us // In the pulling away life is continuous" (17-8). And as words are made of sound and sentences are spoken in the air, Hillman extends this idea of infinite movement of airwaves to poetry:

> The sentence or the train passing
> As it holds out its skirts of sound
>
> The sentence has started its journey
> But has no idea for its mystic demise (18)

Movement opens the poem with soundwaves that come from outside it and “past the meadows,” affects its syntax and visual dimension, and conflates with the sentences that, infused with waves of sound, pass “Over the laughter in the night pool of those / Who have not stopped & may not ever” into its “mystic demise,” a transcendental air (18). Replicating the doppler effect, this poem positions sound and poem in relative motion to each other. This two-way relation is found throughout the collection entangling air and poems. As sentences travel into air, so air and sounds travel into sentences.

Atmosphere is perceived of as cultural in the collection. It is a surrounding ambience created in the U.S. by the War on Iraq that the poet breathes in and is breathed by the poems. The poem “Air in the epic” conveys this cultural atmosphere with which it is entangled while disrupting it by importing the materiality of sound to the poem. Here an excerpt from the first page:

On the under-mothered world in crisis,
the omens agree. A *Come here*   follows for reader & hero through
the named winds as spirits are
lifted through ragged colorful o’s on   butterflies called fritillaries, tortoise shells &
blues till their vacation settles under
the vein of an aspen leaf   like a compass needle stopped in
an avalanche. The students are moving.
You look outside the classroom where   construction trucks find little Troys. Dust
rises: part pagan, part looping. Try
to describe the world, you tell   them – but what is description?
For centuries people carried the epic
inside themselves. (as the old weather   stripping, a breeze is making some
6th-vowel sounds *yyyyyy* that will side
with you on the subject of syntax   as into the word *wind* they
go. A flicker passes by: air
let out of a Corvette tire.)   Side stories leaked into the epic,
told by its lover, the world.
The line structure changed. Voices grew   to the right of all that. (8)

The setting of the poem is a class in which the poet teaches the *Odyssey*. The poet and students look at the story of Iphigenia killed by her father Agamemnon in sacrifice to Artemis for the release of winds so his troops could sail to Troy and take part in the battle. The epic is breathed in by parallel stories, or as Hillman

writes: "Side stories leaked into the epic, / told by its lover, the world" (8). Iphigenia's story, told by Euripides in *Iphigenia in Aulis*, is one of those side stories as are other mundane events taking place outside the class room such as "construction trucks find[ing] little Troys," or "air // let out of a Corvette tire," or "a breeze // making some / 6th-vowel sounds*,"* that change "the line structure," as evident in the visual arrangement of the poem (8).

The shared atmosphere of living in times in which one's own country is fighting a war establishes connections between the *Odyssey* and the War on Iraq, with which Hillman later explicitly engages in the section titled "Nine Untitled Epyllions." The epyllion is a short poem, or "a little epic" that in Hellenic culture was concerned with "marginalized characters, such as the elderly, the poor, women, herdsmen, and even animals" (Gutzwiller 454). Hillman brings small epics to the epic, or the official narrative, of the War on Iraq. These are accounts of daily life where "In the malls new babies sleep beside / dry fountains" (52). She positions herself as poet and woman, as seamstress, a metaphorical Penelope, whose "needle means / nothing to the State," and whose poetry is itself one of those side stories, like the breeze that changed the poem's syntax coming in from the window while Hillman teaches (52).

The atmosphere of war is patriarchal, she hints, when choosing to focus on the story of Iphigenia, who, unaware she was being sacrificed and believing she was to marry Achilles as her father told her, "waits for the good" (9). Hillman ironizes the decision taken by the blind prophet Calphas and Agamemnon who "have mistaken the forms of air" and that "could have removed the sails & rowed to Troy" (9). Paralleling the lack of knowledge or ineptitude to rule and the suffering it brings to her own times, Hillman notes that her students have a "president [who] says global warming doesn't exist" (9). As the opening lines of the nine epyllions elucidate, Hillman is concerned with "Something about breathing / The air inside a war," that is, a cultural and psychological atmosphere (44). I see this atmosphere disrupted both by mundane events and side stories, which I understand as the materiality of life, the situated and bodily relation with the world from which Hillman's poems develop. If we consider the Anthropocene a metaphorical epic, we see it being disrupted and criticized by ecopoetry that infuses it with the materiality of bodies, mundane events, side stories, in the same way Hillman's pieces of air disrupt and critique the narrative of the War on Iraq.

Similarly, Spahr's *This Connection of Everyone with Lungs* conveys ideas of atmosphere as lived culture. The first poem titled "poemwritten afterseptember11/2001" describes and creates the shared atmosphere lived and breathed by "everyone with lungs," stressing connection and kinship in opposition to distance and hatred (4). Using repetition modelled on Gertrude Stein's poetry, the poet materially and metaphorically makes the text breathe deeper and deeper as it develops from the initial sentences:

> Everyone with lungs breathes the space in and out as everyone
> with lungs breathes the space between the hands in and out
>
> as everyone with lungs breathes the space between the hands and
> the space around the hands in and out (4-5)

Breath is here widened from personal space to space surrounding the body. Later the text illustrates deeper breaths and wider spaces:

> as everyone with lungs breathes the space between the hands
> and the space around the hands and the space of the room and
> the space of the building that surrounds the room and the space
> of the neighborhoods nearby and the space of the cities and the
> space of the regions and the space of the nations and the space
> of the continents and islands and the space of the oceans and the
> space of the troposphere in and out (7)

Breath, widened, deep and large, engulfs not only personal space but also distant social and cultural spaces, such as rooms, buildings, cities, nations, oceans and finally the troposphere, the lower layer of the atmosphere. This movement extends to the reader who needs to take a deep breath to read the text. In this sense Spahr also connects reader, text and atmosphere, by proposing the poem as a breathing exercise using the particle “and” as inspiration. The poem then finishes with a reflection on interconnection established through breath:

> How connected we are with everyone.
>
> The space of everyone that has just been inside of everyone mixing
> inside of everyone with nitrogen and oxygen and water vapor and
> argon and carbon dioxide and suspended dust spores and bacteria
> mixing inside of everyone with sulfur and sulfuric acid and
> titanium and nickel and minute silicon particles from pulverized
> glass and concrete.
>
> How lovely and how doomed this connection of everyone with
> lungs. (9-10)

Breathing is here represented as a social and communitarian practice of interpenetration and co-creation not just of humans but also of dust spores and bacteria, as well as gases and inorganic elements. Breathing also guides the flow of the text, its pauses and advances, its rhythm, as the work with repetition shows.

For Allison Cobb in the ecopoetic elegy *Green-Wood*, wailing is a form of connecting with others breathing this atmosphere of fear and pain after the attacks, and for Spahr breathing is the vehicle for the recognition of connection with others. Lungs and the atmosphere are here social spaces, symbiotic assemblages that show interconnection between those that compose it. As in Hillman's collection, plasticity of form attends to the character of this cultural and material atmosphere, here by incorporating the rhythm of breathing in the text, as conveyed by repetition and accretion.

I see the four collections and the poem at focus in this chapter differently addressing atmosphere as a cultural space with which they formally and materially relate, but the notion of atmosphere as a cultural and social space is fairly recent. This notion ties into the history of atmospheric sciences developing in the early twentieth century. Of particular importance are climatology, through the introduction of the management of atmosphere as a space of war, and meteorology, through the creation of weather as a social and discursive space. Climatology developed from the weaponization of weather in the First World War, and genocidal gas extermination in the Second. It was thus through climatology that "the manipulation of the atmosphere toward the production and design of "more or less precisely delimitable microclimata of death for other human beings," created the atmosphere as a cultural space (Sloterdijk, *Terror from the Air* 47). At the same time the "detailed thematization of air and atmospheric relations [...] in the everyday relations of cultural participants" shed light on modernity "as a process of atmosphere-explication" (48). We see in this process a transition from a scientific understanding of the atmosphere into the political critique of the relations of its participants, the making of the atmosphere as a cultural construct and place of negotiation. The social dimensions of the atmosphere I discuss in this chapter and with which ecopoets relate reflect a history of the construction of air, weather and atmospheric space. This is a history of projecting the human in the atmosphere, of uncovering and revealing what exists in the invisibility of air, and of manipulating it.

Before becoming an arena of political discussion and management, air that was mainly invisible became visible through scientific explanation, military use and technological inhabitation. As Sloterdijk argues, scientific explanation of the atmosphere was connected to its militarization that, through the use of chemical warfare or nuclear radiation, made the atmosphere into a space of visualized technology. These processes of visualizing the atmosphere because so intrinsically connected to scientific exploration and technological use that lead cultural theorist Paul Virillio to state:

> it could be said that the real exhibition of science and technology
> at this, the end of the twentieth century, is not to be found in the

> showcases of 'Musée de la Villete,' but rather in the explosion of the 'challenger' just above the Kennedy Space Center, live, in front of hundreds of millions of TV viewers sitting in front of their cathode windows. (83)

With Virillio the idea of the museum extends to the atmosphere, from a museography of "relics of destroyed objects, demolitions and wastes of all kin" to a meta-museography "capable of over-exposing and under-exposing the matter and systems threatened" by the Challenger disaster. This meta-museum would replace the space of the exhibition with "*the time of exhibition,*" comparable to "the most vast horizons, the most vast landscapes: *landscapes in which 'events'* replace the old exhibition halls" (84). As was the case with nuclear tests and chemical spills, the technological accident, from Virillio's perspective, has the same revealing function as meteorological technology. The culturalization of the atmosphere, then, is seen as it becomes both a horizon of exhibition and an active field of cultural entanglements and negotiations.

In 1987 and 1988 the poet and artist David Antin took the atmosphere as a literal exhibition space for his *Sky Poems* written by five airplanes. The airplanes produced clouds at intervals preset by the poet to form the poem's phrases in the sky. While Antin's initial plan was to write an "epic poem stretching across the United States over twenty or thirty years, three or four lines a year—at two thousand bucks a shot—gradually being written for people who would never see all of it," the costs were too high and he ended up performing only two poems of three and four lines each ("Skypoems" 95). The poem performed in Santa Monica, on 23 May 1987 reads: "if we get it together / can they take it apart / or only if we let them." The one performed in La Jolla, on 3 September 1988 reads: "if we make it together or / find it will they break in / or out of it or leave it as / they find it strictly alone" (Bismuth).[21] Antin's reliance on the agreement of readers/spectators to be part of the *we* the poem addresses, indicates that the atmosphere is seen as a social space of shared narrative, uniting against the *they*. The phrases point to the fear of disruption by the unnamed *they*, revealing a violence that the reader/spectator will ideally recognize. The poem here is atmospheric, its material is vaporous, its lively and fluctuating page the sky, its transience and momentariness like weather changes.

Knowledge about environmental impacts of modernization to the atmosphere conveyed a growing sense of the global in the 1980s. Paul Crutzen played a key role in research on the ozone layer, suggesting that "nitrogen oxides from fertilizers and supersonic aircraft might be harming the ozone layer 20–50 kilometers above the earth" (Dauvergne 138). Later, Mario J. Molina and F.

[21] In 2008, the skypoems were again written/performed by Julien Bismuth at LACMA and Museum of Contemporary Art San Diego (La Jolla).

Sherwood Rowland hypothesized "that chlorofluorocarbons (CFCs) might be drifting into the stratosphere, breaking apart, and causing a chain reaction that would deplete the ozone layer" (138). Radioactivity in the atmosphere and the threat of nuclear war also entered into the imagination of futurity summed up in Crutzen and John Birks' 1983 article "The Atmosphere After a Nuclear War: Twilight at Noon." The authors' prediction of the cooling of the Earth's temperature after a nuclear war developed into the idea of the Nuclear Winter, that sees the atmosphere as a future space of a transformed planet. The Nuclear Winter also contributed to the perception of human agency on the planet on a global scale, later present in Crutzen's argument in favor of geoengineering tied to the Anthropocene.

Ozone depletion and the greenhouse effect also made the atmosphere a space of debate and material expression of culture, leading to a redefinition of ideas of nature and culture. As Bill McKibben writes in *The End of Nature* (1989)*:*

> We have damaged the atmosphere, and thus we are changing the weather. By changing the weather, we make every spot on earth man-made and artificial. We have deprived nature of its independence, and that is fatal to its meaning. Nature's indifference *is* its meaning: without it there is nothing but us. (60-1)

McKibben's statement that the atmosphere was the last form of wilderness of the planet now altered by human action echoes in the hubris of the rhetoric of the Anthropocene that grants humans the power to give or deny meaning and recognize autonomy to nature. But McKibben's statement also brings in focus the outcome of modernity's project of explicating the atmosphere that entangled its cultural representation with measuring and controlling technologies. The acknowledgement of entanglements between overconsumption, overemission and critical paradigms lead recent thought in the environmental humanities to depart from the proposal of nature's indifference toward commonality and co-creation. Understanding global climate change, as Michael G. Zizer comments, "requires us to acknowledge the ways in which our best critical paradigms, avant- and derrière-garde alike, reflect rather than contest our overconsumption of petroleum and the overemission of carbon dioxide and other greenhouse gases" (187).[22] A way of enquiry into the entanglement of critical paradigms and this petroculture, is to contest separations of culture and nature. The atmosphere

[22] As example of ecocritical work that starts from the recognition that "almost every media available to us today is materially and even philosophically indebted to oil," see Stephanie LeMenager 's *Living Oil: Petroleum Culture in the American Century*, an exploration of "how social affects might be shifted toward a different–looking and –feeling post-petroleum future" (68).

again comes as example of the ways in which these are interrelated when Bruno Latour writes:

> The ozone hole is too social and too narrated to be truly natural; the strategy of industrial firms and heads of state is too full of chemical reactions to be reduced to power and interest; the discourse of the ecosphere is too real and too social to boil down to meaning effects. (*We Have Never Been Modern*, 6)

As Latour asks, what to do when the networks between critique, science and nature are "*simultaneously real, like nature, narrated, like discourse, and collective, like society*?" Latour's answer is to revise the modern project from which atmospheric sciences develop (6). Ecopoetry has a say in this interrogation of how to develop a critique of the universality and separation between nature and culture. Ecopoets propose symbiogenesis and community, exploring relations, modes of interacting and communicating of co-creators of naturecultures. As the collections in this chapter show, the atmosphere is a cultural construction that conveys feelings and moods, and is a space of multispecies relations and habitats.

Thinking of multiple atmospheres rather than of a single anthropogenic atmosphere is an example of ecopoetic practice of embodied and situated knowledge. As noted in my discussion on *Plastic* in the introduction, Cobb works with the materiality of the atmosphere of the Anthropocene showing the entanglement between the poet's body and biography and the atmosphere as cultural construction. The "tiny particles" of nuclear radiation that materially and metaphorically penetrate the structure of the poem reflect the poet's effort to acknowledge and rework the critical paradigms pointed by Zizer (12). *Plastic*, *Pieces of Air*, *This Connection of Everyone* and, as I will discuss, *The Weather* and *Styrofoam*, share the critique of nature as a transcendental external (of the poet and the poem). All these works perform this critique and engagement through form. Theirs is an atmosphere as a cultural layer of the planet in which the bodies of many are entangled.

Another ecopoetic practice of importance is resistance to environmental narratives of climate disaster which convey senses of globality and universalized nature. Although the term greenhouse effect was later replaced by global warming and later by climate change, all show different facets of the sense of the global, informed by the dangers of nuclear radiation and chemical contamination, and the aggregated result of previous violent forms of relation with the planet. From the perspective of the environmental movements and the environmental rhetoric of the 1980s onwards, the atmosphere became a global risk setting, and climate change the materialization of that risk. Accordingly, when we look to literature and cultural representations of the atmosphere, climate change, as Ursula Heise

notes, "poses a challenge for narrative and lyrical forms that have conventionally focused above all on individuals, families, or nations, since it requires the articulation of connections between events at vastly different scales" (*Sense of Place* 205). While the development of climate fiction that takes climate change as a global risk scenario certainly testifies to ways in which writers address the challenges of scale pointed out by Heise, I see in the ecopoetry at focus in this thesis the aim to overcome disaster scenarios and apocalyptical and/or post-apocalyptical modes of writing. Even poems that end in wailing and lament, as those of Spahr and Cobb I discussed previously, present their own solutions to overcome the sense of hopelessness caused by global environmental disruption. Furthermore, experimental ecopoetry uses lyric devices in an attempt to express the multiscalar dimensions of the contemporary environmental crisis. Some ecopoetry focuses precisely on individuals, families, specific environmental disasters related with the atmosphere at once conveying the global dimension of anthropogenic disruption of the air, while also offering consolations of mourning and possibilities of overcoming pain and engaging in meaningful action.

Environmental justice poetry, in particular, exposes the suffering and destruction caused by atmospheric pollution and climate change. Several poets anthologized in *Ghost Fishing: An Eco-Justice Poetry Anthology* (2018) address questions of atmospheric justice, one of the fights of the environmental justice movement, in particular against the unequal distribution of the consequences of anthropogenic action in the atmosphere. The "fundamental right to clean air" is recognized as one of the principles of environmental justice that resulted from the First National People of Color Environmental Leadership Summit held in 1991.[23] The right to clean air is not assured with heavy industry and industrial farming largely contributing to atmospheric pollution, from pesticide drift and emissions of heavy metals and other toxic elements. Environmental activists rallying to fight for clean air know "how pervasive and underrecognized pesticide exposures actually are," because the wayward movement of pesticides, often far from where they are applied (Harrison 2-3). Pesticide drift illustrates that the atmosphere is not the jurisdiction of a single nation again highlighting the globality of the environmental problems.

Examples of environmental justice poetry focus on the contaminated breaths and atmospheres of the Anthropocene as conditions of this epoch, and as consequences of specific events and places. In "Makers" Pamela Alexander writes for future generations lamenting the environmental destruction left to them: "We knew you were coming / but couldn't stop. We leave you photos. / We leave you orange skies." (251). This future atmosphere is orange from contamination, or from fires caused by global warming. In "Who Would Be Free, Themselves Must

[23] Available at https://www.ejnet.org/ej/principles.pdf. Accessed 20 Oct. 2020

Strike the Blow," June Jordan imagines a world contaminated by nuclear radiation where "The deadly clouds / bemused the loves lying on the deadly ground / to watch the widening nuclear light" (264). Extreme weather events (cyclones, typhoons) are the themes of Hila Ratzabir's "Diary of Sila the Sky God" and Patrick Rosal's "Typhoon Poem" (285; 278). Hayan Charara in "The Weather" takes the idea of the sky and the weather as ominous, aligning omens with natural disasters. Finally, Jody Bolz in "Foreground, Fukushima" works with the implicitly stated contamination of the air to undermine ideas of beauty: "A girl walks the seawall" near Fukushima, and in the background there is a "pine-crowned islet / the lacework of whitecaps, / low late-winter clouds" (284). Nuclear radiation contaminates the bucolic scene. These examples show the sensibility of ecopoets to specific environmental problems and the role ecopoetry can play in exposing them to raise awareness and inspire action. Other ecopoems critique, reappraise and transform paradigms of representation of atmosphere and weather as part of the effort to change the environmental imagination. As in "Foreground Fukushima" the weather has become synonymous with risk and contamination. In this chapter, I focus on the relation between ecopoetry and inherited models of nature, evident in the collections at focus, to discuss ecopoets' critique of the cultural and social paradigms of relation with the atmosphere.

The Weather

Meteorology culturized the atmosphere, making weather a social space, the topic of both Goldsmith and Robertson's poems carrying the same title *The Weather*. Sloterdijk illustrates the creation of weather reports as social discourse:

> Modern societies are 'weather-chat' communities wherein an official climatological information system places in the mouths of its citizens the topics for their own reflections on the prevailing weather conditions. By means of media-assisted communication about the weather, large modern communities, encompassing many millions of members, are turned into village-like neighborhoods of people discussing how the weather is too hot, too cold, too rainy or too dry for the season. (85-6)

Weather chat as a social discourse is the material of Goldsmith's *The Weather*, which Marjorie Perloff presents as "a work of radical defamiliarization" caused by the appropriation and sampling of weather reports, and by questioning their veracity ("Moving Information" par. 21). As Perloff discusses in detail, Goldsmith undermines the apparent linearity of transcription in *The Weather* by choosing which text is to be transcribed, and by the dramatization of information, both introducing a high level of subjectivity and randomness in the text. Randomness and chance of the transcriptions expose the subjectivity of the ways in which

weather is narrated and thought of, as are the media of that narration. *The Weather* follows other works by Goldsmith that highlight the medium of writing through an experimental method, the process revealing the intimacy and subjectivity of those texts. *Soliloquy* (2001) is a transcription of every word he spoke during a week and *Day* (2003) reproduces but rearranges every letter, number and symbol printed in the September 1, 2000 edition of *The New York Times*. By calling those media to attention, the poems show that "nothing in our environment can now be 'natural', not even the weather over which we have no control, because it is transmitted to us through particular channels that are continuously packaging and monitoring meteorological events." Manipulating the "media-assisted communication about the weather" the poem at focus here subverts those media, while performing the "articulation of connections between events at vastly different scales," (Perloff "Moving Information," page; Heise *Sense of Place*, 205). One of these events is the US invasion of Iraq in 2003, which enters the "Spring" section in the form of weather reports for Baghdad, showing yet another layer of the social dimension of weather-chat:

> Oh, we are looking at, uh, weather, uh, across, uh, Iraq obviously here for the next several days, uh, we have, uh, actually some good, good weather is expected. They did have a sandstorm here earlier, uh, over the last twelve to twenty-four hours those winds have subsided and will actually continue to subside. Uh, there will be enough of a wind across the southern portion of the country that still may cause some blowing sand tomorrow.
>
> ....
>
> It'll be breezy tomorrow, the high about sixty and in the, uh, fifties for a high on Sunday. As for Middle East weather, it continues to be favorable for military operations, and that'll remain the case through Sunday, but Monday and Tuesday, there may be another episode of strong winds, poor visibilities, and, uh, even some sandstorms. Right now fifty-seven and cloudy in Central Park, temperature today going up to sixty-two. (39-40)

Although not dealing explicitly with climate change, the environmental impact of the military-industrial complex and of the Iraq War forms a subtext to the poem, and the atmosphere of bombing becomes a counterpart to the weather in New

York, again stressing the close ties between the technological structure that supports the reports and the technology of war.[24] As Perloff states:

> From the perspective of the weather forecaster, Iraq is experiencing some "good good weather"—good visibility, no doubt, for bombing those targeted sites, and not too much wind. The risk of "blowing sand" is slight. After the reference to "a little rain in Baghdad," the "we" shifts back to the New York area, as if the Baghdad rain or wind were merely a brief diversion from everyday life in the Tri-State area where it's a nice average day with temperature in the forties and a chance of rain. ("Moving Information" par. 8)

Furthermore, because of the use of chemical weapons and the burning of oil fields, the atmosphere of Iraq, both before and during the years of armed conflict, becomes contaminated. Baghdad weather reports in Goldsmith's poem juxtapose different realities, ironically deploying the meanings of "good weather," calling for a reflection on contaminated atmospheres. The vacuity of "good weather" and the juxtaposition of places also comment on the report as an agent of narrativization, connected to its political agency. Weather can be good for dropping bombs or to take a walk in the park, according to the report at hand, or the place where you are.

Goldsmith's work, as Robertson's, follows a line of experimental poetry from the Language poets, although with different methods of composition and with different results. Goldsmith's poem defamiliarizes the reports, estranging them from the expectations readers might have about their form and medium. Robertson's poem is divided into sections from "sunday" to "saturday" in a structure that follows the daily weather report in a week, although without specifying any meteorological conditions. The reader does not really read a weather report but rather a report on the rhetoric of reports. Each section opens with a prose poem and finishes with a lyric poem. The prose poems read as notations taken while watching the skies and clouds. The lyric poems then reflect on form and genre. *The Weather* ends with a section titled "porchverse," a series of epigrams and quatrains typed out on a porch.[25]

At focus in the collection is the rhetoric of weather created during the Enlightenment, the transition from natural sciences to positivism, and the close relation between Romantic literature and meteorology. From this relation

[24] See pages 70 to 84 of the 2003 United Nations Environment Programme publication *Desk Study on the Environment in Iraq* for an account of the environmental impacts from this conflict.

[25] On the influence of Lorine Niedecker's work on Robertson's, in particular on this last section, see Jenny Penberthy's "Listening Trace: Reading Lorine Niedecker and Lisa Robertson" (2018). This article includes Robertson's account of writing porchverse through "much typing and re-typing of tid-bits, which got whittled down in the retyping" (56).

Robertson highlights the ideas of description and sincerity, central in Romanticism's rhetoric of proximity between mind and world, in particular between the senses and the skies, poetry and weather. Robertson engages with the Romantic rhetoric of sincerity and the pastoral as examples of an ecopoetic practice of revising and critically importing inherited models of nature. Description is essential to meteorology and historically relates this science with literature, through the Romantic rhetoric of sincerity that *The Weather* rereads and infiltrates.[26] Because Romantic sincerity is tied to artifice as way of clear expression, form is central in this collection.

The Weather follows the proximity between Romanticism and meteorology, created by the importance of ideas of mutability and transformation. As in meteorology, description was the better mechanism to convey the mutability of forms in poetry. In working out a classification system for clouds, the English naturalist Luke Howard in 1803 proposed ten cloud forms divided in four primary groups, still in use today. In this system, cloud forms are identified according to their appearance to the observer, thus calling for a language of description of form. Clouds can change forms and therefore be described by combining different forms across groups (Ahrens 103). In fact, Howard's cloud system, dependent on the observation of phenomena always recombining and mutating, is close to the Romantic figure of mutability (Clara Van Zanten, 55-6). As Robertson notes "the propriety and economy of Howard's system was almost immediately blocked with a descriptive and identificatory excess, which nevertheless managed to respect his typology and structure" ("The Weather: A Report on Sincerity" 33). The cloud poems of Goethe, Shelley and Coleridge reflect this identificatory excess, while maintaining the structure of the scientific discourse. For Romantics, there was an equivalence between dynamism of nature and processes of thought in the mind, in that both were guided by dynamism and mutability of forms. Atmosphere, as poetic mood, was also central to Romanticism. As Angus Fletcher notes, "descriptive arts working within the Romantic episteme invent atmospheres of all kinds" (39). And contrary to the descriptive intention of the science, Romantic descriptions infuse the text with the overflowing presence of the author, with the randomness of looking, and with the rhetoric of beauty and sublimity.

Robertson works with the idea of sincerity of weather reports and of "weather-chat", focusing on how the latter allows someone to relate with someone else. In the essay "The Weather: A Report on Sincerity" (2006), she explains that one way of infiltrating sincerity is by reworking it as mundane communication rather than elevated technique:

[26] For an abridged history of meteorology from Aristotle's *Meteorologica* in 340 B.C. to the contemporary global integrated system of satellites and radars for data collection and measurement, see Donald Ahrens' *Essentials of Meteorology* (18)

> I'm interested in weather also because cultural displacement has shown me that weather is a rhetoric. Furthermore, it is the rhetoric of sincerity, falling in a soothing, familiar vernacular. It's expressed between friendly strangers. I speak it to you. A beautiful morning. You speak it back. The fog has lifted. We are now a society. (28)

With this move Robertson desacralizes the Romantic rhetoric of weather as mediated relation with nature elevated through poetry, turning it into a mundane event, into daily conversation. Robertson contrasts this type of sincerity with the historical rhetoric of sincerity that develops from the Romantic's reading of the pastoral.

Sincerity, William Wordsworth writes in the "Preface" to *The Lyrical Ballads*, is the ability to write "the real language of men in a state of vivid sensation" (290). To that end, the ballads trace "the manner in which we associate ideas in a state of excitement thus showing their literary quality" (289). But the material of Wordsworth's work is the "incidents of common life," which, in the context of Romanticism's investment in the pastoral, means "the manners of rural life" or "the best objects from which the best part of language is originally derived" (290). Sincerity is expressed in mediation of feeling through technique and constructed landscape. The countryside where Wordsworth walked is a cultural landscape, limiting encounters to exercises of rationality in a pastoral setting. Sincerity showed "congruence between the poet's emotion and his utterance," and was a proof of literary excellence (Burris 1308). This is the point of contention for Robertson, who, recognizing in sincerity one of the rhetorical elements of the pastoral, turns the ideological and political history of the pastoral into the material her poem subverts. As she writes: "Sincerity is a market, a decisive method, a nationalist politics, and an ethnic signifier. Lyrical ballads are ethic weather. They wear a blue bonnet. They read the weather signs for bombers" ("Report on Sincerity" 30). *The Weather* is a collection concerned with investing sincerity with a counter vocabulary to its ideological load.

Like Language poets with which her work relates, Robertson is aware of how sincerity is a technically mediated relation.[27] As free verse came "to represent authentic expression and sincerity," Robert Frank and Henry Sayre note, critique by Language poets raised "the spectre that its gestures might be masks, effects, the very signs of an inauthentic production" (vxii). In a way, *The Weather* develops from this assertion that sincerity is inauthenticity, that form and verse

[27] Concerning the proximity to Language poets, listen to Robertson talking with Charles Bernstein in the podcast "Close Listening." She states that she has a similar interest in the materiality of language and sound, as well in the poetic line as place of political struggle as those poets but expresses an affiliation with the Kootenay School of Writing (KSW), a Vancouver-based writers' collective. The podcast is available at https://media.sas.upenn.edu/pennsound/authors/Robertson/Roberston-Robertson_Close-Listening-10-20-16.mp3

are mediations, never a transparent vehicle of thought or emotion. Rather form and verse are a grammar and a discourse. The poet reflects on her own experience of cultural displacement while gathering material for *The Weather* during a sixth month stay at Cambridge. The writing of the collection's poems took place later in East Vancouver and, as the poet explains in the acknowledgements, the composition developed from material sourced from BBC shipping forecasts, Wordsworth's *Prelude*, Howard's *Essay on the Modification of Clouds*, and other Romantic and meteorological texts and paintings, including John Constable's cloud sketches. The combination of these multiple sources makes *The Weather* a highly technical composition, closer to the idea of truth through artifice than of weather as mundane conversation, showing proximity between the poet's method and the idea of Romantic sincerity. As we read in "monday:" "Our skies are inventions, durations, discoveries, quotas, forgeries" (10). Description as artifice is also commented on in the concluding poem of 'tuesday":

> Everything I'm writing about
> begins as the robin as the song
> sparrow begins is description
> animals are description sparkling
> scrapping in loose shrieks teenagers also (24)

Grounding her work within the grammar of weather, acknowledging description and sincerity as its mechanisms, Robertson formulates her project as world-making through grammar and rhetoric in "wednesday": "description itself must offer shelter // Here a streak of white, there a streak of dark; we pour the word-built world" (30). Later in this section the formal strategies of infiltration are stated:

> We dig deep into our conscience. It all reflects the
> sky; we disintegrate our façade
> ....
> we
> have sheer plastic virtuosity. We flood upwards into the
> referent. It is a protestant warmth; we reverse it. It is an
> illusion; we aren't afraid. It is clothed in such a mild,
> quiet light; we intrude on the phenomenology. (31)

Disintegrating mimetics of conscience and weather essential to Romantics, deploying plasticity of form, stressing materiality of beauty rather than conventional transcendental ideas of referentially, embodying perception and

thus infiltrating phenomenology with the feminine body are Robertson's practices of relating with tradition.

The point of infiltration of ideological weather is for Robertson the lyrical "I". Stressing that the "I" in the poems of *The Weather* is "but a movement in grammar," Robertson states her appropriation of the lyric in connection to Romanticism and the pastoral (*The Weather* 62). She here relates to a Romantic lyrical "I" "understood to be fictional, rhetorical, and multivalent" (Pugh, 175). It is precisely by working with the lyrical "I" as an element of rhetoric and transforming it through a situated perspective that Roberson denaturalizes the ideological construction of weather and gender in the pastoral. As she writes in the introductory leaflet to the collection, "A lady speaking to humans from the motion of her own mind is always multiple" and, therefore, "I" becomes "we" in the collection, voicing the multiple feminine voices silenced by the pastoral. Robertson's move is political, engaging with form and mode for its ideological implications, and working with technique to transform it. This method of infiltrating tradition is the same I see happening in other ecopoems in this thesis, in particular in ecopoetic elegies that, in a sense, infiltrate the elegy to undo its rhetoric of nature as structure for poetry and the overcoming of grief.

Robertson infiltrates and politicizes weather rhetoric by looking to the relation between meteorology and the pastoral as gendered discourses. The project is stated in the opening pages of *The Weather* with a quotation from Walter Benjamin's *Arcades Project*:

> architecture, fashion–yes, even the weather–are, in the interior of the collective, what the sensoria of organs, the feeling of sickness or health, are inside the individual. And so long as they preserve this unconscious, amorphous dream configuration, they are as much natural processes as digestion, breathing, and the like. They stand in the cycle of the eternally selfsame, until the collective seizes upon them in politics and history emerges. (389-90)

The politics of weather is, for Robertson, the Romantic rhetoric of sincerity and the pastoral as a colonial and gendered discourse. Seizing upon this rhetoric, the poet illuminates the history of weather discourse, to which she opposes her own practice of denying the pastoral its "natural and hegemonic position of a political ideology," in the form of *The Weather* ("How Pastoral" 96). In this sense she makes weather rhetoric historical because it is enmeshed in the construction of subjects and personhood.

In the collection, the pastoral is the ideological discourse of the construction and representation of nature that the poet aims to remove from its naturality, its position of power. As she writes, the pastoral is "a nation-making genre" that has "reduced [woman] to a cipher for the productively harnessed land within a legally

sanctioned system of exchange" (95-96). Her work, therefore, is also a rewriting of the genre according to her feminist practice. As Clover writes in in "A Long Foreground:"

> Lisa Robertson has given sustained attention to the pastoral-utopian genre and its vexed relation to questions of politics and gender. [...] Robertson's writing becomes the ghost in the machine of pastoral, de-hypostasizing feminized abstractions like -Land and -Liberty so that they are restored to the always political possibilities of a female subject's desire. (22)

Robertson's attention to the Pastoral translates in her work as a practice of inserting "inconsistencies, demands, misinterpretations, and weedy appetites into the old bolstering narratives" (Robertson, *The Weather* 97). Accordingly, Lewis Hood reads Robertson's method as a practice of figuring environmental knowledge and perception "not through enlightenment but translucence" (185). This method calls attention to "shades, layers and intensities of meaning" and is "set against enlightenment models of knowledge as transmission or reflection" (186). In this poetics of infiltration, inconsistency, and misinterpretation, the linear patriarchal narrative that the poet relates to the rhetoric of the pastoral cannot be upheld.

I see similarities between this method and Cobb and Spahr's use of the fragment. Spahr and Cobb's works try to overcome the melancholia of inhabiting the contaminated contemporary landscapes of the pastoral. Their work inhabits the fracture of paradigms of narration and representation; their poems aim to be entangled with those landscapes and include their paradoxes. Their work is, in a sense, an effort in language to confront pain and overcome the process of mourning, leaving the poet in a state of vulnerable availability. These three poets' works reveal the nuclear fragments, the plastic pieces disrupting bodies and texts, and the feminine voices excluded by the pastoral that now emerge and disrupt the homogenous Anthropocene.

The "tuesday" section of *The Weather* dramatizes the infiltration of the ideological atmosphere of the pastoral. As in Spahr's *This Connection*, Steinean repetition creates a rhythm and here an atmosphere, a cloudy field:

> Days heap upon us. All plain. All clouds except a narrow
> opening at the top of the sky. All cloudy except a narrow
> opening at the bottom of the sky with others smaller. All
> cloudy expect a narrow opening at the bottom of the sky.
> All cloudy except a narrow opening at the top of the sky.
> All cloudy. All cloudy. All cloudy. Except one large
> opening with others smaller. And once in the clouds. (18)

This is a metaphorical atmosphere created by pastoral and Romantic rhetoric and ideology that imposes physically and materially on bodies and texts. The expression "Days heap upon us" marks the rhythm of the text dramatically showing the suffocation of the feminine voices Robertson brings to the text, voicing and naming them:

> Days heap upon us. Where is Christine. Broken on the word culture // Days heap upon us. Where is Valerie. Pulling the hard air into her lung. // Days heap upon us. Where is Patty. Unlearning each thing. // Days heap upon us. Where is Shulamith. Abolishing the word love. // Days heap upon us. Where is Patricia. In the dream of obedience and authority. // Days heap upon us. Where is Jane. Looking for food. // Days heap upon us. Where is Mary. In the extreme brevity of the history of parity. // Days heap upon us. Where is Grace. Spent in sadness // Days heap upon us. Where is Gloria. Pushing down laughter // Days heap upon us. Where is Violette. Walking without flinching. // Days heap upon us. Where is Emily. Out in all weather. Days heap upon us. Where is Olympe. Going without rest // Days heap upon us. Where is Michelle. Homesick for anger // Days heap upon us. Where is Bernardine. At description // Days heap upon us. Where is Kathleen. The tint twice. (18-22)

As the poem progresses the naming of women and the ways in which they relate with culture, infiltrates that rhetoric. Women "come upon the city in our body," and "Dignity crumbles open," and the "polis crumbles open" (21). The weather conditions in the poem equally change from clouds "darker at the bottom than the top" to "Streaky clouds at the bottom of the sky" to "clouds lighter that the plain part and darker at the top than the bottom" (18-20). Atmosphere is thus transported to text as relational field in which Robertson displays mutability of weather in accordance with the emotional rendering of feminine roles within the pastoral. Later in the collection Robertson explicitly confronts the ideological agency of the pastoral:

> who funds
> the disappearance of faces and nouns
> who played they ruled the cloudy realm
> who's fucking Helen, who said Swinburne
> was womankind. Possibles
> are not the nightingale. Beatrice
> Provence is cold! (43)

Here she points to the ideological construction of gender which effaces feminine faces and nouns that the "tuesday" section names and voices. Robertson also

radicalizes the critical relation with the continuity of the pastoral's ideology in contemporary ecopoetry when writing "Total insignificance of lyric. That's what we adore" (37). I see here a proximity to Hillman's act of performing and writing "Composition: Fringe Lichen" to and with a lichen, as an offering made "in the hopes of accomplishing nothing," a gesture of productive futility but also of beauty (135). Likewise, Robertson deploys the lyric for its possibilities of generating beauty while exposing its ideological load. As she writes, her poetics "infiltrate(s) sincerity [...] to lift it from its maudlin imprisonment, return to it the rhetorical play of idiom, of scale, enjoy its identificatory intensities and climates as conditions or modifications that pass over the face." ("Report on Sincerity" 37) She works with the form and rhetoric of the pastoral as a method of taking over the mechanisms of its ideological agency.

In Angus Fletcher's argument for the environment poem in North American poetry, description is what liberates the poem from place into space, in a sense into its atmospheric relations and projections. The environment poem is "the most intensely deep descriptive poetic form–the *chorographic* poem," a poem written in space (Fletcher 117). Here "drama and story are not the issue" and "emotion is subordinate to the presentation of aggregate relations of all participants" (123). So, although applying a scientific term to define a possible poetic genre, Fletcher is in fact following the Romantics excess of feeling that distances the poetic from scientific language. In the same way, committed to a critique of the Pastoral, Robertson conveys the excess of feeling to weather descriptions, both critic and poet entangling science and poetry, rather than upholding an opposition between them. We can read in *The Weather* traces of this chorographic poetry: the lyrical poems comment on the prose poems, the atmospheric terms from romantic painting (impasto and chiaroscuro) build an atmospheric feeling, and Steinean repetition expands the meaning of the words, and reverberates in the text. This reverberation and the aggregated relations between the elements, infuse the poem with excess, reclaiming the entanglement between humans and weather without the ideological force of the pastoral and the lack of sensuality and bodily presence of scientific language.

I will now discuss *Styrofoam*'s engagement with Romantic and Transcendentalist notions of beauty and sublimity. These notions highlight the relation between ecopoetics and inherited models of nature that I have discussed, and illustrate the conflicting atmospheric and geological character of plastics.

Styrofoam

Styrofoam interrelates the atmospheric and the geological dimensions of the Anthropocene through an exploration of the cultural and material significance of

plastics. *The Weather* and *Styrofoam* are guided by a critique of received metaphors and images that I associate with the atmosphere, such as transcendental beauty and notions of the sublime. Robertson exposes and infiltrates ideological constructions of nature and gender in the pastoral in connection to Romantic sincerity. Reilly critiques and reworks Romantic and Transcendentalist ideas of beauty and sublimity grounding them in the materiality of the environmental devastation caused by practices to which they are connected. In this reading, I start by discussing the relation between the collection and Transcendentalist and Romantic notions of sublime, beauty and temporality, and the ways in which the poet grounds them in materiality. I then suggest that *Styrofoam* also represents the entanglement between the atmospheric and geological dimensions of the Anthropocene by formally representing an atmosphere where humans, other organisms and inorganic agents are materially connected by plastics.

Styrofoam is constituted of nine sections and notes. The collection is created by the juxtaposition of direct and indirect quotes, diagrams, images, and chemical formulas. It uses formal experimentation, open verse, text as field, collage and citation. As Reilly states, this work emerged "from an interest in [...] the materiality of the human fabricated world" and is thus grounded in the material, toxic and cultural results of human action on the planet (omniverse). Reilly discusses conflicting notions of material and immaterial conveyed by plastics that become visible when exploring the atmosphere of the Anthropocene also created by the chemical industry. The collection therefore also relates with this industry by including and reworking chemical formulae, as in the section "A Key to the Families of Thermoplastics" I discussed in the previous chapter.

The conflict between materiality and transcendence inherent to plastics and explored in *Styrofoam* is constitutive of the chemical industry's approach to this material. The intention to create a perfect material, at once accessible, durable and malleable, was seen by Roland Barthes as a process in the plasticization of the world, a technological hubris. As early as 1957, Barthes foresaw the naturalization of plastics after visiting an exhibition, as we read in *Mythologies*. His argument concerned both the material and the conceptual aspects of plastics. As for the material, he imagined that plastic would replace "natural" materials and that the "whole world can be plasticized, and even life itself since, we are told, they are beginning to make plastic aortas" (98). Regarding the conceptual relevance of plastic for categories of thought, aesthetics and politics of taste and economy, Barthes saw in plastics a democratization of taste accompanied by an accessibility to products and materials. With plastic, he writes, "the hierarchy of substances is abolished, [and] a single one replaces them all." In fact, he argues, its character has "no inherent substance [it is] just a basis," an argument that predates postmodern confusion of forms and materials (*Mythologies* 98). By

connecting plastic to the post-war consumer industry, Barthes saw in it an expression of the epoch's democratization of taste through intensive production, although pointing out that this came with the cost of transforming life into an artificial medium. This "artificial Matter," he writes, "is about to replace [Nature] and to determine the very invention of forms" (98). Plastic, therefore, not only raised questions about the stability and instability of forms and structures of knowing, but also questions of taste, and democratization of beauty, connected with product designs and the consumer industry.

Reilly's *Styrofoam* picks up this cultural history to unpack questions of natural vs artificial, connotations of beauty and sublime, democratization and consumerism. Developing Barthes' argument of plastics as process, the collection also follows a material turn that recognizes the "active role of the more-than-human in assembling the social" and the "ontological alliances [through which human and nonhumans] participate in making realities (Hawkins 217). In the collection, forms of making these realities are connected to questions of environmental disruption of plastics that at the time of Barthes' writing were not evident and that, in *Styrofoam*, lead to the recognition of the entanglement of humans, nonhumans and plastics.

Reilly explores the cultural history of Styrofoam by working through its environmental impact, recognizing the poetic possibilities of plastics (mutability, plasticity, relationality) that she imports to the form of the poem. The collection's multi-layered relation with received notions of nature is evidenced in the form of the poem, which develops from Charles Olson's field poetics, experimental poetics and Language poetry, and their stress on the materiality and historicity of the poetic line. Experimental poet Christian Bök also relates plastics with poetic form equating the act of writing with a "chemically engineered experience, in which we manufacture a complex polymer by stringing together syllables instead of molecules" (67).[28] Reilly's method has similarities with Bök's in that they both work with words and sentences as complex polymeric lines. In Reilly's collection there is a proximity between the poetic line and the material behavior of Styrofoam, whose pellets are combined and recombined, creating objects and meaning—cups, toys, egg cartons—which decompose and recombine into different clusters, different objects, new meanings. The same process of recombination generates the poems in *Styrofoam*. As in the material itself, words, images, metric and sentence structure are either aggregated in blocks or extruded to new limits of meaning. As David Farrier writes, "plastic emerges in

[28] See Lynn Keller's section "Chains of Interconnection in Adam Dickinson's The Polymers" for an illuminating analysis of Adam Dickinson's collection *The Polymers*, which I do not discuss here. This collection is conceptually organized around plastic resins as part of a pataphysical experiment. As Keller states, Dickinson's "intriguing experiments with an ecopoetically focused conceptualism valuably demonstrate an alternative to conventional realism and is deference to mimetic scientific renderings of ecological processes" (Recomposing 75).

Styrofoam as a series of open fields—molecular, cultural and topographical 'polymerized' poetics in which chains of association continually form, degrade, and re-form" (77). Visually, the movement of form, degrading and re-forming is seen on the page either as blocks of words, sometimes created by words conjoined by dots, or by expanding the line through empty space on the page and by including quotations, comments and images on the main line.

One way of developing these chains of association is through juxtaposition and collage that also rearrange inherited models and poetic tradition. Juxtaposition for Reilly is

> a crucial technique [...] because it can be used as a strategy to inhibit the flow of 'automatic writing,' and in this case 'automatic nature writing,' meaning whatever is coming directly out of accepted poetic norms even at moments (or maybe especially at moments) when we think we are being especially innovative (qtd in Hume, "Imagining Ecopoetics" 760).

Reilly's critical engagement with these accepted poetic norms is a fundamental aspect of her poetics, positioned as an investigation through language for ways to convey permeable relationality, multispecies community and non-transcendental ideas of beauty and nature. Juxtaposition not only critically distances the poet from accepted poetic norms and the chains of association this method develops from, but also uses, "the distributive possibilities of open-field verse [that] allow poets to explore entanglement as both a fact of being and a matter of ethics (Farrier 58). Accordingly, these juxtapositions visually entangle the poems with the plastic atmosphere in which the network of relations that comprises this atmosphere is performed. Juxtaposition and collage continually reassemble the chains or groups that Farrier points out signaling not only mutability of plastics but also their permanency.

To understand Reilly's critique of Romantic and Transcendentalist ideas of beauty and sublime we can now look at the first section of the collection, titled "Hence Mystical Cosmetic Over Sunset Landfill". Following the organization of the section, I discuss its focus on the temporality of plastics in contrast to that of organisms, then show how the section suggests entanglement of plastics and organisms. I then deal in detail with ideas of spiritually and sublime in this section. In this section, the poet relates *Styrofoam* to Coleridge's *Death of the Mariner* and to Melville's *Moby Dick*. The section opens with a reflection on the temporality of plastics:

> Answer: Styrofoam deathlessness

> Question: How long does it take?
> ………………………………………………………………………………………
>
> Answer: It is a misconception that materials
> biodegrade in a meaningful timeframe
>
> Answer: Thought to be composters landfills
> are actually vast mummifiers
>
> of waste
>
> and waste's companions
>
> still stunning all-color (9-10)

The time of Styrofoam is presented as "deathlessness," the absence of death, but also the absence of life, since materials are mummified, kept unchanging in a "meaningful timeframe." The time of degradation of these materials becomes absurd: it is longer than what is conceivable. Materials and objects that outlive human life expectancy, even the possible time span of civilizations, force us to rethink categories of time, human, death and meaning and our ways of thinking about our relation with the world. The decomposition of Styrofoam situates the collection in the Anthropocene, a period whose artificiality is reinforced by the last line: objects keep their "still stunning all-color" during enormous periods of time, they form a foam of styrene products. By adopting a method of continuous degrading and re-forming for the poem, Reilly also problematizes the temporality of plastics, that questions the position and environmental responsibility of the human in unimaginable time scales. In fact, plastics share a toxic agency with nuclear radiation both contaminating organic tissues and having extended life-expectancies that enlarge our notions of time. Their agency, intimately tied to the Anthropocene, therefore makes this epoch a-historical, a paradoxical move since the Anthropocene historicizes natural and human agencies in one temporal arch. As Michelle Bastian and Tom Van Dooren argue, plastics are part of the "new immortals" (1). Along with "radioactive waste and chemical pollutants [new immortals] have interpellated us into unfathomably vast futures and deep pasts, with their effects promising to circulate through air, water, rock and flesh for untold millions of years" (1). And the question is then:

> What can be done, if anything, about the disjunctive temporalities between mortals and immortals? How does one respond to forces that are hard to make out or understand, and which might be

> initially imperceptible or obscure? [...] The untimeliness that is so central to many accounts of the Anthropocene contrasts with the transitory nature thought to be proper to humans, plants and animals. (2, 4)

In *Styrofoam*, Reilly responds to the opposition between the untimeliness of Anthropocenic materials and the transitory character of organisms by situating notions of beauty and sublimity associated with eternity within their material corruption of organisms. In this atmospheric foam the senses are altered; the body is inseparable from the material conditions of this artificial layer within which the poem works.

The lines quoted above are cut by a reflection on the entanglement of plastics bodies of women, presenting a chemical formal of hormone-based contraception methods:

holding a vial

enwrapped

Enter: 8,9,13,14,17-ethynyl-13-methyl-

7,8,9,11,12,14,15,16-octahydro-cyclopenta-diol

(aka environmental sources of hormonal activity

(side effects include tenderness, dizziness

and aberrations of the vision

(please just pass the passout juice now!) (9)

"Vial" here conveys religious, scientific and medicinal meanings. It can be made of plastic, contain medicine, perfumes, estrogen and other chemicals, that absorbed through the environment, disrupt hormonal activity. The lines end with a joke that conveys ideas of nature that are "free of the mesmerizing spell of the transcendent," inherited from Romanticism and American Transcendentalism. Laughing is here a recognition of inevitability of living in the contaminated environment ("Eco-Noise" 257). Later, in the fourth section, the human bone structure affected by osteoporosis is juxtaposed with images of birds' bones highlighting the fragmentation of the body by the external environment. This also

implies a comparison with the molecular structure of Styrofoam which is 90% air. In the fifth section the distinction between inside and outside of the body is erased and body parts become external. Addressed in more detail in chapter 2, the body of Henrietta Lacks is central to the seventh section, which examines the scientific development of cell research, and the effects of plastic in the feminine reproductive system. These moments of entanglement reread received notions of timelessness associated with transcendental beauty and the sublime.

From the focus on the body in these initial lines, Reilly then extends the entanglement between body and environment by the use of the metaphor of foam. This is a guiding metaphor for the entire collection which conveys the light and ethereal character of plastics and, at the same time, the quantity of plastics that cover the planet. In this section, Reilly defines foam as:

> 1 : a mass of fine bubbles on the surface of a liquid
> 2 : a light cellular material resulting from the introduction
> of gas during manufacture 3 : frothy saliva 4 : the SEA (10)

These lines formally and in content approximate the definition of foam found in a dictionary and highlight the main themes of the collection.[29] The first definition concerns a naturally occurring short-lived phenomena, pointing to its frailty and impermanence (the structure of bubbles is thin; they pop). Human action is then indicated in the second definition with the term “manufacture” thus introducing the question of the use of technology and the difference between “natural” and “artificial” foam. “Saliva” introduces the conflict between natural and artificial where both are combined by the presence of microplastics and chemicals in the body. Finally, Reilly enumerates the SEA, which I read as reference to literature about the sea such as *Moby Dick* and *The Rime of the Ancient Mariner* with which Reilly’s collection establishes a dialogue by the use of quotations, themes and images.

The poem then moves to received Romantic attitudes toward nature.

> All this.formation
> anddeformation

[29] Merriam Webster defines foam as:
1: a light frothy mass of fine bubbles formed in or on the surface of a liquid or from a liquid: such as
a : a frothy mass formed in salivating or sweating
b : a stabilized froth produced chemically or mechanically and used especially in fighting oil fires
c : a material in a lightweight cellular form resulting from introduction of gas bubbles during manufacture
2: SEA
3: something resembling foam’, in https://www.merriam-webster.com/dictionary/foam

& barely able to see sea

beyond the dense congregation of species successful in environments where the diversity of plants and animals has been radically diminished

(for all averred, we had killed the bird [enter albatross
stand-in of choice

hence this mood of moods' (11)

The line begins with two compounds of words that establish the theme. The line then extends to include one identifiable quotation from Coleridge's *Rime of the Ancient Mariner* which is then commented on by the poet on the right side of the page between open brackets "[enter albatross / stand-in of choice" and finishes with "hence this mood of moods." The tremendous quantities of Styrofoam and discarded plastic objects constitute an actual layer of plastic in the planet, which is represented as a filter between humans and nature. Reilly here connects anthropogenic transformation to the separation between humans and nature, evidenced in the *Rime of the Ancient Mariner*. As Jonathan Bate explains:

> The Mariner negates the Coleridgean principle that there is one life within us and abroad: his arbitrary act of shooting the albatross is the archetypal crime against nature. The killing of the bird breaks man apart from the rest of nature, so that even after his act of atonement in blessing the water-snakes the Mariner remains an outsider. He will always be a wanderer, an alien, a creature of knowledge and of language who will never be allowed to rest at home, to dwell upon the earth. (49–50)

Reilly's line introduces the time and state of the Anthropocene, here represented as a "mood of moods" in the final line, in which "mood" stands for the atmospheric and aesthetic dimensions of the Anthropocene. This mood was created by the crime of Coleridge's Mariner who, by killing the albatross, imposed the ontological separation of humans from nature. After killing the bird, the Mariner and the rest of the crew were left in torpor somewhere near the equator where all except the Mariner eventually found death. I relate this space of torpor and later horror with the same space of desacralized relation with nature in which Reilly situates her ecopoetics and that I discussed in the previous chapter.

Discussing the section's title, Keller writes in the following enlightening passage that:

> through its allusions, [the title] calls attention to received – and seductive- attitudes toward nature in order to show their inadequacy. Here however, because Romanticism is neither monolithic nor simple, Reilly works partly in collusion with Melville's art [...]. The words 'mystical cosmetic' and 'sunset' derive from a later passage in 'The Whiteness of the Whale' in which Melville speculates about why white acts on us as it does, 'stab[bing] us from behind with the thought of annihilation.' [...] What Melville calls 'deified Nature' often celebrated in the writing of British Romantics and their American transcendentalist counterparts, is revealed as a horrifying sepulcher. [...] Melville [...] here steps away from the dominant philosophical model of his era that views nature as 'deified' and enters the perspective of the 'infidel'. That's the perspective Reilly would have her readers adopt [...] without the inherited consolations of a sacralized Nature. (*Recomposing*, 80-1)

The perspective of the "infidel," the one without the consolations of a sacralized nature, is one that, nonetheless, recognizes beauty in a desacralized world. The agency of this "infidel" is similar to that of Robertson's infiltrating poet. They both desacralize the rhetoric of nature inherited from Romanticism and Transcendentalism while investing and reappraising its aesthetic and poetic possibilities. Reilly explicitly positions her collection in the conflict between the knowledge of the environmental consequences of plastics and the fruition of their aesthetic qualities. In a talk given at the 2013 Conference on ecopoetics at U.C. Berkeley, Reilly discussed the question of notions of sublime and eternity stating that *Styrofoam* "started as a celebration of human creative plasticity, but quickly engaged ironies such as aesthetic versus environmental notions of 'the eternal'" ("Environmental Dreamscapes"). These ironies are evident in this first section.

As her ecopoetics starts from the silence of representations of nature metaphorically conveyed by the sinking of the Pequod, *Styrofoam* leads the reader to a desacralized relation with nature. This non-transcendental perception of nature is grounded in the understanding of the material entanglement created by plastics. The section connects this relation conveyed by Styrofoam with the intuition of the existence of others materially entangled with the plasticized world:

> that which fallsoutside.thespectrum
> antarctic fowl.cherubim
>
> & dearest docent

> holding hands for the briefest moment of shared materiality
> among longtermheritage styrene (12)

The spirituality of Styrofoam is introduced in the previous line by the word mood, related with aura, context or general feeling, and explored by the meanings of the color white. The color of this material "fallsoutside.thespectrum," its whiteness is spiritual. This meaning is to be decoded in the words from Melville's chapter "The Whiteness of the Whale" that follows. The little dot between "fowl" and "cherubim" functions as a Styrofoam pellet aggregating material around it. One can imagine it at sea, floating, gathering bacteria and plankton around it, creating new forms, and new meanings. The Antarctic fowl is the albatross, and in Reilly's poem, this reference also connects to the previous quotation from Coleridge. The albatross becomes a "dearest docent" because it teaches the recognition of the existence of others, animals and humans alike, that live "among longtermheritage styrene," or the medium created by plastic. As Keller writes, this was not the case in Melville's text:

> Ishmael envisions the 'Antarctic fowl' [...] ultimately flying 'to join the wing-folding, the invoking, and adoring cherubim!' In such an idealizing perspective, the white bird's death points human thought toward heavenly rewards; that death is not ultimately anything to mourn. (*Recomposing Ecopoetics* 80)

However, Reilly "resists such a transcendental impulse and its focus on otherworldly glory" (80). What was contracted in Reilly's line? The captain's gesture of marking the bird, of using it as a message carrier to other boats that might find it. Killing the albatross or capturing it and using it as a message carrier: both gestures inscribe a violent relation with nature. If the Mariner's crime separated humans from nature, the captain's action imposed language (and the technology of writing) upon nature. Reilly's contraction in the verse makes her readers assume the perspective of the "infidel," noted by Keller as that without the consolations of a sacralized nature, aware of the albatrosses that die with their stomachs full of plastic, but this perspective also recognizes beauty in a desacralized world. Reilly's cut-ups and paraphrases of Melville's "The Whiteness of the Whale" reread Romantic ideals of beauty and purity associated with nature. They are further reread in the final section titled "The Whiteness of Foam." There, Farrier notes, the "superlative whiteness, which for Melville is the origin of the 'panic of the soul' provoked by the whale's 'ghastly whiteness' is the source of an uncanny transitivity" (78). For Reilly, the whiteness of plastic is not innocence, cleanliness or absence but it rather invites "a teeming, leaky, permeable and *ironic* set of associations" ("Eco Flux" 210). Drawing upon the literary

construction of the sea from these texts, Reilly calls our attention to the noise of their machinery: of the metaphors of the sea and nature they are built with and the contamination and ecological damage with which these are related. A sad and ironic moment of this section is the use of a web link to a blog about the *Dawn Princess*, a cruise ship that fatally collided with a pregnant humpback whale in Glacier Bay, Alaska, 2001. The cruise ship, a contemporary *Pequod*, the tourists as "self-reflecting symbols we, Ahab, all," and the death of the whale and her calf ironically reframe the rhetoric of eco-tourism and its metaphors of unspoiled nature, whiteness and beauty (Reilly "Eco-Noise" 255).

Returning to the first section, we see that in dialogue with Melville's chapter Reilly substitutes the light as a symbol of divine irradiance, spiritualized energy and/or God, with the micro particles of decomposing plastics:

> *Gee, this.stationaryparticulatecloud actually improves the sunset.*
>
> What the sea brought: poly.flotsam.faux.foam (12)

Microplastics, here figuratively stated as a particle cloud, serve as a filter in the perception of nature, but also create beauty, implying that the atmosphere in which they are a filter is also transformed aesthetically because of plastics. These are particles of plastics, their materiality is relentless, and contrary to what happens with Ishmael, they do not inspire the feeling of horror that precedes faith. There is no place for the sublime in *Styrofoam*, just for beauty. In fact, while for Ishmael the albatross and the white whale caused an affected meditation on eternity and God, a moment of experience of the sublime, for the poet of *Styrofoam*, the perception of beauty is given by the intuition of the excess of plastic. This intuition arises from the thought about the albatross, a moment poetically stated by "holding hands." Plasticization of the world, and the knowledge of it brings a challenge and an obligation for poets, it demands new forms of relation between the world and the work of art, new types of language that include the awareness of living in the Anthropocene. The poet represents this awareness in the image of holding hands as healing touch that creates community in face of extinction and environmental disaster.

The main ideas in the collection are thus introduced in the opening section and further contained in the syncretic image of Styrofoam. Accordingly, the notion of layers of the planet inherent to the Anthropocene is expressed in *Styrofoam* by references to (plastic) foam and landfills in this section in which "waste / and waste's companions . . . form a] heap-like & manifold.of / **foam**" (10). This "heap-like" layering of artificial objects is characterized as a cultural and technological layer in the second section by the line "earth.clay.stone.foam.Floam(®)" (23). This line evidences the difference

between natural and artificial materials, in which the last is a trademark and a product, and visually represents the Styrofoam pellet between these layers by the dots that unite them, similar to how the pellets are enmeshed in the planet. Light and eternal, artificial and ubiquitous, decomposing into micro particles but never disappearing, (styro)foam is used by Reilly as a metaphor for the atmospheric and geological dimensions of the Anthropocene. Foam is also metaphor for the beauty of the "materiality of the human fabricated world" which develops from Romantic and transcendentalist ideas of beauty ("Environmental Dreamscapes"). The metaphor of foam is collated with the material that names the collection thus signaling the artificiality, malleability and multiplicity of forms in which humans, nonhumans, organisms and inorganic agents are entangled in the Anthropocene, and at the same time stressing the materiality of those entanglements.

To finish the discussion on Reilly's critique of Romantic and Transcendentalist models I now look in detail at the bodies of birds present in the collection. There are other bodies too: the poet's body, St. Teresa de Ávila's mystic body, Henrietta Lacks' body as subject for medicine. None of them are overwhelmed by nature, as in Romantic poetry, but rather contaminated, poisoned, and penetrated by plastics. The bodies of birds, mostly extinct, similarly evidence the materiality of plastic. Pelicans, albatrosses and hummingbirds in the collection are grounded, not flying either because dead or extinct because of plastic. The second section sums up Reilly's ironic and complex take on transcendence, showing a picture of pelicans in a landfill, with a quotation from "The Whiteness of the Wale" that reads, "Though in many of its aspects this visible world seems formed in love" (*Styrofoam* 29). The original text continues: "the invisible spheres were formed in fright" (Melville 643). Reilly shortens the original to stress the idea of love, but portrays love ironically with the pelicans eating garbage, transforming it, taking it away. The gesture of love, proximity and communion is here shown being enacted between birds and discarded artificial products. The omitted part of Melville's original relates fright, or terror, to the sublime, but with Reilly we can think of fright as perception of material entanglement. In the collection, therefore, birds threatened by plastic are also an image of human hubris, conveying images of extinction and climate change, their bodies penetrated by plastic objects and particles.

The irrevocable material and non-symbolic nature of birds is used in the poem to question the possibility of mystical revelations, or of transcendental knowledge. Reilly quotes Saint Teresa of Ávila:

> *Now for the past three months such a clattering and fragility in my head,*
> *the sound of rushing rivers surrounded by little birds* (28)

The mystic's account of frailty and divine inspiration in the image of rivers and the songs of birds, are contrasted with two lines that describe orbital garbage around the planet:

> of extra-terrain garbage
> Some 15,000 pieces ranging from fingernail-sized paint flecks
> to 10-ton rocket stages hurtling thought the Earths' orbit (28-29).

Furthermore, the quotations above are followed in other parts of the section with the naming of five hummingbird species: "*Heliangelus regalis / Eriocnemis mirabilis,"* and "*Calzadito Turquesa / Colibrí de Esmeraldas / Metalura Iracunda*" (29, 30). In the note section, Reilly explains that these are "considered endangered or critically endangered" (67). By relating the mystic's little birds with the extinct hummingbird species, Reilly complicates the idea of the possibility of transcendental knowledge. Their extinction connects to the technology of space flight, dependent of fossil fuels, and signals that transcendental revelation is impossible. Furthermore, the naming of these bird species, as in the entire collection, also desacralizes them and levels their use as images and vehicles for the transcendental and the sublime with their extinction. Because of their irreducible materiality rather than transcendency, bodies of birds, bears, whales and humans, touch each other and plastics. Metaphorical and material forms of touch such as holding hands, disrupting hormonal activity and cutting texts, are shown as forms of breaking through barriers of species, kind, and type. These forms of touch are represented in the poem by dots, quotations and juxtapositions. Visually and thematically they cross barriers and create connections, proximities and entanglements. *Styrofoam's* structure is porous, open, relational. Reilly's composition method creates multiple thematic and poetic fields that explicitly relate with each other through juxtaposition and comment. The structure reflects the material of Styrofoam and also synthetizes the idea of the Anthropocene as an epoch of entanglements and permeable relationality. This idea is also conveyed by images of bone structures, framed by the following caption: "protoavian dinosaurs, bird, middle-aged human with osteoporotic disintegration" (30). The caption of these images relates the bone structures and conveys the idea of commonality within the artificial layer of our world. The bone structure of extinct dinosaur birds, extinct birds and the diseased bone structure of humans evidence the materiality of the body, through its mineral structure. As in Hillman's "Fringe Lichen," multiple temporalities are here in coexistence, those of deep time of the planet's history, that of birds and that of humans. But this coexistence is also framed by extinction, of dinosaurs and bird species and by disintegration of human bone structures. They also show how mineral dimensions of animals are porous and penetrated by the chemical

atmosphere of the Anthropocene. As the images are preceded by a reference to anatomical description of bird's bones filled with "air sacs" and the images themselves are of openings and ruptures they also relate the materiality of bones with the atmosphere of the Anthropocene. The images and the caption also establish the possibility of communication and entanglement through porosity which creates a material and semiotic network. I see in the porous structure of the collection a network without a center.

A final atmospheric element that we can take from the collection, therefore, is that it resembles the internet in form, compositional method, visual disposition and theme. Reilly directly relates the collection with the internet by situating plastic objects in relation to websites (thriftyfun.com; roadkill.com, americanchemistry.com, mapquest.com, princesstours.com and others), explicitly working with the page as hypertext, in particular by inviting the reader to enter information as in "[enter: *keeps food warm for the elderly* / as per www.americanchemistry.com)" (21). Further, the entire collection is composed of, as Keller states, "disjunct verbal fragments [that] may connect in multiple directions to other words or images on the page, making [...] the volume a mobile branching form readily associated with the connectivity of the internet" (*Recomposing Ecopoetics* 76). The second section in particular works explicitly with relationality as ontological condition, multiplying the meanings of net:

> n*et net of nodes noded net of netted nodes*
> as per some sutra or is it the reflection
> of Indra's jewels that forms the setting (15)

Each of these nodes are places of relation within the main setting created by the combination of other nodes. The poet asks the reader to look for hers or his place to show that relationality:

> But here's a macro.mapquest.quest insert *your* place
> arrow arrow arrow down
> ....
>
> Which brings a place to go next?) (15)

If the reader wishes to pinpoint a place, she or he would be forced to consider its impermanent position, only defined by the terms in which it is related to others. In these lines the poem becomes itself a relational place: challenging the reader to use a navigation tool within the text (mapquest) shows that meaning is also created by relations. This relationality between the text, the reader and the act of

reading reflects that of the material conditions of the layer of plastic that creates the artificial environment. The connection between the poems and the internet represents their atmospheric qualities and points to the shared history of technologies of communication and plastics, often imbricated with each other.

During the 60 years between Barthes's visit to the exhibition and Reilly's publication of *Styrofoam*, 8.3 billion metric tons of plastic have been produced (numbers come from 2017), most of which has not been recycled and instead accumulates in landfills, the oceans and the atmosphere, creating an artificial environment where humans and nonhumans now live (Geyser, Jambeck and Law). As Jeffrey L. Meikle states: "the things of everyday life are molded, extruded, foamed, stamped, vacuum-formed, or otherwise fabricated of plastic. [...] Objects of plastic have so proliferated that we take them for granted. Plastic has been naturalized" (1). Plastic objects float on water, cross borders, and reach distant places. They create new places, such as the Great Pacific Garbage Patch, already a powerful image in the environmental imagination.[30] In fact, in the Anthropocene, plastic is so common that we do not really see it. Being everywhere, it is invisible, but refusing to disappear, it becomes visible.

The internet is like plastic, culturally constructed as immaterial, invisible, ubiquitous. Data is kept in the cloud. However, the ethereal immateriality of the cloud as a metaphor for the internet also reveals its "underlying network infrastructures: the servers, wires, undersea cables, microwave towers, satellites, data centers" (Carruth 342). The internet has an infrastructure of support capable of influencing the planet, through the consumption of energy needed for storage, the mining needed for the materials of computers, cables, and processors. As part of the technosphere, the infrastructure of the internet also creates a cultural layer on the planet, with which *Styrofoam* relates. Both the infrastructures of production of plastics and maintenance of the internet, as well as their material and environmental impacts evidence the Anthropocene as a geological era tied to the range of extractive industries that supports them.

As I showed in my discussion of Allison Cobb's *Plastic*, the material and products made of it become visible in violent ways in bodies, by disrupting hormonal production and deceiving the endocrine system, and in the planet as a whole, constituting a geological marker of the Anthropocene. As Farrier notes, *Styrofoam* "explores how, behind the bound orbit of plastic's apparent 'thingness' ('the promise', as Heather Davis says, 'of sealed, perfected, clean, smooth abundance',) there lies a more volatile, unstable materiality" (74). By exploring the forms of visibility of this materiality, and the material and aesthetic qualities of plastics, Reilly's poems lead us to an understanding of the intricate interrelation between the atmospheric and the geological dimensions of the

[30] As noted in the first chapter, the Great Pacific Garbage Patch (GPGP) refers to the oceanic accumulation zone of plastic in subtropical waters between California and Hawaii.

Anthropocene. Plastics are here explored as syncretic image of transcendental notions of nature, of materiality of petroculture, and of relations between beauty, consumerism, and environmental devastation.

Looking at the materiality of atmospheres in the Anthropocene we see the infrastructures that support them and reveal their geological impact. The weather report, as a metaphor for social spaces of shared atmospheric grammar and intimacy where lungs breathe together, is created by a technology of data collection, interpretation and distribution that implicates breathing with those instruments, their conditions of production. Microclimates of cooling systems for servers or for food distribution are created by the same underlying network of infrastructures. The increased timespan of refrigerated products enlarges their networks of distribution, with corresponding augmented environmental impacts on farming, distribution and storage systems. Processes of generating atmospheres or of transforming the planet's atmosphere and extractive industries that provide the materials for these processes inscribe human action on the planet on a geological level. In the next chapter I look at Anthropocene discourses that foreground the geological to trace the histories and scars of the anthropogenic landscapes of our time. I propose that ecopoetry exposes those histories and violent entanglements with the geological both in form and in method.

IV – Layers

The notion underlying the Anthropocene that humankind is a geological agent with more impact than others on the planet entangles human and geological histories. Accordingly, discussions about this epoch, human agency, naturecultures and ethical responsibility toward the planet are mostly centered in the geological. Humankind and geology are, in the rhetoric of the Anthropocene, absolute terms that gloss over the cultural agency of geology and the fragmented and multiple human. As we dig into the homogenizing concept of the Anthropocene, as ecopoetry does, its geological inequalities become clear. Ecopoetry exposes the irradiated bodies, and sites scarred by extractivist industries of this epoch as way to fracture and complicate notions of entanglement with the geological.

In this chapter I address three ways in which I see ecopoetry disrupting homogeneity of the Anthropocene. In the section "Social Geology" I discuss the first way which is showing bodies as strata of this epoch and connecting them to biopolitical and geopolitical histories of exploitation, with the example being Kathy Jetn̄il-Kijiner's 2017 poetry collection *Iep Jāltok: Poems from a Marshallese Daughter*. This collection exposes the long-term effects of racialized relations of power of U.S. nuclear colonialism, still present in the in the social life of the Marshallese. The second way is by conducting cultural and archival research and poetically rewriting key metaphors and images of histories. I examine Jena Osman's *The Network*, that excavates the layers of significant sites in the history of the Anthropocene transformed by anthropogenic action, and Juliana Spahr's prose text "Brent Crude" and the poem "Dynamic Positioning," from the collection *The Winter the Woolf Came*, that convey the urgency of ecopoetic practices in times of corporeal, atmospheric and geological toxicity. The third way is by proposing ways of relating with the geological similar to those of relating to the atmosphere and that recognize the geological agency and impact on form. I discuss Brenda Hillman' *Cascadia* that builds an affective geology of California practicing and showing an animist relation to the geological that expands notions of entanglement. All these poems complicate notions of entanglement through the geologic unlayering of intricated histories of extractivism and the agential infrastructures that under-lie the flatness of the Anthropocene.

Social Geology

Jetn̄il-Kijiner's *Iep Jāltok* exemplifies poetry that exposes the toxic filiations with the geologic, in this case the irradiated colored bodies of the Marshallese and the toxic legacies of U.S. nuclear colonialism in the Pacific. The collection connects poetry and protest, exploring the consequences of nuclear testing by the U.S. in the poet's native Marshall Islands between 1946 and 1958. In the Marshall Islands, the nuclear bomb is not a distant historical moment, but an inscription of the geological present on the Marshallese, whose bodies and society are transformed by living with long-term effects of radiation and nuclear colonialism. Jetn̄il-Kijiner, poet and activist, positions her body and the bodies of her family and of other Marshallese within temporal scales of nuclear radiation, raising awareness of the long-term effects of fallout such as cancers, leukemia, and failed pregnancies. Nuclear fallout and radiation also have long-term social effects on the Marshallese, prolonging a colonial model of dependency on the U.S. for food and medical assistance, due to contamination of fish and soil, and to forced relocation from contaminated islands. While thyroid cancer silences traditional Marshallese singers, Jetn̄il-Kijiner uses song and spoken word to "Tell them we are sweet harmonies / of grandmothers mothers aunties sisters—songs late into night," as the poem "Tell Them" from *Iep Jāltok* reads (65).[31] Inscribing her poetry in the oral tradition of passing knowledge among generations, the poet sees in poetry and song a creative possibility of acting against and resisting the materially dire conditions of nuclear colonialism. She turns the bodies of the matrilineal society of the Marshall Islands into harmonies of songs, invoking ancestrality to contrast with the extended temporality of the nuclear.

"Fishbone Air," a poem with eight sections from *Iep Jāltok*, follows the structure of the elegy lamenting the death of Bianca, the poet's niece, who died of cancer. The poet writes:

> There had been a war
> raging inside Bianca's six year old bones
> white cells had staked their flag
> they conquered the territory of her tiny body
> they saw it as their destiny
> they said it was manifested (25)

The advance of cancer in the child's body is here represented as the advance of the U. S. over western territories and the Pacific Islands, grounded in the

[31] See Ali Raj's *LA Times* piece "In Marshall Islands, radiation threatens tradition of handing down stories by song" for a detailed account of the prevalence of thyroid cancer in the Marshallese, caused by nuclear tests and its effects also on the social structure of the islands.

progressive politics of Manifest Destiny, the nineteenth-century doctrine that justified the expansion of America into Mexico and First Nations' territories. Bianca's body, like the islands, is a site of ongoing long-term effects of nuclear colonialism. After a failed bone marrow transplant, doctors "said she had / six months / to live" (28) and the poet connects the suffering and eventual death of her niece with the older generation of Marshallese that were exposed to nuclear tests:

> That's what the doctors told the fishermen
> over 50 years ago
> when they were out at sea
> just miles
> away from Bikini
> the day the sun
> exploded
> split open
> and rained ash
> on the fishermen's clothes (29)

The deaths of the fishermen in the older generation are connected with deaths in the younger one through the imagery of nets alluding to a network of contamination, affect and family, showing how radiation became the nucleus of social and family life in the Marshalls. The lament is prompted by the poet discovering "two ziplocks stuffed / with rolls and rolls of hair" of her niece, a "hair without a home" (24). The poet relates the loss of niece's hair with a Chamorro legend:

> that the women of Guåhan saved their island
> from a giant coral eating fish
> by hacking off their
> long and black as the night sky hair
>
> They wove their locks
> into a massive magical net
>
> They caught the monster fish
>
> and they saved their islands (30)

As the hair woven into a net, so to Jetn̄il-Kijiner extends the lines of her poem to the people of Guam that, although distant from the Marshall Islands, also received "measurable fallout from atmospheric testing of nuclear weapons in the Pacific" (*Assessment of the Scientific Information for the Radiation Exposure*

200). These lines again show the nexus between traditional knowledge, lore and myths and the inheritance of nuclear colonialism in contemporary cultures of the Pacific, in particular in Micronesia, also present in the work of other poets, such as Craig Santos Perez. The poem finishes with the poet mythopoetically imagining and visually displaying Bianca's hair as a net capturing ash, moon and star:

Thin

rootless

fishbone hair

black

night

sky

catch

ash

catch

moon

catch

star (31)

There is an atmospheric dimension to the poem that portrays this rootless net moving upwards toward the sky and the cosmos, connecting the geological with the atmospheric. In the Chamorro legend the net woven from women's hair caught a monster, but in the irradiated Marshallese reality the magical net weaved from Bianca's hair also caught ash resulting from the fallout, the

irradiated particles of sand and corals. This is the same ash that covered fishermen at sea during the nuclear tests:

> on that day those fishermen
> were quiet
> they were neat
> they dusted the ash
> out of their hair
> reeled in their fish (29)

As the fish they reeled in were contaminated with radiation, so must the myth reel in the ash and incorporate the suffering it brought. By exposing the causes of the child's death, expanding the grief from her particular body to a multitude of other irradiated bodies and social practices, and finally by mythically structuring her death, the poet uses the structure of elegy and lament to overcome mourning. As in other instances in the collection, Jetn̄il-Kijiner reclaims tradition not as a lost but as a living cultural practice. I read here, as in the entire collection, a proposal for healing and transformation through the powers of poetry to frame ecological devastation and its impacts on culture, society and bodies. At the same time, the poems in *Iep Jāltok* infuse tradition with present knowledge and offer a cultural vitality that contests and offers alternatives to the deterioration caused by nuclear colonialism, while promoting a contemporary and vital connection with the islands. There is a performative element to the entire collection that frames it as a community practice of saying, singing and listening to poetry, which transforms this poem into a communitarian lament. In light of this shared practice, poetry becomes the mode of transmission of knowledge, of social and mythical structures, and of overcoming a communal grief for the destruction the islands and its inhabitants.[32]

Jetn̄il-Kijiner's work, as other environmental justice poetry, frames toxic legacies in communitarian narratives and offers processes of thinking about corporeal affiliation with the geologic. Her poetry recognizes toxic entanglements between members of biopolitical geological formations, and offers ways of overcoming the social, psychological and physical destruction they cause. In the Marshall Islands, toxicity becomes not only a colonial legacy but also a living culture that entangles bodies of humans and others, the islands, the sea, the

[32] This communal practice of poetry is also found in the poem "Dear Matafele Peinem" that Jetn̄il-Kijiner performed at the 2014 United Nations Climate Summit. The poem, written for her daughter, is a statement of resilience in times of climate change and a call for action against anthropogenic practices leading to the rising of ocean levels that threaten the islands. By reading the poem at the Summit, the poet enlarged the community of listeners beyond the Marshallese people to world leaders and activists.

seabed and the atmosphere in a culture of cancer, death and resistance.[33] The geological is therefore made social by the legacy of nuclear colonialism that materially and metaphorically transformed the geology and geography of the islands and colonized bodies with radiation. The bodies of Marshallese continue to be affiliated with its irradiated lagoons and waters across generations, as radioactivity accumulates and genetic defects are transferred from mothers and fathers to their children. But the bodies are also affiliated with the Marshallese fight for compensation and recognition of nuclear related illnesses after the tests done by the United States. I see this collection, therefore, as an example of ecopoetry that concurs with Kathryn Yusoff's arguments for a critique of the geological by exposing differentiated affiliations and focusing on the embodied relation with the geological.[34]

Accordingly, before looking at other examples of environmental justice poetry to see how poetry exposes other toxic entanglements with the geologic, I want to look at what Yusoff terms the "social life of geology," which is "not a biographical account of geology," as the one that structures the Anthropocene, "but a praxis, a world making in the present, in light of the inheritances of past geosocial formations," to help understand those entanglements (*A Billion Black Anthropocenes or None* 17).

The geological agency of humans is well documented and the basis for the argument of the Anthropocene as a violent conflation of human and geological histories. However, this is not an agency of an abstract human, but rather of particular corporations and industries with different impacts on different areas of the planet. These impacts materialize in particular biopolitical formations of local communities, workers, industries and regions connected with extractivist industries. Therefore, as part of the critique of the Anthropocene's geological human it is relevant to recognize, as Yusoff argues, "the geologic as a praxis of differentiated planetary inhabitation and corporeal affiliation, rather than an externality" ("Geologic Life" 780-1). Yusoff's argument is that critically thinking about geological embeddedness means to think about modes of bodily filiation with the geological. She notes that this conflation of human and geological histories allows for a critique of geologic capacities "not just in terms of impacts *on* the Earth, but as forces that subjects *share*—geologic forces that compose and

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[33] See Dina El Dessouky's "Fish, Coconuts, and Ocean People: Nuclear Violations of Oceania's 'Earthly Design" for an analyses of Jetn̄il-Kijiner's "Tell Them," especially the argument that the poem "suggests that despite colonial practices which destabilize Oceanic culture by first targeting place, Marshallese people can persist as ocean people because they proclaim "we / are nothing without our islands" (118).

[34] See Barbara Rose Johnston's "Nuclear Disaster: The Marshal Islands Experience and Lessons for a Post-Fukushima World," for an argument on how "the power of lived experience can make visible hidden truths and encourage transformative change," in communities colonized by nuclear militarism," countering the "production and dissemination of scientific knowledge," controlled and censured by the same military powers that create these radiogenic communities (140, 144).

differentiate corporeal and collective biopolitical formations" (780). Attending to these formations we may "begin to understand ourselves as geologic subjects not only capable of geomorphic acts, but as beings who have something *in common* with the geologic forces that are mobilised and incorporated" (781). Yusoff's suggestion to think from a geological embeddedness includes the conflicting temporalities of deep time, as well as the color lines that separate the degrees of such immersion. As Jetn̄il-Kijiner's poems show, violently created commonality geologizes the social and socializes the geological by creating disruptive affiliations between particular bodies and particular sites.

The long-term effects of radiation illustrate what Rob Nixon terms slow violence, one "that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (2). Slow violence is a delayed destruction that is dispersed across time and space and illuminates the long duration of toxic colonialism. Therefore, geology is, Yusoff writes,

> a relation of power and continues to constitute racialized relations of power, in its incarnation in the Anthropocene and in its material manifestation in mining, petrochemical sites and corridors, and their toxic legacies—all over a world that resolutely cuts exposure along color lines (*A Billion Black Anthropocenes or None* 16).

Colored bodies continue to be "a stratum or seismic barrier to the costs of extraction" of coal, gold, sugar or oil, and "buffer the petrochemical industries and hurricanes" (11). Although thickening those sites of extractivism and distribution of toxicity, these bodies are excluded by the universalism of the human to which the Anthropocene refers.

Geological affiliation discussed in this section is created by exploitation, suffering, economic and health problems, particularly in communities that live near extractive industries and whose income depends on them. The landscapes of extractivist industries comprise biological social formations in relation to distant centers of power and actors that frame them as disposable peripheries through the rhetoric of imperialism and colonialism. As Naomi Klein notes, these peripheries, these "lands decimated by open-pit mining, for instance, or clear-cut logging" are sacrifice zones, places that "to their extractors, somehow don't count and therefore can be poisoned, drained, or otherwise destroyed, for the supposed greater good of economic progress" (165, 169). Nuclear pollution in the Marshallese islands is an exemplar of the hard result of spatial relations between sites disrupted by policies from distant power centers that define their biological and social conditions.

Other lines of geological power relations of the Anthropocene are created by bodies of contemporary workers, who constitute biopolitical formations with extractive sites and contaminated areas and whose toxicity and resulting illnesses are central concerns in environmental justice movements. The destructive agency of extractivist industries entangles local populations and uprooted workers in peripheral sacrifice zones, making the lives and bodies of populations and workers peripheral as well. In this process, sacrifice zones materially illustrate global companies' practices of deterritorialization. Uprooting earth and rock, extractivist industries also uproot populations and create a mobile working force, as that of workers in the oil industry living in "man camps" that are then disbanded when the wells dry up. The fractured life in such a camp is sharply illustrated in the 2013 short documentary *Sweet Crude Man Camp* directed by Isaac Gale. Workers' debts, harsh working conditions and isolation are portrayed as the human equivalent of the extraction of the land: barren areas and destroyed local economies and communities have their counterpart in the workers' loss of identity and dissociation between work and its (often visible) environmental consequences, as well as the psychological disassociation necessary in order to cope with the demands of work.[35] In his poem "Dillingham, Alaska, The Willow Tree Bar", Gary Snyder, who worked in forestry, another extractivist industry, writes from the point of view of the worker whom he portrays "always / on the edge of a brawl / In the bars of the world // Drinking it down / the pain / of the work / of wrecking the world" (499). Snyder's example is echoed in contemporary environmental justice poetry that exposes the human and ecological suffering created by extractive industries, both for workers, their families, and the regions where they operate.

Environmental justice poetry has an important role in rebutting the underlying claim of the Anthropocene concept that humanity "has failed to understand the violent repercussions of colonialism, industrialization, or capitalist modes of production and that these violences were an unforeseen by-product or excess of these practices and not a central tenet of them" (Yusoff 2018, 17). Writing from within the disrupted geologies and histories of colonialism and industrialization, environmental justice poetry can rather expose forms of violence that are central to the Anthropocene, thus fracturing its homogeneity and also "imaginatively reshap[ing] the way we think about the link between our actions and the future" (Tuckey 5). Poems such as Jetn̄il-Kijiner's "Fishbone Air" fracture the Anthropocene that naturalizes "social relations of class, race, age, disability, sexual preference," subsuming them under the universal anthropos (Braidotti, 40). As Claire Colebrook writes:

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[35] The documentary is available at: https://vimeo.com/59220781.

> if the personal is political, then it is also geological: this is not to say that geology as stratified is the scale that must be deployed to read all other scales but that the figure of 'man' in the Anthropocene— industrial man, *Homo faber*, *Homo economicus*, consumer man, nuclear man— cannot claim to be humanity as such without a prior history of appropriation and stratification ("We Have Always Been Post-Anthropocene" 10).

Following feminist politics of location which "produced situated knowledges as the method for grounding micropolitical analyses of power," the environmental justice poetry analyzed in the thesis highlights the consequences of histories of appropriation and stratification (22). Exploring and exposing the histories of toxic constitutive entanglement with disrupted landscapes of the pastoral, ecopoetry refutes what Yusoff states is the "claims of innocence" of the Anthropocene. Again, the anthology *Ghost Fishing* provides significant examples of ecopoets' commitment to exposing destructive extractivist practices, such as mining, fracking and drilling, from a holistic perspective that reflects the ways in which workers, families, industries and regions are entangled. Heather Davis writes about the deaths of twenty-nine coal miners in the Upper Big Branch Mine disaster in 2010, naming Don Blankenship, the CEO of Massey Energy, responsible, and counterpointing the human cost of coal with the ethical uses of energy: "Your porch light out front floods the yard and sings / 29 men, electric lives exuberant, giving everything. Don't / turn away. This is what we pay for" (219). Coal mining by the Massey company is also taken up by Beth Wellington in "Looking Out over an Abyss in Boone County," that portrays Appalachia as a "war zone" between miners, federal troops and the company's CEOs (238). Lis Wynovich's "To Haiti From Mountain Dell Farm" addresses the connections between fracking, health problems, water contamination and earthquakes (232).[36]

An example where an event with catastrophic environmental consequences gathers poets and activists, is the online poetry forum Poets for Living Waters, created in response to the Deepwater Horizon Spill in the Gulf of Mexico on April 20, 2010. The forum was "motivated by the belief that poetry helps release us from moral platitudes, returns us to our bodies, returns us to our senses" (Staples and King 2010). *Ghost Fishing* features poems about other disaster areas particularly affected by the industry in different ways such as the Alberta oil sands, and the Mississippi region known as Cancer Alley, an area of the

[36] The global reach of extractivism is illustrated, as the anthology also includes, among others, Wang Ping's "A Hakka Man Farms Rare Earth in South China", that describes the inhumane conditions of mining rare earth metals in inner Mongolia: "Deep crates in the fields, blood and pus / In streams and rivers // all because the world / Wants this earth – 'Vitamins' for I-pods / Plasma TVs, wind turbines, guided missiles" (215).

Mississippi River between Baton Rouge and New Orleans, Louisiana.[37] These are anthropogenic landscapes "of benzene, brown fields, chemical dumps, coal burning plants, plastic factories, radioactivity, charred river banks and stunted trees, tailings ponds, tank farms, and fracking trucks [that] exist side-by-side with human and animal communities" (Tuckey 201). This coexistence not only geologically entangles bodies and industries but also radically transforms and disrupts societies, cultural practices, family ties, and the flora and fauna of regions. Looking at the biographies of ecopoets whose work is published in the forum and in the aforementioned anthologies, we see that many actively engage with environmental justice actions. Sometimes their poetry is written to advance specific actions or as a reflection on their engagement with those movements, such as Spahr's "Brent Crude" and "Dynamic Positioning." Others, like Craig Santos-Perez and Jetn̄il-Kijiner, are active members of their communities' struggle against environmental injustice, in which poetry is important in the creation of shared meaning, an "act of community building at the deepest level (Tuckey 11). Poetry in these communities is a medium for expressing the long-term effects of nuclear and military colonialism and other forms of environmental exploitation, as well as to create shared meaning from past and present times, and to imagine possible futures.

Investigative Poetics

I now turn to the poets' work with an investigative poetics of unlayering representations of geological that finds expression in their poems. In so doing, I reappraise the importance of the geological and its connection to environmental justice questions. I examine ecopoetry that illustrates how toxic entanglements are worked into language as a way to reveal cultural layers of representation of nature, as part of the larger ecopoetic project of creating other forms of entanglement and promoting perception of others and care. This is a poetics that follows from documentary poetry and Ed Sanders' investigative poetics, which is a practice of poetic research that assumes "responsibility for the description of history" (Sanders 3). Poetry that results from investigative poetics focuses on language, poetic grammar, form and historical and archival research as ways of criticizing and deconstructing the foundational figures of the Anthropocene.

[37]See the second part of Trymaine Lee and Matt Black's investigative reportage *Geography of Poverty:* "Cancer Alley: Big Industry, Big Problems: Clusters of Poverty and Sickness Shadow America's Industrial South," for a detailed account of the disruption of lives, the prevalence of unemployment and cancer in this area.

This poetic practice articulates archival research with the manipulation of files and collected data uniting intimate, social and political histories.[38] In *Investigative Poetry*, Sanders situates this practice in the poetics of high modernism, namely in Ezra Pound's collecting and transforming data. For Sanders, Pound's work is the "Purest Distillations from the Data-Midden: the essence of Investigative Poetry: Lines of Lyric beauty descend from the data clusters" (9). *The Cantos* "gave us melodic blizzards of data-fragments" (9). As Charles Altieri notes, claims to objectivity were articulated by Modernist writers in connection with science:

> if one takes Pound and Eliot as representative, one can say that Modernism idealized something like scientific method because it claimed the ability to represent nondiscursive experience, even in verbal art. Modernism borrowed accounts of concrete experience from aesthetic theory and combined them with models from science, 'objectively' presenting or investigating aesthetic objects 'out there' behind words. (37)

Sanders' method, therefore, can be seen as a continuation of the modernist project of objectively presenting information, or data, as in the scientific method explicit in Pound's *ABC of Reading* (1987). Sanders also gives as early examples Hart Crane's *The Bridge*, Charles Olson's *Maximus Poems* and *The Distances*, and Allen Ginsberg's *Howl*. Sanders writes that Crane "consulted numerous books on American history, building a ziggurat of scholarship," and Olson "was able, by consulting old city files [...] to transform those researches into high-order poetry [...] the result being poetry as history, or history-poesy". Furthermore, "*Howl*'s 'IMPLICATIONS' were historical [and] oozed into the historical life-style plexus" (11-12). For Sanders these works show different uses of historical archives for the writing of poetry, the transformation of historical files in poetic language, and the implications of poetry in history. By considering poetry as political and historical research process, some ecopoetry is connected to the line of poets mentioned by Sanders.

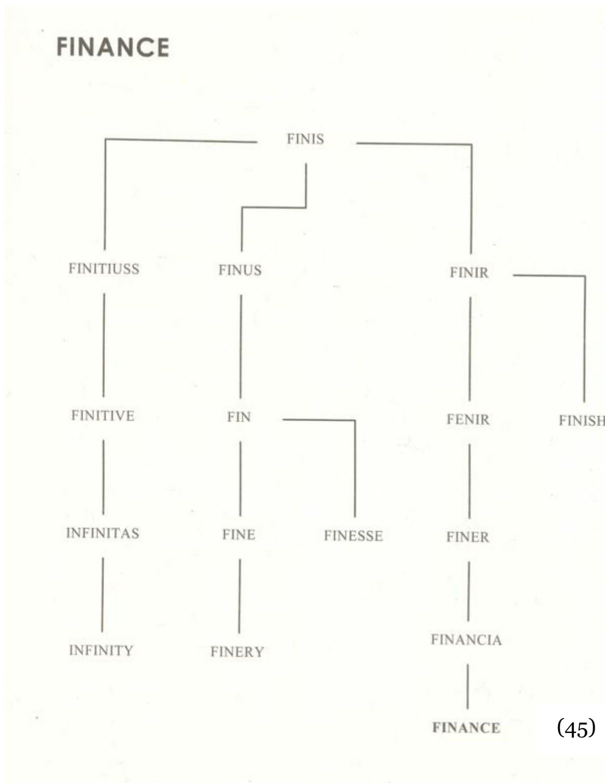
Visual presentation is also a key part of Sanders' method. His "possible ideas for presentation of verse grids" develop from Apollinaire's *Calligrammes* and Burroughsian *cut-up*. Verse grids work with the materiality of the text and are present in contemporary ecopoetry. Juliana Spahr's and Evelyn Reilly's collections also relate with his method of investigative poetics by taking visual distribution of text on the page as a political and material praxis, as well as by using multiple media. Spahr's *Well, Then There Now* and Reilly's *Styrofoam*,

[38] See Lytle Shaw's *Fieldworks: From Place to Site in Postwar Poetics* for a description of Sander's project in the context of post-war poetics and the use of mapping techniques, and modes of creating affective geographies (143-148).

which I discuss in the chapters "Singing with Nature" and "Atmospheres," are examples of this work with visual dimensions. Spahr's work includes multiple media, such as maps and GPS coordinates of the places where the poems were written to convey ideas of displacement and global interrelation. In Reilly's work the visual dimension is explored through the inclusion chemical formulae photos and illustrations to convey the multiple layers of the cultural history of materials and notions of transcendence.[39] Importantly, ecopoets such as Spahr and Osman relate poetic grammar and formal imagination with the "technoindustrial history that generated the Anthropocene scar," in the same way as the "discipline of geology and the conception of historical reflection and global inclusion" are related with it (Colebrook "We Have Always Been Post-Anthropocene" 10). This recognition implies a critical work with language that can take the form of an archaeology of meaning seen in the etymological trees that structure Osman's *The Network*. This investigation is a feminist strategy, since feminism "always asks the question of who: Who speaks, for whom, and whose subjectivity is presupposed in the grammar of that question" (Osman 9).

In *The Network* Osman explores the thickness of places, times and objects, that, when excavated, reveals the networks of entanglement between different temporalities and geologies. In this way, Osman's poetic method is geological: it digs through the aggregated material and cultural layers of the five sections that comprise the collection and that explore different 'knots' or nexus that show relations created by colonial histories, financial practices and extractivism. When "untied", these knots reveal the complicated entanglements of the Anthropocene. The first section, "The Knot" establishes the poetic method of the collection, of archival and etymological research. "The Joker" digs into the cultural constructions of whiteness, connecting slavery and the sugar trade. "The Franklin Party" perforates flat representation of places contrasting maps with the materiality of colonizing expeditions. "The Financial District" is a poetic history of New York as a thick place connected to colonizing and trade practices in the North, Central and South Americas, and "Mercury Rising (A Visualization)," represents research on nuclear energy from the focal point of the testing site in Mercury, Nevada. Osman illustrates the process of research by including real and imagined maps, photographs, posters and quotations from archival sources. The archival research is visualized by etymological trees of the terms that focalize the pressures (economical, political, colonial) that form the knots.

[39] Lynn Keller explores these dimensions in detail in her *Recomposing Ecopoetics*. For notions of place and scale in Spahr's work, see pages 39-47, and for discussions about the visual discourse in *Styrofoam* as way to address and show material recomposition, see pages 76-95.



(45)

We see here on the left the example of the etymological tree of the term 'finance' in "Financial District." Osman explores the terms of the tree in relation to the history of trade, taxing, and slavery by the Dutch West Company. This section progresses to the financial crisis of 1907, that had worldwide impact and led to the creation of the Federal Reserve System in the U.S. (Moen and Tallman). This poetic history is structured by other etymological trees (among them topos, credit, panic, profit, invest, and commerce), thus exploring the historical connections between colonialism and extractivism.

While uprooting the cultural layers of those terms Osman visually displays the linguistic, historical, and environmental thickness of the knots. The knots are geological: past colonial and imperial practices of early sugar plantations and land degradation in the Caribbean and Pacific islands, Franklin's Arctic expedition and contemporary drilling and mining ventures in the Arctic, the history of New York and its crucial role "in the historic and contemporary human manufacture of local, regional, national and international geology" and the nuclear military complex of Mercury, which raises questions of deep past and deep futures of corporeal entanglement with the geological (S. Graham 507).

"The Joker" section in *The Network* illustrates how Osman applies the investigative method to contemporary politics of identity and the colonial and cultural history of color construction in the U.S., in particular in Philadelphia, and the Caribbean. Osman structures the section with classifications of white sugar as standard:

Sugars, all not above No. 16 Dutch standard

in color.

i.e. not white.

And thus subject to refining

20 glass bottles graded in color. (19)

The Dutch standard consisted of a set of glass bottles field with sugars from dark to white and was "designed to determine where a sugar sample stood on the continuum form raw to refined [...] the lower the number, the rawer the sugar" (Warner par. 2). Osman traces the cultural history of the construction of whiteness via the sugar taxes. These taxes "led importers (particularly Cuba) to trade raw sugars only, which then had to be processed in an American refinery which then controlled the price" (25). Osman reads in this taxing practice a colonial tactic of valorization of whiteness: as sugars are refined they become civilized, white is equated to civilization and culture, while dark and raw sugars, and by extension the Caribbean, are its negative and dark counterpart. As the section develops implications of this colonial history of extractivism, migrants and descendants of slaves from former colonies to present day Philadelphia are equated with sugar, in that, because unrefined they are subjected to physically consuming, low paying jobs and an exclusionary social system. Osman situates this practice in the long history of colonialism and old inequalities tied to extraction policies and practices in the Caribbean leading to contemporary migration policies and difficult coexistence between different minorities.

Jokers are a type of clown that attend the Mummers Parade held each New Year's Day in Philadelphia, which includes several forms of discriminatory presentations of minorities, such as blackface. Complicating the contemporary implications of this colonial history, Osman shows that some of the participants in the parade are themselves migrants, descendants of slaves and/or members of minorities. The joker then becomes a double-faced person, that "might sport a terrific smile, but his interior is deadly serious" because of the conflicting identity policies with which she or he must negotiate (19). The section also complicates the cultural history of the joker more broadly, from the 1928 film *The Man Who Laughs*, a version of Victor Hugo's novel of the same title, to his appearance in the comic *The Batman* in 1940, where he became a key figure. Batman's creator acknowledged in 2005 the connection with Hugo's novel (22-3). Discussing the expressionist aesthetics of the film and the changes of the comic character from a supervillain "with an insane grin" in 1940, to an "annoying goofball" in the 1960s to his comeback as a dark villain "with a psychopathic vengeance," Osman writes that "part of the horror of his character is that he continues to change with the

times, reflecting history" (22-3). This reflection of history in culture is a dialectical relation that also constructs the geological archive from where an investigation into the demarcation lines of the Anthropocene unearths lively and complex connections. In this way, the section of Osman's collection illustrates the earlier points I made about social geology and toxic entanglement.

"The Joker" takes a narrative form in which short clips of text from newspapers, law and reports are juxtaposed with photos and book covers. It thus illustrates Osman's use of archival research and juxtaposition of media and textual types to unlayer the anthropogenic practices embedded in cultural and linguistic constructions and images, in this instance particularly whiteness. Evelyn Reilly reread the notion of white as purity connected to transcendental beauty in received models of nature, but Osman adopts a more concrete approach, reading white as purity embedded in the cultural construction of sugar, a key staple of colonial practices central to the Anthropocene. While Reilly went on to tie the beauty of white to the materiality of plastic, exploring its aesthetic abilities, Osman critically juxtaposes the elements of her research, building a complex perspective on whiteness and contemporary identity policies. In this way the meanings of white are enlarged to include a critical awareness of slavery's "all pervasive inscriptive force" rather than "an event within the Anthropocene" (Colebrook, "Slavery" 418). The awareness of slavery's pervasive force can elucidate what Yusoff terms "white geology," that is, the propagation of imaginaries "that organize Blackness as a stratum or seismic barrier to the costs of extraction" (*A Billion Black Anthropocenes or None* 10). *The Network* exemplifies contemporary ecopoetic practices of penetrating flat and homogenizing descriptions and visualizations of the Anthropocene.

An investigative poetics can also materially drill through inherited models of thinking about nature, and an example is Jonathan Skinner's "Auger." In explanatory notes following the poem, Skinner states that it "takes its title from Shell's first deepwater play in the Gulf of Mexico" and that it was created by "superimposing a transparency of the scale platform on the 'Great Ocean' sequence in Pablo Neruda's *Canto General* [...] taking out a half inch right down the middle of each page. The words I had bored became the poem." He continues: "Estimated at about 1,300 lines, the poem when assembled stretches 26 feet across my floor, a .13 to 100 scale rendering of the Auger well" ("Deepwater Horizon: One Year Later"). Similar to Osman's uprooting of cultural constructions of places, race and gender, Skinner's poem creates depth and brings to light what was once covered. Both methods rely on data collecting practices akin to archelogy and geology. In "Auger," Skinner adopts a technique of geology by taking core samples of an epic poem to reveal possible flows of meaning, connecting fluctuations of words, breakages and lines. In taking the epic as a layer from where a core sample can be extracted, Skinner collapses the time of the epic

and the time of the planet. Hillman's *Pieces of Air in the Epic* achieved a similar effect by *blowing* side stories, mundane events, into the epic of the War on Iraq. Here, Skinner drills from Neruda's epic, and specifically from the sequence on the ocean, which creates a fragmented version of the poem in which we lose the epic structure and retain its fractures. While Hillman relates her poems with the atmosphere, and of living in times of war, Skinner relates "Auger" with the geological and stratigraphic dimension of the cultural construction of the sea in times of increasing offshore drilling.

In contrast to *Pieces of Air*, *The Network* and "Auger" resist the auto-ethnographical, the intimate and the lyric. Although "The Franklin Party" section of Osman's work includes a transcription of conversations Osman had with Language poet Ron Silliman on possible family ties between him and Franklin, this is less an ethnographic investigation than a way for Osman to introduce the Language poet's critique of "language as a neutral conduit, a 'vessel for transfer,' rather than a ship of materials driven by captain of ideology" (like Franklin' ships) (33). This critique highlights the historicity of language taken up by Osman to unlayer the cultural constructions of places and of the knots her collection explores, thus taking up the "responsibility for the description of history" (Sanders 3). In a similar but more explicit way, Skinner's "Auger" also concerns the materiality of language both by presenting Neruda's epic as a layered geology and by materially perforating it, conflating geological and human histories.

Spahr's "Brent Crude" and "Dynamic Positioning," from *The Winter the Wolf Came*, are also examples of investigative poetry. They include research on drilling, its practices and terminology and elements of auto-ethnography as the poet describes participating in the protests after the Deepwater Horizon spill. I start by analyzing "Brent Crude" that explores corporeal affiliation with the geologic in times of crises, focusing on the poet's and her child's bodies as well as on the bodies of other protesters. "Dynamic Positioning," relates to the ethical questions of writing in times of environmental crisis raised in "Brent Crude" by developing the pentameter in a poem that also concerns form and method.

"Brent Crude" is a prose reflection, in journal form, on Spahr's participation in protests after the Deepwater Horizon spill. Spahr's account of that period interweaves political and environmental activism and writing ecopoetry, in a complementarity of the different dimensions of ecopoetics that I discussed in the second chapter. The prose text is structured around a question about the care of self that a friend of Spahr's raised: "how can we, as poets, take care of ourselves, our creative work, and the larger planetary body on which we depend?" (22). Sometimes these different spheres collide: care of self leads Spahr to care for her child's body and for other unnamed bodies. In their anonymity these bodies form a precarious, "ununited but together" community of protest in which Spahr's body "remains unremarkable, not at all singular, as it walks with others, takes off

into the street when others do" (23). These are enjoyable moments of chanting and being "out in the night, with friends, walking [learning] the city in a different way" (24). Protests are charged moments of impending violence that ground bodies in their materiality and their urban performativity. Once, thinking she hears rubber bullets, Spahr runs "across the street, out into traffic, dragging my son with me. We run down an alley and then we are out. People going out to dinner walk by. We are then a mother and a son. We have no trouble hailing a cab" (25). A simple movement contrasts the two uses of the public space and the thin line between them. Later, returning to the protest, Spahr and others run from a police charge, again moving between those different social spaces. While they run their "material bodies are absurd in their nervousness," because of the way they relate to urban space by slipping and sliding through the mud of the plaza, evidencing the violence of the response to protests, and the fragility of social spaces (26). Spahr's reflection about her "middle aged body, one whose real medical and financial needs are somewhat met," is a sort of essentialism in the face of disaster. With these reflections the text meanders through the problem of knowing what the real material conditions and needs of one's life are, and what type of participation with extractive industries they imply.

As in Spahr's earlier "Gentle Now, Don't Add to Heartache," discussed in chapter one, "Brent Crude" is situated in a space of emotional fracture with implications for poetic form. While "Gentle Now" proposed a poetry forced out of forms and linguistic structures by the character of the bio-historical moment, the events in "Brent Crude" take place at time in which the poet looks for very definite and traditional forms. "Writing a poem about oil extraction in iambic pentameter [...] I fill my hand with tradition," Spahr writes as, wanting to go back to her own voice after working collaboratively, she returns to her own body (22). The resulting poem is "Dynamic Positioning." The poem is divided into three parts, moving from an introduction of technical names of the oil machinery while recreating the spill, into a reflection on the uses of language in times of environmental urgency:

> I could go on and on here calling the
> New muses of innovation, common
>
> Vocabulary, that covers over the
> Elaborate simplicity of this (46)

The simplicity of the accident calls for a documentary poetics, which the poem evinces with an hourly report describing the succession of events that led to the spill:

> In April twenty ten, the setting south

> And east of Louisiana's long coast.
>
> It begins with a round of tests, some done
> And some avoided
> ………………………………………………………
> At noon, a drill pipe goes in hole so as
> To begin mud displacement.
> ………………………………………………………
>
> It's nine o'clock. The flow
> Out from the well increased.
> ………………………………………………………
>
> It is almost at ten o'clock when mud
> Then shoots up through the derrick
> ………………………………………………………
>
> First explosion in five seconds aft-
> Er. Then explosion again, ten sec-
>
> Onds later. It was not yet ten
> O'clock when the mayday call was first made. (47-50)

The final section of the poem names the workers who died, the CEOs of BP, Halliburton and Transocean, the private companies that explored the well, and the director of the Minerals Management Service, a Governmental agency, that "watched it then burn on a / Flat screen (51). We see therefore documentary strategies of detail—close perspective, the sequence of events leading to disaster, and the naming of responsible—employed within a lyric mode. These strategies are complemented by an elegiac dimension to the poem seen in the naming and mourning of the dead.

The relation between "Brent Crude" and "Dynamic Positioning" again shows the poet's relation with the lyric as site for innovation, through the intrusion of the social and cultural, and particularly the environmental. In the poem, the devices of the lyric are conflated with documentary poetics that bring the political and historical implications of multiple temporalities into the awareness of the embedded geological now; in a way also unlayering the discourses and narratives that build anthropogenic landscapes. In these pieces, Spahr works with the conflation of the social and the private to which her use of "I" and "we" testifies. "Dynamic Positioning" is also an answer to the ethical

question of the value of writing "another BP poem," that Spahr mentions in "Brent Crude":

> Around the time I start writing in iambic pentameter, someone said
> the last thing we need is another BP poem; someone said just another
> nature poem; someone said stupid white girls writing about Africa;
> someone said I refuse to publish stuff like that. Not to me necessarily.
> At other moments to me but that doesn't matter. It was in the air. The
> Brent Crude Oil Spot price was 117.18. (27)

"Brent Crude" shows that the effort to overcome or use inherited models of thinking about nature becomes a contention point for the poet and for the environmentalist and ecopoetic communities that she is a part of. In the background of this reflection, as Spahr writes, oil keeps being traded, and prices fluctuate according to speculation to which accidents like the Deepwater Horizon spill contribute. The fluctuation of oil prices frames the actions of Spahr and her environmentalist community. The first paragraph opens with the line "The Brent Crude Oil price was 101.84, when the first of a series of meetings are held at a park" and ends with "The Brent Crude Oil price is 112.11 when the police come the first time" (21). During the occupation of buildings and libraries and the shutting down of a port, "the Brent Crude Oil price moves from 112.11 down to 106.97 back to 115.61" (22). The time Spahr collaborated poetically with a friend is also framed with another measurement of oil prices, and the entire text closes with "The Brent Crude Oil Spot price was 117.18." (27). Framing the journal account in the narrative of the oil economy, contrasts the power struggle between this narrative and the one of Spahr's environmental struggle, the introspection focused on her body's materiality and the participation of her own work in the global economy and culture of oil.

We see here again ecopoetry inhabiting the fracture of paradigms of narration and representation, entangled with landscapes of anthropogenic disruption and including their paradoxes. An ecopoetics of dynamic positioning emerges, one that, like the oil well, gives the poet the ability to "hover there over the well // by the constant modulations and adjustments of many position reference sensors" (45, 26). Spahr relates deep-water drilling as an art with poetry, both crafts working forms of dynamic positioning through modulations and adjustments: "The cement is an art, it is said. No one will release their formulas. Same thing with the drilling mud that is inside the casing. [...] Sometimes diesel fuel replaces the water. It is also said to be an art, to be owned" (26). Poetic form must be owned, as other ecopoetic practices of hovering over the well, staying with the trouble, inhabiting the paradoxes of anthropogenic landscapes. Spahr's use of classical mode in "Dynamic Positioning" reflects the

poet's search for the powers of poetry when questioned about the ethics of writing ecopoetry. Spahr's inventiveness is to use the iambic pentameter while proposing an ecopoetics of dynamic positioning.

Geological Poetics of *Cascadia*

I now discuss Hillman's *Cascadia* in order to understand the impact of the geological in poetic form as way to convey affinities between poet, text and geology. Cascadia is a bioregion that stretches from Oregon to northern California, the northwestern corner of Utah, southeastern Alaska, and the southwest corner of the Yukon Territory (Baretich). By using this term, Hillman highlights an integrated relation between culture, geology, flora and fauna. Bioregionalist thought contributed to the environmental movements of the 1970s by grounding environmental policies in the specificities of the local, rather than submitting them to homogenous and centralized state- or nationwide policies. Promoting decentralized forms of governance, community based environmental policies and locally adapted action, its main thinkers were Peter Berg, Raymond Dasmann, Gary Snyder and Stephanie Mills.[40] Their systemic critique of the homogeneity and alienation from one's body and place of living promoted by centralized forms of government, lead to a focus on the embodied relation with regions. Hillman's *Cascadia* shares with bioregionalist thought the awareness of the entanglement between one's body and the cultural and biotic specificities of one's place of living. This embodied relation with the bioregion, and in Hillman's case with its geology in particular, again points to ecopoetic practices of disrupting the Anthropocene concept. This collection concerns the physical and sensorial, as well as imagined and psychological encounters between poet and geology, and between the multiple histories and beings that co-create the region.

The collection focuses in particular on the complex geological history of what is now California, portraying it as an history of encounters. As the opening poem "Sediments of Santa Monica" reads:

> A left margin watches the sea floor approach
>
> It takes 30 million years
> It is the first lover (3)

From this initial moment in which the geological formation is mythically represented as an encounter of lovers, the collection moves to other encounters

[40] See Berg, Glotfelty and Quesnel's *The Biosphere and the Bioregion: Essential Writings of Peter Berg* for definitions of bioregionalism, bioregional, and Lynch, Glotfelty, Armbruster and Zeitler's *The Bioregional Imagination: Literature, Ecology and Place* for contemporary discussions on bioregionalism, including on bioregional poetry as early ecopoetry.

and the geological history of the region. The sequence on the Catholic missions in New Mexico and California (pages 61-9) points to the colonial history of the area and the encounters between Spanish Jesuit priests and Mexican and First Nation individuals. The mining history is portrayed through the eyes of a woman in the sequence "The Shirley Poem" including quotations from *The Shirley Letters,* letters written from California mines between 1851-52 by Dame Shirley to her sister in Massachusetts (36-43). Here the treatment of the letter in the poem focuses on the encounter between miners and the geology of California and between Dame Shirley and the masculine organization of life in mining camps. Extractivism is also discussed in the present history as fracking in "Hydraulic Mining Survey."[41] In this collection, Hillman interweaves the complexity of geological history with her own life, including her relationships with lovers, friends, and children thus moving the geological into the social and vice-versa. The geological has agency in these encounters, thus presenting another form of commonality pointed out by Yusoff, and that affects the poet and the poem. In the collection, this agency is also expressed by the meeting of multiple temporalities of the region, deepening the perception of the geological now as a shared constituency. Hillman explicitly makes use of autobiography when directly relating the poems of *Cascadia* with the accidents in her life, incorporating the domesticity of the lyric in the molding of the poetic form by finding an equivalence between inner and personal life and outer geology.

The collection therefore shows the poet's use of the lyric's intimate and affective capabilities to weave together human and geological histories. From here follows a perception of shared spaces, consciousness and realities that extend beyond the human to the nonhuman. Concerning the ways in which the collection embeds the human and the geological with the lyric, Hillman states that

> [i]n California, in a decade of medium earthquakes, the lyric had to include the broken, the partial, the plural, inconsistency, surprise, as life had come to include them, along with the experiences of divorce and remarriage, of writing in relation to friends and beloveds—sometimes against, sometimes with ("Twelve Writings," 278-9).

Bringing back a formulation by David Farrier, the lyric has the "capacity to put multiple temporalities and scales within a single frame, to 'thicken' the present with an awareness of other times and places" and, accordingly, geological embeddedness is often shown in lyric poetry, or in experimental poetry that deploys the lyric (9). *Cascadia* is one example of coexistence of several

[41] "Hydraulic Mining Survey" is dedicated to Gary Snyder whose *Mountains and Rivers Without End* also explicitly relates the geology of California.

temporalities, the geological deep time of the bioregion that name the collection, the history of human inhabitation of the region, and that of the poet's life. Furthermore, Hillman does not derive this coexistence from a geological sublime, but rather from a poetics of openness that dilutes barriers and limits between text and world, and between mind and rock.

The poet is not oblivious to environmental disruption in the region, which has historically been a focal point for the development of extractive industries (mining, oil extraction, intensive farming, the military nuclear complex) as well as for the creation of environmental movements. Accordingly, poems in the collection are structured also by effects of climate change in the form of extreme events such as fires and tornadoes. Here is an example from "El Niño Orgonon":

> There appeared a small room under
> the sea; heat they dumped too
> much of lives in there, with
> the doomed forms, singing, "Toy sold
> separately," he starts these early storms
> off San Diego, pushes absorbing action;
> they named him boy and make
> him metaphorical but he thinks he's
> a mistake. Can you move sentences
> this way? A horizon is a
> type of sentence unmaking syntax denying
> its maker
> ……………………………………………………………
> We could have stopped
> driving but we didn't. Punctuation like
> beach-flies as you walk undyingly past
> the perfumed woman and madras-shirted man
> who, not knowing dioxin garbage made
> the niño's fever worse, hold tight,
> palm-treeish seaweed up to admire. Examples
> are beautiful anyway. They could have
> turned off air-conditioning as they climbed
> the hills, we could have been
>
> less comfortable in hotels.
> ……………………………………………………………

Weather taught
you to write funny. When it stops
being wrecked, we'll write normally. (4-5)

As in other poems of the collection we see here a reflection on how writing and poetic form are related with environmental problems, in this case with El Niño. As the poet asks if "Can you move sentences" like the extreme phenomena associated with El Niño , or sees the "horizon as a type of sentence," extending ideas of poetry beyond the page, compares punctuation to "beach-flies," and, finally states the form and syntax is altered by those phenomena, we see that her poetry is fundamentally entangled with the environment. The question here is that environmental disruptions alter the structure of the sentence and the syntax. The implication here being that in the Anthropocene maybe this is a normal way of writing, the "when" referring to an impossible future. Form reflects how geology, biography and poetry are entangled by environmental disruption. Their conflicting agencies and temporalities relate on the page that in turn becomes the field where the reader experiences their coexistence as complex bio and geological formation.

It is not a surprise, then, that Hillman turns to geology for notions of movement, flow, dynamism and entanglement, embedding human life in the inconstancy and surprise of shifting geological masses. A point of relation is the equivalence, or proximity between consciousness and the geological life of the region. Here is an example of how this equivalence leads the poet to connect poetic form with geology from the poem "A Geology:"

There are six major faults, there are skipped
verbs, there are more little
thoughts in California. The piece of coast
slides on the arrow; down is
reverse.

. . . .

The fault went under artichokes in 1982. She talked
to the permanent fire about it;

what pushes up from under isn't
named. Or is that "What makes you do this
to yourself." - What makes you – A language
caught up under, like a continent.

. . . .

A california

is composed of moving toward, away, or past; a
skin is not separate; a poem is

composed of all readings of it.

. . . .

A geology can't fix itself. Nor can description. (8-11)

Working with geology as an image of the mind, the poet establishes connections and parallels between geology and poetry, through fragmentation and faults. We see here a poetics of faults, where structure and meaning slip like the "skipped verbs," and from where language "caught up under" emerges, like in the geological formation of a continent. In the same way "a california// is composed of moving toward, away, or past" so a poem is composed of that movement (10). As the poet comments:

> Consciousness is really like California geology. I thought geology was a great figure for the mind. It seemed to be an excellent figure for how one lives in relation to this culture – cracked, broken and beautiful. (qtd. in Maa par. 20)

Accordingly, I read in these instances a geological poetics that takes the dynamism of volcanoes, of magma, and the earth's shifting layers, as an image of the mind, to propose a poetry of cracks, openings, fragments. In this sense, description is always wrong, because its object is always shifting. In Hillman's geological poetics, therefore, description is used to enact moments of shared consciousness, and promote communication according to her ideas of animism. In relating with the geological, animism here becomes a practice of "destabilizing the dominance of culture and the anthropos [that sees] life where others would see the *lack of life*" (Povinelli, 54). In Hillman's *Cascadia* the geological is alive and comprised of multiple temporalities, of multiple histories and, therefore, can communicate and relate with the poet. Formally, this communication is reflected in how the poem is composed of tectonic shifts, layers and earthquakes, that visually direct the line through breaks and juxtapositions.

The poem "Cascadia" imports the shifting of geological masses and the confusion of layers and sediments that form the geology of the region to the form of the poem. The poem is arranged in two columns. The left lists hotel names of California and notes of staying at those; and the right progresses through enunciations of different lives that compose the geology of Cascadia. The relation between the two columns visually mimics the encounters that guide the collection, conveying different temporalities:

Killdeer love the really shitty fields
Near the missile-testing site in Lompoc
They run past drought tolerant gardens
The talk of the town
Radisson — Shirley flies a plane in that one
Nail City Bravo Pizza Taco Loco
San Diego — The beyond sang the anti-lyric
His parents pick strawberries for us
He picks strawberries   For us
To will — World champion Nafta unacceptable stain
The cloud of unknowing knew (58)

In this particular example, the left column continues a list of hotel names and locations that includes Holiday Inn, Capri Motel, Country Inn, Motel 6, in Lompoc, Ojai, Costa Mesa, Four Points. The right column relates the different temporalities of people and animals within the Cascadia region. Here is illustrated the relation between killdeer birds and the Lompoc Air base and their different agendas, the relation between gardens as images of culturalization of nature and the environmental costs of maintaining them in a drought prone area, and the relation between North and Central America delineated by the NAFTA trade agreement, personified in the boy who picks strawberries. This boy is a thread in the poem that the poet unwinds from seeing him throw up "Behind a case of Coke" in Chualar to understanding that the boy and his family are exploited workers subject to the liberal market of trade negotiated by the NAFTA agreement (55). Other threads are unwound by the poet, of particular interest here the ones concerning the thoughts about form and lyric.

In this poem, geological embeddedness is equated to openness of form and relation with geological others:

couch having Syntax is the understudy for infinity
They don't know what caused Cascadia
its horizon As the arrangements became larger
The lyric had become depressed
remote Abalone chips in the sidewalk
control There were little mirrors in his spine
As he threw up
teabag Do you still love the sentence
Aristotle's four causes of change
Formal Material Efficient Final
And what of the warbler latitudes
And what of the unknow where
The inexhaustible plays against form (56)

Aristotle's four causes of change are opposed to undefinition of form, as shown in geological flow and in the encounter between multiple lives and temporalities that structure the collection in a poetry of broken syntax and open form. As Hillman writes in "Franciscan Complex," poetry is "Making a form as forms become infinite" (25), suggesting form as openness rather than closure. Openness is here expanded from ideas of ecological interrelation and entanglement and from interconnection into the geological. Because matter has agency, its interaction with the poet's mind creates a field of shared consciousness. It is in this shared space, the geological and the histories and temporalities of those that create Cascadia the region, that the poetry in the collection lives and to where it directs the readers. These are "the warbles latitudes," a space of fringes, undefined limits, fluctuating forms, penetrating agencies.

This poem, as the entire collection, shows the poet playing against form, as the quoted line above reads, if form is closure rather than opening. In fact, Hillman plays against form in other works, with the notion of trance activism in *Practical Water*, and the entanglement of form with the atmosphere in *Pieces of Air*. Common to these works is openness of form as a way to promote communication and awareness of others that co-create spaces where the poems are situated. In this sense, Hillman's work offers another form of relation with the geological dimension of the Anthropocene, exploring how the lyric and animism affectively relate the inhabitants and co-creators of geologies.

As I discussed in this chapter, ecopoetry fragments the Anthropocene's homogenizing geological focus through the focus on toxic entanglements, the use of investigative poetics and work with the lyric to convey situated perspectives. Ecopoetry has, therefore, an important role in contemporary troubled environmental times in recognizing toxic entanglements with the geological, overcoming the destruction and death they cause, and helping in the struggle to fight destructive extractivist practices, as well as participating in the construction of communitarian projects of reclamation and recovery. The use of the lyric connects poetic form both with the atmosphere and the geology of the Anthropocene. It suggests communication between multispecies communities thus fostering perception of others and entanglements. Songs of protesting and organizing are collective practices. The communitarian dimension of poetry is also present in elegies that build communities of mourners through lament, as in the case of the Marshall Islands and elsewhere.

More than exposing and fragmenting toxic interconnections between geology and bodies, ecopoetry also brings beauty, as subjective as that is, to the instances in which people read, listen to or sing poems. Jetn̄il-Kijiner's *Iep Jāltok* creates and sees beauty, even if tragic, in the contaminated reality of the Marshall Islands. Her songs are offerings of beauty to the community. Osman's *The Network* indulges in the aesthetics of maps, prints, engraving and linguistic trees; they add a dimension of visual beauty to the poem that, although recognizing the histories of colonialism and slavery to which some of those maps testify, nonetheless also acknowledges the technique and visual beauty in them. Spahr's "Brent Crude" recounts the sheer beauty of songs in the air when marching through the streets, and the pentameter in "Dynamic Positioning" shows an inherent concern with beauty associated with balance given by measure. Hillman's *Cascadia*, as her other collections, posits poems as the result of collaboration between poet and other organisms and inorganic agents, as offerings of beauty and forms of healing. Song, communication, relation, affect and beauty are strong tools of poetry that ecopoets develop in parallel to the work with language and form. In this chapter I pointed to ways in which these tools are used to both question and celebrate forms of geological entanglement. The poems I discussed take affect and love as ways to fragment the geological universalism of the Anthropocene. Through love, care for others, communication and entanglement with multiple temporalities, sometimes in toxic bio/geological formations, ecopoets show how the geological of the Anthropocene is an embodied and shared reality.

To conclude, I will now discuss the ways in which ecopoetic work with language, forms of documentary research, and atmospheric metaphors can contribute to an epistemology for the environmental humanities.

Coda

In this thesis I have shown how the experimental and investigative ecopoetry at focus contributes to ongoing debates about the Anthropocene. I noted two main operations. Firstly, the critique and reappraisal and/or rewriting of inherited models, poetic genres and modes of representing and relating with nature. Secondly, the proposal for and practice of ways of creating multispecies communities and communication. I unfolded these traits of ecopoetry in the context of the relation with the cultural and material constructions of the Anthropocene, concerning the complementary dimensions of the atmosphere and the geology and their corresponding metaphors and materialities.

Here I suggest possible contributions of ecopoetry to debates about the Anthropocene from an environmental humanist perspective. Ecopoetry is an embodied and linguistic practice of research that leads to care for others through critique of cultural models and exploration of the potentialities of language. Ecopoetry develops from feminist criticism of technoscience, and is aligned with new materialist discussions of the Anthropocene and notions of entanglement, trans-corporeality, and thinking with. Suspicious of universalisms and engaged in a critique of the sublime and transcendental beauty and representations of nature, ecopoets also critique the possibility of the idea of entanglements becoming a new sublime. Attention to the body, to language, self-critique, humor and activism follow from this concern. The poets look at how language has shaped discourses and images and work with language to change the environmental imagination. In the poems in this thesis, this research leads to different modes of seeing, thinking and relating with others in multispecies communities. These instances can take the form of practices of listening and communicating, of dislocating the poem from the human perspective as much as possible, and of working with language toward a multispecies vision of the world. These ecopoetic practices concur with methodologies and perspectives in the environmental humanities. I finish with a reflection on complementarity of ecopoetry with pedagogy and committed participation in society as they are relevant to the aims of this field.

The environmental humanities is a field of research and practice that gathers artists, activists, scholars, scientists and teachers from disparate artistic fields, the humanities, and the natural sciences. Different approaches from these

fields are connected by the common concern for the environment and by the recognition that the "human" is a fundamental element in environmental issues. As we read in the first issue of the *Environmental Humanities* journal launched in 2012, the development of this field is "an effort to enrich environmental research with a more extensive conceptual vocabulary [while] vitalizing the humanities by rethinking the ontological exceptionality of the human" (Rose, Dooren et al. 2). Aiming for a "new configuration of knowledge," the humanities want to "have a role in shaping public policy and in shaping the values and the narratives that guide decision-making," a role so far performed by the natural sciences (Nye, Rugg, Fleming and Emmet 8). Similarly, the authors of "Humanities for the Environment—A Manifesto for Research and Action," recognize that while "science is able to monitor, measure and to some extent, predict the biogeophysics of global change," its analytical power "stops short of investigating the main driver of planetary change—the human factor," a contribution that the humanities can make (Holm et al. 979). This manifesto results from the development of the Humanities for the Environment (HfE) Observatories established in 2013 that include over "180 humanities centers and institutes globally" (978). This network testifies to the institutional recognition of this field's core concerns of multidisciplinarity and engagement with environmental policies materialized in funding by governmental agencies and other institutions of the countries where the Observatories are situated. The Observatories "pursued a common question: *What is the role of the humanities in the age of the Anthropocene?*" (978). The authors conclude that its role is to foster "understanding of human imagination, perception and relationship with their surrounding environments—both social and natural," thus helping to "transform our perceptions and imaginations," and offering a "resource of insight into human motivation, creativity, and agency" (979, 981). The humanities have the capacity "to move beyond models of research that locate the formation of knowledge exclusively within the academy" (986). Ecopoetry's contributions broaden the spectrum of knowledge to outside of the academy and can be relevant at a time when the environmental humanities is challenged with contesting the "Anthropocene's unilateral image of human agency" (Oppermann and Iovino 8). One of the ways to decenter the humanities from the Anthropocene geological is to explore connections with and constructions of geological deep time and multispecies encounters, as in the examples of the ecopoetry I analyzed. I suggest that ecopoetry, as part of ecopoetics, can also be seen to seek to redefine the task of literature and literary studies from within the environmental humanities. Specifically, a future study of the atmospheric in ecopoetry and of the relation of ecopoetry with the atmospheric, could also contribute alternatives to the geological focus of the environmental humanities, as well as illuminate particular ecopoetic epistemologies.

Although the environmental humanities underline the utility of the arts as forms of knowledge, little attention has been given to ecopoetics as epistemology. There is, Hubert Zapf argues, "an increased attention to literary texts as models for the experiential concretization and methodological differentiation of their inherited codes of knowledge" (62). This attention is certainly due to the power of narratives in novels to structure reality. However, poetry can also have a say in questions of knowledge. Language is for the ecopoets in this thesis always embodied and located, relational, organic, and material. Ecopoetry is informed by poetic practices of cultural deconstruction, linguistic experimentation, material entanglement of human and environment through method and form. To these practices, ecopoets bring the embodied, empiricist type of knowledge, that, Donna Haraway writes, sustains "the possibility of webs of connections called solidarity in politics and shared conversations in epistemology" ("Situated Knowledges" 191). Ecopoetry proposes such webs of connection as epistemological practice even if the most frequent result is the discovery of failure, of not knowing, and of the limitations of language. Because poetry offers non conclusive ways of knowing, it can also be valuable in the rethinking of notions of objectivity and knowledge with which the environmental humanities are concerned. For poet Jill Maggi, ecopoetics as failure, as "a state of not knowing creates an inherently oppositional mode within a post-capitalist information age" (249). Opposition here also takes the form of time. As the poets in this thesis ask for time, for a slowing and focus of attention, for a reflexive, holistic relation with lichens, clouds, bodies, feelings, others that surround and co-create the poem, so does ecopoetry, as method, ask for a self-reflexive relation with language, naming, ascribing meaning, with the materiality of sound, with the social and material relations between language, bodies and the structures of the Anthropocene.

Ecopoetry exemplifies environmental humanist practices by exploring the limitations and contradictions, but also the possibilities of texts and poetic language to convey emotion, foster the imagination of alternatives to environmental disruption, essay communication between species, and demonstrate entanglements and connections. Throughout this thesis I have been pointing out the multiple textual types and poetic genres present in ecopoetry, including the lyric, the elegy, experimental poetry, investigative poetry, classical meter and open form, collage and juxtaposition, showing the complexity and plasticity of ecopoetry. In the *ecopoetics* journal, Jonathan Skinner maintains that ecopoetry subverts "endless debates about 'language' vs. lyric, margin vs. mainstream, performed vs. written, innovative vs. academic, digitized vs. printed approaches to poetry" ("Editor's Statement" 6). It is this subversion of fixed models, this vitality and availability to experimentation, that reflects the multivalent dimensions of ecopoetics, as critical practice, as artistic research, as activist engagement, as form of communication and community-making. In these

multiple dimensions of ecopoetry, "poets examine the non-human world, human-world relations, and the conditions, possibilities, and limits of the knowledges, ethics, and politics such examinations may produce" (Bellarsi and Rauscher 3). Skinner rightly expected that *ecopoetics* would offer a site at which "different disciplines can meet and complicate one another," like disciplines meet and complicate each other in the environmental humanities (6). In this enlarged sense of poetics as making, ecopoetics can be found in artistic forms other than poetry. Here I focused on ecopoetry because of the possibilities it has to critically rework and engage with metaphors and images of the environmental imagination. Because of this complication of genres, models, forms, images, metaphors and methods, ecopoems are a complex expression of the ambivalence toward cultural models of nature and of the relation between humans, other organisms and inorganic agents.

By looking to the atmospheric I proposed that ecopoetry offers the environmental humanities a new vocabulary for the entanglement of material and social relations with the Anthropocene, contributing to the critique of geological paradigms. Infusing air in the cultural constructions of this epoch, or infiltrating models of representing nature connected to the ideological processes leading to it are two ecopoetic practices that we can import to the environmental humanities. Breathing as participation in multispecies communities and metaphors of infiltration and foam offer critical and methodological perspectives for a cultural study of the atmospheric dimension of the Anthropocene. We can use them to decenter the geological focus, and to reappraise its concepts and metaphors, such as deep time and entanglement. The scope of the thesis limits discussions of these practices, images, perspectives and metaphors, but I suggest they can be developed in a larger study. I thus see this thesis as a starting point for a deeper interrogation of the ways in which ecopoetry can contribute to an epistemology for the environmental humanities, as seen in the example of its relation with the atmosphere.

Some ecocritics are beginning to study the atmospheric. Recently, Margaret Ronda tries to answer to what "can be sensed about ecological interconnection and environmental crisis by attending" to atmospheric poetry, Jon Ashbery's in particular, in the chapter "The Advancing Signs of the Air: Ashbery's Atmospheres" from *Remainders American Poetry at Nature's End* (43). As she states:

> With its uneven composition and its complex relay between corporeal interiors and exteriors, air offers an index of how nature and history interweave in an ongoing dynamic. [...] Air thus serves as a privileged figure for exploring perceptual limits: not only in terms of perceiving environmental crisis but of perceiving the imbrication of capitalism's productive relations in biospheric

> processes. When air appears—as smog or particulate matter—it offers a vantage point into a sense of a larger natural-historical field of relations at work. (43-4)

Applying Morton's notion of ambient poetics to the study of Ashbery's work, Ronda offers an example of atmospheric thinking in ecocriticism that shows the possibilities of poetry to bring attention to air in order to perceive a natural-historical field of relations. The ecopoetry in this thesis explores the complex connections between corporeal interiors and exteriors Ronda sees established with and through air. With the metaphors of *mood of moods* or *foam* (Reilly), or the image of *weather report* (Robertson) ecopoetry directs us to structures of feeling in the Anthropocene. In this way, as Ronda states concerning metaphors of air, they "open up a different model of environmental consciousness from the one developed by literary ecocriticism over the past twenty-five years" (49). Consciousness here, as in my thesis, is used not only in the cognitive sense of being aware of, but also in the sense of an extended relation between mind and weather, body and air. In a material and metaphorical sense, breathing is to relate perceptually, affectively and organically with the atmosphere.

The critique of the direct correspondence between mind and atmosphere in Romanticism that is found in Robertson's work can be further developed to map the contributions of a Romantic epistemology of air to contemporary ecopoetry. For instance, Thomas H. Ford reads atmosphere in Romanticism as a "term closer to what is now sometimes called 'natureculture' [...] that hovered blurrily between singularity and generality and between metaphor and material fact" (86). Ford goes on to discuss Charlotte Brontë's 1847 novel *Jane Eyre* as an extension of lyric poetry in prose that "anticipates the Anthropocene" precisely for its use of this atmospheric entanglement of nature and culture (79). In "Airy Something" Valerie Allen argues for the relevance of atmospheric thinking in ecocriticism to extend connections between early scientific categorizations, in classical and medieval geometries, modern and contemporary mathematics and physics. As she writes, "poetic language gets [...] closest to articulating [the] mathematical sublime," for instance (78). Allen also sees parallels between the study of vortices in the shape of tornadoes and hurricanes and Edgar Allan Poe's fascination with "the vortex as the shape of thought, creation, destruction, of meaning itself," in that, as the "the natural motion of a tornado behaves contrary to all intuition about falling objects," so does the vortex for Poe restructure the expected natural order of phenomena (93-5). Relevant as these examples are, and with the exception of Ronda's work, they nonetheless focus on novels rather than poetry, thus showing that there are unexplored possibilities of analysis of the implications of the atmospheric in ecopoetry.

Ecocritical research on the atmospheric in ecopoetry is an open field of research. One line to guide this research is the aural dimension of poetry which arches back to historical modes of transmission of knowledge in communities and which opens for thinking of songs as vehicles and makers of knowledge. Another line is the materiality of sound and the ways in which it inflects poetic form and that show how language opens to the atmosphere. Yet another line of research is to develop the relation between ecopoetics and meteorology by finding connections, similar and different methods, critiques, and practices. I see potential in metaphors and ideas for thinking atmospherically such as mutability, change, and movement; permeability, transparency and relationality; breathing, suffocation, and contamination. From ecopoets in this thesis I add: foam, infiltration, social weather, lungs as communities, breath bricks. Further work on these metaphors and images can contribute to "issues of formulation and naming" that "occupy a big part of the Anthropocene discourse" and ask for "an analysis on terminology" (Oppermann and Iovino 10). In this thesis I only hinted at some of these metaphors, images and ideas, and am convinced further research can contribute to the environmental humanities.

With their care and critique of language, ecopoets show us that metaphors are provisional: they work until a better one comes along. As I wished to point out, there is a vitality and energy in this stance that gives hope amidst environmental devastation. With their poetry, and within their cycles of influence and power, ecopoets dedicate their time, energy and love toward a better relation with the environment. This is a generous and humbling activity, reflected in free publication policies, communal efforts of dissemination of poems and ideas, participation in rallies and protests, and in the offering of poetry, which is an offering of beauty, song, emotion, affect, and care. Poems here show that to breathe is to be member of multispecies communities and that there are aerial others. They also give consolation to the feeling of devastation from environmental destruction. They propose alternatives in language and in ways of seeing and thinking about others, nature, ourselves. They offer knowledge, care and hope for the future. Ecopoems do all these things and ecopoets do more. They engage with language, with imagination, and with form, they relate with atmosphere and geology. They sing, they communicate, they write, they teach, they translate. They go to committee hearings and to conferences. Their poems can contribute to change understandings of the planet and relations with it. They certainly convey beauty and make their readers feel and think connections and disconnections, voices and spaces of others that coinhabit the planet.

But maybe this is granting too much action to ecopoets and their poems. Maybe, as I have heard countless times over these past four years of dissertation writing, these poems are elitist. Some demand previous knowledge of science: meteorology, chemistry, geology, biology; and also, of philosophy, cultural

studies, literature at large, and poetry in particular. They are in fact directed toward a certain educated community of poets, artists, scholars, teachers, environmentalists, and scientists. In the sense that they rely on that education from their readers, they are elitist. And in the sense that they ask for availability and time to learn from them, they are elitist too. The material conditions that afforded me the time to read the poems and inform myself about the fields they directed me to, are the result of having a privileged position. But because ecopoets are self-aware of their positions of privilege, ecopoems reflect their critique and deconstruction of structures of knowledge and cultural constructions of the human, and the environment. It is then fair to pose questions about clarity and accessibility in ecopoetry to both poets and scholars working with this poetry, especially because ecopoets are very explicit in their cultural, political and environmental engagement. It thus becomes relevant that all the ecopoets whose work I discussed in the thesis are also teachers and environmental activists, some of them both. This is the multivalent character of ecopoetics I discussed in the second chapter that includes ecopoetry within a broader range of other actions, such as rallying and teaching, activist struggles, farming, community gardening and others. In a sense we can say that ecopoets are writing for and from a community of educated readers, while also engaging in other practices of democratic, communitarian, nonhierarchical organizations and sharing of knowledge, such as publishing in free editions or through collaborative funding and making the works available online. These are forms of acting in society that practice the integration of different fields of knowledge aimed at by the environmental humanities.

Here are two examples in which I see poems instructing and at the same time conveying an intuition of others in different, less complex ways than those I discussed previously: The first is an excerpt from Reilly's "A Key to the Families of Thermoplastics" from *Styrofoam*:

> Polyethylene, Most Ancient of the Crystalline Polymers
> gasoline tanks, water bottles, the plastic bag
>
> Polypropylene, also called Mother of Abundance
> carpet squares, garden furniture, automobile interiors
>
> PVC, the Prince of Commodity Plastics
> blister packaging, pipes and fitting, magnetic stripe cards
>
> The Acrylics and their Most Adaptable Cousin

> Ethyl, Methyl, Butyl, Stearyl and Laurel
>
> *For the polymer is the basic long chain molecule and is the pure molecule!*
>
> *Plastica*, when compounded
> (pliant, pliable, formative, ductile
>
> & capable of being deformed continuously without rupture (48)

This is a very straightforward formulation of names and uses of thermoplastics, in fact it is a key to them. Although we might miss the humor of presenting plastics as deities and the italicized sentence as a type of prayer, still the gist of the poem can be grasped: we learn about plastics and their uses. We can complicate it, and are invited to as scholars, as in Lynn Keller's perceptive analysis of the sequence:

> The allusion to Roger William's *A Key into the Language of* America (1643)— the first English dictionary to translate a Native American language—remains significant, however, since it positions Reilly as a translator who makes the language of science available to the larger population. [...] Reilly, however playful much of the poem may be, invites her readers to learn about and acknowledge their connection to plastics, as William's "key" invited his readers to learn about the Indians whose territory they occupied. Such education in scientific information is one role that poetry may valuable assume in the self-conscious Anthropocene. (92)

So we see here, as Keller states, the educational role ecopoetry can have, the opposite of an elitist stance toward information, and that, again, aligns it with the aims of the environmental humanities. Of course, it is not necessary to know about Williams or that the poem also has a pedagogic dimension to learn from it.

The second example, is Kaia Sand's poem "tiny arctic ice," which I here quote from the issue 35 of the online *Jacket Magazine* (2008). This poem allows us to return to the atmospheric:

> Inhale, exhale
> 6.6 billion people breathing
> Some of us in captivity
> Our crops far-flung

Prison is a place where children sometimes visit
Jetted from Japan, edamame is eaten in England
Airplane air is hard to share
I breathe in what you breathe out, stranger
We send tea leaves to distant friends
Aracauna chickens won't lay eggs in captivity
Airplanes of roses lift above Quito mountains
When the fish diminish, folks find jobs in prisons
Sometimes children visit
Terminator seeds are hard to share
And the fish diminish
The roses, the tea, and the edamame, far-flung
The roses, the tea and you
You breathe in what I breathe out, friend

This is the 2008 version of the poem, which is shorter than other versions. The poet keeps rewriting it, "recasting" is the term she uses, and in recent versions has, for instance, the number of people changed to 7 billion (http://kaiasand.net/tiny-arctic-ice/). Again, the poem is very straightforward, revolving around connections established by breathing. A detailed reading of all the geographical information it offers would illuminate the complex relation between distant places. In general, however, it is not hard to grasp the different types of breathing (contaminated air, smell of flowers and tea) that the poem addresses and that promote an intuition of connection with lives of others. Reilly and Sand's poems here show that the complication of forms, the elaboration on technique, the cultural critique of representations of nature, and the complexity of the ecopoetry I discussed in this thesis does not define its character. Ecopoetry also works with this level of immediate understanding of its themes and concerns. We really do not need to know about plastics or about multispecies aerial communities or working conditions of fishermen to feel and understand what these poems address.

The complexity that I chose to highlight is also a political stance: slowing instead of speeding, depth instead of superficiality, critical engagement instead of disengagement, care of others and self instead of disembodied perception. All these practices also come from places of privilege, of not being forced into alienating work, of having the time and material means to slow down. Juliana Spahr and Joshua Clover show the discomfort and the self-critique caused by this position and needed to inhabit it in their *#Misanthropocene* manifesto:

> And fuck this list with its mixture of environmental destruction and popular culture smugness [...] and fuck us for sitting here reading you [...] while the New Mexico meadow jumping mouse went extinct. Fuck that this happened two days and twenty hours ago. [...] And fuck that self-insulating move where you call yourself on your own bullshit to prove you aren't self righteous. (5)

Their answer is to go beyond this "self-insulating move" toward writing ecopoetry as an activist practice. Similarly, Spahr's reflections on her conflicting emotions about attending protests after the Deepwater Horizon Spill and her own material participation in fuel culture are the central concerns of the "Brent Crude" poem. But we can also read in that poem, as in the manifesto, a conscious political move of utilizing one's own resources and abilities toward the transformation of environmental behaviors and imagination. The positions of privilege of ecopoets are also privileged positions to intervene in society and culture. It becomes clear, therefore, that Spahr and Clover associate ecopoetry with an environmental guerrilla. Robertson toys with the idea of the poet as a spy, an infiltrator, that sends reports. Hillman's *Practical Water* includes a sequence of poems on protesting and going to hearing committees. In the poem "A Violet in the Crucible," from this collection, she writes:

> Shelley wants you to visit Congress when he writes
> *a violet in the crucible* & when he notes
> *imagination is enlarged by a sympathy*
> that you may intuit environments
> as endangered creatures do when 7 million pounds
> of nitrogen flow into the Chesapeake –;
> ....
> he means send the report with your body – (42,3)

The intuition of toxic environments from the perspective of others living in them leads Hillman and other ecopoets in this thesis to take their bodies to congress and send their reports from there. As Gary Snyder wrote, this is also "the tiresome but tangible work of school boards, county supervisors, local foresters, local politics, even while holding in mind the largest scale of potential change" ("Four Changes" 100). Bodies of poets therefore do not only send metaphorical reports in poems, but rather tangibly, materially, participate in and inhabit the structures

of knowledge, power and organization that impact on society. Their poems are another way of participation.

Recently, Reilly wrote a reflection on the importance of poetry in times of environmental disruption in association with the 2020 Presidential election in the U.S.:

> It seems to me that poets have long been haunted by the Auden line that "poetry makes nothing happen," although we don't acknowledge enough that a few lines later he says that it's "a way of happening," by which I think he meant that poetry matters in the important but indirect manner and with the unpredictable temporality that art does. [...]
>
> My own way of finding a position from which to write and act in this election season is to believe that we need to be both working on our poems and also "out in the streets" [...] ("Truths of outrage and truths of possibility" par. 13, 15)

If the ways in which poetry matters are not concretely defined, poets matter also because they take to the streets. The effects of ecopoetry in society take the "unpredictable temporality that art does." They can be both short-lived or extended for long periods of time, or at times, more visible than others.

Finally, we can also see in ecopoetry something more than participation in the public/social structures and processes that affect environmental policies or behaviors. We can see in ecopoetry also a reclamation of practices of community-making alternative to those that are possible within the political structures at both local and national levels. Ecopoetic community-making practices also create free spaces of discussion, of sharing, learning, thinking and essaying alternatives to the social and political structures of the Anthropocene. It is important, I think, to contribute to this effort by translating poetry and essays on poetics to other languages. It is from the confrontation with these others in other languages—figures of nature, linguistic constructions of gender, onomatopoeic entanglements with the air—that the ecopoetic "guardless project," to use Hillman's term, can aim for an engagement with the global character of the contemporary environmental conditions. This confrontation will not result in a global ecopoetics, or even an ecopoetics of the global, but rather multiple ecopoetics in dialogue, strengthening differences, promoting dialogue, enabling and fostering discussion. Environmental inequalities are not evenly distributed across the planet, and the perception of the structures of the Anthropocene is not universal across regions, or communities. Different ecopoetics come from these differences, The embodied and situated perception of this epoch strengthens differences, particularities, but also commonalities, such as a shared toxicity. Translation in the wider sense of communication between multiple others, that

also underlines ecopoetic practices of openness and community-making, is fundamental to the environmental humanities and the creation of new lexicons.

For the ecopoets in this thesis, as Audre Lorde wrote,

> poetry is not a luxury. It is a vital necessity of our existence. It forms the quality of the light within which we predicate our hopes and dreams toward survival and change, first made into language, then into idea, then into more tangible action. (37)

I hope that this dimension of urgency and vital necessity of poetry is evident in the discussions in this thesis. I tried to offer a study of ecopoetry as a critical practice that I hope contributes to discussions on the ways in which poetry can participate in changing the environmental imagination. I hope I did not smother the voice of ecopoets and the beauty and energy of their poems with scholarly categorization but rather let them breathe and blow their cries and joyful songs to us.

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