Knowing & Doing & Becoming

A Natureculture Poetics of Contemporary Matter Poetry

D i s s e r t a t i o n

Zur

Erlangung des akademischen Grades

Doktor der Philosophie

in der Philosophischen Fakultät

der Eberhard Karls Universität Tübingen

Vorgelegt von

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aus

Berlin

2025

**Gedruckt mit Genehmigung der Philosophischen Fakultät
der Eberhard Karls Universität Tübingen**

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Tag der mündlichen Prüfung: **02.03.2023**

Universitätsbibliothek Tübingen, TOBIAS-lib

Acknowledgements

As this dissertation developed throughout the last years, I would like to thank the following people:

Prof. Dr. Ingrid Hotz-Davies (Tübingen), my first advisor, for her support, care and countless affirmative words and inspiring conversations. After knowing, working for and with Ingrid for many years, her kindness and wisdom have had a profound impact on my personal as well as academic life.

Prof. Dr. Christoph Reinfandt (Tübingen), my second advisor, for his friendliness and calmness as well as for many exchanges about matter, poetry, and music which all streamed into this dissertation.

Dr. Anya Heise-von der Lippe (Tübingen) for many dialogs about nature poetry, materiality, and the nonhuman as well as for reading parts of this dissertation.

Dr. Nicole Hirschfelder (Tübingen) for being a supporter and friend.

Prof. Dr. Astrid Franke (Tübingen) for giving me countless opportunities and for being such a generous, warm, and intelligent person. I have personally learned so much from her.

Prof. Dr. Uwe Küchler (Tübingen) for his kindness and attention.

Prof. Dr. Karin Amos (Tübingen) and *Prof. Dr. Anne Rohstock* (Tübingen) for many meetings and conversations about scientization and posthumanisms as well as for their feedback on my work and thoughts.

My colleagues *Dr. Rebecca Hahn* & *Dr. Gero Bauer* for their friendship.

My *family* and f*riends* for their love and for making me feel free.

Kim Luther (Tübingen) for reading and for her help with editing this dissertation. But mostly, I thank Kim for her love and our life together.

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chapter one: introduction

Eroding Texts, Eroding Worlds: Matter Poetry & Naturecultures

Where did we get the strange idea that nature
– as opposed to culture – is ahistorical and timeless?
We are far too impressed by our own cleverness
and self-consciousness. […] We need to stop telling
ourselves the same old anthropocentric bedtime stories.
—Steve Shaviro, *Doom Patrols* (1996)

Erosion is the process by which darkness is removed from cliffs
and beaches, causing the duskline to retreat inland. It is a natural process
that provides an argument for building better coastal nights.
Waves and currents transport the nocturnal, its silence and dreams,
to adjacent shores such as ancient family photos and barrier reefs
of the missing, offshore, into basins of warm water memories
and seabeds where the clamshells of our hearts reside, thereby resupplying
and maintaining the marshes around our solitude.
—Sue Goyette, "Erosion" (2011)

What if coastal erosion is not just a "natural process" of removing sediment, rock, and sand "from cliffs and beaches"? What if this process of eating into also dips into our very intimate lives, the cultural sphere, molding our inner landscapes? What if the material changes of an eroded coastline *out there* are not just "an argument for building better coastal" protection, but what if these changes of a landscape *out there* influence "where the clamshells of our hearts reside" – erode our language, eat into our imageries of embodiment? What if "ancient family photos" and our "memories" are attached to "the marshes" *out there* and *in here*? What if solitude is also a form of erosion, a taking away?

All these "what if's" flow out of Sue Goyette's first poem on "Erosion," and these "what if's" grow out of an ontological flattening between the spheres of nature and culture. Goyette further entangles discourse traditions of scientific reports with a kind of language which we would describe as poetic – enriched with stylistic devices to point at something more than is said or written, to create imagery, to affect etc. If we dive to the very bottom of Goyette's lines on erosion, we can detect something else; namely, an ontological belief in matter; a belief that the material

world as well as materializations take place in the nonhuman (think coastal erosion), as well as in the human (think solitude as a form of erosion). We can also detect a conviction that material change such as the removal of a coastline through wind and waves can influence our human subjectivity beyond our noticing by changing "the nocturnal"; by changing how silence, this absence of noise, is carried from the beach into bedrooms and hence into dreamscapes. What Goyette makes visible is that a material perspective and one that entangles nature, the world *out there*, and culture, the world *in here*, does not just create a flat ontology with numerous relations between the human and the nonhuman at large; but that this perspective turns a very powerful notion of humans as primary thinking, emoting, and acting referents on its head to present human culture as eroded by various environmental materializations. Goyette thus turns erosion as a scientific, a natural phenomenon on its head and shows how erosion is more than just a techno-scientized idea, but a natureculture one which influences our *knowing & doing & becoming-with* the world *out there*.

The idea of material-semantic erosion as a process which impacts our *knowing & doing & becoming-with* is a notion which is at the heart of this dissertation. This dissertation focuses on (i) a group of science-interested non-scientist poets, namely John Kinsella, Sue Goyette, Elizabeth-Jane Burnett, Alice Oswald, J.O. Morgan, and Denise Riley, who produce what I call matter poetry and who shift their poetics to the material and with that to the entanglement of nature and culture, following a larger cultural paradigm shift towards matter, the nonhuman, affect, the environment in theory of new materialist interventions and beyond; (ii) within this group of new materialist thinkers, this dissertation favors Donna Haraway's "naturecultures" (2003) and introduces "naturecultures" not only as an ecocritical theorem which entangles nature and culture into one relational ontology of "naturecultures," but as a techno-scientist natureculture philosophy in its own right that is woven through everything Haraway has ever written since the publication of her dissertation monograph *Crystal, Fabrics, and Fields: Metaphors that shape Embryos* (1978); (iii) a side-product of bringing these fields in conversation with each other will hence be the establishment of a corpus of a contemporary gerne called matter poetry as well as the formulation of Haraway's thoughts on naturecultures into one philosophy.

Within all these eroding ideas, this dissertation's research question is, however, straight-forward: how do contemporary matter poems elicit the productivity of matter and of art? And how does this joint productivity – a doing – create "agential" (Barad 2007) "natureculture" knowledge which produces a literary paradigm of material connection, imagination, and experience? My tentative proposition is that these matter poems use poetic language which involves materializations and meaning "intra-actively" (Barad 2007), so at the same time. In these

poems, matter and discourse are only available to think with as so fundamentally entwined that they present the knotted forces which create reality (c.f. "agential realism," Barad 2007). In Albert Einstein's words, the "spooky" task of this dissertation is to (i) theorize this poetic materiality intellectually with the help of Donna Haraway's natureculture philosophy and (ii) to point out how material-semantic language creates channels which are built in and out of these poems that entangle affect, sense perception, and experience only (iii) to re-theorize a literary criticism and methodology which incorporates (non)human matter as an active agent in the literary production and reception process.

In doing so, my primary tactic is borrowed from my matter poets themselves; namely, to view language not as a linguistic tool for representation, but as a concrete material-semantic actant that *does* something. Naturecultures and matter poetry's *knowing* (epistemology), *doing* (agency), and *becoming* (ontology) are transversal, simultaneously intersecting, processes here, thus, the title: *Doing & Knowing & Becoming: A Natureculture Poetics of Contemporary Matter Poetry*.

So far, no research has exclusively considered that there is a field in contemporary poetry which reaches across its textual boundaries to entangle (non)human matter, form, and meaning in a manner that is scientized, non-algorithmic, and functions as cultural criticism at the same time. Seeing that every arising problem of the 21st century involves an encounter with matter and the quantum world – from climate change, droughts, to (bio)technology, algorithms, war, energy crises, pandemics, and terrorism – there is no better time than the current to critically comprehend and re-negotiate our shared materiality with a strong voice oriented from the humanities and literature towards the world we live in.

In the following, I will slowly trace the roots and methodology of Haraway's natureculture philosophy and track how naturecultures flow in and out of the New Materialisms. Both Haraway's natureculture philosophy and the New Materialism supply useful conceptual tools to think matter poetry's complexities with and hence require some time to develop in this introduction. Theory does not serve to explain matter poetry, nor do the matter poems serve to legitimize theory here, but all spheres are emergent through a paradigm shift towards the material and with that towards naturecultures, the nonhuman, and relational ontologies. I will then tentatively outline a history of matter striking back in anglophone poetry and culture to arrive at, what I call, matter poetry. Matter poets are the successors of vitalist thinkers as well as Romantic and New Nature Poets. Matter poetry looks into the world *out there*, into nature, but conceptualizes both the environment and the human sphere as embodied and through and through material. This often techno-scientized and strictly material entanglement of so-called nature with culture via matter is a concern which brings matter poetry in conversation with Haraway's natureculture philosophy.

Haraway's interest has always been "in what gets to count as nature and who gets to inhabit natural categories. And furthermore, what's at stake in the judgement about nature and what's at stake in maintaining the boundaries between what gets called nature and what gets called culture in our society" (2007). Haraway's philosophy has a rigorous lens for the discourses and institutions that decide how we see and read the *world out there* (nature) and *in here* (culture), and her feminist politics has informed her natureculture philosophy in pointing out that these onto-epistemological judgments matter. Haraway's feminist criticism informs that it matters who or what gets to be called an object and who gets to be marked as subject (a thinking, emoting, rational, lively being) (bio)politically as it influences a hegemonic perception which governs the potential for *knowing & doing & becoming*. What I call Haraway's flexible heuristic is her radical thinking process-ontology *together with* a critical epistemology and *together with* a nonhuman agency. This conceptual entanglement is what gives Haraway's natureculture philosophy the intellectual power to analyze institutional power structures *together with* the epistemological forces of techno-scientization and how this all leads to models of being and becoming with. With this entanglement in thought, Haraway is special amongst her new materialist colleagues since her philosophy itself introspectively criticizes the technosciences and with that quantum physics, environmentalism, biology etc. The roots of her natureculture philosophy go back to this epistemological criticism: accordingly, technoscience "mimes the implosion of science and technology into each other in the last couple of hundred years around the world" (Haraway 1997, 210). Technoscience is hyper in the sense that it indicates a massive time-space modality that emerges from an implosion of the historically separated spheres of so-called "nature" and "culture" through the all-encompassing – hyper, extravagant – influence of the sciences, laboratories, and technology (think "scientization," "Big Science," "the science wars"!). Natureculture and matter poetry must be read together because they inform each other by criticizing technoscientized habits of mind *from the margins* towards a world populated by matter and processes of materializations. And it is from the margins from which one shifts the center.

1. An Intro into Haraway's Natureculture Philosophy: A Game of Cat's Cradle

> [T]he three names are place markers, emphases, or tool kits —knots, if you will —in a constitutively interactive, collaborative process of trying to make sense of the natural worlds we inhabit and that inhabit us;
> —Donna Haraway "A Game of Cat's Cradle" (1994)

> String figures are like stories; they propose and enact patterns for participants to inhabit, somehow, on a vulnerable and wounded earth.
> —Donna Haraway, *Staying with the Trouble (*2016)

Haraway's natureculture philosophy is not only folded, or knotted, into mostly everything she has written throughout the last 44 years (and is, in fact, still writing), but it follows a method that she herself coins a "a game of cat's cradle" that leads us into making sense of a co-inhabited and relational world (1994). In an imploded world, in which nature and culture have become naturecultures, different discursive and materialized knots and strings run through Haraway's natureculture philosophy. In a meta-analysis of her methodology, seven meta-knots can be detected:

(i) several disciplinary co-constitutive and analytical strings run across Haraway's natureculture corpus, webbed through the fields of Science and Technology Studies, Philosophy of Science, Biology, Animal Studies, Marxist Philosophy, Antiracist Theory, Political Economics & Philosophy, Cultural Studies, the New Materialisms, Eco-Criticism, to only name the main fibers, because each analytical school supplies different conceptual tools for Haraway's project of complex transformations;

(ii) each essay or book introduces figures, or figurations, most famously the cyborg[1] (1985), but also the modest witness, FemaleMan©, OncoMouse™[2] (1997),

[1] "A cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction. Social reality is lived social relations, our most important political construction, a world-changing fiction. … Contemporary science fiction is full of cyborgs – creatures simultaneously animal and machine, who populate worlds ambiguously natural and crafted. … By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs. The cyborg is our ontology; it gives us our politics. … In the traditions of 'Western' science and politics – the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition of reproduction of the self from the reflections of the other – the relation between organism and machine has been a border war." (Haraway 1985, 272)

[2] "The modest witness is a figure in the stories of science studies as well as of science. S/he is about telling the truth, giving reliable testimony, guaranteeing important things, providing good enough grounding-while eschewing the addictive narcotic of transcendental foundations-to enable compelling belief and collective action. The FemaleMan is

vampires[3] (1997), mixotricha paradoxa[4] (1996, 2000), companion species[5] (mostly dogs) (2003), and critters[6] (such as the California racing pigeons) (2016), to speak and think with systemic possible counter-transformations.

(iii) since knowing, for Haraway, is an active verb that emerges from the frictions produced through our relationalities, these figurations are actors which can be placed onto our technoscientific relational plane of knowledge production to change what can be *known, done, and become-with*. In this line of thought, knowledge interventions are possible through an active realignment of what can be *known, done, and become*, or so I argue. Haraway's figurations, such as the cyborg, Onco Mouse™, and the companion species, do not only refuse human exceptionalism by highlighting our relationalities are always nonhuman and material as well (Haraway & Potts 2010, 322), but they also undermine the dualism of matter/meaning, body/mind, object/subject etc. of the technoscientific paradigm and with that power dynamics as well as epistemological blind spots of mainstream technoscientization. Her figurations can only create a different order of things if they are continuously reused, transformed, and recited by Haraway herself (which

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the chief figure in the narrative field of feminism in this book. S/he is about the contingent and disrupted foundational category of woman, doppelganger to the coherent, bright son called man. OncoMouse is a figure in the story field of biotechnology and genetic engineering, my synecdoche for all of technoscience." (Haraway 1997, 22)

[3] "Vampires are narrative figures with specific category-crossing work to do. The essence of vampires, who, like Victor Frankenstein's monster, normally do their definitive labor on wedding nights, is the pollution of natural kinds. The existence of vampires tropes the purity of lineage, certainty of kind, boundary of community, order of sex, closure of race, inertness of objects, liveliness of subjects, and clarity of gender, Desire and fear are the appropriate reactions to vampires. Figures of violation as well as of possibility and of escape from the organic-sacred walls of European Christian communality, vampires make categories travel. From the point of view crafted in their Christian narrative sources from at least the end of the eighteenth century, vampires are ambiguous-like capital, genes, viruses, transsexuals, Jews, gypsies, prostitutes, or anybody else who can figure corporate mixing in a rapidly changing culture that remains obsessed with purity (Geller 1992; Gelder 1994)." (Haraway 1997, 79-80)

[4] "It is a microscopic single celled organism that lives in the hind gut of the South Australian termite. What counts as "it" is complicated because it lives in obligatory symbiosis with five other kinds of entities. Each has a taxonomic name, and each is closely related to bacteria because they don't have a cell nucleus. They have nucleic acid, they have DNA, but it's not organized into a nucleus. Each of these five different kinds of things lives in or on a different region of the cell. For example, one lives in interdigitations on the exterior surface of the cell membrane. So you have these little things that live in these folds of the cell membrane and others that live inside the cell. But they aren't in the full sense part of the cell. On the other hand, they live in obligatory symbiosis. Nobody can live independently here. This is codependency with a vengeance! And so the question is-is it one entity or is it six? But six isn't right either because there are about a million of the five nonnucleated entities for every one nucleated cell. There are multiple copies. So when does one decide to become two? When does this whole assemblage divide so that you now have two? And what counts as Mixotricha? Is it just the nucleated cell or is it the whole assemblage? This is obviously a fabulous metaphor that is a real thing for interrogating our notions of one and many." (Haraway 2000, 83; 1996)

[5] "We are training each other in acts of communication we barely understand. We are, constitutively, companion species. We make each other up, in the flesh. Significantly other to each other, in specific difference, we signify in the flesh a nasty developmental infection called love. This love is a historical aberration and a naturalcultural legacy. … Indeed, I find that notion, which is less a category than a pointer to an ongoing "becoming with," to be a much richer web to inhabit than any of the posthumanisms." (Haraway 2003, 16)

[6] "*Critters* is an American everyday idiom for varmints of all sorts. … In this book, 'critters' refers promiscuously to microbes, plants, animals, humans and nonhumans, and sometimes even to machines." (Haraway 2016, 167)

is something that she does relentlessly) as well as by other scientists (most notably Bruno Latour, Karen Barad, Isabel Stengers, Rosi Braidotti, Iris van der Tuin – to mention only a few). This feedback-loop of (re-)introducing Harawayian figurations grants and guarantees for her natureculture philosophy to be absorbed into the cultural apparatus of knowledge production;

(iv) the meta-goal of cat's cradle as a methodology is to develop a critical theory which produces meta-narratives in forms of knots and patterns (think feedback-loop of (re-)introducing Harawayian figurations!), so conceptual tools to re-think and form counter-narratives with, that are on the one hand technoscientized, and on the other deeply material, born out of lived relations, and are non-algorithmic because Haraway's natureculture philosophy situates itself as a critical turning-point, itself science-driven, to Big Data and algorithmization;

(v) these patterns created by the game are "place markers, emphases, or tool kits—knots, if you will—in a constitutively interactive, collaborative process of trying to make sense of the natural worlds we inhabit and that inhabit us" (Haraway 1994, 66).

(vi) in "playing" cat's cradle, Haraway's writing style is both scientific and creative, allowing for an analysis and exploration of knowledge systems and an encounter and experience of scientized, but non-algorithmic kin such as critters, companion species, *mixotricha paradoxa*. Her philosophy is thus a speculative fabulation (sf) in itself, challenging the active/passive binary of Western objective discursive traditions in the sciences and humanities (c.f. Haraway 1991, 3);

(vii) in her philosophy, things, language, knowledge, and discourses are intrinsically entangled. Language does hence not just produce technoscientific discourses, but it constitutes knowledge, and most notably, things. For Haraway, we are in language and we are in and of matter. Language and meaning do not create a prison house, but they are always already material-semiotic. "Discourse is not just 'words'; they are material-semiotic practices through which objects of attention and knowing subjects are both constituted" (Haraway 1997, 218 in Stache 2017 88). In Haraway's natureculture philosophy, language is a form of doing, an excursion of agency. "The word is made flesh" (Haraway 2004, 100 in Stache 2017, 89). Writing about cyborgs, primates, genes, dogs as companion species, has thus actual material-semiotic effects: it creates knowledge as well as the figurations themselves. Challenging the representationalism and the power of words as well as discourse,

> Haraway employs different layers of figurations, "performative images that can be inhabited" (Haraway 1997, 11), very similarly to the difference between saying and showing.

Thinking of the hands which hold the different strings in a game of cat's cradle, Haraway's meta-question seems always to be, what is *it* to join with each other (grammatical error intended here; or, in Haraway's words "Grammar is politics by other means" (1991))? Or what is the motor that joins us together in a speculative fabulation? Haraway's strings and knots are held up by multiple multispecies and interdisciplinary players to create the negative spaces that can actually hold something, namely counter narratives, that can then be given, handed over through her fabulation. "Relays, string figures, passing patterns back and forth, giving and receiving, patterning, holding, the unasked-for pattern in one's hands. Response-ability; that is core to what I mean by staying with the trouble in serious multi-species worlds" (Haraway 2016, 12).

Haraway's different layers of figurations specifically work as counter-knowledge makers to what we would today call modern technoscientific matters of fact. And in countering these matter of facts, Haraway's natureculture philosophy is technoscientized itself, *but from the margins (!)*. Her philosophy is deeply troubled by the silencing and censorship that Western modern science has done to "other" kinds of knowledge – be it the accounts of the everyday, nonhuman, non-white, female, non-western, non-capitalist, the actual material of our common life-worlds, and other kin. Being a good student of Foucault's, Haraway's philosophy is constantly aware that knowledge is power and with her figurations she aims to subvert this very inbuilt power of knowledge formation from the technoscientific margins. Leaning on Alfred North Whiteheads' organic philosophy of science and Bruno Latour's actor-network-theory, *nothing* – no thing – lies outside of the material-semiotic relationality of our knowledge production for Donna Haraway (c.f. Haraway 1995 109; Stache 76).

In Haraway's natureculture philosophy, knowledge is a materialization of relationality itself. The actual, the material, and the figural are her intellectual weapons of choice to constitute knowledge of a lived, actual, and material-semiotic world. Hence, natureculture stories have one foot firmly based in the technosciences and one firmly grounded in the material muddy earth, on which we all stand from the ground up every day.

1.1 Into Haraway's Naturecultures: A Different Order of Things

> Copernicus told us that the earth was not the center.
> Darwin told us that men is not the center. If we
> listened to the anthropologists we might hear them
> telling us, with appropriate indirectness, that the White West
> is not the center. The center of the world is a bluff on the
> Klamath River, a rock in Mecca, a hole in the ground in Greece,
> nowhere, its circumference everywhere.
> —Ursula Le Guin, *Always Coming Home* (1985)

Haraway's natureculture criticism is especially based on what can be known and thought – and it matters what thoughts think thoughts![7] And at the same time, postmodernity and the omnipresent cultural reign of technosciences – a key temporality for Haraway's natureculture philosophy in which modern technology and the natural sciences, hence technoscience, become the dominant societal force and *the* cognitive institution to think-with in the West – mixes up *knowing* (epistemology) with a mode of *being/becoming* (ontology), and *becoming* (agency). In short Haraway's natureculture philosophy asks:

> *in how far does*
> *how we know*
> *and what we know*
> *limit or*
> *control*
> *who/what can become*
> *and who/what can act*
> *in which manner?*

[7] "The British social anthropologist Marilyn Strathern, who wrote *The Gender of the Gift* based on her ethnographic work in highland Papua New Guinea, taught me [Haraway]that 'it matters what ideas we think other ideas (with). … It matters what matter we use to think others matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots; what thoughts think thoughts; what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories.'" (Haraway 2016, 12)

Epistemological criticism, for Haraway, is thus not just limited to the Philosophy of Science, Science and Technology Studies, or the New Materialisms, but it is always already cultural, societal, and environmental criticism.

Haraway's key temporality, namely the technosciences, is positioned as a response to a contemporary crisis in scientized and commodified *knowledge production itself*, or, in Haraway's words as a response to a new "historical configuration" (1996 366; 1997 42) of knowledge production in the "New World Order Inc." (1997 2), in which "nature" is commodified an "enterprised up" (Strathern 1992, 39) into a cultural apparatus of technoscientized knowledge production.

Technoscience as a term and temporality has become an integrative part of Haraway's natureculture philosophy (mainly 1996, 1997, 2003, 2008, 2016). Haraway reuses this neologism, of which there is some agreement that this term was introduced by the Belgian philosopher Gilbert Hottois (1984 & c.f. Kastenhofer & Schwarz 2011) and thereafter repeatedly adapted by Bruno Latour's work beginning with *Science in Action* (1987) and later by Donna Haraway (since 1990). In her natureculture philosophy, Haraway applies this temporal-structuring device as a material-semiotic metaphor in her analysis on the implosion of technology, nature, and culture (especially 1990, 1997) to exemplify how an abstract construction such as a temporality, or more specifically an epistemological paradigm, can have actual material consequences for collectives and (non)human individuals alike (c.f. Stache 2017, 61-61, Kastenhofer & Schwarz 2011, 61)[8].

The historical configuration of technoscience, as applied by Haraway, can be conceptualized as a temporality that is rooted in the formation of the natural sciences as we know them today in the West. Beginning with the development of an investigation of the world *out there*, the "natural philosophers" of the Early Modern period birthed an epistemology (a knowing) and methodology (a tool for doing) that we today would recognize as Science (with a capital "S" - meaning the Natural Sciences). Without losing ourselves in the intricate worlds of the history of science and technology, the most influential moments in establishing the technosciences at large – from a programmatic scientific practice (think scientific experiment!) to an everyday influence on individuals (think Fitbit, smartphone, or paypal!) – can be roughly limited to six moments: the

[8] According to Karen Kastenhofer and Astrid Schwarz (2011), Hottois employed and is thought to have coined the term "technoscience" to point to science that is done in a technological milieu and which is technology driven. Approximately a decade later, Latour's *Science and Action* (1987) analyzes the entanglement of practices, ontologies, peoples, and methodologies in the production of technoscientific knowledge and thus firmly situates the analysis of technoscience within the field of Science and Technology Studies (STS). Within the STS, a so-called practical-turn emerges in the 1990's, carrying the inheritance of Latour's *Laboratory Life* (1997), which focuses on the epistemic cultures and practices in the technoscientific laboratory as well as field sciences (most notably Hacking (1983), Pickering (1992), Knorr Cetina (1999), and Rheinberger (1997, 2006), c.f. Kastenhofer & Schwarz 2011). Most recently, philosophical, and sociological perspectives critically probe technoscience as a concept by stressing the material and cultural dimensions within the Western every day, mundane, dimensions and tacit influences on individuals (Forman 2007, Nordmann 2006, Schwarz and Nordmann 2010). Technoscience can thus be anything – from a programmatic scientific practice to an everyday background noise (c.f. Kastenhofer & Schwarz 2011, 61-65).

development of the New Sciences, Descartes's metaphysical dualism, Darwin's Theory of Evolution, Freud's development of psychoanalysis, the advancement of Quantum Physics, and the ubiquitous expanse of digitalization. All these moments, or "historical configurations," changed our relationship to the world *out there*, and collapsed nature into the realm of culture and human meaning making. In short, these configurations imploded the realms of nature with culture into natureculture:

i. the Early Modern "New Sciences," particularly marked by the emergence of Natural Philosophy with its scientific instruments of observation and method, such as Hooke's microscope in *Micrographia* (1665), Francis Bacon's revolutionary rejection of Aristoteles' theory of syllogism for a scientific method based on induction in *Novum Organum*[9] (*The New Organon: or True Directions Concerning the Interpretation of Nature* [1620]), begin to remove the Enlightened human from an active nature towards models of a mechanical nature. We can now observe and form hypotheses over the unthinking and systematic world *out there*, transforming a moving and ever evolving nature into a theoretical one. The world becomes a playground for humanity;

ii. the mind/body dualism as developed in Descartes discussion on scientific methods (in which reason paired with deduction is the "certain [route] to knowledge" (*Rules* 1701, 43), develops a model of human superiority over the world out there as well as over our own bodily vessels based on the powers of the human mind and soul. This packing order of mind over matter, and culture over nature, would haunt the natural sciences and Western philosophy well into 21st century;

iii. in the second half of the 19th century, Charles Darwin introduces the theory of evolution (1859), which would place man among other animals as embedded in a constant motion of change and adaption, establishing a hierarchy of the species;

[9] *Organon* is the title for Aristotle's theoretical logic corpus, a doctrine that Bacon aims to replace after with his *Novum Organon*, which is based in an applied natural philosophy. Finding and interpreting "the general laws of nature" through a *scientia operativa*, a logical instrument on which scientific knowledge about nature must be built, is Bacon's groundbreaking objective. Bacon thus sets out to discover "the forms (or formal causes) of simple natures." The ultimate aim of Bacon's vision for the applied sciences is then to "induce on bodies the form of any nature that we may desire it to have." Since "Man, being nature's servant and interpreter, is limited in what he can do and understand by what he has observed of the course of nature—directly observing it or inferring things · from what he has observed" (Book I, 1) our intellect needs "tools" (Book I, 2). Because "Nature is much subtler than are our senses and intellect" (Book I, 10) axioms from the senses and particular events in a gradual and unbroken ascent, · going through the intermediate axioms and arriving finally at the most general axioms. This is the true way, but no-one has tried it (Book I, 19).

iv. with the turn of the century, Freud's psychoanalysis (1905) would introduce an unconscious as a co-agent to our human conscious processes, thereby wounding human visions of utter, conscious self-control and determination, pushing us to turn inwards into our psyches and not outwards into the world. A self-obsession with the human condition and inner landscape emerges,

v. twentieth century physics did not only bring forward Einstein's Theory of Relativity (Planck 1900 & Einstein 1905 in Rovelli 2014), but also quantum mechanics (Bohr's "atomic model," Heisenberg's "Uncertainty Principle"), or quantum theory. Trough complex experiments and calculations, weirdly, this theory re-introduced a material connectivity to the cosmos and the *world out there* again by institutionalizing the knowledge that our very own human physical bodies – every atom of it – as well as the world *out there* are materially relational by being governed by the laws of quantum mechanics. In an equally weird feedback loop, quantum mechanics has ubiquitously transformed our everyday lives, helping in engineering the computers we write from etc., shaping the ways how we know what we know and how we thus relate to the non-algorithmic and non-digitalized material world *out there*.

With U.S. technology before and specifically after WWII, Donna Haraway' technosciences specifically stresses a characteristic increase of technological tools (2008, 12); especially the development of the digitalization in the 1990s would form individual "scientific habits of mind" (Dewey 1938) and finish the creation of a monist "hyperspace" (Haraway 1997, 3) of science and technology, hence technoscience.

Accordingly, technoscience "mimes the implosion of science and technology into each other in the last couple of hundred years around the world" (Haraway 1997, 210). Technoscience is hyper in the sense that it indicates a massive time-space modality that emerges from an implosion of the historically separated spheres of so-called "nature" and "culture" through the all-encompassing – hyper, extravagant – influence of the sciences, laboratories, and technology (think "scientization," "Big Science," "the science wars"!). In *Modest Witness@Second_Millenium. FemaleMan© Meets OncoMouse™* as well as *Feminism and Technoscience* (1997), Haraway specifies that "Technoscience extravagantly exceeds the distinction between science and technology as well as those between nature and society, subjects and objects, and the nature and the artificial that structured the imaginary time called modernity" (1997, 3). This "implosion of the technical, organic, political, economics, oneiric, and textual that is evident in the material-semiotic practices

and entities in late-twentieth-century technoscience" (Haraway 1997, 12) is not only an implosion of discursive practices in Big Science, but it has actual and material effects on our reality and societal norms (Haraway 1997, 218). This pervasive conceptual consequence of the implosion of meaning and matter is connoted in Haraway's term of the "material-semiotic" (Barad's "material-semantic" (2007)).

Haraway's notion of the technosciences as hyper, thus, surpasses any instrumental or epistemological character and becomes an ontological temporality marker itself which is nonetheless intricately entangled with what we know and how we know it. For Haraway, and for Bruno Latour (c.f. 2008, 2010), both so-called "nature" and "culture" are imploded as a consequence of the cultural force of science on what has formerly been called "nature" or the world out *there*. Thus, science produces cultural interpretations of nature, namely "naturecultures" as the material-semiotic consequence of this implosion (Haraway 2001, 120).

Still, Haraway's counter-figures, such as the companion species (2008), are on the one hand a product of the implosions of the "Great Divides of animal/human, nature/culture, organic/technical, and wild/domestic flatten into mundane differences" and on the other hand, these mundane differences are "the kinds that have consequences and demand respect and response—rather than rising to sublime and final ends" (Haraway 2008, 15). The material is what allows for a co-constitution, a making each other up, materially, in the flesh, within the hyper technosciences. Such a "counter figure" that is akin to the technosciences (think industrial living and farming, work and therapy dogs, modern veterinary medicine) and to the (non)human material world are Haraway's companion species. "Dogs matter" and it is through the "significant otherness" of dogs and people in a shared material-semiotic life that "[w]e are, constitutively, companion species." Or, if you have a dog, a dog has a human (2003, 2008, 16):

> Some molecular record of our touch in the codes of living will surely leave traces in the world, no matter that we are each reproductively silenced females, one by age and choice, one by surgery without consultation. Her red merle Australian shepherd's quick and lithe tongue has swabbed the tissues of my tonsils, with all their eager immune system receptors. Who knows where my chemical receptors carried her messages or what she took from my cellular system for distinguishing self from other and binding outside to inside? (Haraway, 2008, 15)

1.2 From Knowing Nature to Knowing Matter: Haraway & the New Materialisms

> The apparently exotic world of quantum mechanics is our world. Our bodies and all the world around us is built on quantum effects and ruled by quantum mechanics […]. Indeed, every single atom in your body is ruled by the laws of quantum mechanics.
>
> —Rainer Dick, *Advanced Quantum Mechanics: Materials and Photons* (2012)

In "Introducing the New Materialisms" (2010), Diana Coole and Samantha Frost write parallelly to the quantum mechanics analysis of matter put forward by Oppermann above on our emersion on the material quantum worlds:

> As human beings we inhabit an ineluctably material world. We live our everyday lives surrounded by, immersed in, matter. We are ourselves composed of matter. We experience its restlessness and intransigence even as we reconfigure and consume it … Our existence depends from one moment to the next on myriad micro-organisms and diverse higher species, on our own hazily understood bodily and cellular reactions and on pitiless cosmic motions, on the material artifacts and natural stuff that populate our environment, as well as on socioeconomic structures that produce and reproduce the conditions of our everyday lives. In light of this massive materiality, how could we be anything but materialist? How could we ignore the power of matter and the ways it materializes in our ordinary experiences or fail to acknowledge the primacy of matter in our theories? (1)

Affirming "the power of matter and the ways it materializes in our ordinary experiences" is what natucultures is all about. Moreover, Haraway's natureculture philosophy has always acknowledged "the primacy of matter" in her theories through methods such as cat's cradle, her material-semiotic lenses, her situated knowledge, tropes, and figures. And while the New Materialisms share the same hyper-temporality of the technosciences just as Donna Haraway does, they do so without an explicit technoscientific criticism and skepticism as written into Donna Haraway's natureculture philosophy.

This dissertation would like to situate Donna Haraway as a crystalizing agent *for* and *within* the New Materialisms. The *for* and at the same time *within* is crucial here since it breaks with linearity, recognizing that any linear development in a knowledge genealogy may enforce hierarchies and dichotomies not truthful to Haraway's feminist natureculture criticism. According

to Haraway, "discourses do not exist entirely outside of each other" (1994, 66), and as part of an intellectual New Materialist movement Haraway has put some fundamental and formative "cracks in the canon" (Tuin 2015, 29) of STS and the New Materialisms.

In this non-linear canonic cracks line of thought, I want to introduce Haraway specifically as a crystalizing agent because crystals physically do not reflect light, but diffract – break open, together, apart. In Classical Optics, to diffract translates into the motion of "breaking apart, in different directions" (Barad 2014, 168). Diffraction as a concept from classical optics that migrated into critical theory started to bridge the divide between the so called "Two Cultures" (Snow)[10] of science and the humanities in the West in the late 1980s. Classical Optics' notion of diffraction was introduced and written into critical theory by literary and feminist theorist Trinh Minh-ha (1988, 1997) and feminist science study scholar Donna Haraway (1992, 1997), whose interest in notions of differences and boundary-drawing practices were influenced by diffraction patterns and their abilities to record where the consequences of differences materialize (c.f. Haraway 1992, 300). Haraway as a crystalizing agent for the New Materialisms hence managed to shape such a vibrant philosophy that it has been generative and sticky for the New Materialisms by cracking open the canon for material relationalities to emerge (c.f. Barad 2007).

Haraway's natureculture epistemological concentration on how we can get at the material world *out there* is a concern that Haraway's epistemology shares with an intellectual intervention in cultural studies coined as the New Materialism in the second half of the 1990's by Rosi Braidotti and Manuel DeLanda (c.f. Dolphinj & van der Tuin 2012, 48). And for both the New Materialisms and for Haraway's natureculture philosophy, how to get at the world *out there* is bound to ontologically recognizing the vibrancy and agency of matter.

Most prominently, Karen Barad's idea of "agential" (Barad 2007) matter radically challenges the deeply rooted anti-vitalist, Cartesian (Descartes 1627-28), and Baconian (1620) belief in Western science and culture that matter is inert and stable, and thus hierarchically below rational, conscious, intentional, and responsive human beings. In the New Materialisms, matter is not seen as "lifeless, *inertia"* (Kant, Critique of Judgement, sec. 73, emphasis added*), "but as a substance in its intra-active becoming – not a thing, but a doing, a congealing of agency"* (Barad 139, original emphasis). Matter is thus vibrant and alive, often beyond the noticing powers of our human subjectivities (c.f. Bennett 2010) and processes of materialization are omnipresent in an ontological material quantum-universe. As physicist Rainer Dick notes, "The apparently exotic world of quantum mechanics is our world."

[10] In 1956, CP Snow published an essay in the *New Statesman* arguing that the arts and sciences are divided into two cultures with a "mutual incomprehension" between the two spheres.

Just as Donna Haraway's natureculture philosophy is deeply influenced by biology and technoscience criticism, the New Materialisms (here, purposefully a plural term) as an academic field are deeply technoscientized themselves with a distinct focus on the vibrancy and agency of matter. New Materialism mainly unites continental process philosophy and assemblage theory (c.f. "assemblages", "rhizomes", "becomings" (De Landa 2006, 2016, Deleuze and Guattari)) with political philosophy and questions of the participation of matter as active and vibrant in our daily doings (c.f. "thing power", "vibrant matter", "distributive agency", "matter making a claim on you", "material participation" (Bennett 2004, 2010)), science and technology studies (c.f. "actant", "the parliament of things", "an ecology of practice" (Latour 1979, 2004, 2016, Stengers 2010)), feminist (science) studies (c.f. "diffractions", "naturecultures", "becoming with", "material semiotic", "modest witness" (Trinh Minh-ha 1988, 1997; Haraway 1992, 1997, 2003, 2016)), ecocriticism (c.f. "cultural ecologies", "material ecocriticism" (Zapf 2016)), anthropology ("mushroom assemblages", "the art of noticing" (Tsing 2017)) and the natural sciences, specifically quantum-physics ("agential matter & realism", "intra-action", "diffractions", "timespacemattering", "material-semantic" (Barad 2007, 2008, 2014)).

An established field of voices has been debating the interdependencies of matter with the so-called natural world *out* there (most prominently Karen Barad's *Meeting the Universe Halfway* (2007) and Jane Bennett's *Vibrant Matter* (2009); likewise influential has been Freya Mathew's *For the Love of Matter* (2003), Diana Coole & Samantha Frost's *New Materialism: Ontology, Agency, and Politics* (2010), Stacy Alaimo's *Bodily Natures* (2010), Susan Hekman's *The Material of Knowledge* (2010), David Abram's *Becoming Animal* (2010), Vicky Kirby's *Quantum Anthropologies* (2011)Andrew Simms and Ruth Potts' *The New Materialisms* (2012), Jeffrey Cohen's *Stone* (2015)); in the fine arts, a discussion about the philosophical state of matter in conjunction with the materiality of paintings, photography, theatre, dance, fashion etc. has been thriving mostly due to the tangible "thingness" of the art piece and/or form (most notably Estelle Barrett and Barbara Bolt's *Carnal Knowledge: Towards a 'New Materialism' through the Arts* (2013) or "Art Matters" sponsored by the EU COST Action IS 1307 New Materialism: Networking European Scholarship on "How Matter Comes to Matter" at the Tate Modern, London, in 2016.

Similarly, there have been some very well received publications on the interplay of literature at large with matter through the sciences, most often in connection to physics or quantum physics (N. Katherine Hayles's *The Cosmic Web* (1984) and *Chaos and Order* (1991), *Unthought* (2017); Susan Strehle's *Fiction in the Quantum Universe* (1992), John Canaday's *The Nuclear Muse: Literature, Physics, and the First Atomic Bomb* (2000), Ira Livingston's *Between Science and Literature: An Introduction to*

Autopoetics (2005) or through a material ecocriticism (Serenella Iovino and Serpil Oppermann's (eds.) (2014) *Material Ecocriticism*, Hubert Zapf's *Literature as Cultural Ecology* (2016)).

New Materialist knowledge makers overall stress the following seven premises:

(i) that matter is not a shell (body/mind dualism) or an object (Hegelian object/subject distinction), or "lifeless, *inertia"* (Kant, Critique of Judgement, sec. 73*),* but a vibrant substance in an active process of materializations. Karen Barad writes in *Meeting the Universe Halfway. Quantum Physics and the Entanglement of Matter and Meaning* (2007) that matter is *"a substance in its intra-active becoming – not a thing, but a doing, a congealing of agency"* (139, original emphasis);

(ii) that matter is agentic, and actant. In *The Politics of Nature: How to Bring Science into Democracy* (2004), Bruno Latour lays out his Actor Network theory (ANT) and defines an *actant* as something that modifies "other actors through a series of trials that can be listed thanks to some experimental protocol" (75). Through this capacity to modify, an actant can be a composite, or to borrow a term from Deleuze and Guattari, a diverse human-nonhuman assemblage (1980). In contrast to an actant, a human agent is often referred to as someone who desires, intends and acts within a certain structure, translating the idea of a human individual into an effect by one human agent. What is posthuman, and thus Enlightenment critical, about Latour's actants is that they can be both human and nonhuman and have agency without presupposing the priority of human intentions. In *Vibrant Matter: a Political Ecology of Things* (2010), Jane Bennett's introduces her vital materialism, which stresses that material agency is distributive and functions in an assemblage, which is "the distinctive efficacy of a working whole made up, variously, of somatic, technological, cultural, atmospheric elements. Because each member-actant maintains an energetic pulse slightly 'off' from that exuded by the assemblage, such assemblages are never fixed blocks but open-ended wholes" (2007, 447);

(iii) that matter is not *out there*, but already and always *in us*, since no isolated positionality exist, but all is "intra-active[11]" (Barad 2007) – acting from within material entangled entity;

[11] "The neologism 'intra-action' *signifies the mutual constitution of entangled agencies.* That is, in contrast to the usual 'interaction', which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action" (Barad

(iv) that matter is vital and vibrant, exerting "*Thing-Power*: the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle (Bennett 2010, 6, original emphasis);

(v) that "what is being described by our theories is not nature itself, but our participation *within* nature" and thus *within* matter (Barad 1998, 105 in Fraser 2002, 618, emphasis in original). It is this participation and a direct material entanglement which creates New Materialist knowledge. Thus, knowledge does not come from a distance or from representations, but through our enactments with matter. For Barad, this creates a "realism without representationalism," an agentic realism;

(vi) that matter has itself a literacy. Matter is not only something New Materialist speak about, through, or of, but that matter as its own actant that speaks. The word and the flesh as well as nature and culture are "all emergent *within* a force field of differentiations that has no exteriority in any final sense" (Kirby 1997: 126-7 original emphasis);

(vii) that meaning is not separated from matter, object, bodies, or things, but always entangled with it. Meaning is not only produced in discourses and a system of language, but is material-semiotic. For example, "[B]odies as objects of knowledge are material-semiotic generative nodes" (Haraway 1988, 200); that humans and culture are always already in nature and vice versa, that the mind is constantly already material, and that matter is an indispensable part of the mind (van der Tuin & Dolphinjn 2012, 153).

In all these different "isms" of the New Materialisms, the reconsideration of materiality and the specific turn to our quantum worlds is linked to the twentieth-century developments of the natural sciences, especially quantum physics, and with the changes on our environment through the Anthropocene and climate change. And while we can see and feel the devastating agencies of nonhuman matter in forms of hurricanes, such as hurricane Katrina, or viruses, such as the coronaviruses, the idea of *knowing* matter is tied to, what Donna Haraway would call, a paradigm shift (think *Crystals, Fabrics, and Fields* (1976)!) in science itself towards observing, conceptualizing, modelling, and theoretically framing the tiniest fabric of our subatomic world.

2007*,* 33, original emphasis).

The influence of the quantum realm is in a technoscientific manner never explicitly, or rarely explicitly, reflected on in New Materialist text, but it functions more like a background noise, a tacitly consented on paradigm shift that scholars think with and which findings are being used in discussing entanglements (think Barad, Bennett, Kirby, Latour) or diffraction (think Barad, Haraway). As Haraway explains in *Crystals, Fabrics, and Fields*, a paradigm shift is based on a shared and focused perception. For most New Materialist scholars (think Barad, Bennett, Latour, Haraway, Oppermann) this "shared and focused perception" is towards matter, not as a stable and dead substance, but as a lively process of materialization. But, Haraway goes on explaining, a "shared paradigm is more than an aesthetic predisposition peculiar to a few minds. It is a concrete, common picture of the central focus of a science" (Haraway 1967, 5). This concrete and clear picture of a science, and here this would tie the New Materialism as a technoscientized turn and school of thought to quantum mechanics, is based on "a perplexing and weird domain of non-causal correlations and statistical potentialities, a queer field on instantly vanishing certainties, and a fantastic territory of non-local communications, collapsing wave functions, and multiple dimensions, connected with phase-entangled quons" (Oppermann 2015, 87-88). And Quantum mechanics, as Dick notes, "is indispensable for the understanding of materials" (Dick 2012, 163 in Oppermann 2015, 88):

1.3 A Natureculture Shift Towards Matter: Matter in Poetry & Contemporary Matter Poetry

my voice being water
which holds me together and also carries me away
until the facts forget themselves gradually like a contrail

all this week
a lime-green light troubles the riverbed
as if the mud was haunted by the wood

this is how the wind works hard at thinking
this is what speaks when no one speaks.
—Alice Oswald, "Severed Head Floating Downriver" (2016)

Matter poetry shares this "concrete, common picture" onto materializations with the New Materialisms as well as Quantum Physics and conceptualizes its poetic universes as ontological

monist naturecultures. Matter poetry's perception on natureculture materialization allows for us, for example, to notice that flow is not just a natural force of rivers which forces water molecules downstream, but how water flow is also a force in human speech when "voice being water // which holds me together and also carries me away" (Oswald 2016, 6). This shared perception onto monist material relationalities of all matter poets showcased in this dissertation does not align with the division into area subjects which most literary studies departments run by (think American Studies, English Literatures and Cultures, Global South Studies etc.).

Matter and materializations as well as naturecultures know no geopolitical boundaries and hence matter poetry pops up in Australia, Canada, England, Scotland etc. What all the matter poets discussed here do share is a tendency to use the long format of the long poem. Long poems have historically been used to include an array of voices such as the nonhuman, women, people of color from the periphery of society. The longer format allows for the complexities of these lived lives to unfold while also allowing for narrative and story elements. Thinking of *Beowulf*, *Odyssey* or the *Iliad*, a poetic longer format has been influential as a form for poets to play with as much as matter and materializations as well as monist ontologies has crept into Anglophone literatures for centuries.

Matter poetry's turn towards minute material processes as well as naturecultures stands in a long Anglophone literary tradition towards the call of material things which can be traced back as early as prior to the eleventh century: Daniel Tiffany points out that before the Anglo-Saxon eleventh century, certain objects (jewelry, chess pieces, weapons etc.) would carry a riddle such as "Cross is my name. Once, trembling and drenched with blood, I bore the mighty king" (Tiffany 73). This imaginative object identity produces an early agency of the cross through a verbal subject position – something saying "I" - suspended between human and nonhuman, object and subject, it's creator and discursive history (Tiffany 73).

Moving into the Early Modern period, Margaret Cavendish's *The Description of a New World, Called The Blazing World* (1666) produces a protagonist who asks, "whether [the spirit's] vehicles [,'their material form in which something spiritual is embodied',] were living bodies?" (167); the Empress promptly receives the following answer "They are self-moving bodies … for nothing can move itself, without it hath life." Cavendish conceptualizes matter, not just as a mere shell here, but as something lively that moves. John Milton's *Paradise Lost* presents a monist materialism, a vitalism, in which matter creates nothing less than a complete cosmos; thus, Raphael's words to Adam in Book five proclaims "one first matter all /Endued with various forms."

Such material speculations will go on into English and American Romanticism: here, Burke's sublime (1775) may serve as a proto "hyperobject" (Morton 2013), a nonhuman

imaginative affect, residing in the natural world *out there*, overtaking the human intellect and sense apparatus; Thoreau's "wild" (1854) is a natural sense experience, residing in both the human and nonhuman. As the prolific pen of Jane Bennett has pointed out several times, this progressive vision will go on, for example, to the Romantic poet Erasmus Darwin, who writes in his *Temple of Nature* in 1803 that "the wrecks of Death are but a change of forms; / Emerging matter from the grave returns, / Feels new desires, with new sensation burns" (qtd. in Bennett, 2010, 224). Others will continue to shatter and complicate Kant's, and with that the Cartesian, division between organic and inorganic, lively and dead matter: from Gottfried Leibniz's metaphysical physics, in which "a body never undergoes a change in its motion, except by another moving body that pushes it" (541); to Baruch Spinoza - for whom every human or nonhuman entity, be it a stone, a mind, or a body, "as far as it can by its own power, strives to persevere in its being" through causal motion and relation (Ethics 3.6 qtd. in Bennett 2010, 224); to modernist poet Walt Whitman - who "aches with love" for matter because, after all, "Does not all matter, / aching, attract all matter?" (*I Am He Who Aches with Love, book* 4, qtd. in Bennett, 2010, 224). Another modernist poet, Mariel Rukeyser, speaks eloquently about the organic vibratory form of poetry in her poetics "The Life of Poetry" (1949): "A poem moves through its sounds set in motion, and the reaction to these sounds, their rhymes and repetitions and contrast, has a demonstratable physical basis which can be traced as the wavelength of the sounds themselves can be traced" (Rukeyser 1949, 194). In "the New Nature Poetry" in *The American Scholar* in 1959, Robert Langbaum introduces a new wave of American nature poetry by poets such as Robert Frost, Marianne Moore, or Wallace Stevens who entangle human apprehensions of the environment with material nonhuman modes of being. Moore's poem "A Grave" complicates human perception by juxtaposing it with the sea's: it is human nature to stand in the middle of a thing, // but you cannot stand in the middle of this; // the sea has nothing to give but a well excavated grave" (Moore in Langbaum 1959, 324-5). The history between nature poetry and matter poetry becomes even more apparent when looking at Canadian prairie poetry such as the one by Tim Lilburn. In Lilburn's "Contemplation is Mourning" (2007), the human speaker lies "down the deer's bed" to observe and simulate the nonhuman mode of being a deer in the hills and claims "this is the edge of the known world" (Lilburn 2007, 19).

Tracing this history of matter striking back, one could most definitely argue that contemporary matter poetry is post-vitalist, post-romantic, and post-modernist. And this dissertation positions itself and matter poetry in this literary materialist tradition, acknowledging that matter has been an issue in transatlantic literature long before Donna Haraway's natureculture philosophy or the interdisciplinary field of the New Materialisms was coined by Manuel DeLanda

and Rosi Braidotti in the late 1990's (Dolphijn & Van der Tuin 93). Yet, contemporary matter poems do not just create discourses on the wilderness or matter, but they elicit the productivity of matter itself by enabling the materiality of language and the world *out there* to create a perception that is participatory via technoscientization notions of echo, entanglement, resonance etc. that do not lead into the black box of science but lead to common material and natureculture worldings. While modernist poets such as Moore or Frost or Lilburn as a contemporary Canadian nature writer of the prairie move into superficial materializations and entanglements of the natural and cultural sphere, their perspective remains anthropocentric and with that, the human remains the primary referent in their work. The matter poetry by John Kinsella (chapter two), Sue Goyette (chapter three), Elizabeth-Jane Burnett (chapter four), Alice Oswald (chapter five), J.O. Morgan (chapter six), and Denise Riley (chapter seven) produce radically open, innovative, and often eco-critical forms through their materially agential poetics, decentering the human as primary reference while keeping us engaged and exposed to consequences.

Following Frow's "Approaching Genre" (2006), we can talk about matter poetry as genre because these poems establish a particular set of knowledge about the materializations which entangle our human embodiment and thought with the material, nonhuman world *out there* while also revealing our own materiality to us, the reader. In a way, every single matter long poem corrects our long-honed human-centered perception to the natureculture dynamics and onto the materializations we are always already part of. Matter poetry creates specific poetic worlds that highlight how human bodies and thoughts are constantly eroded by material players just as we constantly erode the world out there, think, for example, just about the erosion human feet cause to the understory while walking through a forest. Alice Oswald's "Leaf" (2005), for instance, focuses our perception on the multi-species lives down in the understory, a word "of cells and pores and water rods // which builds up, which becomes a pressure" (8). With these perception trainings and by bringing (non)human material entanglements of all kinds to the fore, matter poetry fosters a discourse community around natureculture materializations that is technoscientized, but nonalgorithmic.

Speaking of numbers, this dissertation can only allow for a tiny glimpse into what these matter poets can do. Each poet has written multiple matter long poems and this dissertation opted for a quality of engagement (vs. mere quantity), and only selected one representative long poem by each matter poet. Both the poems and the poets show what matter poetry can do, and they hence unfold the technoscientized complexities of naturecultures, discussing topics such as water, the ocean, flow, resonance, death, violence, colonial ghosts and more. In naturecultures, poetry cannot only discuss environmental concerns and so-called natural nonhuman players, but the

implosion of nature and culture also touches our very human lives – how we grieve, love, or desire. The matter poems selected here represent the plethora of topics, questions, and experiences naturecultures produce. Likewise, there are more matter poets *out there* than portrayed in what is to follow. Poets like Don McKay, Adrienne Rich, A. Davida Jane – just to name a few – create similarly fascinating, complex, and agentic material worlds. In some good news: there is more work to do! And for the time being, this dissertation aims to build some first building blocks in the intellectual engagement with an emerging genre which I call matter poetry.

Academically, contemporary matter poetry and a natureculture poetics as a creative site of matter and as a scientized knowledge maker remains, however, unexplored. In the humanities and social sciences, the New Materialisms have been incredibly influential, initiating a material turn, without a strong involvement of literary studies. This dissertation aims to change this status quo by showing that contemporary matter poetry, and with that literature, is a vibrant field for matter and naturecultures.

1.4 *Knowing & Doing & Becoming-with*: Method & Outline

Again, the purpose of this dissertation is hence to (i) theorize matter poetry's poetic materiality with the help of Donna Haraway's natureculture philosophy and (ii) to point out how material-semantic language creates channels which are built in and out of these poems that entangle affect, sense perception, and experience only (iii) to re-theorize a literary criticism and methodology which incorporates (non)human matter as an active agent in the literary production and reception process.

My working technique is to follow Haraway's natureculture thought, figures, tropes, and stories that appear and reappear most dominantly through *Simians, Cyborgs, and Women. The Reinvention of Nature* (1996), *Modest Witness@Second_Millenium. FemaleMan© Meets OncoMouse™* (1997), *Feminism and Technoscience* (1997), *When Species Meet* (2008), and *Staying With the Trouble*: *Making Kin in the Chthulucene* (2016), and in her two manifestos, "Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s" (1985) and *The Companion Species Manifesto: Dogs, People, and Significant Otherness* (2003), and are distinctively webbed through her three essays "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives" (1988), "Otherworldly Conversations; Terran Topics; Local Terms" (1992), and "A Game of Cat's Cradle: Science Studies, Feminist Theory, Cultural Studies" (1994). Haraway's history of science dissertation and monograph *Crystals, Fabrics, and Fields: Metaphors of Organicism in Twentieth-Century Developmental Biology* (1976) and her interview book with Thyrza Nichols Goodeve *How Like a Leaf* (2000) may be read as a meta-commentary to Haraway's natureculture philosophy.

Based on Haraway's corpus, I will introduce her natureculture thought, figures, and patterns as a philosophy built on three bases: *knowing & doing & becoming*, doubling as my three foundational theory chapters. Yet, these three cornerstones are not conceptualized as a static scaffolding, ordering Haraway's philosophy into loadbearing and secondary building blocks, but they rather present conceptual entry points into the metaphorical house of Donna Haraway's natureculture philosophy. I deliberately thought *knowing & doing & becoming* as verbs, as ongoing processes – hence the "*&*" – that are done and done to and thus relational in their design. As a base model, the entry points of *knowing & doing & becoming* propose a flexible heuristic for unpacking and leaning into the complexities of Haraway's natureculture philosophy and thus oppose static visions of representationalism.

1.4.1 Diffractive Methodology: *Knowing & Doing & Becoming* & Playbooks

The three theory chapters will diffract theoretical debates with poetry close readings as playbooks for a natureculture *knowing & doing & becoming* (literature as "playbook" c.f. Anker 2017). I believe that scholarship, and especially literary studies scholars that think *with* the New Materialisms, like myself, have an intellectual obligation to re-think the sets of techniques that we have in theorizing naturecultures and matter from our primary sources up, in my case matter poetry. While theory abstractly *debates* in critical, so distanced, modes of natureculture models, concepts, systems, schemes, notions, principles, beliefs, rules, and techniques (this list could go on…), it often overlooks what it actually – so, in actuality – means to *natureculturally know and notice, do, and become-with*. Ingrid Hotz-Davies makes this point on what theory can do and what it cannot; when debating matter; "[i]n 'theory', matter necessarily remains elusive in those tens of thousands of pages dedicated to it, an object of discourse, a set of hypotheses, a thing we make claims *about* while following linguistic conventions paradoxically most removed from the stickiness of affect and matter" (Hotz-Davies 2016, 142, original emphasis). My diffractive methodology of reading theory through poetry and vice versa allows for an intellectual debate about the philosophical status of matter while also diving into the experiential textures of matter poetry. Hotz-Davies, again, makes a similar point when noting that "[i]t is here, that the arts have a more sophisticated set of techniques at their disposal […], even those arts in which materialism is also a matter of words, not molecules" (Hotz-Davies 2016, 142). And Hotz-Davies' "[i]t is *here*" (emphasis not in original) brings me to my natureculture matter playbooks again: matter poetry's "sophisticated set of techniques" may allow us to unlearn material-semiotically, through words and matter, part of our theorizing *about* naturecultures and *about* matter and allows us *to learn* and *to animate* an aesthetic engagement *within* naturecultural and material modes of *knowing & doing & becoming*.

Chapter two "Natureculture *Knowing*: Noticing with Trees in John Kinsella's *Jam Tree Gully*" develops a natureculture epistemology, conceptualized as a trajectory which starts with noticing through Haraway's natureculture philosophy and John Kinsella's poetry collection *Jam Tree Gully*. Haraway's insights on *how and what we know* as well as into what "counts as nature and who can inhabit natural categories" (2007) carry far reaching claims for matter poetry. Through the technosciences and with fully material stories, figurations, and tropes, Haraway and Kinsella create a new, strictly material, counter-discourse on nature, which exposes the technoscientific interpretations of nature as constructed, artificial, artefactual, and hypothetical. Whiting this counter discourse, *Jam Tree Gully* as a playbook for a natureculture *noticing & knowing* zooms into the lifeworlds of a contested South Western Australian landscape with its visible ecological wounds of colonial pasts and the consequences of a neo-colonial politics through an observing, witnessing, and noticing poetic consciousness that aims to notice its situatedness in a natureculture world.

Chapter three "A Philosophy of Natureculture *Doing* & What an *Ocean* Can Do" leaps into Sue Goyette's matter poem *Ocean* (2012), a long poem which uses the Atlantic around Halifax, Canada, as its mythopoetic and onto-epistemological source. *Ocean* brings the natureculture agency of nothing less than the ocean, of the diverse materializations of water, really, to the poetic fore. This chapter explores natureculture philosophy's stance on agency at large and how Haraway's natureculture philosophy offers a theory of language as a material natureculture actant, a natureculture *doing* (vs. language as mere system of representation or carrier of meaning). In Haraway's natureculture philosophy, language and grammar are powerful tools in their own right that cannot be thought as divorced, separate, closed-off from matter, bodies, or the environment (1991). It is Haraway's awareness of the materiality of language married with her awareness of the power of discourse, and the disciplinary power of scientific discourse (1992) in particular, which makes her a resourceful philosopher for matter poetry. *Ocean* as playbook allows us to experience the connections between the oceanic, the terrestrial, and the poetic, foregoing a potential intellectual trap in fetishizing the Atlantic as mere "theory machine" (Helmreich 2009, 2011), as mere intellectual resource.

Chapter four is titled "A Philosophy of a *Natureculture Becoming-with:* Or, How to Surrender & (Un)become with Nonhuman Matter in writer-activist Elizabeth-Jane Burnett's *Swims*." In her long poem *Swims*, the writer-activist Elizabeth-Jane Burnett's materialist eco-poetics outlines how seemingly stable physical borders – a membrane of human hair, a skin cell, an arm, a meadow – collapse when encountering nonhuman dynamics such as a river's flow. With this, Burnett's activist long poem *Swims*, which documents "twelve wild swims across England and Wales" (Burnett 2017, n.p.), hints at nothing less than a philosophical notion of a materialist becoming. For Haraway's

natureculture philosophy, a material-semiotic notion of being one, closed-off individual is materially counter-factual. Hence, "[t]o be one is always to become with many" (Haraway 2008, 4). In relationships, in history, in collectives, Haraway's question is always, "where [do] we find ourselves together" and how we can trace "[w]hich worldings and which sorts of temporalities and materialities erupt into this touch, and to what and whom is a response required" (2006, 144-5). This chapter looks at how Haraway's natureculture becoming-with includes complex and historical forms of human and nonhuman encounters, and how Burnett applies this idea of a material-semantic enlargement of the self to produce a *play book of becoming-with* which also entails an *unbecoming* – a form of human surrender to the world *out there*.

1.4.2 Into Naturecultures' Complexities

Part two of this dissertation leaves the detailed and, for conceptual clarity, mostly separate theoretical debates around a natureculture *knowing & doing & becoming* behind and jumps into the fundamentally different complexities of matter poetry and naturecultures in which *knowing & doing & becoming* is always already entangled.

Chapter five "On Humans Who Mistake a River's Voice for their Own: Or, Diffractive River Poetics in Alice Oswald's *Dart*" follows Oswald's long poem *Dart*. In Oswald's long poem *Dart*, it is within and along the river streams of the Dart in Devon through which Dart dwellers, local myths, science, and social-realist systems materialize as well as speak. Through the flow of different voices, which re- and disappear throughout the poem, *Dart* rhizomatically maps multiple agential processes through which the river Dart creates relations between water, soil, plants, animal, humans, and ultimately poetry itself in endless, radically open feedback-loops. Barad's thinking and her notion of diffraction as a natureculture mechanism of *knowing & doing & becoming* is helpful in understanding these material semantic transfusions from the world *out there* onto the page. This chapter discusses how *Dart* practices diffractive writing and reading, which I call quantum entangled *wreading* (a fusion of writing and reading), *through* adapting the natural water movement of flow as a meta-poetics, *through* specific people (the swimmer), *through* specific voices (the river's, scientists', workers' etc.), *through* the book *Dart*, and *through* the reader to create a transmission of matter from Dart to *Dart* and out again into the reader's world.

Chapter six "The Dark Side of Naturecultures: Materiality & Violence in J.O. Morgan's *Interference Pattern*" represents an intervention within this dissertation's thus far mostly positive and productive, friendly even, perspective on matter's abilities to connect and foster relations in a *knowing & doing & becoming* in naturecultures. Counter to this outlined intellectual and poetic trend, *Interference Pattern* opens a semantic field of materializations as well as the relationalities in the

quantum world to knot Morgan's scientific quantum voices together with the long poem's voices speaking about different forms of individual, systemic, natural, and mechanic violence. I call Morgan's intervention one into the dark side of naturecultures. Dark because Morgan's voices talk about the dangers which can harmfully erode one's body and mind. *Interference Pattern*'s materialist reimagination of violence turns away from Newtonian classical physics with its principles of linear and local causation to lean into the quantum world, where hurtful materializations are produced through complex natureculture relationalities (c.f. Barad 2007, Murphy 2022). Morgan's poetic voices as well as the free indirect discourses speaking across the 54 pages of Morgan's long poem reveal that matter is not just vibrant, but that thinking with matter can show how materializations, such as the psychological and physiological effects of hurtful affects and emotions (think bullying or micro aggressions), emerge in social, natureculture relations and that these materializations can kill, hurt, wound, and offend.

Chapter seven "When Matter Poetry Speaks Back: Natureculture Resonance & Echo in Denise Riley's *Say Something Back*" jumps into the material entanglement of the presence and absence of bodies, words, sound, loss, pain, and time via reverberations – via resonance. With its focus on resonance and echo, Riley's long poem troubles our very notion of what counts as experiential data (c.f. Mazzei 2003), as empirical material in our *knowing & doing & becoming*. *Say Something Back* is a semi-autobiographical long poem on losing loved ones. Riley's long poem brings the seemingly silent, non-visual, and often non-linguistic entanglements between a mother and her dead child to the poetic fore by finding a language that leans into these physical and material entanglements to evoke sonic traces of the dead which lead to something like solace – a comfort in material relationalities.

Finally, the conclusion "Fog: A Natureculture Poetics of Matter Poetry" will summarize matter poetry's natureculture poetics with all its developments and points to the potential matter poetry has to educate readers about multispecies living in naturecultures.

part one

Natureculture *Knowing & Doing & Becoming* & Matter Poetry Playbooks

chapter two

Natureculture ***Knowing***: Noticing with Trees in John Kinsella's *Jam Tree Gully*

Nothing comes without its world.
So trying to know those worlds is crucial.
—Donna Haraway, *Modest_Witness* (1997)

[M]y interest has been in what gets to count as nature and who gets to inhabit natural categories. And furthermore, what's at stake in the judgement about nature and what's at stake in maintaining the boundaries between what gets called nature and what gets called culture in our society.
—Donna Haraway, *Edges in Ecotones* (2007)

There is always dust in the air
and that gives us this peculiar
but lustrous blue: a warped faith
filters it out so it feels
as if your lungs are drawing purest
air possible. All is fed by roots
—John Kinsella, "For the root is faith" (2011)

Air seems to be the clearest, most elusive of all material elements. It almost appears empty. Yet, John Kinsella's poem "For the root is faith" unveils, pushes us to *notice* that "There is always dust in the air" and that it is our "warped faith," an epistemological cultural technique, which "filters it out so it feels // as if your lungs are drawing purest air possible." Here, Kinsella's matter poetry knots knowing with flights of noticing exactly those thorny, quantum material bits, such as dust, which are believed to be filtered out by our faith in purity or our trust in discourses *only*. Importantly, Kinsella's poetry views matter as sticky; it sticks to lungs as much as it sticks to words and meaning. Through this material-semantic stickiness, Kinsella's poetry makes visible that epistemologies, our systematic ways of knowing and understanding, are not just ordered by a specific and historically grown Foucauldian "order of things" (1966), but that knowing, in a natureculture actuality, follows a trajectory which starts with a phenomenological and affective *noticing* and ends with a natureculture *knowing*.

Kinsella's *Jam Tree Gully* (2011) is a poetry collection which zooms into such mundane and sticky materializations on the ground in the Australian South West to magnify that nature and

culture, city and the gully, an Australian concept for a small valley, writing and worlding are always already entangled. The poetic noticing of the mundane is key in Kinsella's collection. The Middle English word origin of "mundane" refers "to something of this earthly world rather than a heavenly or spiritual world" and finds its roots in the "Old French *mondain*, from the late Latin *mundanus*, from Latin *mundus* 'world'" (OED). Hence, noticing the often hidden or overlooked mundane materializations in the Australian South West brings us back to the world, the earthy ground common to all, and "trying to know these worlds is crucial" as Haraway states (1997).

While Kinsella's poetry directs our noticing to the ontological materiality of our surroundings, academics, in the mid-twentieth century, turned to the constitutive powers of linguistics and discourse with the linguistic turn. In *The Material of Knowledge* (2010), Susan Hekman points to the observation that throughout the linguistic turn, "Language, it is agreed, constitutes the reality that we as humans inhabit. It constitutes our social world and the structures that define it. It also constitutes the natural world by providing us with concepts that structure that world. We humans, in short, are the creators of all we survey" (2010, 1).

If we want to turn to the materiality of our world in the basic sense of the world, namely valuing its diverse thingness, we need to play around with, what Foucault called, "the order of things" (1966). Accordingly, the logic that "language … constitutes reality" is based on an "order" which positions language and discourse as well as the representation thereof and the human as mediator as primary. Matter poetry challenges this discursive claim to reality by reintroducing the constitutive force of materiality on reality and lived experiences into its poetic textures. In that matter poetic line of thought, Kinsella's matter poems challenge a language/reality dichotomy, asking questions such as: did concepts constitute Kinsella's Australian air filled with dust? Did theories or beliefs constitute an Australian landscape in climate and industrial ruins?[1] Kinsella's *Jam Tree Gully* (2011) unveils "a warped faith" which filters dust "out so it feels // as if your lungs are drawing // purest air possible." In other words, Kinsella's matter poems direct our perception to the fact that while linguistic (or social) constructivism may argue that our belief fosters our understanding of reality, something is out of whack in this vindication. Something is missing. A thing takes place in Kinsella's poetic event of breathing-in air which escapes linguistic discourse. Dust and tiny particles linger in that gully air. Dust is breathed in by human lungs. "Matter manifests itself" (Hekman 2010, 2). Kinsella's matter poem points to the fact that we do, in fact, understand our world via linguistics, a "warped faith" (and Kinsella obviously uses words to write poetry), but that, at the same time, a dogmatism based on social constructivism *only* excludes and overlooks a material actuality and agency which constitutes our world as well – "There is always

[1] Hekman begins her magnificent *The Material of Knowledge* with an argumentative structure, questioning linguistic constructivism, which I leaned on and adapted here for my purposes.

dust in the air." It is exactly at this onto-epistemological point that matter poetry's material-semantic intervention converses with Donna Haraway's natureculture philosophy which centers its intellectual gravity on the power of knowledge to order and, more importantly, reorder "what gets to count as nature and who gets to inhabit natural categories" (2007).

With Haraway's and Kinsella's intervention, this chapter develops a natureculture epistemology, conceptualized as a trajectory which starts with noticing through Haraway's natureculture philosophy and John Kinsella's poetry collection *Jam Tree Gully*. Following Elisabeth S. Anker's notion of playbooks (2017), I will read *Jam Tree Gully* as offering something like a playbook on how to notice naturecultures as part of the natureculture knowledge trajectory. Through an observing poetic consciousness, Kinsella's poetry collection issues its own methodology on how to notice and spot environmental as well as multispecies assemblages of the South West Australian gully, filled with the sweet smell of burned Jam Trees and dead Eucalyptus doubling as ghosts of a colonial past and present. Knowing the gully starts with noticing and moves on to experiencing non-linguistic as well as non-conscious aspects of the gully's naturecultures. In *Jam Tree Gully*, one of the collection's insights is that natureculture perception itself co-creates what counts as nature or natural or environmental – hence the name of the place from which the collection is written, bottom up, the *Jam Tree Gully*. Multiple lines in the poetry collection question how one can grasp and notice the material environment the speaker is already part of with its deep botanical, native, and settler colonialist history before it ends up as quantifiable knowledge by, for example, naming the place the Jam Tree Gully, such as the title does.

As mentioned in the introduction, Haraway's natureculture philosophy is well aware of the epistemological powers that structure our cultural and semantic hierarchies. Although somewhat limited to cultural studies or philosophy of science, Haraway's insights on *how and what we know* as well as into what "counts as nature and who can inhabit natural categories" (2007) carry far reaching claims for matter poetry. Poetry criticism has often focused on the representation of the natural world or the environment (only) or on structural elements such as power or ideology, while paying little attention to the mechanisms of noticing all the encounters which lead and produce these representations. At the same time, nature poetry has very often served as a testing ground for these ideological assumptions, such as the wild or the sublime. Many contemporary matter poets, such as John Kinsella, are, however, both academics and aware of technoscientized as well as material naturecultures, including the natural science, as well as counter modes such as the dark pastoral to complicate academic lessons. That synergy may have an extraordinary impact on the development of matter poetry, producing meta-poetical networked thought that *Jam Tree Gully* offers as a playbook of natureculture *noticing* & *knowing*.

first knowing: Haraway's natureculture epistemology

2.1 Knowing Biology and *Life Itself*

To cast off the rotten rags of memory by inspiration,
To cast off Bacon, Locke, and Newton from Albion's covering
To rake off his filthy garments and clothe him with imagination;
To cast aside from poetry all that is not inspiration,
That it no longer shall dare to mock with the aspersion of madness
Cast on the inspired by the tame high finisher of paltry blots
Indefinite or paltry rhymes, or paltry harmonies, …
Who pretend to poetry that they may destroy imagination
By imitation of nature's images drawn from remembrance
—William Blake in Haraway, *Crystals, Fabrics, and Fields* (1978)

These poetic "imitation[s]" of the world *out there*, of so-called nature, which Blake writes about, are based on an order of mimicry and resemblance produced through human, and specifically poetic, imagination. Blake juxtaposes notions of Romantic imagination with an empirical materialism, practiced through a rational natural philosophy, represented by "Bacon, Locke, and Newton." Romantic art and poetry, for Blake, break open a world freed from the shackles of materialism, scientific methods, and the burden of reality.

Both matter poetry and Donna Haraway's natureculture epistemology, however, turn Blake's epistemological criticism on its head: analogously, Kinsella and Haraway break apart Blake's shackles and entangle biology with poetry, imagination with materialism, while still criticizing the natural sciences for misplacing actual relationalities in their knowledge formation.

As I will show in my *first knowing*, Haraway's natureculture knowledge does not only interrupt static ways of knowing as fixed by institutionalized disciplinary ways, but her epistemology also rejects powerful humanist dreams of objectively knowing actual lived, mundane, relationalities through Bacon's heritage, the scientific method, *only*. Haraway's "garments," are hence not, metaphorically speaking, "filthy" but allow imagination to sneak into our ways of knowing through her figures and tropes.

Focusing on Haraway's natureculture epistemology and collecting the intellectual bits and bobs of her natureculture epistemology through everything she has written is not just crucial for putting her condensed natureculture philosophy in writing, which is part of this dissertation. But, whenever we talk and write about materiality *today*, be it through the interdisciplinary theoretical intervention of the so-called New Materialism or through matter poetry, Haraway's ideas are like

an often-unnoticed background noise humming through. And before I show how Kinsella's matter poetry may serve as a playbook for natureculture *noticing* and *knowing*, I want to move Haraway's natureculture epistemology to the fore *here* and show what it does and can do for and with matter poetry; especially since Haraway theorizes how and predicts that the natural sciences will become an influential frame for the humanities to be and think with which is something we can see within the New Materialism and matter poetry respectively, but is also omnipresent within the post-humanities, the environmental humanities, transhumanism next to others.

Let me start with, what Blake calls, "nature's image." Western visions of nature, for Haraway, are specifically conceptualized through the disciplinary frames of Biology, often described as the "life science." As a trained biologist, who did her graduate research in the 1960s & 70s at Yale University, New Haven, USA, Haraway's dissertation and first book *Crystals, Fabrics, and Fields: Metaphors of Organicism in Twentieth-Century Developmental Biology* (1976) marks her published beginning of bridging scientific with cultural and social criticism, and hence already fundamentally complicates what a life science such as Biology *speaks for* as well as *with*.

Interestingly for matter poetry's literary techniques, *Crystals, Fabrics, and Fields* does not analyze scientific experiments *per se*, but investigates how metaphors, a stylistic device semantically entangling the abstract with the concrete to produce blended meaning, shape experiments in experimental biology when thinking through biological problems (c.f. Haraway & Godeeve 2002, 19-20). *Crystals, Fabrics, and Fields* simply analyzes "the proper place of metaphor in biology" (Haraway 1976, 2) and hence highlights the cultural semantics of speaking and thinking about so-called nature via a stylistic device, original situated in poetry, namely a metaphor.

Biology may, institutionally, not only most prominently claim to speak *for* nature, but it does so through a highly stylized cultured technique. In a way, Haraway established a minute theory for the emergence of *matterphors* here (neologism by Lowell Duckert 2013, also c.f. Darrell Mansell "metaphors as matter" 1992, 116): her natureculture philosophy presupposes that language and story are in fact material (1997, 2004) and that metaphors are *not only* translations of a material phenomenon into language, but storied matter – hence *matterphors*. To illustrate the function of matterphors in matter-poetry, Kinsella writes in "Language generates nothing as whole trees fall," that not only "crop," but "Language // plays its role in conveying sustenance, chemical responses signed out, translated from forage // to food" (2012, 78). Crop here is not only dead matter that becomes activated and fetishized as a commodity in a food system, but crops, in Kinsella's matter poetry, bring poetry into being as an active player with language as a constitutive force, "conveying sustenance." The crop on the field out there and on Kinsella's page make and become stories of sustenance, material crop on the farm and knowledge of crop on the page. Like Haraway's

metaphors in biology (1967), matterphors and metaphorical language shape our environment, thought, and our stories.

Within her natureculture philosophy, Haraway creates something that I would call a conceptual gap through which *a material world view cracks through* (think Leonard Cohen's "There is a crack in everything / That's how the light gets in"!), where forms of a contestation for nature can emerge. Between her technoscientized no-nature and a mythopoetic artificial nature, natureculture figurations, tropes, and stories are used to unveil the material and quantum-world connections that nevertheless exist. Nature, in Haraway's natureculture philosophy, can be materially constituted through these material and partial connections, borrowing from Marilyn Strathern's idea of "partial connections," "patterns within which the players are neither wholes nor parts" (2016, 8), that form stories and *other* material knowledge forms to show our entanglement with the material world we are all a part of. Similarly, Kinsella's matter poetry builds on noticing and activating such partial entangled connections between nature and culture. While matter poets, such as Kinsella, are technoscientized, thinking within the quantum paradigm, they contest and challenge dominant and institutional forms of material knowledge via story and a material-semantic poetic language. Matter poetry's epistemological contestations then do not strand in the black box of professional science (think CERN) or in cyber dreams of disembodied digitalized worlds (think the Matrix), misplacing concreteness, but they use matter as a productive force that is part of all players in natucultures and, most importantly, also part of language and meaning. Haraway's natureculture epistemology, nevertheless, theorizes the societal force of the technosciences usefully for framing both the emergence of matter poetry and for supporting matter poetry's intervention in framing matter as human and nonhuman, naturals as well as cultural, and as always already part of meaning and language.

In the poem "What Compliments to Nature," Kinsella writes a contested nature via matter into being by unveiling the rhizomic entanglement of a dried stream of water molecules with climate change:

> I think an underground stream
> has dried or altered course,
> taproots have worked hard to illustrate
> a surface lie and finally given up the ghost: the cool
> deep and invented canopy never bereft of shade. (2012, 70)

Here, "an underground stream" has not just dried, evaporated, but has left a notable trace through "taproots" which "have worked hard to illustrate // a surface lie." Even once the water is gone,

the taproots linger, offering a temporality that outlives the disappearance of water through a "ghost"-like quality which ties something that has died (water) to something that is still present (traces). Kinsella's matter poetry is flushed by partial connections: his poetic story telling is part roots, part water, part earth, part drought, part climate change, part understory, part visibility, part human perception, part temporal ghosts of past climate patters, part language which enters the thinking when the speaker shares "I think". Kinsella's poetic lines create a nature which is not only *out there*, wholly pastoral or resource, but always part of natureculture materializations as well as specifically local and influenced by historic events such as droughts or climate change.

Kinsella's and Haraway's contestations of nature are "different from reproducing the cultural appropriation of nature, reducing nature yet again to a source re-defined culturally" (Haraway 1991, 7 in Stache 2017, 128). Nature, for Haraway's natureculture philosophy and Kinsella's matter poetry, is thus still a useful terminology to think and produce knowledge with (c.f. Haraway 2015, Stache 2017) as a contested place from which material and, most importantly, participatory knowledge can develop. "Precisely as fully artifactual, the nature of no-nature gives back the certainty and legitimacy of the engineered, of design, strategy, and intervention. The nature of no-nature is the resource for naturalizing technoscience with its vast apparatuses for representing and intervening, or better, representing as intervening" (Haraway 1997, 103 in Stache 2017, 128, c.f. Haraway 1996, 1997).

Through the technosciences and with fully material stories, figurations, and tropes, Haraway and Kinsella thus create a new, strictly material, counter-discourse on nature, which exposes the technoscientific interpretations of nature as constructed, artificial, artefactual, and hypothetical. As a feminist compost scholar (a term she prefers to the male and Big Science dominated STS field), Donna Haraway developed a key concept for the emergence of such fleshy counter-knowledges, namely "situated knowledges." In her landmark essay *Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective* (1988), Haraway argues for "a more adequate, richer, better account of a world, in order to live in it well and in critical, reflexive relation to our own as well as others' practices of domination and the unequal parts of privilege and oppression that make up all positions" (579). Situated knowledges aim to emphasize the *situatedness* of knowledge as a way of getting at all the different material nodes, quantum worlds, interference patterns, differences that matter, connect, and divide that emerge in a natureculture knowledge production that is philosophically based on a relational ontology (c.f. Haraway & Goodeve 2000, 71). What Haraway thus is *not* interested in is a kind of flat orientation of knowledge in terms of space, locale, or a set positionality (in which way Haraway's situatedness is often misread). Instead, Haraway and matter poetry are interested in the connections and differences that material-

semiotically form as a boundary-drawing practice in knowledge formation in a world that is based on actual, material natureculture relationalities and lived encounters (c.f. Haraway 1988, 595).

2.2 The *Situatedness* of Knowing

Kinsella's matter poetry writes the noticing of a situatedness of knowing and encounters into his matter poetry: "Beans and Jam Tree Gully" firstly oscillates with Thoreau's "The Bean-Field" from the infamous *Walden*, which demands a divorce from capitalist urban life for a turn towards and a tending to nature. Kinsella, however, points us to the fact that a situatedness in the environment is never innocent, and always diffracted by material-semantic intrusions and cultural interpretations. And these intrusions and interpretations may be as simple as gardening discourses or as complex as biology.

> The first beds I plant here
> will be beans: broad beans. I'll
> carry original seed straight
> from my old garden. A fresh
> intrusion. (2012, 68)

The *situatedness* of knowing how to live in the Jam Tree gully and how to write poetry about it is hence entangled with specific ways of scientific and cultural knowing. With Kinsella's line "I'll // carry original seed straight // from my old garden. A fresh // intrusion", seed biology meets botany when broad been seeds are misplaced and carried from one domestic space to the next in the gully by the human voice. All this is "A fresh intrusion" (Kinsella 2021, 68). Gardening may actually be an unnoticed material-semantic interference with the ground, an intrusion of a seed that, however useful and pleasant, might not have been there without a gardener. And Kinsella's poetry notices and knows these politics of natureculture situatedness within the gully.

Haraway's philosophical stance on the *situatedness* of knowing is bound to the material-semiotics of the technoscientific knowledge production itself. This *situatedness* presumes a continuity between materiality and meaning in the natural sciences and its apparatuses of knowledge production which is often denied through myths of disembodied objectivity. Haraway brings the fleshiness and materiality of scientific apparatuses, such as Robert Boyel's air pump, into the history and philosophy of science to show that materiality is a catalyst for relations and an order of facts as well as things. With that, Haraway writes against a powerful history of linguistic determinism in which our knowledge is the product of human relation *only* and reintroduces specific (non)human, organic, and inorganic materializations into her natureculture epistemology.

To give an overview, in Haraway's natureculture philosophy, *situatedness* works on several philosophical strata, to use a geological metaphor developed by Gilles Deleuze and Felix Guatari, which Haraway has produced within her philosophy. For Gilles Deleuze and Félix Guattari, every articulation (or stratum) consists of abstract and concrete components. For Donna Haraway, every main articulation (or stratum) of her natureculture philosophy on the situatedness of knowledge, which is fundamentally rooted in the technoscientized knowledge production process, consists of abstract and concrete components as well, doubling her philosophical claim that knowledge is always actually material-semiotic:

(i) in her dissertation *Crystals, Fabrics, and Fields: Metaphors of Organicism in Twentieth-Century Developmental Biology* (1976), Haraway claims that metaphor itself (a literary stylistic device which compares what is not alike through at least one abstract and a concrete component) is an epistemological model not just in poetry, but in experiential biology which shapes scientific experiments and knowledge. Metaphors are material-semiotic thought structures both in the sciences and humanities;
(ii) based on this idea of metaphor, Haraway's "Cyborg Manifesto" (1985) introduces the cyborg as a figure to think-with which breaks with the Cartesian mind-body duality in the sciences as a feminist meaning maker, the cyborg, who is part human, part animal, part machine, complicates dualisms as well as what was once thought of as singularly *abstract* and *concrete*;
(iii) later, Haraway's "Situated Knowledges" (1988) breaks with the myth of an objective no-where stance in scientific knowledge production and makes a feminist argument in unveiling that knowledge production is in fact always embodied, relational, and material specific etc. – thus *situated*. One of the corresponding figures for the *situatedness* of knowledge is her *Modest_Witness* (1997) who troubles the objectivity myth in scientific experiments and laboratory witnessing by exposing that *concrete* scientific knowledge is always already *abstractedly* and culturally produced;
(iv) Haraway's *Primate Visions* (1989) talks back to her dissertation *Crystals, Fabrics, and Fields* (1976) by again focusing on story and metaphor as abstract cultural models that are applied to fleshy primates to entangle materiality and meaning in primatology, showing that a scientific objectivity that is thought of as being outside of nature or culture is impossible and to re-consider methodologies by feminist primatologists;
(v) in her *Companion Species Manifesto* (2003) and in *When Species Meet* (2008), Haraway introduces another material-semiotic figure, namely the *companion species* (mostly dogs, but also cats and horses) that foster an interspecies "becoming with." This "becoming with" a

companion species ontologically points to the fact that "we make each other up, in the flesh" and is at the same time not a category, but a "pointer to an ongoing 'becoming with,' to be a much richer web to inhabit than any of the posthumanisms" (Haraway 2008, 16). "Being one" in Haraway's natureculture philosophy always already translates into "becoming other" since materially, "Human genomes can be found in 10 % of all the cells that occupy mundane space […]; the other 90 % are filled with the genomes of bacteria, fungi, proteins" (2008, 3); The world is structured through "mortal world-making entanglements" (Haraway 2008, 4).

(vi) in *Staying with the Trouble* (2016), Haraway stretches her material-semiotic notion of "becoming with" into a pragmatic realm by postulating an ethics based on living and dying well with each other "as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings"

(1). Based on this ethics, Haraway develops a pragmatic response to the Anthropocene and Climate Change by introducing the timescape of the Chthulucene, a "compound of two Greek roots (khthôn and kainos) that together name a kind of timeplace of learning to stay with the trouble of living and dying in response-ability on a damaged earth" (2).

As a method, "tentacular thinking" is sympoetic, so a joint, *thinking* and *making* practice which emphasizes the material and worldly consequences of thinking itself: "It matters what matter we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots; what thoughts think thoughts; what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories" (Haraway 2016, 12).

In accord with Haraway's natureculture philosophy, this material-semiotic selection of epistemological stories, sf (science fiction), figurations and tropes can already be seen as an organizing principle that presumes to make sense of our experience of these components and that, when combined, produce a sense of reality. In *When Species Meet* (2008) Haraway thus starts talking about situated naturecultures "in which the actors become who they are *in the dance of relating,* not from scratch, not *ex nihilo*, but full of the patterns of their sometimes-joined, sometimes-separate heritages both before and lateral to *this* encounter" (original emphasis, 25). Thinking with Kinsella's gardening example above, planting broad bean seeds may just be such a dance of relating between the poetic human voice and the gully; a natureculture dance.

While Haraway's philosophizing of the *situatedness* of knowledge *itself* in her 1988's essay "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective"

was born out of a specific historical configuration, namely "in scientific and technological, late-industrial, militarized, racist, and male-dominant societies… in the belly of the monster, in the United States in the late 1980s" (Haraway 1988, 581), it would pave the way for questions around what is objectively real (think the Science wars!) versus what is relatively real of standpoints (think social-constructivism!).

Haraway situates objectivity as a practice which conceals its own power-relations, namely "late-industrial, militarized, … and male-dominant," behind instruments, protocols, and methods, to then take cover behind a "view from above, from nowhere" (1988, 589). It is this view from nowhere which gives objectivity the quality of universality. Haraway situates objectivity as such a "God trick" because it claims all other positions (storytelling, subjective accounts, lived realities etc.) as not objective (not viewed from "above," but from "below") as unfounded and unsustainable. But Haraway's *situatedness* of knowledge goes "beyond showing bias in science" (1988, 578) by focusing on the "realness" of the material and lived world and grounding objectivity in a "more adequate, richer, better account of a world, in order to live in it well and in critical, reflexive relation to our own as well as others' practices of domination and the unequal parts of privilege and oppression that make up all positions" (1988, 579).

When creating materialist knowledge in form of matter poetry, observing, noticing, gazing, looking, and reading from a specifically local, temporal, political, and human situatedness is key. Matter poets do not just look outside of the human and cultural selves, but matter poetry recognizes the otherness embodied in nonhuman or organic as well as inorganic matter in the human and their cultural practices – and in poetry writing itself!

In order to get at "a more adequate, richer, better account of a world," Haraway leans into the "God trick" itself by complicating vision, seeing, and the gaze (from nowhere). Accordingly, "while escaping representation" (1988, 581) itself and with this escape, the "God trick" avoids the material-semiotic circumstances of the observation, the noticing, and the object of sight itself. Materiality and the material world *out there* thus become mere patterns of representation (c.f. "modest witness" 1997[2]). For example, Haraway's figure of the modest witness (1997) plays with

[2] Within this natureculture net, the modest witness is a key knot and it is he who refigures "the subject, object, and communicative commerce of technoscience into different kinds of knots" (Haraway 1997, 23). The modest witness is a powerful knowledge-maker in the history of modern science and a paradigm shifter in himself (see the interrelation with organicists scientist and paradigm shifts in *Crystals, Fabrics, and Fields*). "Robert Boyle (1627-1691) is memorialized in the narratives of the scientific Revolution and of the Royal Society of London for Improving Natural Knowledge as the father of chemistry and, even more important, by the father of the experimental way of life. In a series of crucial developments in the 1650s and 1660s in post-civil war Restoration England, Boyle played a key role in forging the three constitutive technologies for such a new life form: "*a material technology* embedded in the construction and operation of the air-pump; a *literary technology* by means of which the phenomena produced by the pump were made known to those who were not direct witnesses; and a *social technology* that incorporated the conventions experimental philosophers should use in dealing with each other and considering knowledge-claims" (Shapin and Schaffer 1985:25). Experimental philosophy -science – could only spread as its materialized practices spread. "This was a question not of ideas but of the apparatus of production of what could count as knowledge" (Haraway 1997, 24 original emphasis).

such patterns of representation and is a key actor and historically tied to the development of the air-pump in the Early Modern period. Steven Shapin and Simon Schaffer write in *Leviathan and the Air-Pump*, "A Man whose narratives could be credited as mirrors of reality was a modest man. His reports ought to make that modesty visible" (in Haraway 1997, 23). Haraway takes the actual scientist, Robert Boyle, behind the air-pump and transfuses him and the attached scientific history into a grander figurative position within her naturecultural theoretical net. In this scientized story-knot, Boyle's instrument, the air-pump, is at the center of establishing a "new" empirical order, a new order of so-called reality and becomes a storyteller of this scientized order through its materialized practices itself. Of interest is thus not the mechanical workings of this air-pump, but the "apparatus" and the very *specific kind and hierarchical order of knowledge* this apparatus, the air-pump, produces. The apparatus itself – next to its Marxist materialist labor production cost, its maintenance, operation politics, and other technologies that embed the air-pump – has a power of producing specific "matter of facts." According to Shapin and Schaffner, "The matter of fact can serve as the foundation of knowledge and secure assent insofar as it is not regarded as man-made. Each of Boyle's three technologies worked to achieve the appearance of matters of fact as given items. That is to say, each technology functioned as an objectifying resource" (1985, 77 in Haraway 1997 24). The introduction of Boyle's air-pump is exactly such an objectifying resource that quietly entangles three new technologies – (i) the material construction and its mechanics, (ii) the literary transmissions of stories around the production of vacuums and air streams through the pump, (iii) and the social conventions for experimental philosophers, natural scientists, established in the demonstrations and discussion of the air-pump at the Royal Society – are all built into the air-pump itself, and spread an unobserved rethoricity, a world-less rhetoric: namely, nothing less than objectivity.

The air-pump thus *seems* like a neutral instrument, but it actually establishes several hidden, unobserved, orders of things: most dominantly, an objective experimental way of life. Within the knowledge order of this experimental way of life, the scientist could now say "It is not I who say this; it is the machine" (77). "It was to be nature, not man, that enforced assent" (79). And if the machine can actually speak, it becomes an acting subject in the knowledge production process. It is this techno-scientized way of life which produced a figuration that Haraway calls "the modest witness" (1997). "The world of subjects and objects was in place, and scientists were on the side of the objects. Acting as objects' transparent spokesmen, the scientists had the most powerful allies. As men whose only visible trait was their limpid modesty, they inhabited the culture of no culture. Everybody else was left in the domain of culture and of society" (Haraway 1997, 431).

Matter poetry knows that observing, looking at the world is nothing "natural" or "intuitive," but it is a highly culturally trained practice which organizes our world into seen und

unseen patterns. Seeing and noticing something is not a universalizing and objective practice, but it can only ever reveal partial entries into the world. Haraway thus proposes the following questions for seeing situated knowledges: "[h]ow to see? Where to see from? What limits to vision? What to see for? Whom to see with? Who gets to have more than one point of view? Who gets blinded? Who wears blinders? Who interprets the visual field? What other sensory powers do we wish to cultivate besides vision?" (1988, 587).

But how does seeing situated knowledges works then? Since Kinsella's *Jam Tree Gully* takes the natureculture politics of noticing as one of its philosophical questions, an answer may be found just there. Because poetry, just as any other arts which we experience as literary, has the advantage of creating an experience of a philosophical problem, allowing us readers to experience noticing via reading situatedness. Based on Kinsella, my claim that a natureculture knowing is a trajectory which starts with training a material literacy of noticing grows out of Haraway's natureculture philosophy but is grounded on Kinsella's matter poetry. Establishing a new "order of things" and "matter of facts" by tweaking noticing and perception towards the material, or from the ground up, is something that matter poets, such as Kinsella, regularly do. While Haraway unveils the power of witnessing, matter poets use the power of directing reading poetry to witnessing materializations, which both connects truth to reading, but also knots reading to wonder and enchantment.

Epistemologically, matter poets use the idea of witnessing and entangle it with a specific way of looking at the world which corresponds to quantum-physics and the tiniest quantum-bits that, often unobserved, build and shift our world. In Kinsella's "Digging," we, for example, read how the cultural technique of digging up ground can establish "a new order of things" from the ground up, in which we recognize how we "breach a tunnel, a vein through which white ants // migrate to their next meal, next tree …" (2012, 43) while reading. Our eyes pierce through the poem, the words on the page, in a similar manner to digging up ground with a shovel, so we can see the nonhuman life of the gully's understory. The cultural practice of reading is entangled with the cultural practice of digging up ground and the natural life of ants and roots and the poetic lines situate this knowledge within the natureculture ontology of the gully. In Kinsella's natureculture knowing trajectory, "situated knowledges" are a tool of recognizing the material-semiotic situatedness of knowledge and thus are a way of conversing with the material and quantum-world, as conceptualized by the New Materialisms, by means of an active, ever evolving, material and nonhuman lifeworld itself.

2.3. Playbook: Natureculture Knowing & and the (P)Art of Noticing

You look at the network […].
And then it starts to look back at you.
—Rupert Sheldrake's *The Sense of Being Stared At* (2011)

Attention is the holy grail.
Everything that you're
conscious of,
everything you let in,
everything you remember and forget,
depends on it.
—David Strayer (2010)

The ninety-thousand-liter rainwater tank
is concrete and afflicted by cracks—where
water leaks through, lime and algae react
with water and air and seals the cracks.
—John Kinsella, "Leak" (2012)

Kinsella's matter poetry *acknowledges* that a non-organic thing like a "rainwater tank" is "afflicted by cracks." That "lime and algae," non-human agencies, productively work together to *do* something, "with water and air" and *become* a sealing for "the crack." Matter poetry notices the things which often escape our human perception and situates these noticings at the same time by showing us how and where to look locally, in a specific event with all its diverse players collaborating (or not). In this "*third knowing: a playbook of natureculture knowing*," I aim to apply these situated practices Kinsella's matter poetry may offer us and work out an applied noticing and knowing through Kinsella's poetry.

Situated practices offer us loose rules which natureculture knowing may play by: Haraway offers us the play-rules of acknowledgement and an awareness of the material-semiotic and local specificities of situated knowledge in naturecultures; Haraway will go on in being a crystalizing agent for feminist New Materialist thinkers who will re-situate her idea of situated knowledges: Karen Barad instructs our sensibilities for (non)human reciprocal productivities and doings as part of our quantum-world through her conceptual tools of "intra-action," "phenomena," and her

"agentic realism" (2007, 2008, 2014); Jane Bennett offers speculative lessons of an agentic and vibrant nonhuman world by which we are material-semiotically influenced beyond our subjectivity (2004, 2010); and Anna Tsing coaches us on nothing less than "the arts of noticing" nonhuman others (2017). Within these open-ended epistemological rules of situated natureculture*s,* how do we *notice* natureculture*s* and what does this *do* to our *ways of living* in this world?

An *applied* noticing plays a crucial and often ignored role within the debate of situated natureculture knowledges because it is, I think, incredibly strenuous and tiring to decenter ourselves and step out of our training to perceive ourselves as human universalist knowing subjects. Withdrawing ourselves from our inner, human centered, worlds to turn outwards towards the unseen ever evolving vibrant materialities is something that we have unlearned in the West through technoscientization, capitalist consumption, obsession with our individualistic lives (you name it!). But if we cannot take a step to actually notice, perceive, spot, detect, train our awareness to take in traces of these, for the human eye often impossible to spot (non)human materialities and materializations, we give up our material *situatedness* within a shared environment as a productive field full of multispecies histories and encounters. If we forego this noticing work, we do not become terrestrials, one species living among other species in an ever-evolving environment but remain in our human-centered bubble. And literature in general, and matter poetry in particular, may be one of the more privileged sites of imaging our terrestrial lives because it fundamentally builds on stepping into and experiencing the lives and voices of (nonhuman) others.

So-called material "other" terrestrials, mostly marked as different from a hegemonic or own point of existence be it the racial other, gender other, or species other (fungi, insects, trees etc.), have left material-semantic traces of natureculture history and have often been at risk of elimination through campaigns of (pest) control or racial and species segregation or eugenics. Especially in the West, the species/racial/class/gender (you name it again!) "other" has been perceived as a threat to projects of civilization, and rarely have "they" been perceived as potential partners in world making, or poetry writing for that matter. Importantly, I am not trying to make an argument against liberatory projects of any kind – activist or academic – that work against a conflation of human and nonhuman others by demanding an end to the nonhuman objectification of women, members of the LGBTQ+ community, the so-called racial or class "other," children, the disabled, or elderly; that would be ethically problematical. I am not trying to undermine such liberatory projects, but rather highlight humanity's long history of excluding "others" of all kinds as not human *enough* (c.f. Gruisin 2015, Yusoff 2018). In a natureculture ontology, changing our social and political relations is entangled with changing our perception and knowledge of the human and nonhuman realm as well. Any appreciation project of a terrestrial marked "other" and

an incorporation of the natureculture knowledge corpus must start with the art of perception itself; it starts with, what Tsing (2017) calls, the art of noticing.

Within this open-ended assemblage of situated practices outlined above, natureculture knowing, so I claim, and so Kinsella's playbook will show, emerges as the following trajectory[3], starting with

(i) an interdependence between an interruption, an irritation, through a rough texture, and
(ii) a noticing, that
(iii) bears the potential for tracing patterns of (non)human material assemblages and stories
(iv) which may lead to the formation of natureculture knowledge. Here, knowledge is the product of a conscious noticing, a non-mimetic subjective material awareness of paying attention to how the world, and place, is materially and actively (co-)built by multispecies players;
(v) as if it were not complicated enough, noticing also ties into orientation because we need to be aware from *where* we notice. In *Queer Phenomenology* (2006), Sara Ahmed reminds us that "[o]rientations shape not only how we inhabit space, but how we apprehend this world of shared inhabitance, as well as 'who' and 'what' we direct our energy and attention toward" (3). Thus, let's not look *at* and think not *about*, but notice *with* the so-called material and species other.

Tsing's conceptual ideas on noticing are a key motor within, what I call, a natureculture knowledge trajectory. Anna Tsing is an anthropologist by training and a professor of Anthropology at the University of Santa Cruz, California, USA. Biographically situating Tsing is important here because what anthropologists do is this: they notice.

> What anthropologists always do in fieldwork is noticing—and learning from what we notice. We notice human relations with each other, we notice spirits, we notice all kinds of things. We should start noticing the plants and animals around us too. In fact, there's a lot we can learn just by paying attention. That's one of the basic ideas that I'm trying to promote. I can't think of any better discipline to study these things. We're already good at studying things that are marginal or out of order. We have always been interested in kinds

[3] I am very thankful to Prof. Dr. Ingrid Hotz-Davies, who suggested that a natureculture knowledge and noticing is not a network, but a trajectory to me.

> of people and institutions, belief systems, whatever, that are not the ones that are imagined to be at the center of the world. We notice things that might be beneath the notice of other social scientists because they are unfamiliar or peripheral to current political arrangements. Noticing relations between humans and non-humans is another part of that. (Tsing 2017, 28)

Noticing and playing close attention to relationalities, for Tsing, is the beginning for every learning that may lead into a knowing and knowledge. In "Arts of Inclusion" (2010), Tsing follows fungi in natureculture landscapes to flesh out what noticing may entail: (i) beginning at the fungi collection at Copenhagen University's Botanical Museum, she dives into the pleasures of naming the dried fungi specimens trough taxonomy as a way of noticing "the diversity of life" (192) that may lead to a practice of noticing fungi everywhere (Tsing 2010, 194); just as fungi reside everywhere, Mycology stretches beyond European borders. Tsing introduced the polymath naturalist Minakata Kumagusu (1867-1941) who "offered the Emperor of Japan a box of horse manure – containing interesting species of slime mold" (2010, 194). Minakata then transfuses his noticing of mold and fungi into his watercolors, entangling art and taxonomy. It is this natureculture entanglement of the detailed science of taxonomy with the materiality of color swirls which absorbs and breaks light to form an affective channel with the art-viewer that creates an herbarium that is not dried up anymore, but vibrant and alive (194); the American composer John Cage (1912-1992), a mushroom forager, intersected noticing mushrooms with noticing musical sounds as related skills. Tsing writes, "[i]n contrast to other musicians, Cage wanted a music that forced listeners to attend to all the sounds around them, whether composed or incidental" (Tsing 2010, 194). In Cage's composition *Indeterminacy,* mushroom noticing stories are read out randomly, sometimes accompanied with dance or music. Entry #113 shows how noticing, and writing music and texts about mushrooms can foster noticing as a focused attention (Tsing 2010, 194):

> Music and mushrooms:
> two words next to one
> another in many dictionaries.
> Where did he
> write *The Three-Penny Opera*?
> Now he's
> buried below the grass at the
> foot of High Tor.
> Once the season

changes from summer to fall,
given sufficient
rain, or just
the mysterious dampness that's in
the earth,
mushrooms grow there,
carrying on,
I am sure,
his business of working with
sounds.
That we
have no ears to hear the
music the spores shot off
from basidia make obliges us
to busy ourselves microphonically. (Cage in Tsing 2010, 194-195)

What Tsing shows us is that noticing is a method that includes multiple collaborators from basidia, which are spores that are shot off into the air as part of the mushroom's reproductive organs, to words, sounds, ink, paper, dance, taxonomy, affect, the seasons and other weather phenomena etc. These multiple collaborators which are players in the method of noticing thus force us to de-center ourselves as the primary human knowing subject in this natureculture ethnography. And even if "we // have no ears to hear the // music the spores shot off" we can still overcome our negative capabilities in terms of our human senses, affect, and cognition and find inspiration in taxonomy, visual art, music, or poetry. Noticing thus is a method that is multi-x: it is multi-artistic, multi-sited, multi-affective, multi-species, multi-sensorial …

Yet, I would like to make a case for matter poetry here as a specific natureculture multi-site for the noticing of material and nonhuman traces and life-worlds. Within its production aesthetics, matter poetry allows for material-semiotic transfusions of matter and materializations to be written onto the page to entangle it with a reception aesthetics that allows for material-semiotic transfusion to emerge on the page for the reader to notice and make known. In *Jam Tree Gully*, Kinsella writes erosion as a material-semiotic natureculture into his poetry: "erodibility, that movement // where we walk, dislocating //weight of conversation" (21). Kinsella's poem firstly uncovers a certain "likeness" between a mode of walking and erosion as a nonhuman phenomenon that is geologically conceptualized as wind or water eating away, corroding, wearing down specific biotopes such as forests, beaches, or cities. Kinsella's likeness, however, points to the fact that humans are

nonhuman eroding actants as well (think natureculture!); that while we walk, we grind down into the understory, compressing layers of wood, moss, leaves, fungi, insects etc., and that while we talk, our soundwaves bounce off of trees, eat into other nonhuman sounds, such as birdsongs, and thus are not immaterial but fully material as visualized through the mass of our words, our "weight of conversation" (think Barad's phenomena!). Erosion is thus not just a phenomenon of the so-called natural world, but a natureculture phenomenon, exposing humans as a geological force as well as a cultural one. Thus, our human every-day movement of walking and conversing operates just as a flood would operate, eroding a beach front, independent of any human intellect, intention, or will, concepts that humanists have tied to the exceptional status of the Anthropos, the human, the special ape. Myra Hird's "anthropocene aesthetic" (2017) is very helpful here.

> If the Anthropocene, as Nicholas Mirzoeff (2014) suggests, is a "human-created machine that is now unconsciously bent on its own destruction, a purposiveness without purpose," it may be said to mark a particular aesthetic born of a "last moment of human agency" through which we determine what we can and will perceive, find beautiful, and deem worthy of salvation (213). This paradox of the Anthropocene—that we have exceptionally created the conditions of our own existence as unexceptional—is expressed in, I suggest, a particular aesthetic. This aesthetic makes the Anthropocene safe: safe to articulate, to identify, and to discuss. It makes the Anthropocene resolvable. This aesthetic emerges from an Enlightenment ideology that conceptualized nature as a largely pliable, if stubborn, resource available for man to subdue and utilize (see, for example, Arrighi 1994, Blackbourn 2007). (Hird 2017, 256)

An aesthetic, as Hird points out, is always based on a specific and representative perception of visual information (2017, 256). Matter poetry then shifts our perceptions away from a powerful enlightenment Anthropocene aesthetic by noticing natureculture relationalities and a variation of material players and agencies. Through matter poetry's noticing it creates an aesthetic which is not "safe," but realigns our understanding of our own impact and situates it within a natureculture world.

By ontologizing matter and by exposing humans as natureculture agents, matter poetry does not only supply us with a material aesthetics, but it un-trains epistemologies which are the powerful center of the humanist and Enlightenment paradigm as outlined by Mird above. Most importantly, matter poetry questions a Kantian correlationism, "the belief that knowledge of the nonhuman [and material] world had to be correlated with or mediated by a priori human categories" (Grusin 2015, xii). Matter poetry is a multi-site that directs us and its aesthetics towards

noticing our material lifeworld in such a way that "knowledge of the nonhuman [and material] world" is *not* filtered out by, in Ian Bogost's words, "the sieve of humanity" that is correlationism, but it rather re-directs our attention and trains a literacy that includes our material quantum and natureculture worlds.

Matter poetry uses these re-directings within its poetic textures, just as Kinsella re-directs our attention to the "crack" in "the ninety-thousand-liter rainwater tank" in which "algae react," not just to enrich our understanding of the natureculture micro-events taking place, but also to train a material literacy by practicing natureculture noticing. The difference between matter poetry and feminist New Materialist theory, such as Tsing's work on noticing, I want to argue, is that they deal with knowledge systems differently. While they both supply technoscientized epistemological criticism and are based on a material-semiotic relational ontology – for both, matter bonds what appears as separate through mutation and emergence (Sheldon 2015, 196) – feminist New Materialist theory treats knowledge itself as an actant with actual material consequences (think Haraway "situatedness" and "material-semiotics", Barad's "intra-actions" and "material-semantics," Bennett's "vibrant matter"); matter poetry agrees with these quasi-causal assumptions; however, it takes a step back and actually focuses on fostering nothing less than a literacy of noticing the material and materializations in a natureculture world.

Material literacy is important because our human senses – our smelling, visualizing, seeing, feeling, and touching apparatuses – are not advanced enough "to hear the // music the spores shot off," as John Cage writes in # 113 (for more on the materiality of resonance and sound, see chapter "When Poetry Speaks Back"). Material literacy *untrains* our knowing "through the sieve of humanity" and reintroduces "the rich world of things." More specifically, matter poetry trains a material literacy which is more inclusive by fostering a sensibility and a noticing of materiality and materializations in natureculture worlds. All you need to do is start reading and learn to notice (not easy, but still potentially far-ranging!).

Material poetic literacy equips us to "read" matter poetry, just as anthropologists such as Tsing "read" the environment and diverse landscapes, as a poetic field-to-come for the reader. Kinsella's poetic field is a "field-to-come" because as we read one word after the other – "erodibility, that movement // where we walk, dislocating // weight of conversation" (21) – we

slow down,

our eyes tracking

one

word

after

the

other,

our mind patches up the movement of the words over the page as a field with stored meaning and our lived experience, we take in the roughed up textures, stop,

read on,

dive into the polyphony of voices – into this sea of voices that are made of paper, leaves, shoes etc. – our reading becomes entangled with our doing – our mirror neurons simulate the material process of conversing and walking – an understanding of the natureculture materiality of our world unfolds as the poetic texts unfolds as a field-to-come between our mind *in here*, our hands that are holding the text, and the world *out there*, Kinsella's Australian *Jam Tree Gully*. On this field-to-come, language becomes a fully material natureculture actant. For us to experience such a natureculture emergence while reading matter poetry or while taking a walk in the woods, I argue, we desperately *need* a material literacy of noticing. And matter poetry can be one of the key providers for such a literacy within our natureculture world.

2.3.1 Playbook: *Jam Tree Gully*

As a matter poem which notices the difficulties of noticing natureculture materiality, I want to introduce John Kinsella's poetry collection *Jam Tree Gully* as *a playbook for unlearning* these critical modes of detachment from naturecultures and matter. As I wrote in the introduction to this chapter, matter poetry's "sophisticated set of techniques" (Hotz-Davies 2016, 142) allows us to unlearn material-semiotically, through words and matter, part of our theorizing *about* naturecultures and *about* matter and allows us *to learn* and *to animate* an aesthetic engagement *within* naturecultural and material modes of *noticing*. Kinsella's *Jam Tree Gully* as a playbook for noticing is henceforth not just about a pedagogy or a re-consideration of the naturecultural material, but it is about noticing a *direct engagement* with a material natureculture that is not only *out there*, but always already *in* us as well through their poetic field-to-come.

Jam Tree Gully is all about noticing. This is not surprising since eco-poetic knowledge may start with just that: observing and noticing the entanglement of human and nonhuman as well as immaterial and material worlds, in short – naturecultures. The poems in Kinsella's collection, the first volume in a trilogy, are constantly pushed further into a contested South West Australian landscape with its visible ecological wounds of colonial pasts and the consequences of a neo-colonial politics by an observing, witnessing, and noticing poetic consciousness that aims to notice

its situatedness in a natureculture world. Kinsella does not only situate his poetry in this dusty landscape of the Global South, but also in correspondence with forest loving Henry David Thoreau's *Walden* (1854). But while both Kinsella and Thoreau's poetics encounter urges to live simply in contested natures, s*ituatedness* in terms of who *owns* and *belongs* to the very earth that houses the poems' observing consciousness' daily livelihood is specifically negotiated in Kinsella between a neo-colonial present and its troubles of a fading aboriginal history, climate change, and capitalist ruins. Pushing the intertextualities between *Walden* and *Jam Tree Gully* aside, I am explicitly interested in how Kinsella's collection creates a *situatedness* by noticing patterns, or patches, of material relationalities and transfusing these local, material patterns into poetic structures on the page: in "Reading (i)" Kinsella writes,

> Reading is competing, a formal
> innovation of roots and scant moisture
> grabbed from early-morning air—or
> reading the shattered concrete
> where lightning traced a hairline fracture
> across the rainwater tank, pre-articulation
> or an end to language. The biosphere
> keeps the particles of the dead
> close to prayers, indifference, non-
> belief. Atmosphere prevents
> them being lost, escaping, diluting
> in the vacuum, the slow gravitational
> urge to find another planetary home. (Kinsella 2012, 40)

Noticing the very earth out there "of roots and scant moisture" is entangled with reading as a reaction to a stimulus, a cognitive activation either in response to letters on the page, a semantic irritation, or to "a formal innovation" of tracing how "lightning traced a hairline fracture // across the rainwater tank." Reading in Kinsella's poems is thus not an act of decoding layers of representations, but a natureculture situating oneself in the dirt and specific language of the gully through a stickiness by moving one's eyes over the page, intra-acting with light, ink, and the brain. The effect of Kinsella's reading which is sticky may be due to the fact that matter is trans-corporal (Alaimo 2008, 238), constantly emerging into new combinations with language, affect, and sense expressions and perceptions. It is this re-thinking of what language can do if it is not treated as a mere carrier of repeated encoded and decoded meanings, but as an active participant in a

natureculture process, a *doing*, which marks "an end of language," and unleashes wor(l)ds as active and material-semiotic actants in our wor(l)d making which Kinsella is sharing in "Reading." This unleashing of the structuring effect of a material situatedness onto language itself is deeply engrained in the emancipatory politics of the Global South in which language cannot be owned by one Western humanist subject, but in which poetry and song is deeply materially attached to the place it comes from, is molded and impressed – made a material-semantic impression on – by the materiality of the land itself "for want of another text" (Kinsella 2012, 40).

This wanting is not necessarily, just as noticing is not, a mere case of ontologically restructuring the world. Kinsella's "want of another text" and his "end of language" is not either. While material ontologizations, such as material monist ontologies, are intellectually very exciting, they *can* (!) run the risk of divorcing historical and political contexts by only focusing on material relationalities, zooming in on the flow of quantum-materialities and physical processes that "attach" or "make claims" on us special humans, the Anthropos, *only*. This ecology of attachments may create risky feedback loops back to the human on the receiving end of materializations *only*. I would like to point out here that weirdly, such a noticing of matter that *only* emerges for the human to attach to triggers memories of a Western humanism that is politically tied to questions of who counts as human, as the Anthropos, this special ape and who does not; this question transforms the liberal human Western subject into a site of exclusion (think "human/inhuman," "speciesism") (c.f. Grusin 2015), obscuring and masking our relationship with nonhuman matter and our own materiality in the end. Entangled with this potential feedback loop, the observing consciousness in Kinsella's poems is haunted by the fear of repeating the mistakes of white, male, mostly English settlers, both in thinking and writing in specifically English Romantic modes, such as the Pastoral and the Sublime, about the material environment that is native to South West Australia. On this problem, Kinsella writes:

> Pastoral in the specific case of Australia is twofold – a construct to recreate European, specifically English, rural power structures, the reconfiguring of 'home' in an alien landscape. Such landscape-usage comes out of a politics of oppression and degradation of indigeneity. A new pastoral must come out of this that re-examines what constitutes the rural space and how that is mediated. (Kinsella and Stewart, 2003, 12 in Bristow 2015, 20)

In *Jam Tree Gully*, Kinsella's poetry subversively uses this tension between innocently observing and noticing the materiality and nonhuman situatedness of rural space between York and the Jam Tree Gully, only to then expose this innocence of *only* observing "shattered concrete" as a violent pastoralist practice itself.

Kinsella's answer is "another text" in which he uses noticing to invoke a European pastoral only to create a natureculture trap through materiality: "roots and scant moisture //grabbed from early-morning air" (Kinsella 2012, 40) resonate with an innocent and detached nature that mechanically works through an interaction between temperature, humidity, and air strata in a detached rural space *out there* (think Pastoral! think Baconian nature!); but, the poem uses this familiar Western focus to violently crush this sentimentalism by exposing the very real material consequences humans have had and are having on materiality and the nonhuman environment with lines such as "Stroke of engines in long dry grass // spark a district and write it over — " (Kinsella 2012, 40). This dark or cold pastoral created through a situated noticing that is material and political is what transforms Kinsella's *Jam Tree Gully* into an intra-active natureculture text of no innocent exteriority.

Moreover, Kinsella's noticing as a naturecultural practice is both techno-scientized, dipping into the knowledge-structures of Biology and Quantum Physics with "The biosphere // keeps the particles" and "Atmosphere prevents // them being lost, escaping, diluting // in the vacuum," zooming in on quantum particles and conflating the gap between nature and culture, the world *out there* and *in here*. The collection offers us micro-readings of the bushland and of a strong human consciousness that notices the situatedness of naturecultures such as insects, burned tree trunks, rainwater, goats etc. – bottom up (!). These noticings are always already situated in a specific moment of anthropocentric climate change and economic deprivation of the land. At the same time, the collection is also driven by a paranoia; namely, "of repeating past (European) human practices – literary and agricultural – and of the present impact of our words and deeds in the context of habitats modified by climate change, invasion ecologies and blindness to indigenous cultures" (Bristow 2015, 20). *Knowing our natureculture situatedness*, so where we are and how we relate to the landscape surrounding us, is what Kinsella's poetry looks for on a meta-level. And noticing is what these poems do. Thus, going back on my proposed natureculture knowledge trajectory above, we can understand Kinsella's poems as field notes that guide us into the arts of noticing; or, as a playbook for noticing, training our material literacy.

In the following, I will continue treating Kinsella's poems as a playbook. Training the material literacy of noticing, while absolutely necessary, is a messy business, full of unexpected difficulties, and we can, as Kinsella's matter poetry will show us, in fact fail to notice – despite our best efforts. But, perfection is *not* the prize you get for noticing; *practice is*. Also, while noticing is a practice of becoming aware of our "knottedness," that we are "knotted beings" as Haraway puts it (2008), woven into a dense net of relationships some very vast, some so small that they slip our noticing, we must also intellectually notice that not everything, animal, material being, aims or

wants to get noticed. Some turn away or withdraw into the patterns and patches of the environment.

2.3.2 Deep Noticing & Cognitive Realisms

> One cannot make a world with simple atoms. There has to
> be a *clinamen*. There has to be an inclination or an inclining from
> one to- ward the other, of one by the other,
> or from one to the other.
> —Jean-Luc Nancy, *The inoperative community (1991)*

Kinsella's poetry collection *Jam Tree Gully* takes an intra-active South Western Australian landscape as its starting point to notice. The poem's prologues "Leave-Taking (York)" (19-20) and "The Land Between Houses: From York to Jam Tree Gully" (20) to "Arrival: First Lines Typed at Jam Tree Gully" (21-23) sketch out a complex contemporary environment that intra-acts with climate change and colonialism, forms capitalist ruins, and shapes (non)human histories through which patchy, uneven, landscapes emerge to situate themselves and get re-situated on the page, while we read.

Through these ongoing re-situatings, Kinsella's poetic landscapes train a deep noticing through reading, beginning with the first line in the prologue's "Leave-Taking (York)." Leave-Taking for another destination is a common trope in Anglophone Literatures since the Early Modern period (Shakespeare's *The Tempest*, Swift's *Gulliver's Travels*, Cavendish's *The Blazing World*, Shelly's *Frankenstein* etc.) for narrators, characters, or speakers to situate themselves amongst other, often nonhuman actants. Kinsella's first poem takes on this tradition, but does not start with a location or a sublime or pastoral imagery of the Australian South West, but with a linguistic irritation: the past participle of the verb to spring, namely "sprung":

> Sprung, the wild-oat seed cocks
> a grasshopper leg, and another
> Corkscrews into heavy sock,
> Too thick for summer.
>
> Sun skinks are fat on the fence
> And a Christmas spider – horned
> And enameled – puts on a different face
> To each approach – none is scorned

For its interest. No tree trunk
Is straight and wasps … (Kinsella 2012, 19)

As I have noted before, *Jam Tree Gully* as playbook frames natureculture knowing as a trajectory which starts with noticing and is often commenced through a rough texture. Here, the rough texture unfolds itself through the bumpy beginning of Kinsella's first line, starting with the past participle "sprung," lacking a personal pronoun, and followed by a comma that forces the reader's eyes to rest for a micro-moment. Just as we begin reading this poem then, the cultural practice of reading, of entering a literary event via sight, is natureculturally situated by Kinsella's text as a leaping, a hopping into an intra-action between a "wild-oat seed" and "a grasshopper's leg," which carries a vacant standpoint due to the missing personal pronoun. It does not matter who or what leaps, the poem draws our attention to the doing, the springing into. Thus, the poem begins with a verb, "sprung," which doubles the leaping of the reader's eyes once the sight-apparatus touches the page and is directed into the grass-land event in York with the leaping of the observing poetic consciousness.

This leaping is also a levelling orientation device as one always leaps, dives, springs *into* an event. The poetic voice then dives into the world of a Christmas-spider, noticing how this tiny animal's face reacts to the sun. The poetic voice remarks that "No tree trunk // Is straight and wasps coalesce // Along the bricks, having sunk // Larvae into huntsman spiders…" (Kinsella 20212, 19). These poetic human noticings of a small York patch are all horizontally flat and minute. Each micro intra-action between different players, such as a seed and a grasshopper's leg (not even the whole grasshopper, just a leg!), magnify the different ontological relatings on the gully's ground for us. The observing human gaze of the poetic voice seems to work its way from the ground, the dirt, up. "Leave-Taking (York)" unveils the long poem's politics of attention to, what I call, the micro-ontologies, the ontological "knottedness" with (non)human micro-material worlds, of wild-oats and grasshopper limbs, quite generously from the beginning. The poetic accounts of local micro-ontologies always already leap into epistemological commentary on noticing and observing itself. Kinsella's work situates noticing as a process of paying bottomless attention to the tiniest micro worlds that would otherwise remain hidden from our senses, such as wasps that "coalesce // Along the bricks, having sunk // Larvae into huntsman spiders".

Matter poetry's paying bottomless attention corresponds with a "deep attention" (Hayles 2007) which is traditionally fostered in the humanities at large and Kinsella's poetry specifically adapts this cognitive style to a poetic deep noticing[4]. Yet, deep does not equal whole in Kinsella's

[4] In "Hyper and Deep Attention: The Generational Divide in Cognitive Modes" (2007), N. Katherine Hayles broadly differentiates between two different styles of attention paying, namely deep and hyper attention. "Deep attention, the

matter poetry production and reception aesthetic. Analogously, deep noticing does not necessarily mean that we can observe a whole reality, which Heisenberg and Arendt already pointed out in their "Uncertainty Principle" (Heisenberg) and "Hypothetical Nature" (Arendt) by stating that there is a limit to what can be known and perceived in nature; but deep noticing can lead to a cognitive realism produced through a deep imagining. Regarding matter poetry's production aesthetic, while one looks at a spider in the actual world *out there* and notice its tiny legs, one can never see the whole spider, its underbelly or back. In terms of a reception aesthetics, when we read Kinsella's words on "a Christmas spider – horned // and enameled – puts on a different face // To each approach" a cognitive omission is at work as well, omitting visual details of the Christmas spider just as Kinsella's language leans into the indeterminacy of the spider image since all "information" we get is that it is "horned // and enameled – put[ting] on a different face // to each approach." However, as Emily T. Troscianko puts it, "indeterminacy is a capacity, not a constraint" (Troscianko 2013, 187). In "Reading imaginatively: The imagination in cognitive science and cognitive literary studies" (2013), Troscianko further writes that literary texts "can exploit language's capacity for indeterminacy and therefore elicit very different imaginative experiences" (181). One of Troscianko's proposed imaginative experiences is derived from a freedom which both imagination and language share that leads to a cognitive realism, which may not be based on depicting a whole reality (if that is ever possible), but a deep one:

> Language shares with the imagination this capacity to be inexplicitly non-committal: a linguistic description of a cat has complete freedom not to specify the colour of the paws, whereas a picture, to avoid doing so, would either have to portray the cat from an unconventional perspective or in unconventional incompleteness, or have to include some kind of ambiguating feature like a smear. This means that language has the capacity to stimulate an imaginative response in a more flexible and efficient way than pictures can, by exploiting its shared capacity for indeterminacy, i.e. by being cognitively realistic in this respect. (Troscianko 2013, 187)

Transferring Troscianko's insight, it is because of language's omission and matter poetry's gaps, quite ironically, that the reading and deep noticing mind may develop a cognitive realism of

cognitive style traditionally associated with the humanities, is characterized by concentrating on a single object for long periods (say, a novel by Dickens), ignoring outside stimuli while so engaged, preferring a single information stream, and having a high tolerance for long focus times. Hyper attention is characterized by switching focus rapidly among different tasks, preferring multiple information streams, seeking a high level of stimulation, and having a low tolerance for boredom" (Hayles 2007, 187). While hyper attention comes in handy when noticing different competing stimuli (think video game!), deep attention and zooming in on material micro-ontologies (think poetry reading or bird watching!) is the art of deep noticing.

Kinsella's Australian Jam Tree gully. While reading "Leave-Taking (York)," our eyes do not just track the words printed on the page, but we are also made to do something, namely to spring into and look closely at the material-semantic translations of a local grass line in York, South West Australia, allowing us to descend right into the network of chlorophyll packed strings of lawn and into the lively scene of grasshoppers, spiders, larvae and woods. Reading matter poetry has the capacity to stimulate an imaginative response just like going for a "real" walk in South West Australia in a similar flexible and somewhat efficient way by leaning into a shared indeterminacy of language and the imagination and thus being nothing less than cognitively realistic (on "cognitive realism" see Troscianko 2013, 187). It is this cognitive realism which leans into the indeterminacy of poetic language to lead us into an experience of a *presence* of voices, things, colors, and smells while reading. Deeply noticing the world *out there* and reading as a cultural practice *in here* are entangled neurologically into a naturecultural skill.

But what does deep noticing do to our individual subject positions *in there* and *out there*? Matter poetry's deep noticings of natureculture relatings complicates the notion of subjectivity through which the lyric as a genre emerged, the poet speaking *in propria persona*. The Romantic period produced the notion of the individual subject and with that conceived the lyric as having a mimetic function in reproducing the experience of such an individual subject. This Hegelian notion of the subject becoming aware of its individuality through reflection and experience is, however, grounded in the absorption of the world *out there* through the poet. Accordingly, the poet's consciousness is the filter and the creator of the poem (Culler 2015, 2).

While matter poetry is historically entwined with Romantic poetry (see Introduction), Kinsella's poetic consciousness, however, looks outside of a self – be it the poet or the speaker. A mimetic entanglement of a subjective inner landscape with that on the ground in York does not take place. Moving on within the history of literary criticism, a modern and representational adaptation of studying the lyric by asking for a speaker and looking for imagined speech acts within the poem does also fail. In "I had wondered about the signs of burning" we encounter a voice uttering "I," yet that voice does not share knowledge in a representational manner by focusing on systematic and scalable discourse on climate change related bush fires but notes networked patterns and material-semantic traces such as "sandalwoods whose sap exudings had crumbled to dust" or "ants admonish a track" or "charred trunks at seemingly random points" (Kinsella 112). Within Kinsella's poetry collection, these specific noticings sometimes do cross with an intent, world play, historic specificities, inner monologues, or dialogues of a voice saying "I" as, for example, we read in the following lines on wildfires between York and the Gully: "Regardless, we bring a knowledge of such catastrophes // from our old place, and they serve us well // and serve as warnings here, too, and we know // fire is just around the corner, the house's shadow" (Kinsella 112). But these

speech acts only occur as a result of bottom up deep noticings, building the model for a natureculture trajectory that starts with noticing and ends with a knowing for the speaker and the reader. This model does not correspond with a mere analysis of ordinary and representational speech acts, but brings specific, meticulous, (non)human, material, natureculture noticings to the poetic fore. One might thus not primarily ask "who speaks" when reading matter poetry, but "who and how does one notice what"? These deep noticings eventually lead to natureculture knowledge such as "The fire shaped with hills' shape but stayed low // to the ground" (Kinsella 112).

What we already begin to see here is that deep noticing does not mean to completely opt out or overcome our human awareness. Poetic deep noticing does not dissolve all boundaries between the human and nonhuman world. Rather, deep noticing shows us patches which are intricately knotted and some that remain, even if it is only for a moment, separate. Going back to "Leave-Taking (York)," the human perspective slowly unravels itself until the speaker interrupts by commenting on the leave-taking from a strange angle: a voice saying "I" appears and with this first person speaking, we draw away from the grass line, stop "reading" each cellular life world of a "grasshopper's leg," a turn to a different, very human landscape:

> Broadly speaking, I expect
> things to look the same for some time
> after we've left, lest it correct
> where paths have worn and the climb
>
> of plants that will make a winter
> covenant prior to growth – the patterns
> of germination, the plans, the failures:
> each feat resolving expectations. (Kinsella 2012, 19)

While the beginning of the poem turns to a cosmopolitical scene of the grasslands, these stanzas turn to the speaker's self and expectations: "I expect // things to look the same for some time // after we've left" (Kinsella 2012, 19). Just a few lines earlier, the poem turned to the world *out there*; it now turns back to a conscious human self, an "I." This voice saying "I" expects "things to look the same for some time // after we've left." This "I," however, immediately begins to doubt, re-situates to a newer self that recognizes that "patterns // of germination, the plans, the failures" and that "each feat" can resolve these "expectations" (Kinsella 2012, 19). Kinsella's matter poem does not just deep-notice the world *out there* in York, but, after careful noticings, turns to the speaker. These crossing re-turnings presuppose and unveil the presupposition that expectations do

not just grow inside of the human mind, but that they emerge transversally through a material-semantic interplay of and in naturecultures. The human and the human mind are hence not closed off, or a filter, but just another material-semantic noticing site. And so the poem claims that plants can "resolve[] expectations" through "the patterns // of germination, the plans, the failures."

The poem exposes that deep noticing, this turning to and away from, is not only a process of looking *out there*, but that it is at the time also a turning *into* us humans as changing selves, often "correct[ed]," as Kinsella's poem reminds us, by the material agency of nonhuman others such as plants (c.f. "swerve" as turning Farrier 2019, 89 ff.). In *Queer Phenomenology* (2006), Sara Ahmed argues that this turning away and towards is a function of orientation. "Orientations shape not only how we inhabit space, but how we apprehend this world of shared inhabitance, as well as 'who' and 'what' we direct our energy and attention toward" (3). In "Leave-Taking (York)," to deep notice *with* the so-called material and species other includes us as well as them and this difference between *our* expectations and theirs'; however, is always already at risk to get unraveled, resolved, because encounters may not be equal in terms of power, but may be collaborative.

2.3.3 Field-to-Come: Re-Situating Ghosts

> If I am getting ready to speak at length about ghosts,
> inheritance, and generations, generations of ghosts,
> which is to say about certain others who are not present,
> nor presently living, either to us, in us, or outside us,
> it is in the name of justice . . . . It is necessary
> to speak of the ghost, indeed to the ghost and with it.
> —Jacques Derrida, Specters of Marx (1993)

Who are these "generations of ghosts" about whom Derrida writes? These "certain others who are not present"? How can we bring "justice" to the "others" in an Australian system which already others women, the disabled, aborigines etc. based on the human as an exclusionary site? Put differently, how can we bring "justice" to the ecologically othered – to our environmental and material ghosts in a colonial environment such as South West Australia? The next re-situating in the poem's travels towards the Jam Tree gully is to "The Land between Houses: From York to Jam Tree Gully," as the second poem of the prologue indicates. Our ongoing field-to-come turns our deep noticing towards the colonial natureculture history that is written into a tree called Eucalyptus wandoo:

Wandoo woodlands
aren't haunted when knocked
down and hollowed
to the pit of their stomachs, burned

and cooked as good for nothing,
just ghosts on hallowed ground,
gravel guts we make roads from—strung
around the district while commerce resounds. (Kinsella 2012, 20)

These "[w]andoo woodlands" that unfold on the page re-situate our deep noticing to the traces of human destruction. Wandoo woodlands have been "knocked // down and hollowed …. // burned," turned into a resource for gravel roads, a backdrop "while commerce resounds." And while we may be able to forget about these "hollowed" backdrops on a walk by turning inwards, on the page, we cannot escape the awareness that environmental destruction for human economic gain materially exists. Anthropocentric ruins meanwhile will not fade away *on the ground* in the Eucalyptus wandoo, even if we close Kinsella's poetry collection. Thinking with Haraway's situatedness of knowledge, these Eucalyptus wandoo are, in fact situated, outside the poetic texts – a reality Kinsella describes – and within Kinsella's poetic textures as a poetic simulation. While these hollowed woods "aren't haunted," which would only be a human projection of dead woody matter that somehow still stands up, "burned // and cooked as good for nothing," the poem renders visible and deeply noticeable that the Eucalyptus wandoo are "just ghosts on hallowed ground."

But, how can we turn our attention towards something invisible and abstract such as "ghosts on hallowed ground"? How can we train a material literacy of deep noticing the seemingly other-worldy? Kinsella's ghostly field-to-come guides our attention to *re-situate* – turn *back* while continuously creating a *present-at-now* – to the very material traces of these ecological ghosts, such as "gravel," "commerce," ground that is still "hallowed" despite and in spite its colonial destruction. By *re-turning* to these ghosts *at now while reading* (think cognitive realism!), we are forced to notice overlapping, intersecting, arrangements of natureculture landscapes in their "spacetimematter[ing]" (one word and a verb!) (Barad 2007, 178).

Barad's "spacetimematter" contribution to material feminism intersects with Haraway's situated knowledges to show how humans intra-act and are quantum-entangled with matter that is always already tied to as well as relative to space and time. Spacetimematterings produce

naturecultures as monist ontologies in which humans cannot be separated from nonhuman actants while recognizing that matter is always entangled with space and time.

"The Land Between Houses" does not merely offer us the detailed description and a humanist trap by projecting our Romantic fantasies of the supernatural onto a woody materiality. These woodlands "aren't haunted." Just as landscape is made, re-made, and makes itself, this poem unfolds itself to trace our nonhuman histories in the epoch of the Anthropocene.[5] Ghosts are thus not supernatural. Wandoo "ghosts" seem "otherworldly" because trees are ancient matter that remains in one spot, materially witnessing an ecological human-nonhuman history and depicting it in their growth-rings. In "Haunted Landscapes of the Anthropocene" (2017), Elaine Gan et al. define ghosts as a way of "returning to multiple pasts, human and not human … . [T]he presence of the past often can be felt only indirectly ... . It disturbs us in its indeterminacy, this is the quality of ghosts" (G2). In *Jam Tree Gully*, trees present themselves as locally rooted, often defying the powers of time and space – remaining in one spot, sometimes for centuries, never moving, bowing in an interplay with critters, erosion, wind, rain, fire, plagues, and deforestation. Kinsella's poem natureculturally entangles this ghostly indeterminacy of Eucalyptus wandoo with poetry itself. By playing with symbolisms and metaphor, dead eucalyptus being "just ghosts on hallowed ground," Kinsella produces matter poetry that is difficult to unpack in terms of *understanding* nonhuman histories and natureculture entanglements, evoking overlapping fields of timespacemattering. This seems ghostly also in another way. While we are constantly asked to forget about our own human destruction of the planet and to focus on our enlightened orders of things (think "mind over

[5] Endless change and growth brings us to the story of the Anthropocene. A term from the 1980s, it was voted by 35 scientists at the International Geological Congress in Cape Town, South Africa, in 2016 to be "adopted as an epoch" in the coming years. Accordingly, *we,* the human species, overwhelmingly shape the constitution of the biosphere, impacting the chemistry of the atmosphere and the oceans. Current human growth only meets that of bacteria, which means *we* literally are devouring *our* planet. This epoch of human dominance will in the future be clearly decipherable in the fossil record, rising sea levels, melting ice sheets, plastic waste dumps etc. The Anthropocene offers a singular umbrella term for "a gripping and intuitive story about human influence on the planet" (Davies). What makes this idea seemingly difficult to comprehend is that it reflects upon a contemporary world in its future becoming as a historical epoch – history-as-now. Time is complex and what the Anthropocene wants *us* to understand is that *we* are composing a present in continuous complex feedback loops. Time is not a thing, but a becoming. Opting for a politically productive, maybe even utopian, response, the Anthropocene can be seen as necessitating solutions that are democratic and relational. Based on this view, it requires a "self-aware collective engagement with the question of what kind of landscapes, what kind of atmosphere and climate, and what kind of world-shaping habitation to pursue would all be parts of the repertoire of self-governance" (Purdy 296).

Kathryn Yusoff points out in *A Billion Black Anthropocenes or None* (2018) that the Anthropocene uses the grammar and language of species, as denoted in the *anthropos*, and knots it with a singular geological common. Yussof argues that in doing so, the Anthropocene erases histories of racisms which are systematically outside of regulatory structures of geological relations: "If the Anthropocene proclaims a sudden concern with the exposures of environmental harm to white liberal communities, it does so in the wake of histories in which these harms have been knowingly exported to black and brown communities under the rubric of civilization, progress, modernization, and capitalism. The Anthropocene might seem to offer a dystopian future that laments the end of the world, but imperialism and ongoing (settler) colonialisms have been ending worlds for as long as they have been in existence. The Anthropocene as a politically infused geology and scientific/popular discourse is just now noticing the extinction it has chosen to continually overlook in the making of its modernity and freedom" (Yusoff 2018, 6).

matter"!), Kinsella asks us to, in fact, not forget and to pay attention, to notice, these natureculture patterns on and off the page. To notice ghosts with their natureculture histories.

2.3.4 Making Landscape Patches: Affect & Experience & the Senses

> Each plant in its singularity is a collective being, a loose and disorganized assemblage, and, hence, a community of plants do not comprise a unified whole, do not constitute either an individual or an organism. In vegetal beings, life is de-centered – not, as some might think, concentrated in the vital 'organ,' the root, but dispersed and disseminated throughout the body of plant communities.
>
> —Michael Marder, "Vegetal anti-metaphysics: Learning from plants" (2011)

After the prologue, these material Eucalyptus wandoo ghost traces now turn to Jam trees with "Arrival: First Lines Typed at Jam Tree Gully" (Kinsella 2012, 21). From this arrival of the noticing consciousness and ours on the page onwards, Jam trees, *acacia acuminate*, are the sensory re-situatings for the poetic field-to-come. Jam trees derive their name from their smell, "reminiscent of berries when burning. … And yet the descriptive name taken from a property of something only evident under certain conditions (the emission of the smell of raspberries under heat) metonymically invokes climate change and, by extension, human practice" (Bristow 2015, 22-23). "Arrival" allows the poem to settle, situate itself, in a specific patch, namely the Jam Tree gully. And with the movement from York to the countryside, Kinsella's poetry as a field-to-come specifies itself in terms of what can be deeply noticed and thus can be known.

And at this point in the poetry collection, we enter the gully as a patchy structure which arranges life for humans and nonhumans alike and non-alike. The gully is not a unified whole, but a patch full of human and nonhuman relationality. In "Patchy Anthropocene: Landscape Structure, Multispecies History, and the Retooling of Anthropology" (2020), Anna Lowenhaupt Tsing, Andrew S. Mathews, and Nils Bubandt specify that a "patch" is a term borrowed and modified from landscape ecology;

> there, "landscapes" are units of heterogeneity whose components—at any scale—are patches (White and Pickett 1985; Wu and Loucks 1995). Patches show us landscape structure, that is, morphological patterns in which humans and nonhumans are arranged. A forest, a city, or a plantation: each of these is a landscape structure. We recognize these landscape structures through observations, comparisons, and attunements; (n.p.)

From Kinsella's "Arrival" onward, the Jam tree gully is transformed into a patch by recognizing these landscape structures through the poem's noticing consciousness. On the page, the jam tree patch is not only a formal "landscape structure," a geography scaled and limited by maps, but the landscape-patches-to-come emerge through an experience based on sense and affect. Thus, Kinsella's matter poetry transforms landscape from something that is structural, geopolitical, and impersonal into a patchy product of embodied and material-semantic experience itself, on and off the page.

> [t]he making of place is a dynamic of couplings,
> as if love and trust are omens, odds in your favor.
> The sun burns but also fringes the leaves" (Kinsella 23)

"Making a place" is hence based on a coupled, or in the language of matter and quantum-physics entangled, experience. Emotional and mental worlds are knotted to the material geography of the gully. Kinsella's materialist poetic cartography stipulates that the gully as place is made through a world-making of overlapping foldings of affect, such as "love," doings, such as "the making of place," thermodynamics, such as "heat," and material manipulation, such as "the sun burns but also fringes the leaves." Affect, doings, thermodynamics, and material manipulation compose place and negotiate belonging to the land. No species is closed off, but all are partners in an intra-material doing, namely in the "making of a place."

Spinoza's deceptively unassuming definition of affect as the power 'to affect and be affected' (in Massumi xi) appears in Kinsella's matter poetry as emergent relationalities, intensities, and natureculture events that make the poetic observing consciences and the readers feel, perceive, remember, or hear something non-verbal and often non-conscious. Because much of natureculture knowledge belongs to the non-verbal and non-conscience realm of knowledge, noticing is key here. Matter poetry and poetry in general are proficient in noticing more than is verbally depicted and communicated by text since poetic language by definition entails more meaning than depicted on the page by type setters through symbolism, matterphors, alliterations, allegory etc.

Following the definition of mundane from this chapter's introduction, *mundus*, worldly affects are the intensities that map natureculture rationalities (c.f. "ordinary affects" Stewart 2007). While representational and systematic thought negotiates how powerful institutional knowledge works, for example on climate change, matter poetry's mundane affects notice and trace the specific and situated multispecies situation on the ground (c.f. "exhausted geographies" Rogoff 2010). In "Digging" (Kinsella 43), the poetic human consciousness notices such a locally specific affective

entanglement of the jam tree gully system and unpacks its "more-than-human social structure" (Tsing et al. 2019) of the gully.

> Digging in dryness with roots of a transplant
> seedling singled like hair, through living hairs
> and not the dead white hairs of your own head,
> ……..
>
> Digging against the grain of the hill, feet
> slipping as you struggle to grip —mountaineer—
> to reach finally deeper into the earth
> than the length of the seedling's root system.
>
> ……
>
> Filling the digging in around roots, tilted
> away from white ants' conduit, who might
> just taste to see if the cellular intrusion
> so nearby is living or dead, how the cellulose
> might digest, pass through their body
> back into the rocky soil. The dirt stays under
> my fingernails. There's not enough water
> to clean it away. (Kinsella 2012, 43-44)

Here, digging is not only a so-called cultural method of wearing away soil "to reach finally deeper into the earth," corroding root systems, and disrupting "white ants' conduit"; digging is also a so-called natural process that roots and ants do as well as something we natureculturally *do* when we notice and read. Metaphorically speaking, digging is also an affective channel into the intricate multispecies meshy lives within each earth strata while reading. When our sight apparatus hits these paper-earth strata while reading, we crack open each line, "digging against the grain," mining into the ants' communication with the torm roots, "who might just taste to see if the cellular intrusion // so nearby is living or dead, how the cellulose //might digest, pass through their body // back into the rocky soil." When we dig and when we notice, our observing creates a tunnel with the soil or paper through which we channel non-linguistics affects such as the feeling that emerges when cutting into "roots of a transplant // seedling singled like hair," and how one knows this movement

from "the dead white hairs of your own head" or how the "the cellulose // might digest, pass through their [,white ants',] body // back into the rocky soil." Within this channel, digging, just like noticing, becomes a material communicative move that is trans-corporal part soil, part ants, part natural metaphysics, part poetry etc. When our sight touches the object – the book or the root – the reflected light from an object moves through time_space_matter to reach our eyes. Once this light touches our eyes, signals are transported to our brain, where various information is deciphered to *trigger our noticing itself* we are looking at, reading of, sighting. The power of mundane affects in matter poetry is not only to indicate natureculture relationalities but also what these players can *do* and *do* together within these affective channels. Furthermore, this visual touch of liking, reading, sighting is not innocent or abstract, but through and through material, engaged in a complex interplay of light, cognition, movement, physiology etc. (think cognitive realism!). Noticing, as the point where a natureculture knowing trajectory starts, is hence a material-semiotic communication between the human and nonhuman world, but also one of making material claims through visual and affective channel which may come with a power dynamic of disrupting, "digging in around roots."

Kinsella's poem "Language generates nothing as whole trees fall" philosophically debates exactly this: the agency of non-linguistic and non-conscious processes and matter poetry's ability to notice these natureculture processes and transform them into natureculture knowledge via poetic language:

> Language generates nothing, as whole trees fall
> To harsh winds and corrosive temperatures:
> and even recognizing this, I center it on all
> our observations, as if allowing for cause
> or variation, derivations and attitudes:
> to notate with sound we didn't hear, imagine
> the phrasing and the split and solitude
> of collapse…
> ……..
>
> …means a tone-deaf
> response from the finest composers or interpreters
> of their music. (Kinsella 78)

The temporal conjunction "as" offers a hermeneutic observation: namely, "Languages generates nothing, as whole trees fall // To harsh winds and corrosive temperatures." This line stipulates an ontological detachment between the world *out there* on the ground in which "trees fall" in an intra-action with the weather and, looking at the collection in its entirety, climate change, and the world *in here*, in the poetry collection in which "language" does not generate anything. Or so the poem wants us to believe *as* it does something, namely generating this poem.

This doing of poetry, this "all" as the poem proclaims, is centered on "our observations." "Our observations" are tied to noticing non-linguistic and non-conscious natureculture encounters, such as trees falling. To "notate with sound we didn't hear" firstly couples unperceivable sound with the ability of language to transfuse what cannot be heard into something that can be read via poetry. Because poetry consists mainly of language and language is not just the product of a Saussurian arbitrary relationship between a signifier and signified which makes up the sign (Saussure, 1916). The poem makes a meta poetic comment that in matter poetry, language is not just semantics, but it is also material. Language and words are part meaning and part sound and sound is part of the world *out there* and *in here*. In *Listening and Voice*, Don Ihde reveals that "Physically even molecules sound" (Ihde 55 in Leighton 4). Sound, then, is an unlimited material strata of our universe, both in the world *out there* and *in there* in matter poetry and is thus a spectacular natureculture actant. Following Ihde's quantum observation of sound as one of the backbones to all material being, it is the limitation of our human ear, our built-in measurement apparatus, which creates an illusion of silence. This silence is imaginary (Leighton 4). It is this blessing of a deceptive silence through the physical restriction of our ears entangled with the spooky ubiquity of sound that allow sound to come into literature: because, as Angela Leighton points out in *Hearing Things*, literature, and poetry specifically, explore the written word's entwined silence and audibility (4). Kinsella's matter poetry then notes the sound we cannot hear of trees falling and uses the generative force of poetry to "imagine // the phrasing and the split and solitude // of collapse…" (78). The poem uses "phrasings" and enjambements which simulate collapse as the one line physically moves over the page to create rhythm and also encounters.

Encounters are manifold in this passage: language meets the world, death encounters ongoingness in a cycle of life and material recycling, observation lights recognition, corrosive winds and temperatures eat into matter, hearing intersects with silence, imagining touches the unimaginable, collapse bumps into growth, and music connects with the semantic sign. Once the poem creates this natureculture assemblage through a natureculture trajectory from rough textures, to noticings, and knowledge, it allows us, as Tsing suggests we should, "to ask about communal effects without assuming them" (Tsing 23). It is "their music" which the poem wants us to spot because we are commonly "tone-deaf" to it.

As we read Kinsella's poetry collection about the Jam Tree Gully, we need to pick out separate and simultaneous strands in the trees' meshy assemblage and listen to the effects they create together to become "interpreters // of their music" (Kinsella 78).

> Polyphony is music in which autonomous melodies intertwine … . [W]e are used to hearing music with a single perspective. When I, [Tsing], first learned polyphony, it was a revelation in listening; I was forced to pick out separate, simultaneous melodies *and* to listen for the moments of harmony and dissonance they created together. This kind of noticing is just what is needed to appreciate the multi temporal rhythms and trajectories of the assemblage. (Tsing 24)

Through the coupling of human language and tree music, we become aware that human language and consciousness are complex forms of *sympoiesis*, a coupling *with*, an emergent form that is based on other emergent forms, harmonies and dissonances. Human poetic language has its own rhythm and ritual. In Kinsella's poem, trees, wind, heat, sound, music, crop and ports have their own minglings with a specific relation to human poetic language. If we add another relation, either to the readers or to other species for example, rhythms multiply. The trees' music creates the polyphonic assemblage of the *situated knowledge* on the ground *out there* in South Western Australia, and a material and semantic, human and non-human transfusion of this situatedness on the page as the poems move through noticing nonhuman relationalities on the ground to the poetic lines on the page.

2.4 Conclusion: Natureculture Knowledge and the (P)Art of Noticing

In *Alien Phenomenology* (2012), Ian Bogost writes on what falls into or out of our Western human knowledge systems:

> We've been living in a tiny prison of our own devising, one in which all that concerns us are the fleshy beings that are our kindred and the stuffs with which we stuff ourselves. Culture, cuisine, experience, expression, politics, polemic: all existence is drawn through the sieve of humanity, the rich world of things discarded like chaff so thoroughly, so immediately, so efficiently that we don't even notice. (in Sheldon 2015, 194)

Kinsella's *Jam Tree Gully* turns Bogost's "sieve of humanity" on its head by making the noticing of multi-species und multi-material lives its poetic priority. I introduced *Jam Tree Gully* as, an example of which I call, contemporary matter poetry. Matter poetry is a multi-site that directs us towards noticing our material lifeworld in such a way that "knowledge of the nonhuman [and material]

world" is *not* filtered out by, in Ian Bogost's words, "the sieve of humanity" that is correlationism, but it rather re-directs our attention and trains a material literacy that includes our material quantum and natureculture worlds. As a matter poem which notices the difficulties of noticing natureculture materiality, Kinsella's poetry collection *Jam Tree Gully* can function as *a playbook for unlearning* critical modes of detachment from naturecultures and matter.

Jam Tree Gully as a playbook can thus shine a light on the fact that natureculture knowledge always grows out of a deep noticing of our material worlds to show how naturecultures grow rhizomatically from the ground up. Poetic matter playbooks can trace material-semantic transfusions of these patterns on the page and thus train a material literacy which produces natureculture knowledge that starts with noticing and with, metaphorically speaking, the soil.

Interestingly, Haraway's natureculture philosophy grants knowledge an unlimited (bio)power: knowledge is more than an intellectual instrument, it is a habit of mind. While our ways of knowing have been permeated by the omnipresence of technoscientized modes of meaning making (think New Materialism, cognitive realism, matter poetry!), resulting in implosions of so-called "nature" and "culture" into naturecultures, matter poetry's playbooks subversively use this monist ontology to change our technoscientized habits of mind *from the margins* towards a world populated by matter and processes of materializations. And it is from the margins from which one shifts the center.

The ontological conceptual consequence of Haraway's implosion theory is that while nature and culture remain to a certain degree socially and discursively constructed as well as materialized and affective entities, they have nonetheless collapsed, diffracted, into each other, and thus are not actually or conceptually separable anymore. "Implosions of dimensions implies loss of clear and distinct identities" (Haraway 1997, 222).

And knowing, for Haraway, is knotted into this relational fundament of implosions itself: knowledge is a cultural product of the ripple effect of the natureculture ontological relationalities (c.f. Haraway 1996, 363). And through this ripple-effect knowledge becomes the materialization of these relationalities. Natureculture knowledge is henceforth always already material as well as semiotic and deeply human-nonhuman relational. Haraway stresses this point by introducing that the technoscientific discourses of postmodernity do not just create and hold the power of our knowledge of the natural world, but that these discourses materialize to constitute things, matter, worlds. "Discourse is not just 'words'; they are material-semiotic practices through which objects of attention and knowing subjects are both constituted" (Haraway 1997, 218). And this is where matter poems come into communication with Haraway's natureculture philosophy: while Haraway uses words as material-semiotic practices to integrate counter figures, tropes, and knowledge into the mainstream scientific discourse, matter poems use words as material-semiotic practices to firstly

point to the materializations in and around us and secondly to make these materializations experienceable to us readers. Because if words are more that signaling and semantic agents, they can also do things: affect, re-sound, connect, relate, and embody. Matter poetry is hence not just interested in enhancing a material literacy, but also in fostering material attachments and engagements.

The play rules of Kinsella's *Jam Tree Gully* are also not only "words," but they – in cooperation with other interdisciplinary noticing discourses – constitute a world that grows out of a material-semiotic practice of noticing and into a material performativity on the page. Once we notice these material performativities, patterns, affects, and systems, we can establish "a different order of things," namely a material natureculture knowledge. Matter poetry, hence, reinvents a nature that is in anthropocentric ruins, but still agentic and alive.

2.4.1 Natureculture *Noticing & Knowing* Play Rules

In Kinsella's poetry collection, noticing is the initial movement towards a natureculture knowledge trajectory which positions the *situatedness* of knowledge as a product of the ripple effect of ontological relationalities. The play rules that constitute natureculture "objects of attention and knowing subjects" (Haraway 1997) are:

- the art of noticing (Tsing 2016) is a material-semantic process. For example, visual noticing starts with the reflection of light from the natureculture "object of attention," be it the leg of a spider or a letter on a page, into the visual and cognitive apparatus of the "knowing subjects" where noticing is computed cognitively;
- all noticing through the senses or affect is a material-semiotic act that creates relationalities between nonhuman and human actants. In noticing, "everything is connected to something" (Haraway 2016);
- noticing on and off the page is incredibly difficult. But even if we fail to notice, we are still part of a material and "intra-active" (Barad 2007) universe;
- matter poetry's trans-corporal and intra-active poetics complicate Romantic notions of the poet speaking *in propria persona* by introducing a poetic consciousness that notices from a standpoint which is specifically situated and diffractively speaks from a subject position *looking outside* of the human;
- matter poetry's noticing is not just linguistic, but also operates in a non-linguistic and non-conscious mode, emerging through affective or sense channels in which "claims" (Bennett 2010) are made upon the noticing conciseness and the reader that are often beyond our human subjectivity;

- once we take matter poetry's noticing on the page seriously, it directs our gaze to the materializations of a naturecultural world and can foster a material literacy;
- matter poetry's noticing negotiations turn the humanist nonmaterial order of things on its head to create counter-epistemologies and knowledge that is material and naturecultural;
- through *noticing* and material-semantic poetic language, matter poetry can shift the center of technoscientific knowledge to the situated, real, and lived margins via imagination, cognitive realism, and polyphony to arrive at a *natureculture knowing*.

chapter three

Natureculture *Doing*:
What Sue Goyette's *Ocean* Can Do

What happens when human exceptionalism and bounded
individualism, those old saws of Western philosophy
and political economics, become unthinkable in the
best science, whether natural or social?
Seriously unthinkable: not available to think with.
—Donna Haraway, *Staying with the Trouble* (2016)

We had laughed at first. At the thought. Like it was
a joke. Imagine, the ocean *basting* us. But how often

had we walked into its salted air then licked our arms
to taste it later? We were being seasoned. Lightly.

……..
……. It shouldn't have

come as such a surprise then, at how tender we were all becoming
and how close we were cooked to tears.
—Sue Goyette, *Ocean* (2012)

Consider "the ocean [is] *basting* us." Consider that through evaporation, the ocean, a vast mass of water molecules, transfuses "its salt[…]" into the air and onto our very human skin. Consider that we can "lick[…] our arms to taste it later."

Also, consider basting as a cooking practice, executed within the (traditionally female) sphere of the home and home cooking or in the (traditionally male) public sphere of chefs and restaurants. More specifically, consider basting as a cultural technique of pouring rendered fat or roasting liquids over meat to prevent it from drying out.

Now, consider the flip side. Consider that the ocean could turn this cultural technique of basting on its head. Consider that the ocean as a player who brushes the world *out there* with its

liquids, including us, humans. Consider that the ocean greases us often beyond our subjective noticing (see chapter two). Consider that water may claim an agency of its own which may influence us in unexpected ways.

Returning to Goyette, consider when walking on a beach one is being basted by the evaporation of salty water molecules from the ocean, lifted through wind and heat to attach on skin or clothes, complicating notions of object/subject, nature/culture, beach/land. Or, in Sue Goyette's words, "It shouldn't have //come as such a surprise then, at how tender we were all becoming // and how close we were cooked to tears" (SEVEN) when living next to the ocean, the Atlantic hugging Halifax, Canada.

What we are beginning to see through these considerations is how Sue Goyette's matter poem *Ocean* (2012), a long poem which uses the Atlantic around Halifax, Canada, as its mythopoetic and onto-epistemological source, brings the natureculture agency of nothing less than the ocean, of the diverse materializations of water, really, to the poetic fore. It is not just that *Ocean* makes water's agency visible, or so this chapter claims, but the long poem also entangles the nonhuman or so-called natural agency of water with the so-called cultural agency of language, showing that agency is never beheld only by one player, but rather dispersed in an assemblage of human and nonhuman, environmental and literary actants (c.f. "distributive agency," Bennett 2010).

Now, the conceived problem behind this chapter's research desideratum is that in Western philosophy and literature, nonhuman, material, or (in)organic things, such as the ocean, are often only *every* perceived as a thematic object of enquiry or, even worse — just an idea. Put differently, in literature, a long-held Western premise might be that conscious, human poets (historically white, able-bodied, and male) write poetry *about* the ocean as a place for human desire, fear, exploration, or safeguarding, but not *with* the ocean as an active participant (think Plato and the poet with divine inspiration, think Aristotle on poetry as a regulating tool for human passions etc. (c.f. introduction). One (!) of the many philosophical roots of this passive vision on matter and things as creative co-producers lies in Immanuel Kant's pronouncement that the very idea of a lively matter "involves a contradiction, since the essential character of matter is lifeless, *inertia*" (1790) (for a comprehensive historicity of a philosophy of matter and matter in poetry see introduction). Such academic lessons of lifeless matter, things, and objects are doubly complicated for matter poetry The "[l]yric is often characterized as language cut off from wordily purposes — so framed by its form and its conventions. 'Over every poem which looks like a poem,' declares John Crowe Ransom, 'is a sign which reads: This road does not go through to action'" (Culler 296).

Against the legacy of Kant's transcendental idealism and against Ransom's observation that poetry does not "go through to action," does not *do* anything, I, in the following, would like to make visible that contemporary matter poetry does in fact *do* something. Matter poetry does not

only notice the entanglement and interdependency of the so-called human with and as part of the material biosphere (see chapter two), but matter poetry disrupts seemingly stable boundaries between the environment, the so-called world *out there*, the poet, the book, the texts itself, and the reader, the so-called world *in here,* by doubling the performativity of matter (i) as an ontological "vibrant" force (Bennett 2010) and (ii) as an actant in the poetic process itself. Matter poetry by this does not only displace the human as the primary referent from the center of *knowing* (see chapter two), but also from the center of *doing* (chapter three) *& becoming* (see chapter four).

While this chapter will explore the conceptual frame of natureculture *doings*, this dissertation believes that a natureculture *knowing* is always already entangled with a natureculture *doing & becoming* (see chapter five). To exemplify these rhizomic as well as quasi-causal moves, let's turn to *Ocean* again. In poem THIRTY, we encounter an ocean dweller's voice uttering, "It's true, we squandered the ocean as a form of grandeur // in our talk. We'd spend several oceans, for example when boasting our love" (Goyette 2012). Living and dwelling with the Atlantic in Halifax does not only change the chemical make-up the voice's body, as made visible by Goyette's lines surrounding the possibility of "the ocean *basting* us," but *noticing* such ocean-human intra-actions forms *knowledge* about the agency, so the Atlantic's *doing* something: namely, influencing and imprinting itself onto the Atlantic dweller's language. This impression, this impressing itself onto, is doubled by the dweller's experience of temporality and/or money-spending, exemplified by the metaphor in the line "We'd spend several oceans." Living with the ocean, hence, translates into an erosive process of *knowing* and *doing with*, speaking and acting with, the ocean; ultimately *becoming with* the other, the ocean, being never closed-off, always transformed and transforming. Thus, one of this dissertation's philosophical claims is that a natureculture *knowing & doing & becoming* proposes a flexible heuristic for unpacking and leaning into the complexities of materializations in naturecultures and thus opposing static visions of representationalism (see Introduction).

Theoretically, matter poetry's displacement of the human as the primary refence for other material references in *knowing & doing & becoming* corresponds with Donna Haraway's natureculture philosophy, ontologically speculating that the sphere of nature and culture are always already entangled into naturecultures (1997). Before I go into the specifics of natureculture *doings* after this introduction, I want to, in parallel to the Goyette examples above, supply an orientation on how a natureculture *knowing* (chapter two) always already ties into a natureculture *doing* in Haraway's philosophy. Generally, Haraway's ontological foundation for her natureculture philosophy is put forward in her implosion thesis (1997). With the emergence of technoscience as a ubiquitous hyper temporality in the West, in which the natural sciences are the major institution to think and act with, the formally established dualist spheres of so-called "nature" and "culture" implode into one monist natureculture ontology (Haraway 1997, 2003, 2008). While technoscientized habits of mind

could only form artefactual and fetishized interpretations of nature (Haraway & c.f. Arendt "hypothetical nature" (1985) and Whitehead "misplaced concreteness" (1952)), of the world *out there*, Haraway's monist natureculture onto-epistemology recognizes the need for something like nature and hence offers transformative possibilities for counter-stories that are still technoscientized, but (more importantly!) situated and strictly material.

Haraway's counter-figurations are hence always naturecultural, entangled with the technosciences, but acting from the bottom up through their materiality and situatedness. Because Haraway's natureculture onto-epistemology thinks from the situated and material margins, her philosophy criticizes and unveils a Western technoscientific order of things: this very powerful modern order of things, stemming from the Enlightenment, can be loosely summarized as "[a]ssumptions regarding the unity of humanity, the individual as the creative force of society and history, the superiority of the west, the idea of science as Truth, and the belief in social progress" (Seidman 1994, 1). Haraway's natureculture philosophy is not just interested in showing and criticizing this order, but it *does* something: it subversively counters this very order, which is at the heart of the modern West with her tropes, stories, and figurations.

While chapter two turns to Haraway's natureculture epistemology and to natureculture *knowing* as a trajectory which starts with noticing, this chapter explores natureculture philosophy's stance on agency at large and how Haraway's natureculture philosophy offers a theory of language as a material natureculture actant, a natureculture *doing* (vs. language as mere system of representation or carrier of meaning). In Haraway's natureculture philosophy, language and grammar are powerful tools in their own right that cannot be thought as divorced, separate, closed-off from matter, bodies, or the environment (1991). It is Haraway's awareness of the materiality of language married with her awareness of the power of discourse, and the disciplinary power of scientific discourse (1992) in particular, which makes her a resourceful philosopher for matter poetry.

While materiality and scientific as well as environmental knowledge has drifted away from poetic form since the inception of the Philosophy of Science in the Early Modern period, matter poetry in general, and Sue Goyette's matter poetry specifically, showcases a deep understanding of the technosciences as a powerful source of material and environmental meaning making and as societal force. More so, Goyette's natureculture matter poetry (*The True Name of Birds* (1998), *Undone* (2004), *outskirts* (2011), and *Ocean)* shows a fundamental understanding of scientific discourse and ecological knowledge, such as on the aerodynamics of costal erosion in *outskirts* or wave dynamics in *Ocean*, but always diffracts it with very intimate and domestic ideas of human dwelling and belonging to a specific place, a home, really. This entanglement of the natural with the cultural, the scientific with storytelling and memory, environmental phenomena with domesticity and intimacy

functions as the onto-epistemological prerequisite to Goyette's most daring philosophical intervention, which forms this chapter's research focus: namely, Goyette's matter poetry does not just create an aesthetic intervention in showing how the ocean hugging Halifax molds human and nonhuman landscapes, but a philosophical one as well: her matter poetry knots the materiality of water (think waves & molecules) with the materiality of language (think sound waves & ink) to show that the ocean molds matter poetry as well. Water can be involved in the poetic process *with* Goyette's long poem *Ocean* specifically once we re-conceptualize matter not as dead or inert, but as agentic and alive. Like matter poet John Kinsella, Sue Goyette is an academic and a poet, and her matter poetry's awareness of discourses in the sciences and the humanities as well as its understanding of the natureculture agency of language and nonhumans creates a flexibility in thought which challenges anthropocentric notions of agency and literature to create a matter poetry *playbook of natureculture agency, of natureculture doings*, surveying what an *Ocean* can *do*.

first doing

3.1 Natureculture Doing: Two Infoldings

It won every staring contest. Would laugh
at our jokes. It was the original god of hypnosis

and made us all feel sleepy. Over time, it became
a breed of static, and out-of-service channel broadcasting

beyond our buildings.
—Sue Goyette, *Ocean* (2012)

"It won every staring contest." This winning begs the question of what *looks back* when the poetic human voices in *Ocean* stare at the Atlantic. This *looking back* does not just trouble Romantic visions of oceanic background scenes or Turner-ish raving waves, but it presupposes a notion of a natureculture agency that allows for the ocean to actually gaze or stare (back). To laugh even. To be a God altering human consciousness.

We might just be in the face (quite literally so while reading) of a nonhuman agency here. "It was the original god of hypnosis // and made us all feel sleepy" proposes that when we look at the ocean what looks back at us can transform our state of mind into one of hyper concentration and relaxation to the point where we "feel sleepy." The ocean's ability to shape lives in Goyette's long poem presupposes that non-human entities, such as the ocean, have an agency to influence

human beings. It follows that the ocean, a collective of water molecules and other non-human bodies, has a power that lies outside of our human subjective world, but nevertheless influences it.

When we think of actants and material agency, especially Science and Technology Studies and new materialist scholars such as Bruno Latour and Jane Bennett come to mind. In *The Politics of Nature*, Bruno Latour famously defines an *actant* as something that modifies "other actors through a series of trials that can be listed thanks to some experimental protocol" (75). Through this capacity to modify, an actant can be a composite, or to borrow a term from Deleuze and Guattari, a diverse human-nonhuman assemblage. In contrast, a human agent is often referred to as someone who desires, intends, and acts within a certain structure. Thus, we have a translation of an idea into an effect by one human, aware agent. Latour's actants can be both human and nonhuman and have agency without presupposing the priority of human intentions. Jane Bennett (2010) offers the idea of a distributive material agency which is deeply rooted in the belief that matter is actively vibrant and an actant and that agency is distributed within a group of nonhuman and human players – a Deleuzian assemblage. It is important to notice that for Bennett humans, in their shared material embodiment, remain a site of agency within an assemblage of multiple other material bodies and formations.

Donna Haraway's natureculture philosophy offers something special for matter poetry within this New Materialist corpus on material and nonhuman agency. Namely, her philosophy does not only give us a complementary vision on nonhuman agency to the ones above, but, and this is incredibly useful for literary studies, Haraway incorporates language as a creative and materially active player itself into her *natureculture doing* with performative consequences that are political, ethical, and intra-active.

In this *first doing*, I will unpack Haraway's natureculture notions of agency which represent a vital conceptual frame for matter poetry's material performativity and its interest in the materiality of language and meaning respectively. Haraway has thus far been broadly overlooked in debates on material and nonhuman agency. Filling this research gap will prove worthwhile not just for making Haraway's natureculture philosophy available to think with, but also for advancing matter poetry as a contemporary genre which unveils the agentic materializations at play in language.

Before I go into the details of Haraway's natureculture doing, I will, to foster conceptual clarity, roughly frame her natureculture *doing,* a natureculture agency, as two *infoldings*, hence a process itself, and use this frame of two infoldings as a scaffolding for this sub chapter on natureculture *doing* below:

> (i) *on its first infolding*, Haraway's natureculture doing is concerned with forms of agencies that decenter the human subject as the *only* agent for mutable nonhuman,

material, and (in)organic actants and players; for Haraway, what we call "beings," from things to organic critters, are made through a process which can be described as an "infolding of *others to one another*" (Haraway 2004, 250 – original emphasis). "Never purely themselves, things are compound" (Haraway 2004, 250). Following a French tradition in process philosophy, namely Merleau-Ponty's notion of "enfoldings in the flesh," no one and nothing is ever purely, entirely, themselves but always already enfolded into something other (see chapter four on natureculture *becoming)*. This other can be "combinations of other things" (Haraway 2004, 250) – human, nonhuman, organic, inorganic. For matter poetry, such an "infolding of *others to one another*" offers an ontological concept that things, genre, voice, poetic structures or language are never only one idea, but a potential compact of materializations and meaning.

(ii) *on its second infolding*, Haraway's natureculture doers point to a non-representational methodology: the research foci Haraway's methodology takes rely on non-representational theory; as Lorimer (2005, 83) briefly puts it, "Non-representational theory is an umbrella term for diverse work that seeks to better cope with our self-evidently more-than-human, more-than-textual, multisensual worlds" (in Vannini 2015, 2). Haraway's natureculture agency, her *doings*, incorporates language, articulations, storytelling, and discourse as creative, living, endless process, a languaging (on "languaging" c.f. Ingold 2014) through which she imagines her nonhuman, material, and (in)organic actants, as well as players and their agency. All are "simultaneously a metaphor, a technology, and a beast living its life as best it can. This is the normal state of the entities in technoscience cultures, including ourselves." (Haraway 1997, 226). Haraway's view of language as performative, that is acting towards a certain effect and affect, makes way for an ethics based on a response, namely that of responsibility (think principle) and ability-to-respond (think tool/method) (Haraway 2004). In *When Species Meet* (2004), Haraway knots this ethical principle of responsibility to a pragmatic tool of an ability-to-respond, which both must "be one of response and respect" (19). Here, response is always part of the act of respect, *respecere*: "[t]o hold in regard, to respond, to look back reciprocally, to notice, to pay attention, to have courteous regard for, to esteem: all of that is tied to polite greeting, to constituting the polis, where and when species meet" (2004,19). Haraway's naturecultural doing ultimately creates an ethics that is not just practical, but actually performative in itself. Her ethics is about sharing and getting things done: her ethics are doings, "a potential

> waiting to be actualized: an opening, a possibility awaiting the unfolding of practice" (Schechner 2006 in Vannini 2015, 8)[1]. Haraway's pragmatic ethics and ideas of language as performative echo a material poetics which moves beyond the human as creator, creative, and as reader to show that matter poetry's poetic language stretches itself through metaphor, dashes, movements, rhythm, hyperbole, personifications etc. to translate the actual vibrancy of matter *out there*, such as the ocean, into the text, inviting its address, or simulating material processes textually.

Friedrich Hölderlin famously pronounced, "'Doch dichterisch wohnt der Mensch auf dieser Erde"' (in Culler 2015, 38). Matter poetry shows that not just humans dwell on this earth poetically, but that nonhumans do so poetically as well.

3.1.1 *first infolding*

> Since we live on land, and are usually beyond the sight of the sea,
> it is easy to forget that our world is an ocean world, and to ignore
> in practice what that means … . Geographically, it is not the exception
> to our planet, but by far its greatest defining feature.
> – William Langewiesche (2004, 1 in Steinberg & Peters 2015, 247)

Natureculture philosophy's possibilities for these two infoldings are grounded in a monist (vs. dualist such as body/mind, nature/culture etc.) ontology of naturecultures (c.f. chapter two "implosion"). Naturecultures are a monist and relatively flat technoscientized ontology which allows for materially diverse and (non)human actants to emerge, act, and become imaginable. Through this emergence, naturecultures create a conceptual frame to think with which does not only allow to see that *Ocean* shows us that its poetic world "is an ocean world," but one which is not a blue void, not simply surface – time and storiless –, but full of movement and a materiality which is rhythmic and wild, untidy.

Interestingly for Goyette's ocean world , Haraway's naturecultures are not just monist, but also *relatively* flat because diverse players – actors, actants, subjects, objects, scientists, activists, artists, critters, human's companion species such as dogs, cows, cats, organic things such as cells

[1] Haraway continuously urges us to notice our entangled subjectivities which are specifically situated, grounded and attached to, and then do, act, from this *situatedness* through care (2004, 92), play (2004, 33), and work (2004, 22), while sharing our suffering and flourishing (2004, 134).

and molecules, inorganic players such as navigation systems or telecommunication devices, science fiction figures such as the cyborg, monsters, or vampires, earthy figures such as coyote – still emerge with *different abilities* to do something. Goyette's Atlantic is also not flat, but full of currents, depth, critters, light and darkness, flows, discourse, (hi)story, pedagogy; in short, a vibrant site of natureculture geography and players. And while Haraway conceptualizes natureculture players as technoscientized *to certain extents*, which would point towards a flat ontology, *they all do* and consist of *different things*. Their existence is thus not uniform or interchangeable. They cannot only all be different things, but their being might also *differ* in relation to the extent to which they are fully technoscientized or material, organic, inorganic etc. In Haraway's monist natureculture ontology, differences *matter*. Haraway's differences obscure the principal idea of, what Levi Bryant calls, "flat ontologies." Borrowing from Manuel DeLanda's *Intensive Science and Virtual Philosophy* (2016), Bryant "grants all objects the same ontological status" (in Bogost 2012, 12). For both Bryant and for Bruno Latour, objects can be material, abstractions, incorporeal and corporal entities, objects of intention, or, in fact, anything. Bryant explains flat ontologies through this counterintuitive sentence: "'The world' he says, 'does not exist'" (in Bogost 2012, 12). Bryant makes this claim of non-existence not to make a constructivist argument of immateriality. To the contrary, he aims to break with any hierarchies between material, inorganic or organic things: "there is no 'super-object' . . . that would gather all objects together in a harmonious unity" (in Bogost 2012, 12). All is ontologically equal and flat.

Crucial to the discussion of ontologies, Haraway's pragmatic natureculture philosophy exposes flat ontologies as *ideals* and as always already knotted to agency; material-semiotically, differences matter, emerge, diffract, and boundaries re-establish themselves only to collapse again into a messy life. While Haraway's ontology is flattened through the implosion of the modern spheres of nature and culture, pushing away what Latour calls the "modernist settlement" (1991), natureculture's situatedness and details "link actual beings to actual responsibilities" and abilities to respond (Haraway 2016, 29). Naturecultures are also still diverse: "We are all responsible to and for shaping conditions for multispecies flourishing in the face of terrible histories, and sometimes joyful histories too, but we are not all response-able in the same ways. The differences matter — in ecologies, economies, species, lives" (Haraway 2016, 29).

Just as Goyette's basted humans emerge from a relationality between the ocean, beach, heat, water, human skin etc., actants and other natureculture players do not exist *de facto*, but emerge through complex and multifaceted relationalities, nothing pre-exists their relating (Haraway 2004, 6). This emergence of everything through relationality is how Haraway's natureculture philosophy

finally does away with the *stable* difference between human and nonhuman, active and passive agents, namely subjects and objects, as fixed positionalities[2] in her natureculture philosophy:

> In the imploded time-space anomalies of late-twentieth-century transnational capitalism and technoscience, subjects and objects, as well as the natural and the artificial, are transported through science-fictional wormholes to emerge as something quite other. Even drenched with all the hype about revolution and technoscience that pervades contemporary discussion, the ferocity of the transformations lived in daily life throughout the world are undeniable. (Haraway 1997, 4)

This "merging as quite other" does not mean that Haraway never writes of subjects, objects or natures and cultures, but when she does, she uses contested versions of objects and subjects or natures and cultures, not reducing nature to mere resource or culture to a humanist playing field of creativity and (historically male, white) genius, nor conceptualizing subjects as purely human or rational and objects as passive and reflective surfaces (Haraway 1991). Butut she contestst them to complicate their philosophical heritage further and to make something "quite other" out of them; They, subjects, objects, or nature, become natureculture trickster figures, such as the coyote (Haraway 1988).

This "trickstering" around when it comes to complicating object/subject, nature/culture etc. is something matter poetry does very well, too, and Haraway's contestations create a neat framework for matter poetic trickster moves. In *Ocean*, Goyette's Atlantic tricks us in to giving up our human-centric notions of mastering this body of water and accepting its agentic relationality – even when building something so mundane and everyday as houses: "The trick to building houses was making sure // they didn't taste good. The ocean's culinary taste // was growing more sophisticated and occasionally // its appetite was unwieldy. It ate boats and children …" (Goyette EIGHT). Houses, historically conceptualized as the product of assembling stone, wood, glass etc.

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[2] Through these relationalities, Haraway unveils that objects and subjects are a mere cultural product of scientific explorations into objectivity, beginning with the Scientific Revolution. In *Modest_Witness* (1997 b), Haraway speaks of the production of stable and as well as separate objects and subjects which evolved in the experimental way of life by the necessity of having an objective scientific observer, a "modest witness" (see chapter two), and an object of study. Both are stigmata of modernity (242). The Early Modern entanglement of Philosophy with Natural Philosophy later realigned itself into a "narrative field called Western philosophy" to stabilize such object and subject positions. "Once upon a time, in another, closely related, ethno specific narrative field called Western philosophy, such entities were thought to be subjects and objects, and they were reputed to be the finest and most stable actors and actants in the Greatest Story Ever Told-the one about modernity and man" (Haraway 1997, 4).

According to Haraway's natureculture philosophy, objects and subjects as fixed and representative identity positions; they have, though, never existed in the flesh, but function as mere cultural products of scientific explorations. Objects and subjects are hence stigmata, marked positions by a powerful meaning making and representative machine of Western science and philosophy. In "A Game of Cat's Cradle" (1994), Haraway introduces a counter-method to unmark such subject/object stigmata to trace and the complex and multifaceted relationalities through which things, figures, scientists etc. and their *situatedness* (1988) emerge. This visibility functions as a key natureculture doing since, in naturecultures, a thing itself is not necessarily an object or subject, but it emerges through complex and multifaceted relationalities.

by hand, and machines, managed through architects and building companies, to house clusters of humans, domesticated animals and other critters, are, in Goyette, not only human-centered objects of shelter, but also geared towards the ocean's taste. The semantic field of "taste" is funky here. The poem does not only play with Pierre Bourdieu's notion that taste, in say houses, demarcates social hierarchies, but Goyette contests, tricks us, with "taste" itself. Taste is not only a form of cultural over-accentuation in which houses or appetite are kept and shaped according to societal trends as well as class, but, in Goyette, it becomes a performative natureculture shaping apparatus in which not the cultural avant-garde but the ocean molds the poem's architectural taste. "The trick to building houses was making sure // they didn't taste good. The ocean's culinary taste // was growing more sophisticated …" (Goyette EIGHT). Houses are in a race with the Atlantic's appetite, both in how sophisticatedly (think Bourdieu) they are designed, but also in not appealing to or tricking the ocean's appetite. The claim that the ocean has an appetite for houses might, indeed, be read as anthropocentric, but what these lines make visible is a conceptualization of the Atlantic as an agentic and cultural influence, governing the shape and function of the wooden boxes that house the ocean dwellers' intimate lives.

Such contested versions of (non)human agency trouble dualist, or separate, foundations and reveal what can be poetically thought out once we divorce notions such as "taste" from fixed (human or cultural) referents (only). In *The Companion Species Manifesto. Dogs, People, and Significant Otherness* (2004), Haraway theoretically conceptualizes such ontological natureculture possibilities with the help of Judith Butler's "contingent foundations" (2004, 6). "There are no pre-constituted subjects and objects, and no single sources, unitary actors, or final ends. In Judith Butler's terms, there are only "contingent foundations; bodies that matter are the result" (2004, 6). It is the task of Butler's "contingent foundations" "to interrogate what the theoretical move that establishes foundations authorizes, and what precisely it excludes or forecloses" (1992, 39). Butler argues that for agency to become possible, one must divorce categories from fixed referents, for example the category of "woman" from Haraway as a female referent or "organic object" for the ocean, "then possibilities [, on indeed "tastes,"] for new configurations become possible" (Butler 1992, 59). In Haraway's words, "[s]ubjects, objects, kinds, races, species, and genders are the products of their relating" (2004, 7) and not of fixed and separated categories.

What we already see thus far is that Haraway's natureculture philosophy creates helpful neologisms through the creative potential of language for matter poetry. At the same time, her natureculture philosophy is also very aware of languages', and here specifically grammar's, power to control the representation of agency. In "The Promise of Monsters: A Regenerative Politics for Inappropriate/d Others" (1992), Haraway adapts, and will continue to do so, Latour's "actors" and "actants" to opt out of the representational and grammatical languaging of subjects over objects

and vice versa. In describing the double-structure of representation in the sciences, "Latour defines the actant as that which is represented; the objective world appears to be the actant solely by virtue of the operations of representation" (Latour, 1987, 70-74, 90 in Haraway 1992, 88). In *The Politics of Nature* (1999), Bruno Latour describes *actors* as producers and *actants* as somethings that modify "other actors through a series of trials that can be listed thanks to some experimental protocol" (75). Both actors and actants emerge through a network of relationalities. Through this capacity to modify, an actant can be a composite, or to borrow a term from Deleuze and Guattari, a diverse human-nonhuman assemblage. The difference between a humanist and traditional version of agency and Latour's actants lies exactly in the border of who counts as a subject and human and who/what does not.

Donna Haraway and Bruno Latour are both forerunners in a critical and social constructivist fraction in Science and Technology Studies (STS). Latour's Actor Network Theory (ANT) has been tremendously influential when discussing (non)human agency for the last 30 years – there is no circumventing it, also not for Haraway's natureculture philosophy. Just like Haraway's natureculture philosophy, ANT is interested in the relationalities between the human and nonhuman in science and society. But while Latour is interested in understanding our material and relational reality, Haraway's natureculture philosophy is seriously invested in a feminist project and does, hence, not want to do away with material reality and (equally important) with the epistemological reality, differences, and power in the technosciences and society. Haraway references and critics Latour constantly, and so does Latour, but not without also admiring her work (even though he does not always directly refer to her[3]). Yet, Haraway adapts ANT's "material relationality" (Law 1994, 1), but clearly distances her natureculture philosophy from ANT's blindness to power and differences, imbedded in ANT's idea that everything in a network is constantly in flow (Latour 1999, 22). In this dialectical relationship, Haraway uses Latour's actors and actants, but not without re-situating them:

[3] While Latour's *We Have Never Been Modern* (1991; English translation 1993) was published after Donna Haraway's instantaneously famous "Cyborg Manifesto" (1985), and while Latour calls for a hybrid to overcome the "modernist settlement" to breach the human/nonhuman and nature/culture binary, Latour only mentions Haraway and her natureculture monsters, tricksters and cyborgs – all human_nonhuman hybrids – twice in the whole monograph (specifically 47, and more generally 100). Also, Latour writes that cyborgs and monsters "are just about everything" (1993, 47); this misunderstanding of Haraway's natureculture emphasis on *situatedness* and differences that matter – or, in short, her feminist STS intervention – might be more a reflection of ANT's indifference to differences, than on the attention he pays to Haraway's work in general. In *Science from Below: Feminisms, Postcolonialities and Modernities* (2008), Sandra Harding writes on this imbalance, "With respect to gender, he [, Latour,] very occasionally does mention one or two feminist science theorists; Donna Haraway gets perhaps three or four mentions in the two books [,*We Have Never Been Modern* & *Politics of Nature*,] to be discussed here. Valuable as her work is, such a tiny citation record is not sufficient to count as engagement with feminist science studies" (26).

> In this essay [, "The Promises of Monsters" (1992),] I have been arguing for another way of seeing actors and actants - and consequently another way of working to position scientists and science in important struggles in the world. I have stressed actants as collective entities doing things in a structured and structuring field of action; I have framed the issue in terms of articulation rather than representation. Human beings use names to point to themselves and other actors and easily mistake the names for the things. These same humans also think the traces of inscription devices are like names-pointers to things, such that the inscriptions and the things can be enrolled in dramas of substitution and inversion. But the things, in my view, do not pre-exist as ever-elusive, but fully pre-packaged, referents for the names. Other actors are more like tricksters than that. (Haraway 1992, 89)

For Haraway, "Actants are not the same as actors" and language is crucial here as it demarcates, points, interpellates. Actants function as collectives and "operate at the level of function, not of character. Several characters in a narrative may make up a single actant. The structure of the narrative generates its actants" (Haraway 1992, 115). Nonhuman natureculture actants, thus, do not pre-exit their relatings, and never act individually or closed-off. This communal agency troubles humanist notions of singular identity formations and the idea of determining one's own identity which may shape one's action. Similarly to Hannah Arendt's proclamation that identity is not chosen, but done to you (1943), Haraway's natureculture actants realize that in an entangled world, actants do not self-identify. While subjects are self-identifying, "using names to point to themselves and other actors," actants are not self-identifying; they do not ask who or what they *are*, but what they *do*" (Haraway 1992, 89). It is here that Haraway rejects any essentialisms which are built into notions of being subject and adopts function, a natureculture *doing*, as a marker for an actant. Starting with *Ocean*'s wave-like book jacket, for example, we can already observe a mode of oceanic-thinking, an epistemological as well as intellectual doing, flowing into the poetic life writing Goyette is undertaking, transforming the ocean into a poetic actant and the poet into something like the Atlantic's biographer. Singular identity formations in matter poetry are out the window in a poetic universe which adheres to the intra-activity, the emerging from within relationalities, of matter.

Importantly, natureculture *doing* may not necessarily translate into acting and doing in an individualist, separate, independent human sense of action. "Action is not so much an ontological as a semiotic problem. This is perhaps as true for humans as non-humans, a way of looking at things that may provide exits from the methodological individualism inherent in concentrating constantly on who the agents and actors are in the sense of liberal theories of agency" (Haraway 1992, 115). Haraway's natureculture theory of agency makes away with individualism and intent

for a productive notion of natureculture agency. Or, in matter poetry's words, "Our elders insisted the ocean was still there // That we were born with a seed of it and when we spoke, its waves pressed against our words for a further shore" (Goyette, FIFTY-FIVE). The Atlantic, here, is not defined as a biotope, but by what it *does*: mythopoetically, the ocean is materially and semantically always already part of the ocean dwellers once they dwell near the Atlantic – their bodies, language, histories, memories, chemical makeup. In matter poetry's and Goyette's intra-active material universe, no poetic voice exists or acts individually, closed off from the Atlantic. Once you dwell near the ocean, the ocean also dwells near you. And it is exactly here at this reciprocal knot that Goyette's matter poetry knows that nonhuman agency in naturecultures is not just a potential ontological problem, but also a semiotic one, breaking open what it *means* to be human or ocean in naturecultures, once foundations are contingent, shifting like the ocean.

3.1.2 *second infolding*

> Poetry reminds words of their fur and their hoofs, of their
> seaweed and their hurricanes and, in the same way, reminds
> us of the more complete version of ourselves. In this way, it's a
> crucial lifeline and energy source for a variety of kinds of languages:
> visual, sensual, emotional, political, animal, botanical, aquatic, astronomical.
> The list is endless and poetry is the host inviting us to a collective
> conversation where anything is possible.
> —Sue Goyette, Interview by Hannah Green (14)

Matter poetry's trick in shifting the semiotics and semantics, the power of meaning and language, away from the human as the central unit of reference is achieved by focusing on the materiality of semiotics and semantics, of meaning making through language itself – reminding "words of their fur."

Divorcing language, text, discourse, meaning, poetics, representations etc. from the materializations in the world *out there* – call it nature, the environment, ecologies, matter, organic bodies – rests on the wider apparatus of nature AND culture dualisms. As a feminist scholar, Haraway is fundamentally skeptical of any division that rests on (institutionally) separating, controlling, and hierarchically ordering men over women, mind over body, the civilized over the wild, man over nature etc. Out of this ordered nature/culture duality emerges, next to others, an almost naturalized assumption that matter has nothing to do with meaning making processes or language. Bodies, matter, things, nature are positioned as dull and passive (meaning making after

all is an active process). Yet, as matter poetry discloses, the world itself does not work in such ordered, separate, and closed off ways. Just as Haraway cleverly observes that agency is in fact also a semiotic problem (Haraway 1992), we read in *Ocean*:

> The ocean is the original mood ring.
> Often, and for days, it convinced us
>
> we felt an industrial grey malaise with a deep heart
> of blue. (Goyette, SEVENTEEN)

If the Atlantic can influence the poetic voice's mood and transfuse the perceived color of the ocean, a "deep heat // of blue," into the basis for what it means to feel a "malaise," the interplay of light, water atoms, color pigments, wind, ink, and print might offer a more detailed and actual explanation as to why we generally assume feeling low with feeling blue than simply marking matter, and that includes color pigments or the ocean, as passive and thoughtless. Feeling blue is not simply a metaphor divorced from matter and thus a mere symbol or idea of sadness, but in Goyette's material universe it is entangled with the color of the ocean once water absorbs the complementary color to blue, namely red, in the light spectrum, allowing us to only see the blue part of the natural light filtered by the water's surface. Perceiving the Atlantic's "deep heart // of blue" is hence entangled with feeling "an industrial grey malaise," sadness, because the ocean is "the original mood ring." Just as a mood ring reacts to a body's temperature, the ocean reacts with light and human emotions. Feeling sad, or blue, is hence a result of an intra-action and emerges from within our material and nonhuman as well as human environment. Matter poetry shows *how* language and meaning making are closely entangled with natureculture processes of materializations and are not (!) merely containers for disembodied, vague, or abstract ideas.

The ocean as a blue body of water to which we attach cultural meaning, this feeling blue, is hence the naturecultural product of a *doing* which is made through an acting from within water, light, emotions, and language etc. In *Simians, Cyborgs, and Women: The Reinvention of Nature* (1991), Haraway makes clear that "Bodies, then, are not born. They are made" and thus marks the multiple semantic processes involved in marking a body as "thing." For Haraway, this statement is key as it highlights the bio-political power of technoscientific and political-epistemological discourses to show how bodies of all kinds have been denaturalized as sign, time, or context. Thinking with Goyette's example of feeling blue, matter poetry challenges these denaturalizations of nature and matter to show that the ocean is not just a mere context or background to the poetic life in Halifax, but *how* it is an active material-semiotic participant in its worlding.

For the purpose of understanding matter poetry's *how* conceptually, Haraway's natureculture philosophy offers a theoretical anatomy for matter poetry's poetics of agentic nonhuman players. Following Simone de Beauvoir's notion that one is not born a woman, Haraway creates a co-text to Beauvoir's in saying that "one is not born an organism" (1991, 208). "Organisms are made; they are constructs of a world-changing kind. The constructions of an organism's boundaries, the job of the discourses of immunology, are particularly potent mediators of the experiences of sickness and death for industrial and post-industrial people (Haraway 1991, 208). In the technosciences, bodies can be "material-semiotic actor[s]" (Haraway 1991, 208). Material-semiotic actors cannot be conflated with human actors, but – and this is important – they nevertheless shape and influence objects and us (for a feminist New Materialist development of this influential power of the nonhuman see Bennett 2010 "thing power"). Bodies as material-semiotic actors, such as biological bodies, e.g. a gene, "emerge at the intersection of biological research, writing, and publishing; medical and other business practices; cultural productions of all kinds, including available metaphors and narratives; and technology, such as the visualization technologies" (Haraway 1991, 208-9). Material-semiotic nodes and the boundaries of such actors, e.g. a gene, emerge and materialize in interaction (Haraway 1991, 208). What this emergence of nonhuman things as well as organic and inorganic bodies as material-semiotic actors frames for matter poetry is that nonhuman actants are always already at play in producing and constructing meaning and counter articulations in natureculture themselves.

Matter poetry hence practices, is a *doing*, a cultural disengagement from romantic notions of nature as, in Blakes words, "Imagination itself" (1799) or Thoreau's wilderness which "impress the winds and streams into his [the poet's] service" (1862). This image of the world out *there* which is closed-off and at work for poetry and more specifically the lyric subject *only* does not allow for vibrant and multi-species doings and worldings to create a poetic landscapes of (non)human belonging. Matter poetry does, however, engage in showing and leaning into the performativity of the minute natureculture mechanism of materializations and how these materializations dip into language and meaning making and vice versa, countering hegemonic discourses of dead matter.

It is exactly *here* in this moment in which matter poetry engages with the material-semantic that its potential for finding new or counter articulations arises. Theoretically, matter poetry *caesura* is something which grows out of natureculture's idea that actors are not only material, but material-semiotic and its attention to the power of discourse. Hence, Haraway's attention to the power of discourse knotted with the power of the technosciences makes her philosophy valuable for matter poetry to think with. "The potential for the unexpected from unstripped human and unhuman actants enrolled in articulations - i.e., the potential for generation - remains both to trouble and to empower technoscience" (Haraway 1992, 89). This natureculture *becoming* of new agents and actants

is tricky because these "articulations - i.e. the potential for regeneration" works in non-linear feedback loops, which lack beginnings, middles, or ends: such feedback loops move between the creation of new knowledge through natureculture implosions, which may then allow for novel forms of relationalities to shape new agencies, the ability to do something, actors, amodern actants, figurations, figures, collectives, and kin. Most importantly, natureculture's novel forms of human and nonhuman agencies are always *amodern*. Allied with Bruno Latour, Haraway states in "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others" (1992) that her *amodern* purpose, which is at the heart of her natureculture articulations, refers

> to a view of the history of science as culture that insists on the absence of beginnings, enlightenments, and endings: the world has always been in the middle of things, in unruly and practical conversation, full of action and structured by a startling array of actants and of networking and unequal collectives … The shape of my amodern history will have a different geometry, not of progress, but of permanent and multi-patterned interaction through which lives and worlds get built, human and unhuman. (77)

And while amodern articulations are a "trickstery," for Haraway's natureculture philosophy articulations are a strategic tool, a natureculture method, a *doing* really, which aim to circumvent the trap of representing, and with that, owning and speaking *for* an object (1992, 89): "Perhaps we can, however, 'articulate' with humans and unhumans in a social relationship, which for us is always language mediated (among other semiotic, i.e., "meaningful," mediations). But, for our unlike partners, well, the action is "different," perhaps "negative" from our linguistic point of view, but crucial to the generativity of the collective."

This speaking *for* matter, the nonhuman etc., is also an ethically touchy issue for matter poetry. The danger of an eco-humanism, or an eco-imperialism, coupled with anthropomorphizing matter or nonhuman bodies, or in Goyette's case the Atlantic, in poetry is countered in matter poetry by not further dis-placing matter or dematerializing articulations or discourse, but by leaning into language as a material-semantic articulation, translation, transfusion, and/or relationality actant. Additionally, matter poetry, just as literature in general, plays with imagination and/or modes of empathy which allow the reader to *think-with* (vs. *about* or *for*) nonhuman bodies or matter while not shying away from the power dynamics at play in speaking, writing, hearing etc. Goyette's long poem, for example, thinks-*with* the ocean in poem FIFTY-FOUR while reflecting on "who or what can speak and is heard/hurt" (c.f. Hirschfelder et al. 2019 for the coinage of this phrase) in matter poetry:

……. When we looked at pictures

we'd taken with the ocean behind us, we were startled by how unhappy
it appeared, how stricken. We were left with a heavy feeling

that we had, somehow, let it down. When it wanted to sing,
we had insisted it kept doing its work. Our hunger had many mouths

and there were fish to clean.

The poetic voice looks back in time and at, not the Atlantic directly, but a representation of it, a photo in which it served as a backdrop. This recognition that the ocean may have been displaced as mere resource or setting, readily farmed for its fish, is firstly pointed out and then complicated by the line, "We were left with a heavy feeling // that we had, somehow, let it down." Thinking *with* the ocean as an active societal participant, shaping the (affective) economy and life for the ocean dweller, the voice is moved to opt out of an economical mode of abstraction (and its long history), to compassionately think-*with* and feel-*with* the ocean. "When it wanted to sing, // we had insisted it kept doing its work" makes an impactful claim of articulating thought *with* and not speaking *for* the Atlantic. It does not include a simulation of the ocean speaking *back* in an emancipatory move. Instead, Goyette's matter poem acknowledges that with claiming a universal anthropocentric standpoint by insisting the Atlantic "kept doing its work," the poetic human voice already always subjugates the (non)human organic other, the Atlantic, which in turn may not be able to speak back – not even in a poetic world of semantic-materiality – because of this very anthropocentric systematic suppression. In short, "When it wanted to sing," the ocean could not because it was in an inhuman mode of extraction as well as thingyfication. Goyette's matter poem invites us to think about our relationalities and to develop something like empathy or a "putting-yourself-in-something/someone else's-shoes," namely in the Atlantic's shoes.[4] The poem here, does not speak *for* the ocean, but it produces poetic articulations which recognize the speaker's

[4] Natureculture figures and figurations, such as companion-species (2007), vampires (1997), or the trickster (1988) articulate and converse with us, without being anthropomorphized. It is not about learning their "language," but rather a methodology of learning about our relational and semiotic-material worlds – naturecultures (c.f. Haraway & Goodeve 2000, 76). Figures and figurations are not about us humans, but they visualize our worldy entanglements. Figures and figurations complicate our literal-mindedness "because figures are immediately complex and nonliteral, not to mention instances of real pleasure in language" (Haraway & Goodeve 2000, 85).

natureculture relationalities with all their political consequences, revealing the geometry of power in material relations on the one hand and thinking and feeling *with* the ocean, on the other.[5]

While matter poetry leans into natureculture processes and into de-commodifying natural "objects," it, at the end of the day, creates poetry – poetic as well as expressive articulations which do not just represent, but *do* something. For Haraway's natureculture philosophy, making a difference and creating "a different geometry" is tied to her technoscientific technology of choice, namely her material-semiotic discursive production of articulations: "I like my analytical technologies, which are unruly partners in discursive construction, delegates who have gotten into doing things on their own, to make a lot of noise, so that I don't forget all the circuits of competences, inherited conversations, and coalitions of human and unhuman actors that go into any semiotic excursions" (1992, 77). Naturecultures believe in the double-bind of discourses: on the one hand, discourse is only one means of triggering such amodern articulations, which may create multiple connections that are material and more-than human; on the other hand, discourse in the technosciences is internally structured by a particular order of things dictated by Foucault's power/knowledge nexus of the natural sciences (Haraway 1995a, 71; Haraway/Bhavani 1994, 32 in Stache 2016, 87). Staying with Foucault, however, Haraway's natureculture philosophy also works with the power of discourse to materialize new knowledge and (most importantly!) things. Discourses "constitute their objects of attention in the Foucauldian sense" (Haraway 2006b, 139, c.f. Haraway 1983, 130 in Stache 2006, 88). "Discourse is not just 'words'; they are material-semiotic practices through which objects of attention and knowing subjects are both constituted." (Haraway 1997a, 218 in Stache 2016, 88). Material-discursive production, for Haraway's natureculture philosophy, equals doing theory, a permanent and multi-patterned interaction through which lives and worlds get built, human and unhuman. In Haraway's natureculture doing theory, material-discursive production creates actors, actants, and figurations through her natureculture sf's – "science fiction, speculative fabulation, string, speculative feminism, science fact, so far. … Science fact and speculative fabulation need each other and both need speculative feminism" (Haraway 2016, 2-3).

[5] Natureculture languaging crafts subjects and ways of inhabiting positions of natureculture counter-figurations, figures, collectives, and kin (for a list of Haraway's most prominent natureculture figurations, see chapter two on knowing). While we already covered that Haraway's natureculture actants only act, *do*, in diverse collectives, natureculture figures and figurations are ordinary, amodern, situated, fleshy, partial, knotted beings-in-encounter in all the different natureculture spheres (for example, in our home, lab, or the woods). Naturecultures are always interested in what we can *know, do, and become* when we meet in encounter (Haraway 2007, 5). Haraway's companion-species figure, for example, highlights that we are materially outnumbered by tiny messmates. "To be one is always to become with many….. my companion species, who are my maker" (Haraway 2007, 4). Recognizing her own *knowing, doing, and becoming* in encounter, Haraway states that she is "as much of a discursive object as the things I study are" (Haraway & Goodeve 2000, 67).

Similarly, matter poetry is not just a matter of representation and of words and semantics on a page, but it strives to make the material relationality between the world *out there* and *in here* experienceable. In this applied fashion, it uses the idea that there is a *doing*, an agency, in poetic language itself that allows us to relate to, for example, the Atlantic in Goyette, through language which is always already shaped by the environment – by how the ocean smells, by power dynamics on the ground, by intra-active affects etc.[6] While Romantic nature poetry has focused on poetry's ability to engage with the poet's, so a subjective, imagination, and Modernists nature poetry often aimed to offer visions of human ties to the land or the city through modes of fragmentation and collage, poetry throughout the centuries has always engaged in an active restructuring of language.

Matter poetry manages to restructure poetic language and discourse in such a manner that it orients itself, in the case of Goyette's *Ocean*, for example, not just to the poetic subject or other human actors, but it highlights the participation of water in meaning making and poetry writing itself. Importantly, this orientation towards the ocean and other nonhuman players is not a mere projection of voice onto water, but matter poetry brings the participation, the partaking and involvement of nonhuman actants in natureculture to the poetic fore. Even more so, matter poetry goes a step further than merely recognizing the ocean's involvement in the every-day life of Halifax's ocean dwellers, but *Ocean* and matter poetry in general use the performativity, that is the acting towards a certain effect, of water flow and wave and other material extensions by transfusing these material movements into the text and out again – into the creative process of poetry writing and out via reading as well as emoting as part of a poetic production and reception aesthetic.

Philosophically, this participatory natureculture *doing* of matter poetry is the product of matter poetry's scientized onto-epistemological conviction that worldings are in fact entangled and that within this entangled world different players, such as Goyette's ocean, can take on the role of figures and trans-embodied figurations. Again, Haraway is very helpful here. In *When Species Meet*, Haraway clarifies that figures and figurations are a way, a natureculture *doing*, of understanding our entangled material world and its situatedness (c.f. chapter two). The statement that figurations and figures allow or lead a way into an understanding of quantum bits and quantum-entanglements which make up our world may sound odd at first glance, seeing how counterintuitive the quantum world appears to human perception apparatuses. Regarding this weirrdness, Opperman shares the following insights:

[6] Haraway's natureculture philosophy is a doing through language – a natureculture languaging. Haraway's languaging is more than just words or discourse, but a specific material-semiotic practice, a "science-in-the-making" (1997 in 2004, 238). Natureculture making is about making a specific difference in the world and for that "one must be in the action, be finite and dirty, not transcendent, and clean. Knowledge-making technologies, including crafting subject positions and ways of inhabiting such positions, must be made relentlessly visible and open to critical intervention" (1997 in 2004, 237).

> As seen in silicon chips, microprocessors, atomic clocks, electron microscopes, and lasers, the material consequences of quantum physics are so real that quantum laws, no matter how counterintuitive they may sound, dexterously sculpture the texture of physical reality. Our bodies, landscapes, and all the elements of nature are shaped by the workings of those mysterious subatomic particles in the realm of strange entanglements, which David Bohm, the proponent of the hidden variables theory, describes as a "flowing stream, whose substance is never the same." (Bohm in Oppermann 2015, 88-89)

Yet, at a second glance and with Opperman's insights, Haraway's and matter poetry's natureculture figures and figurations lean into the complexity of the quantum world by writing, *doing*, and folding themselves into layers of materializations and meaning. In *Ocean*, for example, a material mythopoetics is layered around the saltiness of the Atlantic. "Some believed the ocean wasn't always salty but that our ancestors // had been very sad" (EIGHTEEN). The material process of minerals being swept into the ocean via rain, storms, or currents is entangled with Halifax's ancestors' tears which are stored and memorized in the Atlantic, making it salty in the first place, or so the long poem claims. Just as these layers of materializations knot themselves with history as well as meaning, the semantic historicity of figures and figurations is of value here. The Oxford English Dictionary lists "the meaning of 'chimerical vison' for 'figuration' in an eighteen-century source, and that meaning is still implicit" in Haraway's sense of natureculture figures (Haraway 2007, 4).

> Figures collect the people through their invitation to inhabit the corporeal story told in their lineaments. Figures are not representations or didactic illustrations, but rather material–semiotic nodes or knots in which diverse bodies and meanings coshape one another. For me, figures have always been where the biological and literary or artistic come together with all of the force of lived reality. My body itself is just such a figure, literally. (Haraway 2007, 4)

However, Haraway's natureculture figures and figurations just as matter poetry's are not just interested in cross-referencing materializations of all kinds with meaning, but also in an ethics of living and dying well with each other which is thoroughly performative and pragmatic.

Haraway's corporal stories and matter poetry's figurations are also an ethics in practice. In *When Species Meet*, Haraway thinks with Karen Barad to specify that ethics in naturecultures are tied to noticing and acting on a common materiality which we are always already part of. "Embodiment is a matter not of being specifically situated in the world, but rather of being of the world in its dynamic specificity. . . . Ethics is therefore not about right response to a radically exterior/ized

other, but about responsibility and accountability for the lively relationalities of becoming of which we are a part" (Barad in Haraway 2008, 289). Response-ability is hence a practical ethics, *a doing*, that is performative as it is a relationality that shapes relationships through which subjects, objects, actants, actors, things, and kin come together. It is here that Haraway's "response-ability" knots itself into her earlier ideas on articulations (1992). Response-ability emerges through encounter and leaves you with a material-semiotic ability-to-respond.

Translated into practice, such natureculture performative and relational *doings* always already bring ethical implications with them, and this points towards the material and nonhuman web we are always already part of when *doing technoscience*. On sharing pain and suffering in the most technoscientific place, namely the laboratory, Haraway writes:

> If the plant molecular biologist Martha Crouch was right that some of the pleasures of lab science that tend to make practitioners less able to engage in full cosmopolitics come from a Peter Pan–like preadolescence, in which one never really has to engage the full semiotic materiality of one's scientific practices, then maybe sharing suffering is about growing up to do the kind of time-consuming, expensive, hard work, as well as play, of staying with all the complexities for all of the actors, even knowing that will never be fully possible, fully calculable. Staying with the complexities does not mean not acting, not doing research, not engaging in some, indeed many, unequal instrumental relationships; it does mean learning to live and think in practical opening to shared pain and mortality and learning what that living and thinking teach. (2004, 82-3)

Haraway's infoldings between principle and tool allows for a natureculture philosophy of *doing* through agency and a practical ethics and an ontology which is relational. Material relationality in Haraway's ethics, though, is not just an ontological prerequisite, but natureculture "doing" comes with a willingness to be open and affirmatively act on a shared knottedness, a material entanglement with each other: "it does mean learning to live and think in practical opening to shared pain and mortality and learning what that living and thinking teach." Haraway is not anti-science or anti-research. "Staying with the complexities does not mean not acting, not doing research, not engaging in some, indeed many, unequal instrumental relationships." "Staying with the complexities" necessitates an understanding and a confirmation that when humans act, others – animals, the earth, organic material, and humans that stand on the margins of Western societies – may suffer. "Staying with the complexities" requires finding better, more equal, less harmful ways of "living and dying well with each other," as Haraway puts it in *Staying with the Trouble* (2016, 1) – the book title already marks a continuation of her practical ethics from staying with complexities (2004) to

staying with the trouble (2016). For Haraway, we always already act in some more-than-human and material-semiotic compound, or collective (2004, 250). Transfusing the acknowledgement of this material relationality into our daily practices is what her practical ethics is all about. A material responsibility is given through our shared material entanglement, but an ability-to-respond must be taken up and practiced, in a lab or when living with a dog at home.

"Response-ability is about both absence and presence, killing and nurturing, living and dying—and remembering who lives and who dies and how in the string figure of natureculture history" (Haraway 2016, 28). Haraway's doings are more than an account of nonhuman agency and bioethics, it is about getting things done better: to constantly think how to improve our encounters so we can *live and die well* with each other. A natureculture practical ethics is thus not concerned with moral norms, but with an ethical obligation to our situated relationalities in the making. *Doing* is the name of the natureculture game.

Similarly, in the material poetics of *Ocean*, language, words, poetry do not just mean something, but they do something – better (!). *Ocean*'s material meta-poetics establishes a privileged role of poetry within a natureculture practical ethics here:

> We had come to realize that we understood next to nothing!
> The poets, it turned out, were our compasses but their pace
>
> was slow; ……..
> ……..
>
> ……. Many of us were still
> intoxicated by a poem we'd heard. We only had to say
>
> the word *wolf* again and our pre-ancestral fur would singe,
> the paws of our joy bounding off the path and, gratefully,
>
> we would find our yodel. (TEN)

Poem TEN comments on the role of poetry to offer orientation, poets being "compasses," without the geopolitical representations of maps. Most importantly, poetic language seems to activate an entry in seeing and recognizing the part within the human that is always already a species other, troubling any technoscientific species hierarchies. The poem that the human voices in *Ocean* "heard" was accordingly so "intoxicating" that it bent their minds to notice their ability-to-respond

to their non-human or more-than human part so "our pre-ancestral fur would singe" when just uttering the word "*wolf*". Encountering the other in oneself by "gratefully … find[ing] our yodel" relates poetic language directly to embodied processes such as singing or feeling joy in a more-than human, natureculture universe. The poetic body just as the body in the flesh is imagined as fundamentally open here. Matter poetry just as the contemporary lyric in general are invested in a fundamental openness, foregoing any formal or logical conclusions, and leaning into an interplay of polyphony, hybrid subjectivities and poetic encounters as events.

What differentiates matter poetry from other forms of poetry then? I would argue that matter poetry's privilege depends on a meta-poetics which treats as well as engages words as material-semantic actants, real *doers*. It is not just matter poetry's employment of poetic techniques such as metaphors like "the paws of our joy" or its two-lined stanza patterning, which are cultural techniques available to all poetry, to make ontological natureculture encounters visible on the poetic page. What is different is matter poetry *knowing* that words are agentic and alive; that poetic language can *do* many things such as create belonging as in the *wolf* example above or even touch the reader, as I will show in my "second doing" below, opting out of any formal separation between the Atlantic, the book, and the reader.

– *second doing* –

3.2 Natureculture Playbook: Sue Goyette's *Ocean*

> The sea has no *character* in the original sense of the world,
> which comes from Greek *charassein*, meaning to engrave, to scratch,
> to imprint. … On the waves there is nothing but waves
> —Carl Schmitt, *The Nomos of the Earth* (2003)
> (42-43, original emphasis, in Steinberg & Peters 2015, 249)

In this chapter's second *doing*, I propose to think of *Ocean* not just as a matter poem, but also as *a playbook for learning and experiencing* Goyette's ocean world's naturecultures and material agencies – natureculture *doings*. Against Schmitt's observation that "[t]he sea has no character," *Ocean* makes visible that the Atlantic does in fact imprint itself onto ocean dwellers, that it engraves itself into discourse, into (hi)story, that it even scratches its movement and depth onto the pages, eroding words and reading bodies.

As I wrote in my Introduction, Goyette's matter poetry's "sophisticated set of techniques" (Hotz-Davies 2016, 142) allows us to unlearn material-semiotically, through words and matter, part of our theorizing *about* naturecultures and *about* matter and allows us *to learn* and *to animate* an

aesthetic engagement *within* naturecultural and material modes of *doing*. Goyette's *Ocean* as a playbook for natureculture *doings* is in this sense not just about a pedagogy or a re-consideration of the naturecultural material, but it is about noticing and experiencing a *direct engagement* with a material oceanic natureculture that is not only *out there*, but always already *in* us as well through their poetic field-to-come.

Ocean as playbook also allows us to experience the connections between the oceanic, the terrestrial, and the poetic foregoing a potential intellectual trap in fetishizing the Atlantic as mere "theory machine" (Helmreich 2009, 2011), as mere intellectual resource. This move of material-semantically filling the Atlantic via matter poetry can also be read as a naturecultural technique against, what marine scientist call, a "simplified sea" (Howarth et al. 2014 in 24). The simplification of our seas scientifically refers to the reduction of oxygen in the water by "fishing down" the sea, especially by fishing carnivorous fish, making room for phytoplankton to flourish and to eventually creating dead zones (Probyn 2016, 24). Leaning on Elspeth Proby (2016), I argue that simplifying the sea (Howarth et al. 2014) can also occur natureculturally by creating stories and figurations which do *not* grow out of water, which is common to all, but only use water as background or surface. As a countermove, Goyette's *Ocean* complicates the sea – in the best way possible – by creating situated matter poetry which entangles the groundswell of the poetic voices' home, the Atlantic and Halifax, the ecosystem of the ocean dweller's community with metaphorical as well as poetic language to help articulate water (Goyette 2013 b). Goyette's poetic water articulations correspond, in a natureculture fashion, with a long history in conservationist thought, "reminding us that the sea is in our very blood ([Rachel] Carson), by emphasizing that every breath we take contains oxygen produced by plankton ([Sylvia] Earle), or by suggesting we see the ocean through the ocean–since our eyes are surrounded by saltwater ([Julia] Whitty)" (Alaimo 2012, 477).

In the following, my plan is to present the idea that Goyettes's long poem *Ocean* (2013) produces a horizontal and materially open assemblage between the Atlantic, the ocean-dwellers, Halifax, the poem, and readers using nothing less than the active principle of water, a term which I borrow from Jane Bennett's "'active principle' in matter" (2007). It is this specific active principle of water which allows for *Ocean* to begin off the page, not in the mind of the genius poet, but in Halifax, Canada, to transfuse Halifax's material realities[7] into language for the reader to touch with

[7] When conceptualizing so-called reality, I follow Karen Barad's notion that "[r]eality is composed not of things-in-them-selves, or things-behind-phenomena, but of things-in-phenomena" (2007, 205). Meaning, that reality is emerges from within relationalities and *becomings* and is not some fixed outside stance prior to signification (think classical realism), nor is it isolated from language (think Kantian transcendentalism), or only every mediated through language and signification (think linguistic turn) (Barad 2007, 205). But, reality is a matter of agency, processes, and doings. Within this process-oriented notion of reality, a matter poem natureculture assemblage, such as *Ocean*'s, may be considered part of reality. This taking part in the world's reality, may not rob the long poem of its fictionality and artistic aesthetics. Quite the opposite, this situating of poetry as part of the world's becoming stretches our recognition regarding the kinds of (non)human players involved in art and poetry making.

both sight and hands while reading *Ocean* – hence, the title of Goyette's long poem. The mere materiality of the book itself, the structured, hand-made-look grey-blue paper of the book jacket with its pressed-in wave patterns echoes the surface tension of water molecules forming ocean waves, molded by the wind, and plays with non-linguistic transfusions of waves onto Goyette's book and wor(l)ds.

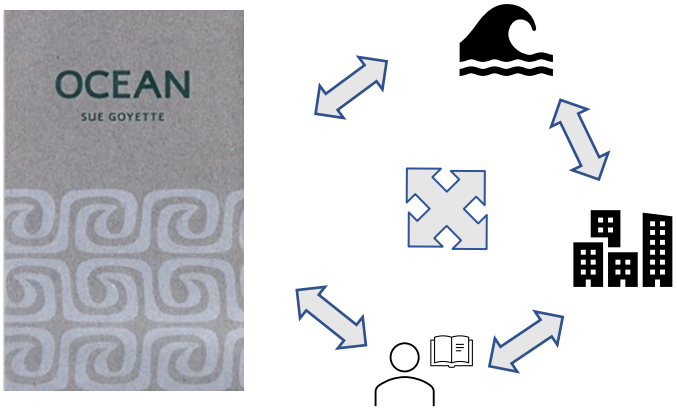

Figure 1 Natureculture assemblage: part book, part paper, part water, part words, part Halifax, part reader etc.

While Haraway's technoscientific criticism proves to be an important voice when debating scientized processes of materialization and material construction, matter poetry can lean into the very real experiences of such a technoscientized material *doing*. Haraway and matter poets are both interested in re-thinking agency from a natureculture as well as nonhuman perspective, doing crucial intellectual work from the ground up; and, at the same time, matter poetry creates something – affects, emotions, relationalities etc. – via processes of semantic-materializations which are experienceable through reading. Consequently, my hidden question behind this tactic is what happens to poetry and the reading process if we take nonhuman actants like ink, paper, the ocean *seriously* in their poetic ability to *do* something.

Goyette's *Ocean* as playbook would thus like to invite us to experience the active principle of nothing less than water. If we follow Phillip Steinberg and Kimberley Peters (2015),

> Water is simultaneously encountered as a depth and as a surface, as a set of fixed locations but also as an ungraspable space that is continually being reproduced by mobile molecules; water has a taken-for-granted materiality (liquidity, or wetness), but it is also just one of three physical states that exist in continual interchange (the other two being ice and vapour). Each of these properties can be ascribed to land as well (land too has depth, underlying mobility, and transformation across physical states), but in water these properties are

> distinct in the speed and rhythm of mobility, the persistent ease of transformation, and the enclosing materiality of depth. Thus, it would seem that water provides a fertile environment for rethinking the ways in which our political geographies emerge from—and impose themselves on—a dynamic, voluminous materiality. (252)

Multitudes of wet, foggy, ever changing, transversal, particles in and outside of us, inhabit 2/3 of our earthly surfaces, make up 70 percent of our adult human bodies, and hence demand our attention. It is with Sue Goyette's long poem *Ocean* that I would like to follow the call of the Atlantic and its material-semantic agencies, its *doings*.

3.2.1 A Material Universe: In the Beginning Was the Wor(l)d & *Ocean*'s Prologue

Simply picking up Goyette's long poem, without opening the book, is already a move in joining the poem's natureculture assemblage. The book's jacket is fabricated with taupe-grey paper onto which three layers of waves, neatly overlapping curls, are pressed onto the rough texture of the book's cover. The title is also pressed onto the surface of the paper, filled with a volcanic anthracite colored font, all letters capitalized, claiming *Ocean* as well as the author's name, in all caps again, same color, Sue Goyette. On a representational level, the book's cover already tells us readers everything we need to know about the long poem without having opened it: this is a book about the ocean, and, observing the regularly rhythmed waves pressed onto the lower half of the cover, we may already presume that the long poem ahead will *play with* the ocean's wave movement.

Let's follow Goyette's reader reception direction and think with waves then. "In the making of waves, first the air 'deforms' the water, which then begins to 'perturb' the flow of air across it; and it is out of this delicate intercourse … [that] the wave is born" (Raban, 1999, 164-65 in Steinberg & Peters 2015, 250). *Ocean*'s wave *play* references both: how the Atlantic's waves give the very ocean surrounding Halifax in the world *out there* rhythmed *depth*, but also *form*; and how the waves pressed into the book jacket of *Ocean* are stacked on top of each other, hinting at the often unnoticed "*volumes* of hydrospace" (Elden 2013, Steinberg & Peters 2015, my emphasis) – the *volumes* of natureculture matter. We are in the presence of the material-semantic powers of waves; so far so good.

The aesthetics of *Ocean*'s cover then streams into questions of part-taking in matter poetry. The cover's representation, its color, waves, and title etc., is not just all semantic construction *about* as well as *with* the ocean, but it is already part of the long poem *doing* something *to* us, its readership. While the cover page of any book is usually essential to the marketing within the literary production process, in Goyette's case, the cover is also part of the active principle of water already. The cover does not just translate the color and the movement of the Atlantic *out there* in the world onto paper,

but it also makes a relationality between the water framing Halifax and the water as part of the production process of paper, of this cover and this book, visible. Part water, part color, part light, part ink, part printing, part marketing, part creating, part Atlantic, *Ocean*'s cover draws attention to its own fabrication and materiality as well as the materiality of water as an organic player in book making and the world *out there* itself. The long poem's self-referentiality to its own thingness, while philosophically corresponding with a *Marxist* notion of commodity fetishism, does not stream into a Marxist argument of water extraction or water's part-taking in the capitalist machinery of the publishing world. Instead, it hints at the very agency of water in poetry creation.

Within this hinting, the poem's auto-referentiality to its own thingness complicates where the relationality between the reader and the book as well as the claim-making of literature on its readers start and ends or begins, and hence makes the materiality of the poetry book itself a problem of human awareness. As a prerequisite, *Ocean* forces an aesthetic engagement onto its readers that is ontologically naturecultural, ignores boundaries of any kind, and leans into the movement of water flowing into bookmaking, city-dwelling, reading… already at its wavey cover. This aesthetic engagement also makes clear that we may tacitly partake in what Whitehead calls a "discrimination in senses" (1920); namely that we have been culturally trained to assume that awareness of one thing already excludes the awareness of another. Or, put differently, if we hold the long poem *Ocean* in our hand and look at it, we think we may *only* be able to perceive and be aware of the materiality of the book via sight, including a tacitly consented notion of what a book looks like, and the familiar touch of the book's back-cover with its weight in our hands. In short, we perceive a book and know through cultural consensus that a book is a book. A box for meaning. But, and this is Whitehead's twist on the singularity of awareness, when we only agree to be seeing a book, we close ourselves off to perceiving "the whole event." In *Ocean's* case, this "whole event" encapsulates, next to other players, water in the book's paper, water in us as readers, water in the Atlantic on the ground in Halifax, a mythopoetics of water, and diffracted human-water voices streaming into the book and into the readers' minds. The wavey tactility of *Ocean's* jacket with its grey-ish color simulates the Atlantic's surface. This simulation may just want to hinder us to "discriminate against the whole event" (1920) by pointing to the fact that water is always already a part of the book material-semantically (think meaning & thingness), stretching our awareness of the event unfolding as we open the book.

Now, opening the long poem, *Ocean*'s active principle of water is spelled out by its prologue. Within this spelling out, the prologue situates itself as a manual, a cosmologic guide of sorts, on how the poem's human voices connect to the Atlantic, the ocean, and how we readers connect to the voices, the Atlantic, and the long poem as a piece of material-poetic art. Philosophically, *Ocean*'s

PROLOGUE establishes the operating principles of the poem's world as based on pagan and ocean-centered belief structures grounded in matter – a poetic materialism.

> *We traded an accordion of hours for wood. We traded ladles*
> *of sleep for some hammers and nails. We were setting out*
>
> *to find he ocean. Our boats leaked. Our boats sank.*
> *Our boats needed to be trained. …*
>
> ……
>
> *We soon had an orchestra of boats and the songs*
> *That sailed through us put the stars in the sky.*
>
> *Of course, we were nowhere near the ocean. Our trees*
> *were nuns at the edge of our plans, praying for us*
>
> ……
>
> *… We corded off part of a field beyond our bed*
> *Where the right combination of drink and wind*
>
> *would leave us feeling oceanated. This land later became*
> *a church then later, a music hall. Sacred. There were expeditions*
>
> *to find the ocean.* (PROLOGUE, original emphasis)

The first lines from "*We traded an accordion of hours for wood*" to "*Our boats leaked. Our boats sank. / Our boats needed to be trained. … / We turned some on their sides/ and lived in them"* introduce *Ocean's* genealogy. Here, wood serves as a starting point in an effort to build boats, the only cultural technical means for non-ocean beings to live on water, to seek out the ocean, and be surrounded by it. The prologue introduces the construction process of these sea-vessels as an all-encompassing project of material learning and meaning making. Boats, in Goyette's poetic universe, are turned on their "sides and

lived in" or worn "like suspended pants" and countless books were written "about building boats" (PROLOUGE). Boats are not just vessels to get in touch with and float on the surface of the ocean with, but the ocean itself is also introduced as a metaphorical vessel, namely as a container concept which must be filled with meaning and stories which are not strictly terrestrial, but oceanated – full of *movement*, *depth*, and *volume*. While the terrestrial, such as the state or city, may also move and change, the ocean does so very differently – its depth and volume being much grander than land's (c.f. Steinberg & Peters 2015). The form of material learning which Ocean's prologue writes about, "this training of boats", seems to correspond with a material version of "what Pálsson calls 'enskillment,' 'a necessarily collective enterprise—involving whole persons, social relations, and communities of practice." (in Probyn, 2016, 41). The prologue's material "enskillment" seems to require not just the presence of the ocean dweller community and the help of trees, song, myth etc., but, most importantly, it requires the presence, the attachment, the feeling of the nonhuman ocean. What the prologue frames is a form of undidactic, nonlinguistic learning; a learning from *doing*, namely from living and wearing boats, from feeling a desire to be oceanated, to affect and being affected. "This embodied learning within the folds of the ocean brings together various forms of knowledge—past, present, cellular, felt, smelled, moved with, and so on. To give this ensemble of modes of learning its proper name, this is the realm of the tacit" (Probyn, 2016, 41).

It is not surprising then that in *Ocean*'s genealogy, a "*Calling of the Ocean Ceremony*" was created to foster social cohesion in this deep desire "to find the ocean" in which the poetic voices "banged on our boats and howled" which then "became a holiday // with a feast and a fire" (PROLOUGE). This attention to the nonhuman "other" – wood and the ocean – matters because, thinking with Haraway's mantra that it matters what thoughts think thoughts (2016), pointing to the material-semantic agency of thought, this material attention situates the human voices in the poem not hierarchically above these nonhuman players, but rather among them as embodied beings who build and mold a relationship to the woody and watery materializations surrounding them and of which they are mythopoetically already part of. It is matter poetry's pedagogy which fosters such attention to one's own materiality and material *doings*, including poetic mythmaking, and the way these actions emerge from within an array of material relationships.

As the prologue unveils, feeling "oceanated" seems to be the goal of everything the poetic "we" does. On the inter-textuality of feeling "oceanated,"

> the writer and devotee of Eastern mysticism Romain Rolland apparently wrote to Freud on reading his *The Future of an Illusion*. We only have Freud's report on Rolland's thoughts, which he paraphrases: "It is a feeling which he would like to call a sensation of *eternity*, a feeling as of something limitless, unbounded, something 'oceanic.' . . . It is a feeling of an

> indissoluble bond, of being one with the external world as a whole." (Freud 2002, 2 in Probyn 2016, 38)

Ocean cuts through the affective historicity of the ocean creating a feeling which is "limitless, unbounded" to create a conceptual entry into the perception of vastness, into which ideas and feelings seemingly disappear, to fill this watery void with movement, with waves, and ceremony.

The "*Calling of the Ocean Ceremony*" manifests this yearning as a regular practice and becomes intra-textual, emerging from within a relationship between the book, its meta-text, and the reader, through the regular two-lined wave-like stanzas, rolling into the next stanzas with their enjambments. In the course of the prologue and these regular double lines, which poetically simulate the waves impressed *on* the cover and in the world *out there*, these wave-like stanzas now textually roll into the beginning of the poem. With the prologue, the rhythm of the ocean now occupies the very physical pages of the poem as well as dictating the rhythm of words washing over the page. But even more so, these wave-like movements impressed on the cover of the long poem and molded into the form of the poem show that there is something like a wave-like rhythm in the English language as well as in the language of this very long-poem, hypnotizing not just the ocean dwellers in their ceremony through chants, but now also us reading subjects through its regular beat which readers may embody via recurring groundswells of breath and an upsurge of voices in their minds. While we are being rocked by the waves of language, the poem linguistically simulates the embodied feeling of being on the ocean, knotting natureculture *knowing* with *doing* with a learning via ocean-word-waves. Metaphysically, questions of object-subject statuses as well as objectivity, traditionally secured through a disembodied or removed outside position, are ontologically troubled through the manipulation of the very rhythm of (our?) language; especially in view of a powerful enlightenment notion that humans are the only beings situated in a human-centered system of language and linguistic mediation.

Philosophically, *Ocean's* prologue does not just trouble the idea that human language and "our" sign-system is *only* ours and created only by us, but it also unroots the Enlightenment belief that voice is a sign of an individual's agency *only*, so closed off from other systems or discourses or power. That voice is only our *doing*. Hence in the prologue, a further encounter takes place between the reader and the voices of the long poem itself by complicating the notion that there might only be a single, individual referent of voice and speech by establishing a complex cross-referencing system of deictic markers. A couple of other italicized passages in the long poem correspond with the italic font of the prologue, signaling direct speech from the ocean-dwellers (TWENTY, TWENTY-FOUR, TWENTY-SIX, TWENTY-SEVEN, TWENTY-EIGHT, TWNETY-NINE, THIRTY-SIX) combined with a multitude of deictic shifters, such as "this," "there," "here," "you,"

"we," all forming a network of ink encounter in-between marked pronouns, temporality, and location. In other words, these ink marks function like shifters. Nathan Brown notes that "[s]hifters are the piezoelectric transducers of grammar–minutely sensitive to the voltage of voice, expanding to generate an apparent fusion of body, language, world at the interface of the tongue's tip: 'there'." (Brown 5). On the idea of shifters, Roman Jakobsen expands that "shifters are 'distinguished from all other constituents of the linguistic code solely by their compulsory reference to the given message" (quoted in Brown 5). Following Brown, *Ocean*'s shifters inaugurate an existential relationship between specific objects, subjects, temporalities, and places through speech acts that are filled and linked to reality, the experience of an actual world *out there* (c.f. Barad 2007, "agential realism," 140). This multitude of speech acts raises the question who is speaking to whom. The last poem number FIFTY-SIX breaks with the first-person plural "we" and uses the second person singular "you" ("Have you ever run along its shore?") and through that serves as a frame to the prologue, hugging the entire long poem. Taking poem FIFTY-SIX into consideration, the addressee appears like so much more than a mere hypothetical construct necessitated by the fact that someone is speaking: the addressee appears as a reader, a "you" with whom the poem seeks direct contact (or not, if my answer to this question is "no"). When the poem asks "[h]ave you ever run along its shore?", the reader becomes part of the ocean-dweller community – in which "*we*" are members of the evolution of *Ocean* through the prologue's wave-like rhythm spilling over the pages and the poem's "you" seems to directly reach out to us to touch our skins while an individual lyrical "I" has no place at all. *Ocean*'s poetic universe does not believe in a closed-off individuality, but through a layering of voices from an extra- to an intra-textual level manages to both respect a universal community and as a part of such also the member of the ocean-dweller community.

Intra-textually, the belief that ties the ocean-dweller community together lies within the proclaimed desire "*to find the ocean,*" which is based on a yearning to be as close to the water as possible. The poem introduces a material mysticism to spiritually mount this desire that positions the ocean as the divine with which non-human and human bodies seek direct contact with. This mystic yearning opens up a semantic field of religious vocabulary such as "*nuns, praying, church, music hall, and sacred*" (PROLOGUE). *Ocean*'s specific mysticism suggests two ideas: (i.) the notion that an intimacy that leads to oneness with the ocean can be achieved through ritual including song, meditation, intoxication, and an exposure to the elements: "*[w]e soon had an orchestra of boats and the songs / that sailed through us put the stars in the sky. … the right combination of drink and wind / would leave us feeling oceanated"* (PROLOGUE). This intimacy assumes not just an ontological connectivity between the ocean, non-human, and human bodies, but also with the cosmos. On the one hand, *Ocean*'s cosmos is based on an idea of the cosmos as material and holistic; on the other, it goes further by suggesting a radical cosmic openness, a connective configuration, that serves as a

philosophical requirement to the imagery that the ocean is in "*us*." The idea of *becoming one* with a higher force in itself is not a novel idea, but, indeed, deeply entrenched in the history of mysticism. What is different in *Ocean*'s prologue is (ii.) that the divine is not an elusive figure, but something specific, material, and local: namely, as *Ocean* states in poem THREE and TWENTY, the Atlantic surrounding the city of Halifax, Canada. While the ocean is "*nowhere near*" during the PROLOGUE, there is an empirically existing Atlantic ocean surrounding Halifax, which the first-person plural "*we*" (the ocean-dwellers, *Ocean*, the reader of *Ocean* and consequently the reader of this chapter) will later find and with which they will materially become *one* through the mode of radical openness and encounter via the poem's shifters.

It is *Ocean*'s transfusion of Halifax's material reality into words that triggers the general question of materiality's agency, the ability to do something, and reality. At this juncture, Goyette's PROLOGUE believes that all material things, such as the ocean, but also the rocks, houses, humans, myths etc. surrounding Halifax participate in the poem's articulation as actants, as *doers*, and that these things co-create the very real atmosphere, the poem's mythopoetics as well as its reading experience. *Ocean*'s autopoiesis hence opts out of the distinction of dead matter vs. conscious, thinking minds to indicate that in *Ocean,* and in matter-poetry, all take part and specifically, all *do*.

3.2.2 The Active Principle of Material Language: Or Now, *We* Are Moving to Halifax

> In the beginning was the Word. Western civilization rests
> upon those words. And yet there is a lively group of thinkers
> who believe that in the beginning was the Act.
> —Mary Rueffle, *Madness, Rack, and Honey* (2012)

The problem with *Ocean* is not in the assumption that the Atlantic, a body of water consisting of water molecules and non-human beings, has the ability to act. Experience tells us that after walking along the ocean's shore and licking our arms later at home, our skin tastes salty. What has happened is that little water molecules have connected to our skin and attached themselves onto our hair follicles, our sweat pores, and epidermis via the air. If we think attentively, we may realize the inseparability of the observer/actant who tastes and the observed/ocean salt that is being tasted which is similar to us readers becoming part of *Ocean*'s evolution discussed above. A couple of water molecules have changed the chemical make-up of at least parts of our skin. Even more crucially, the shore, once the border between the ocean and the land, has been moved onto our arm, which raises the question where the ocean ever really begins and ends. What slowly becomes

clear is that beginning, ends, borders, and geography do no hold up as fixed reference frames anymore once we recognize material agencies (think Haraway's shifting foundations). And just as the ocean does not necessarily end at its shore, nor does it in *Ocean*.

> Halifax, once the capital of the medieval fog trade,
> still has its ancient fog-making bellows. These bellows
>
> look like cannons which explains the unfortunate
> misunderstanding all those centuries ago between
>
> the fog workers and the Haligonian shadow sculptors.
> ……..
>
> …Replicas of fog
> were easier to spot. Men often glued cotton on sticks
>
> or stood, arms outstretched, billowing out white sheets.
> When they moved, they'd move slowly as if rolling in
>
> from the ocean. … (THREE)

Poem THREE introduces Halifax as the former "capital of the medieval fog trade." Interestingly, the actual city Halifax *out there* in Canada did not exist during the Middle Ages as a city. So we have a cultural reference which leads into a historical word by mystifying the materializations of fog making. We hence have a cultural reference that leads into a historical word. The latter part, we should recognize, is a substantial move on *Ocean*'s side because it accentuates the city's entanglement with the ocean through the "active principle" of water, air, and temperature. This "active principle" is based on the water's capacity to effect and form fog on the one hand and to create affective channels by eroding words and semantics on the other. Within *Ocean*'s active principle of foggy naturecultures, the Atlantic's cold-water cools down the lower air strata, and changes the air's ability to absorb water until it is saturated, reaching 100% of atmospheric humidity. From within this intra-action between the ocean and the air, little drops emerge and attach themselves through the condensation process. Now in the air, these water clouds bond to others, to unite with the wind which will transport the fog from the ocean onto the city, where everything becomes part of the fog phenomenon making Halifax the former "capital of the

medieval fog trade." And Halifax reacts to this encapsulation by the fog with "ancient fog-making bellows," which are doubled here; the poem entangles the city's architecture with the human body's anatomy making "ancient fog-making bellows" into nothing less than human lungs. Interestingly, a lung and a bellow share the same mechanism of contraction and expansion; the lung via the rib cage and the midriff and the bellow via two wooden plates and leather. Thus, the Halgonian "fog workers" use the same material transformation process to breath as the sea and air do to produce fog – in short, poem, breath, human-lungs, and the Atlantic form a fog-assemblage. The poem, in a true Harawayian natureculture fashion, leans on a bit of assumed scientific knowledge here, but instead of losing itself in a black box of thermodynamics, it opens up a poetic worlding of experienceable materializations of how breath is always already in us humans, of how breath is always already part of reading poetry while bodies transform words on a page into sound, and of how warm breath on a cold morning produces fog and is hence always already part of the ocean's mechanics and fog-*doings*.

The "active principle" of Goyettes's language then lies in its ability to describe this intra-action, that is the *becoming* from within the relationship, between the different species (humans and atoms) and biotopes (ocean and city) in such a manner that the quasi-causality between all actants (water molecules, air, wind, ocean, city, human lungs etc.) becomes comprehensible as one phenomenon – one *becoming*. Let's hold on for a second to recap the emergence of this misty collective: the poem describes a flowing system, a "fog trade," between each player – from a water molecule to human lungs. The coherence of this fog system is upheld by the mingling of water, wind, different atmospheres and biotopes etc. from within and by fog flying out onto the city to join the "ancient fog-making bellows" and the "replicas of fog," always making and unmaking the boundaries between the land and the ocean. The most powerful actant here is the ocean itself as it is the most effective fog-machine, exhibiting creative power to eat its way into other modes of being. Coupled with the ocean, the most volatile actant is probably the single fog drop itself – as it is so thin skinned in its form and so responsive to the environment.

Thinking of responsiveness and vibrancy, what is more is that the poem also functions as a nonhuman actant within the fog-assemblage. The effectivity of this passage is that it doubles the "thickness" of fog and entangles it with the sense of something more. This something more, I would argue, is the distributive power of each actant – from the water molecule to the reader – co-creating words, places, affects, smells, bodies, imagination and more all making the natureculture event of fog experienceable on and off the page. We might just be in the face of the creative capacity of things. This flow of agency in what we really should call Atlantifax, and not Halifax, then also exposes the dichotomy between wordy and unwordy worlds, between the hat and the foot (mind over matter) so to speak, as our false choice of loyalties (c.f. Riley 2005). It is really not

about either the word of literature on the page, nor about the actualities off the page, but about finding the processes in-between, which are formerly structurally excluded, such as finding the relationality between the ocean's fog, Halifax's bellows, human lungs, and the breath at work in poetry. Really, *Ocean* includes horizontal processes by finding a speculation that is common, metaphorically speaking, to the water, soil, and texts.

3.2.3 Flows of Agency: Inventions and a Material Mythopoetics

With an "ongoing flow of agency" between human and non-human bodies and an inseparability of the observer and observed in *Ocean*, the specificities of who and what can make sense of Atlantifax are at stake. In the long poem, the process of knowledge production emerges through and within a collective exploration of the oceanculture environment. *Ocean* suggests that cultural techniques ("… boats were the original forms / of escape and self-help." (EIGHTEEN)), infrastructure ("The incline to our streets was first invented / as an easy way to feed the ocean." (FIVE)), things ("We invented chairs so we could rest after the chase [to harvest the wind]" (FOUR)), words (The promise of swimming / seven oceans to get a job done became a standard contractual / obligation …" (THIRTY)), professions ("The original lifeguards were taught to address the ocean / as neighbor." (TWENTY-FOUR)), and human relations ("When we wrote our names in the soft sand of its back / we didn't know the first thing about commitment … " (ONE)) surface through an entanglement with and the active principle of water as well as the Atlantic. In *Ocean*, *doing* is directly entangled with *knowing* and *becoming*. Within this network of knotted relations between the ocean and others, observing subject positions are hardly rendered as fixed arrangements. Barad explains, "the 'knower' does not stand in relation to absolute externality to the natural world being investigated – there is no such exterior observational point. … 'We' are not outside observers of the world. Nor are we simply located at particular places *in* the world; rather, we are part *of* the world in its ongoing intra-activity" (2008, 146).

Without dualist distinctions of a central or periphery observer, meaning-making is a collectively and materially immersed process of experience and rhizomic agency, and not an individual affair. Within this monist onto-epistemology, mediated knowledge is not simply based on a semiotics of the signifier and signified. It transpires that meaning-making is inextricably entwined with specific material surroundings and its *doings*. The materiality surrounding the ocean-dwellers is much more convincing in context. Goyette re-imagines this context in a specific mythopoetic fashion. Following Charles Upton's definition of mythopoesis (*What Poets Used to Know. Poetics, Mythopoesis, Metaphysics* 2016),

> mythopoesis, in Greek, means 'myth-making'; a myth is *a story that is always true.* Mythopoetic writing … has traveled so far into the world of metaphor and symbol that it has ended by producing a narrative that no longer necessarily seems metaphorical or symbolic at all, but rather presents itself as if it were the 'literal reality' of another world – the sort of imaginary world that most contemporary readers assume the writer has simply invented… . (60)

What is unique about *Ocean*'s mythopoesis is that it bridges and references empirically existing extra-textual realities (or not – think not existing medieval Halifax) of Halifax by using metaphorical and symbolic language which is materially-semiotic by involving the Atlantic as a material motor, an active participant in meaning making. Thus, it breaches with the traditional definition of mythopoesis by *not* referencing the reality "of another world" in a mediating manner, but materially entangles an extra-textual experience of *this* empirically existing world with *Ocean*. Later Upton adds: "[…] the fact is that all realities lie beyond words; any translation into human language of our experience will encounter the same inevitable limitations that the mystic runs into when trying to render – in a mere word - … God." (61). More fundamentally, in *Ocean* no meaning belongs to only one (human) individual, one holy soul, or deity. Goyette's material mythopoesis only believes in the Atlantic's materiality as, what Barad has called, "a substance in its intra-acting becoming" (2008, 139). Poetic engagement is part of that becoming, opting out of questions of authenticity between the thing out there and in here where language is our material-semantic mediator.

> We grew alarmingly quiet the years we believed
> Our heartbreak had made the ocean salty. …
>
> …….
>
> … Love is like that. It knocks on doors
>
> and urges you to vote. It stands on the corner
> and croons a cover tune of promises. We found ourselves
>
> giving it everything we had, so when it left, we didn't just cry
> of [sic] its leaving but for how much of ourselves it took with it.
>
> We realized then that we lived on a peninsula and the rocking
> for [sic] water surrounding us was actually the ocean

slurping. (FIFTEEN)

Poem FIFTEEN echoes the idea of a material mythopoesis with a plethora of natureculture agencies at play. The myth that the dwellers' ancestors' "salty tears" released during heartbreak made the ocean salty is again built on an intra-activity, a *doing* from within the Atlantic and the dwellers' ancestors. The poem introduces the Atlantic as salty, knotting the physical landscapes of the dwellers' eyes with glands and veins to the complex network of oceanic basins and rivers. In this poetic knot, the Atlantic unveiled as a material basin for the salts contained in the earth's crust which under the influence of wind, sun, and rain has released the salts for centuries into rivers which transport them into the ocean. Just as the Atlantic collects salts through the river systems surrounding Halifax, so do the dwellers' glands use salt to absorb water from the tissue systems surrounding the eye to produce salty tears. Goyette's myth is thus not elusive and fantastic, but specific in a cross-species approach towards a physio-chemical process. Further, love seems to be transformed here into a specific physical arrangement between the dwellers and the Atlantic; once love and romance between the dwellers fades and leaves, it metaphorically makes room for the ocean and the peninsula again. "We realized then that we lived on a peninsula and the rocking / for water surrounding us was actually the ocean / slurping." Lovers famously want to be alone; that is literally all they want to do. Once romance fades, the poem imagines a reconnection with the ocean. This is also a moment in which the text reveals how material-semantic knowledge is influenced by natureculture doing: once a poetic voice lives on a peninsula like Halifax, the voice literally and physically exists with the ocean. It appears as if the land and the ocean shape the possibilities of what can and cannot be thought and done – they are a form of material discourse in which writing, speaking, or crying is not an expression of individual agency, but always already part of the ocean's discursive powers as well.

3.2.4 The Limits of Creation: Or, the Limits of Distributive Agency

The material-semantic discursive powers of the Atlantic do not just influence semantics and agency, knotting these two moves together, but the Atlantic's active principle carries also ethical and political consequences. Reading Fred Astaire's quote in *Ocean*'s epigraph, we should have been warned about the Atlantic's relational powers and the limits it imposes on our cultural techniques from the beginning. Astaire writes, "I don't want to be the oldest performer in captivity… // I don't want to look like a little old man dancing out there" (quoted in Goyette n.p.).

Out of "captivity," the Atlantic is imagined as the most powerful actant in Goyette's oceanated universe. This move is philosophically imperative as it opts out of the hippish "everything is connected" notion which relational ontologies sometimes carry as their intellectual

baggage to ground them towards a notion, in Haraway's words (2016), that everything is connected to *something*. This grounding of relationalities confirms that even in an intra-active and natureculture universe differences and historically grown power structures still matter with actual consequences.

So, within these poetic networked agencies of different oceanated kinds, the agentic powers of the Atlantic result in confinements for the dwellers' abilities to do something. These human agentic limitations become visible to us readers in the middle of *Ocean* once the dwellers attempt to detach and segregate themselves from the Atlantic, aiming to mark the ocean as other. The ocean is described as "a beast left in our care / and it was in our best interest to keep it fed" (FIVE) as well as "a dominatrix" (TWENTY). It is at the height of the active principle of water in the poem, that the Atlantic's forceful influence slowly leads to a "spiritual collapse." It is within this spiritual crisis so that the ocean dwellers aim to reorient themselves away from their mythopoetic source, the Atlantic, as to slowly build themselves together anew – a reparative action of sorts.

> … The pressure of that moment
>
> was responsible for a kind of spiritual collapse that would take
> centuries to resuscitate. You could say we turned our back
>
> to [sic] the ocean then. Purposefully built houses to face the sun
> and then invented curtains to keep that out as well.
>
> We grew inward and managed to fulfill an old prophecy
> by addressing those of us who dared to swim rather than
>
> the hungry ocean itself. (TWENTY-FOUR)

But Halifax is not only a mere contact zone, an area where different entities come to negotiate who they are and want to be under an asymmetrical power relationship, but Atlantifax. The dwellers may be able to turn their "back to the ocean" by building "houses to face the sun," or by, more radically, growing inwards by addressing human-bodies more than water bodies. Yet, the human body can never be the most powerful actant in *Ocean* where everything ontologically emerges from within and through the Atlantic. Clear divisions necessary to construct dualist ontologies require a certain stability, something the Atlantic with its flows and depths cannot structurally and philosophically provide. *Ocean* shatters powerful enlightenment dreams of human species dominance culturally-semantically taught to us through a very reductive and powerful

interpretation of Descartes' body/mind dualism, Darwin's evolutionary thought, peaking with the so-called human, and Hegel's object/subject asymmetry, to mention only a few. These nonhuman epistemologies have a Harawayian discursive agency of their own, and this epistemology is violent towards situating the so-called non-human other within slowly grown relationalities next to the human and human cultures. (white, male, able-bodies, straight) Human centered epistemologies create a blind spot neatly above natureculture relationalities, obscuring (think milky glass windows in bathrooms) any natureculture *knowing & doing & becoming*. In *Ocean*, connections pour across divides.

In *Ocean*, its ontological relationality with the Atlantic as its most powerful actant in the poetic assemblage is spiritually based in a communal ethics, structurally held together by something that is more flexible than terrestrial borders or rigid dualist systems, namely a meta-poetical belief in numbers which pour, flood, across the whole long poem:

> … There was a safety
> in numbers but no one wanted to head in the same
>
> direction. We were alone, the way the ocean was alone
> and briefly we understood why it couldn't find the right words
>
> for what it wanted to say and why it kept trying. (SIX)

The notion that "[t]here was safety in numbers" reassures Heligonians that they are less likely to endure harm once they stick together. The poem goes on to clarify, however, that security does not protect each member from a kind of loneliness which stems from an inability to communicate and hear each other in Atlantifax. This involuntariness transforms the mechanisms of belonging, such as being seen, understood, and accepted, that would formerly promise communal integration towards a belonging that also holds potential for relative seclusion. The impulse to break out of this unwished-for isolation leads to a meta-poetical comment: "and briefly we understood why it couldn't find the right words / for what it wanted to say and why it kept trying." In doing so, *Ocean* retrospectively points out a structural problem of being with another species. This passage implies that when the ocean cannot find "the right words," the discursive source of this speechlessness can be interrogated while still accepting the momentary silence. We can still find poetic strategies to enable the ocean's "words" or ways of communicating.

Not surprisingly, the long poem comments on and believes that poets and poetry can create such intra-species communicative strategies, such counter-articulations, because poetry has more

than mere words as resource of meaning-making. "The poets, it turned out, were our compasses" (TEN). And, thus, the reader is presented with a non-linguistic meta-poetical strategy, namely with a complex referencing system based in numbers. *Ocean*'s poetic reference system encapsulates all of the long poem's fifty poems without a title and a long poem without page numbers, but an index in the back, listing each opening line in alphabetical order with the respective numbers for each poem. Goyette's *Ocean* structurally attempts to repair linguistic communication between different species – at the minimum: the ocean, dwellers, and readers – right at this point by creating a structural intra-action pattern through numbers. Because there is safety in numbers. Not in the way conventionally thought of, but by opting out of language and into a form of code. Through this cross-referential system, *Ocean* rearranges the relationship between the dwellers, readers, the Atlantic, and the book through a specific poetic cataloging that is not linear like a list poem, but unlocks itself and is activated through each reading into a complex and ever-evolving assemblage.

With this meta-poetic code – and yes, the poem also works without noticing this reference system – Goyette's matter poem attaches itself even more to the Greek roots of the word poēma, to the idea of creating through poetry, but not only through language-systems. Rather, *Ocean* creates a flexible, not finitely engineered non-linguistic system through this code but also through the wave-like tactility of the book-cover itself, so as to unveil and take seriously the various material processes at work in matter poetry and outside of it. *Ocean* itself becomes a poetic phenomenon of material creation, through the Atlantic and its readers. *Ocean* takes the active principle of water and the material-semantic creation processes of matter poetry seriously by committing to the Atlantic and by allowing the multifaceted relationship within Atlantifax to emerge: *we* are part of *Ocean's* evolution because, as the poem proclaims, "[e]verything is connected!" (FORTY-SIX).

3.2.5 Water Striking Back

Metaphorically letting the Atlantic disappear in poem FORTY-TWO is *Ocean*'s most significant trap – or indeed, water striking back. On a micro-level, the ocean as a powerful acting body can onto-episto-mologically not cease to exist as the main meaning maker of the poetic universe. On a macro level, the metaphorical death of the ocean poses a challenge to death in its humanist conception.

> We woke one morning, and the ocean was gone. Some of us
> were relieved. Who can blame it if it had been our audience?
>
> We kept forgetting our lines and driving into props.
> If we were the audience then its dramatic monologues were going on

forever. It was either all plot or all character. Setting,
if you were a landscape artist. You can see how difficult

a relationship it was. (FIFTY-TWO)

The entanglement between the Atlantic, humans, and non-humans results in a bond of more than mutual codependency here. In this world without clear-cut boundaries, dying, just like acting solitarily, is not possible. We are left with a slighter degree of extinction that does not allow for visions of wholly embodied humans or wholly embodied "natures." In poem FIFTY-FIVE we read that for the ocean-dwellers "the ocean was still there. / That we were born with a seed of it and when we spoke, its waves pressed against our words for a further shore," conflating the ocean waves with human speech (think sound waves emerging while uttering). Eroding the boundaries between these different bodies, this oceanic trick also pushes us to question whether we readers have been an attentive audience in this "difficult" relationship. Simply speaking, the Atlantic had to metaphorically disappear for the readers to gather that they hold it, *Ocean* the book and with that a materially-semantic transfusion of the Atlantic, in their hands. "The ocean was still there."

What *Ocean* makes visible here is that poems, poetry, long poems, poetry collections, and matter poems are in themselves value structures, ordering themes and ideas according to their poetic belief system. Within this system, *Ocean* as a playbook grooms its readers throughout fifty-six poems to relate to this oceanated world, Atlantifax, creating attachments by either appealing to one's very personal experience with water or by showing how one is always already with the Atlantic, living next to it. And this very last trap, *Ocean*'s master move, is to mold an aesthetic experience which simulates the material-semantic attachments formed as if living next to the Atlantic (think being basted by salty skin) via poetry reading. This thereness is translated, ironically, through a storied absence of claiming the ocean being "gone" (FIFTY-TWO). But this absence is only storied. The material presence, this thereness, of water is what our attention is being shifted to via touch through our sight and hands. The paper giving *Ocean* its intra-face, held in our hands and touched with our sight, consists materially very much of water and forms part of our personal experience via the senses while reading, generating material attachments with the pores of our skin while we read. This experience of thereness, according to Hans Ulrich Gumbrecht, appeals solely to the senses: "it involves moments of intenseness (epiphany); and it arises from the "thingness," or materiality of the work of art, as something that *is* rather than represents" (original emphasis, in Felski 2021, 67).

Next to the many shifters in *Ocean*, poem FIFTY-TWO creates an ocean-poem-assemblage which generates a further tactile experience for the readers, which has, however, little to do with

stroking the book's very lovely cover. Touch is very often discussed in contrast to sight, which is traditionally theorized as the more sophisticated and mindful activity in comparison to the rather sensual touch. Within the ocean-poem assemblage, touch needs to be imagined as a materially entangled sensory experience. Through *Ocean*'s different voices (you/we/direct speech), its visual, gustatory, olfactory, and auditory images, temporal (one morning, once, for a long time) and spatial markers (here/there), metaphors, and ocean-waved couplets the boundaries between presence and absence break down and a new Baradian "space-time-mattering" is created that allows the reader to materially touch the Atlantic surrounding Halifax. And this is where it gets wild: what Goyette might be doing is more than literary contingency here. It is her use of words as actants that transfuses the materiality of specific water drops, stones, trees, beaches, houses etc. into words by carrying their "agential" (2007, Barad) quality – a piece of Halifax's oceanculture.

Grounding things a little: it is not a coincidence that the PROLOUGE's first line *"We traded an accordion of hours for wood. / … We were setting out to find the ocean"* stresses the agential quality of wood, transformed into boats. The agential quality of wood is doubled by the fact that wood is also the main component of *Ocean* as a book since paper consists of wood. It is through these multiple sensory experiences of touch that the material presence of the words on *Ocean*'s pages reach the hands, eyes, and mind of its readers. The disambiguation of the metaphors and sensory images do the rest. If attentive, *we* just might be able to all experience what it is like to live by the ocean in Halifax. Or said differently, Goyette's *Ocean* starts in Halifax, Canada, and not on the page.

… Why is it so hard

to trust something that leaps, disappears and then reappears
spouting more light? …

……..

… Didn't you feel like it was

part of your pack? When it whistled, whatever it is in you
that defies being named, didn't that part of you perk up?

And didn't you let it tousle you to the ground,
Let it clean you between your ears before it left you?

Wasn't it all right? That it left you? That we all will? (FIFTY-SIX)

With these last lines, *Ocean* as a playbook also asks for a *doing*, namely for an ethical commitment of its readers that goes beyond a material connectivity to Atlantifax through poetry. The politics of *Ocean* reveals that mere connectivity and a poetic relational ontology without action does not resolve or re-negotiate difference or power.

On that, *Ocean* instead very eagerly asks us to commit to non-human matter, to take it seriously and as an agential member of the public from within which we all emerge. Stressing the ocean's doings, the poem asks, "Wasn't it all right? That it left you? That it all will?" (FIFTY-SIX). This question is left unanswered, leaving the readers with uncertainty and, therefore, with a natureculture responsibility and the "ability to respond" (Haraway 2017) to think about the "lively relationalities of becoming, of which we are a part" (Barad in in Dolphijn and Tuin, 69). Thinking with Isabell Stengers, uncertainty is a vital part in relational sociability, keeping us engaged and exposed to consequences. It is here where Goyette's *Ocean* becomes an activist piece that trains and envisions our relationship with the ocean as substantially knotted. It is through this material knot that we can broaden issues of the public to non-human beings such as the ocean. What poetry and poets can do is to demonstrate through a composition of material-semantic entanglement, which reaches from a specific place of "nature" to the reader as "culture," that we always already live in a common state of multispecies critterly reigning – of natureculture*s*. In the end, *Ocean* illustrates and confirms that poetry and language are as much actants/tools/mediators to humans as to non-human beings. Or as Sue Goyette would say, once you have touched the ocean, you are entangled with it; never without it again.

3.3. Conclusion: Material Agency and Oceanic Texture Perception

Here I am, before the sea; it is true that it bears no message.
—Roland Barthes, *Mythologies* (1972)

Yet signify it does, although in a manner beyond resolve.
Is it the void that activates the terrestrial symbolic system?
Is it the real beneath the floating discontinuousness of land;
a symbolic system?
—Cchristopher Connery, "The oceanic feeling and the regional imaginary" (1996)

Haraway's natureculture philosophy on material and nonhuman agency, *doings*, opens an insight into the distributive agencies at work in naturecultures. Interestingly for matter poetry, Haraway's focus on language and discourse as material-semantic actants may work as a conceptual framework for the doings of poetic language not just as mere carrier of meaning, but as actants which shape the way we experience and conceptualize the world *in* poetry and *out there*.

Ocean as playbook for an aesthetic engagement with matter poetry focuses on the relationship and the conversations which can take place between matter poetry, the reader, and the world *out there*, once we view matter poetry as "material-semiotic apparatuses of bodily production" (Haraway 1991). Haraway's "material-semiotic apparatus of bodily production" (1991) is the naturecultural *modus operandi* in which all naturecultural epistemologies and beliefs of all the diverse actors and actants – human and inhuman, organic and inorganic – come together. However, this does not entail an equality between all actors, actants, subjects, or objects. Again, while Haraway's natureculture as a relatively flat monist ontology allows for diverse actors and actants to emerge through novel relationalities, differences still matter and some discourse and actors will have more agency and power within their relationalities than others, as Atlantifax also shows (c.f. Haraway 2004 b, 41 in Stache 2017, 92). Goyette's matter poetry, and matter poetry in general, uses material-semiotic actors such as the ocean or trees to create a poetics which is influenced by the technosciences, by local stories, notions of belonging, and (non)human life worlds, while not shying away from reflecting on the different power structures at play in storytelling, speaking, hearing, writing etc.

This way of touching the Atlantic's breeze via our sight and hands reaffirms Eve Kosofsky Sedgwick's idea that "to touch is to always reach out" (2003, 14). The ocean dwellers *in* the long poem as well as Sue Goyette or any actually existing people in the world *out there* on the ground in

Halifax, Canada, may be able to actually touch the water of the Atlantic as it rinses through their hands, yet we readers of *Ocean* reach out to the mythopoetics the Atlantic co-creates, affects such as a desire to find the ocean, the transmission of Atlantic water into the materiality of the paper-page, the wave-like rhythm of the Atlantic as it flows into the two-lined stanzas, shaping the rhythm of *Ocean*'s language. The fact that we never just see a picture, that is a visualization, of the Atlantic, or a map of Halifax etc. in *Ocean* may be explained by Goyette's material-semantic poetics which aims to show us that water is always already part of our very lives, materially part of our reading and living bodies, but also part of our highest cultural art forms, such as poetry. *Ocean* forces a certain "texture perception" (Sedgwick 2003) onto us which pushes us to read the Atlantic and water materially, semantically, but also associatively as a field-to-come (chapter two) which is charged with associations and affects. In short, a playbook for experiencing the ocean's (poetic) doings.

3.3.1 Natureculture *Doing* Play Rules

In Goyette's long poem, doing and agency are not systematically given, but emerge from a relationality with the ocean to create a natureculture assemblage which encapsulates the Atlantic out there in Halifax, the reader, and the long poem itself. The play rules that constitute such natureculture doings and creatings (poēma) are:

- Haraway's natureculture doing is concerned with forms of agencies that decenter the human subject as the *only* agent for mutable nonhuman, material, and (in)organic actants and players (think doers);
- natureculture agency is never beheld only by one player, but rather dispersed in an assemblage of human and nonhuman, environmental and literary actants (c.f. "distributive agency," Bennett 2010);
- for Haraway, what we call "beings," from things to organic critters, are made through a process which can be described as an "infolding of *others to one another*" (Haraway 2004, 250 – original emphasis). "Never purely themselves, things are compound" (Haraway 2004, 250 – original emphasis) and emerge through their relating and *doing* (Haraway 1991, 208); while Haraway conceptualizes natureculture players as technoscientized *to certain extends*, *they all do* and consist of *different things*. Their existence is thus not singular or interchangeable. They cannot only all be different things, but their being might also *differ* in relation to the extent to which they are fully technoscientized or material, organic, inorganic etc.;
- for Haraway's natureculture philosophy, articulations are a strategic tool, a natureculture method, a *doing*, really, which aim to circumvent the trap of representing, and with that, owning and speaking *for* an object (1992, 89);

- "[d]iscourse is not just 'words'; they are material-semiotic practices through which objects of attention and knowing subjects are both constituted." (Haraway 1997a, 218 in Stache 2016, 88). Material-discursive production, for Haraway's natureculture philosophy, equals doing theory, a permanent and multi-patterned interaction through which lives and worlds get built, human and unhuman;"
- for Haraway's natureculture philosophy as well as for matter poetry, language and grammar are powerful tools in their own right that cannot be thought as divorced, sperate, closed-off from matter, bodies, or the environment (Haraway 1991);
- matter poetry often frames a form of undidactic, nonlinguistic learning; a learning from *doing*, for example, from living and wearing boats, from feeling a desire to be oceanated, to affect and being affected. "his is embodied learning within the folds of the ocean brings together various forms of knowledge — past, present, cellular, felt, smelled, moved with, and so on. To give this ensemble of modes of learning its proper name, this is the realm of the tacit" (Probyn, 2016, 41);
- matter poetry knots materiality and materializations (think waves & molecules) with the materiality of language (think sound waves & ink) to show that natureculture actants such as the ocean mold matter poetry as well as the world *out there*; matter not as dead or inert, but an agentic and lively player in the creation, in the *doing*, of poetry, eroding bodies, books and ink.

chapter four

Natureculture *Becoming(-with)*:
How to Surrender & (Un)become with Nonhuman Matter
in Elizabeth-Jane Burnett's *Swims*

In compost writing, *bios, zoe*
and poiesis are undone and redone
because dying and unforming are as
elemental as living and forming.
—Donna Haraway, "It Matters What Stories Tell Stories" (2019)

To Swim To give
up.
To disappear.
To appear
—Elizabeth Jane Burnett, *Swims* (2017)

To not end where you thought you did
not with skin but water
not with arms but meadow
of watercress, dropwort, floating pennywort
against all odds to be buoyant.
—Elizabeth-Jane Burnett, *Swims* (2017)

"To Swim To give // up. // To disappear" (Burnett 2017, 13). This is a case of a swimmer being swallowed alive by a river. Or, to put it in less threatening terms: it is a question of where a human swimming body ends or begins; and with that, it is a question of where thought ends or begins when one's body is submerged in wild water, when all is in flow: "To not end where you thought you did // not with skin but water // not with arms but meadow" (Burnett 2017, 15).

In her long poem *Swims*, the writer-activist Elizabeth-Jane Burnett's materialist eco-poetics outlines how seemingly stable physical borders – a membrane of human hair, a skin cell, an arm, a meadow – collapse when encountering nonhuman dynamics such as a river's flow. As *Swims* describes with the line "To not end where you thought you did," this flow can fundamentally confuse one's own feeling of embodiment and triggers an existentialist question by entangling

body, self-awareness, and thought with the world *out there* – stretching what the human is. Burnett's natureculture question presupposes that such a physical collapse of bodies as well as borders between humans and the environment influences something, namely the assertion of the speaking self. So, when swimming, is one river or human body? Does *noticing and knowing* that one's embodiment has changed through water flow, that a natureculture *doing* occurred, influence our *becoming* human or more-than-human? Or, in more theoretical terms, what happens to our notions of self and other when one looks at an encounter as a dynamic material-semantic event?

With this existentialist question, Burnett's long poem *Swims*, which documents "twelve wild swims across England and Wales" (Burnett 2017, n.p.), hints at nothing less than a philosophical notion of a materialist becoming. To theorize *Swims*' philosophical hint, Haraway's natureculture notion of becoming-with is invaluable. Conceptually, becoming is a highly productive idea for feminist New Materialisms (Bennett 2010, Braidotti 2002, 2002, Grozs 1994, 2011, Haraway 2006, 2008, 2016, Keller 2003, Tsing 2015) that applies it to complicate the dichotomies between nature & culture, mind & body, self & other, human & nonhuman. Becoming has its philosophical roots "in the Greek philosophy of Heraclitus and Aristotle, in which it is an ontological concept that describes change and movement in opposition to the stasis of being" (Garner 2015, 30). While many of these poststructuralist feminist theorists depend on Deleuze and Guattari's notion of becoming (1980), which stands in opposition to ideas of being as fixed, structural, or institutional to destabilize static notions of corporality or identity, Haraway's natureculture notion of becoming is fundamentally non-Deleuzian[1], but about composting; natureculture's becoming-with is about the earthly material-semantic processes through which (i) actual and (ii) recognized lived more-than-human relationships emerge. Woof!

[1] Haraway's critique (2003, 2006, 2008) on Deleuze and Guattari's notion of becoming and particularly "becoming-animal" (1987, 232-309) from the infamous section of *A Thousand Plateaus*, "Becoming-Intense, Becoming-Animal, Becoming-Imperceptible" is deeply rooted in the performative ethics of her natureculture philosophy and based on three moves: (i) the first move is based on a species critique of human exceptionalism. In *A Thousand Plateaus*, Deleuze and Guattari write, "We oppose epidemic to filiation, contagion to heredity, peopling by contagion to sexual reproduction, sexual production. Bands, human or animal, proliferate by contagion, epidemics, battlefields, and catastrophes. . . . All we are saying is that animals are packs, and packs form, develop, and are transformed by contagion. . . . Wherever there is multiplicity, you will find also an exceptional individual, and it is with that individual that an alliance must be made in order to become-animal" (241-42 in Haraway 2008, 28). Haraway immediately spots a tension in the line-of-flight discourse Deleuze and Guattari propose with their idea of finding "an exceptional individual" in the other species with whom one forms an alliance in the process of becoming-with. Haraway notes, "This is a philosophy of the sublime, not the earthly, not the mud; becoming-animal is not an autre-mondialisation." (2008, 28); (ii) Harway's second critical move grows out of her natureculture roots in "situated knowledges." "Deleuze and Guattari make me furious with their utter lack of curiosity about actual relations among animals and between animals and people, and the way they despise the figure of the domestic in their glorification of the wild in their monomaniacal anti-oedipal project. And people pick them up as if they were helpful in figuring sociality beyond the human. Nonsense!" (2006, 143); and Haraway's third and last critical moves grows out of a general criticism on discursive academic citation practices, and hence echo her natureculture epistemology on "the order of things" knotted with gendered epistemological violence. "[E]veryone kept saying I'm a Deleuzian, and I kept saying 'no way'. This is one of the ways women thinkers are made to seem derivative and the same, when we are neither. My Deleuze is Rosi Braidotti's feminist trans-mutant, a very different kettle of fish (e.g. Braidotti, 2006)" (Haraway 2006, 156).

Interestingly for *Swims* with its long format as well as weaved-in stories of loss, wild swimming experiences, and activism, Haraway's becoming-with does not only focus on compost, but also on story as a methodological tool. What further distinguishes Haraway from other New Materialist thinkers is that her natureculture philosophy values and uses stories as a methodical tool which allows for a critical vantage point that imagines and visits an array of (non)human perspectives (c.f. pigeons & pollution (2016), octopus & thought (2016), the film & project "Storytelling for Earthly Survival" (2018) etc.). Such situated multi-perspectivity is something traditional New Materialist theory often fails to achieve (think, for example, of Barad's or Braidotti's complex theoretical prose) due to their favored mode of techno-scientist distanced abstraction. But it is exactly this love for and belief in story, or more specifically in compost storytelling (Haraway 2019), which makes Haraway's natureculture becoming so valuable for matter poetry in general and Burnett's *Swims* specifically. Matter poetry as a genre has the tendency to opt for a longer format via the long poem, allowing for situated stories from the so-called margins (think matter, plants, water etc.) to creep into the poetic text, thereby moving beyond relativism and objectivism to create experiential (non)human vantage points. After conceptualizing a natureculture *knowing* as a trajectory which starts with noticing (chapter two), and after looking at a natureculture *doing* as forms of dispersed (non)human, material, and semantic agencies, this chapter turns to a natureculture *becoming-with* which is characterized by the following claim: "[t]o be one is always to become with many" (Haraway 2008, 4).

But let's start from the beginning. In her natureculture philosophy, Haraway adapts the term "becoming with" from Vinciane Despret's "The Body We Care For: Figures of Anthropo-zoo-genesis" (2004) (in Haraway, 2006a, 99). For Haraway's natureculture philosophy, a material-semiotic notion of being one, closed-off individual is materially counter-factual. Hence, "[t]o be one is always to become with many" (Haraway 2008, 4). Staying true to her natureculture techno-scientized notion of collapsed onto-epistemological boundaries, a look at the mundane human genome is enough to make her case for her claim that "being one is always to become with many," making away with notions of static beings for a history of lived collective processes. Accordingly, "[h]uman genomes can be found in 10% of all the cells that occupy mundane space, she calls her body; the other 90% are filled with the genomes of bacteria, fungi, protists, and such…" (Haraway 2008, 3). Haraway's human genome example already hints at naturecultures' next philosophical move: that becoming requires a preposition; a *-with*.

Becoming in naturecultures as well as in matter poetry is always a becoming *with*. *Swims*' fifth wild swim in "Grasmere," in the Lake District, shows how water molecules never forget their becoming-with as they form an unplanned "material archive" (c.f. Rigney 2017) by carrying traces of nuclear waste via the power of streams and wind. Highlighting water's archival function,

Burnett's matter-poetic cartography links Canada to Japan to the Lake District by tracing nuclear debris which is transported via waterways and links continents:

> … on from tsunami
> Canadian fisherman report
> "waist-high" debris from Fukushima
> for 15 miles in the Pacific "It's incredible,
> piles and piles. Drift nets up there with catastrophic deaths
> in them… The currents are big, bringing everything in."
>
> Though we leave that body
> there is no emergence.
> There is no other body. (Burnett 2017, 38)

Firstly and just as ocean waves diffract to collapse into each other and out again, Burnett's waves diffract voices here: empirical reports of Canadian fisherman finding nuclear waste which is "'waist-high' debris from Fukushima" on a Canadian coast are diffracted with the imagined author's voice of *Swims* in the Lake District and later in the poem with anonymous voices of Fukushima residents. Secondly, the voice-entanglements simulate an actual material entanglement of Japanese nuclear waste with a Canadian coast onto which nets drift up "there with catastrophic deaths // in them" and an author-voice as witness of this entanglement via the archive-quality of water in England; and the poetic lines make known that traces of Fukushima's environmental and energy catastrophe in 2011 travelled to Canada via the Pacific's currents, depth, and vastness and how these bodies of water are connected to the Lake District, affecting three vastly different ecological landscapes because of natural forces, but also through an inter-connected nuclear energy as well as a global fishing economy, coastal erosion etc. Thirdly, *Swims* shows the stretched-out, suppressed causalities, the "slow violence" (Nixon 2011), of this eco-capitalist catastrophe by noting "Though we leave that body // there is no emergence // There is no other body." In *Swim's* relational and intra-active materialist universe, a form of escapism by leaving a lake, by ignoring an environmental catastrophe, by coming into existence without natureculture attachments is ontologically impossible and not available to think or write with. Again, Haraway's natureculture becoming-with is valuable for Burnett's matter-poetic conviction. In relationships, in history, in collectives, Haraway's questions is always, "where [do] we find ourselves together" and how we can trace "[w]hich worldings and which sorts of temporalities and materialities erupt into this touch, and to what and whom is a response required" (2006, 144-5). Haraway's *withness*, her ontological notion

that in an intra-active universe one is always already in a specific process *with* many, grows out of one of her fundaments in her natureculture philosophy, namely out of *situatedness*. Haraway's situatedness of knowledge goes "beyond showing bias in science" (1988, 578), by focusing on the "realness" of the material and lived world and grounding objectivity in a "more adequate, richer, better account of a world, in order to live in it well and in critical, reflexive relation to our own as well as others' practices of domination and the unequal parts of privilege and oppression that make up all positions" (1988, 579).

In Burnett's matter poetry and in naturecultures, becoming-with is a process that aims at making this collaborative interspecies "richness of the world" visible and available to think-, speak-, and write-with while also pointing out power structures and injustices. Really utilizing this "richness of the world," Burnett's poetry bridges the gap between poetic abstraction and real-world experiences by weaving her empirical field work as well as field notes on blue space pollution before, while, and after her twelve wild swims into her poetic production process. We thus encounter an imagined implied author voice *in the poem* which is tied to Burnett's empirical work and actual voice *out there in the environment* as well as scientific knowledge and other voices from Fukushima or nonhuman rivers. All this is held together by Burnett's practice of wild swimming.

In her work, Burnett conceives each swim "as environmental action" (Burnett 2017, n.p.). *Swims* shows a deep understanding about the minute mechanism of becoming-with water in naturecultures by knotting poetry with outdoor swimming as tools for collective action. "Swimming is an entanglement of cultural practices, situated accounts, and bodily encounters, which changes in form and meaning over time and place. It reflects, produces, and reproduces socialites, attachments, and connections between bodies and water" (Moles 2020, 21). Burnett uses outdoor swimming to re-materialize abstract environmental concerns by showing that one's swimming body is and becomes-with these polluted waters; in this move, Burnette's 12 water ways are turned into a site of intra-actions, through which her body and her mind become attached to ecological and geopolitical atrocities, and, likewise, the 12 water ways become part of her poetic meaning making assemblage and critical story telling in a *knowing & doing & becoming-with naturecultures* fashion (c.f. on outdoor swimming Moles 2020, 22).

While Haraway's natureculture philosophy has produced many environmentalist calls to action, Burnett's writer-activism leans into acting with and for the environment. Yet, Burnett's matter poetry does not only merge poetic abstraction with environmental action, but in her work, she also produces a philosophical intervention by showing that every becoming-with water also entails an unbecoming, a form of surrender – a handing something of oneself over. Like matter poets John Kinsella and Sue Goyette, Burnett is also a poet, an activist, and an academic, which allows for *Swims* to create an elasticity in thought to challenge fixed and anthropocentric notions

of being towards a politically involved *becoming- & unbecoming-with*. In the following, we will look at how Haraway's natureculture becoming-with includes complex and historical forms of human and nonhuman encounters, and how Burnett applies this idea of a material-semantic enlargement of the self to produce a *play book of becoming-with* which also entails an *unbecoming* – a form of human surrender to the world *out there*.

4.1 Thinking-with Complex Collectives: Companion Species

> We are training each other
> in the acts of communication we
> barely understand. We are,
> constitutively, companion species.
> We make each other up, in the flesh.
> —Donna Haraway, *When Species Meet* (2008)

> 1. Lay River Teign Fisheries Survey along the river bank.
> 2. Enter river with a set of problems.
> 3. Think about each problem in turn.
> 4. When no longer thinking about the problem, consider it dissolved.
> 5. At the point of each dissolution, insert the problem into the survey.
>
> —Elizabeth-Jane Burnett, *Swims* (2017)

Burnett's first poetic swim starts at "The Teign" in Devon, in South-West England, and arrives on the page in the form of a list poem, listing clear instructions for entering the river, and with that entangling environmental studies with the cultural practice of wild swimming, critical thinking, and activism. Each point in this list creates layers of performative utterances; number 1. refers to the "River Teign Fisheries Survey," which traces how toxins form the "disused barytes mine at Bridford" polluted and dissolved into the Teign in 1962, "killing large numbers of fish" (in Burnett 2017, 19); number 2. asks of wild swimmers to "enter the river with a set of problems" and to "3. Think about each problem in turn." Burnett's poetic instructions end with the comments in number 4. and 5.: here, the portrayed meditative quality of swimming allows the voice's mind to let environmental concerns pass and to "no longer think […] about the problem" seems to portray

a similar dissolving quality to the one environmental research elicits once it simply remains on the level of research without flowing into collective action. Simply "insert[ing] the problem into the / survey" fosters "dissolution" of both: of the problem and of hope here.

Still, something seems off with this list poem. In its recipe-like simplicity, the poetic voice and its tone seem superficially programmatic. Mundane, even. Dominated by the form of the list, following a streamlined succession of actions numbered 1-5, a meta-poetic discussion on actual change and environmental justice is evoked by an implied call to action via the pragmatic recipe-character. Yet, this call seems detached from actual on the ground problems. This sense of offness may result from the poem's deep *knowing* that simply reading a survey, thinking critically, and swimming may not create an affectedness when tackling the presented problem at hand, namely blue space pollution.

What else does this list do then? What this list shows us is that almost casual capitalocene destructions of water ways are not just activist or moral problems but test the limits of our understanding and of our being affected-with. Burnett's list poem reveals that a scientific study guided by the scientific method and outdoor swimming, in which "the immersive experience is the main concern in the practice and in the narratives and accounts thereof" (Moles 27), have rigorous as well as experiential properties that are both needed to respond to environmental concerns. Yet, something is still off with number 5's "dissolution" as thought just seemingly dissolves into surveys or blue spaces no matter what. The solution to this offness may just be on the next page of Burnett's long poem. On page 20, "The Teign's" text flows into free verse. Here, asides uttered by the imagined author's voice shout "**this is not solving anything**" or "**may not make any difference**" (Burnett 2017, 20) back at the quoted study describing what a "Biological study in this area has shown" (Burnett 2017, 20). We are witnessing a shout-off of two different voices on the page here, and the imagined author-voice is quite plainly, in message and style, shouting back (i) at the survey and (ii) at the belief to focus on environmental action in the realm of discourse – be it scientific, poetic, or programmatic – *only*. Anne McClintock calls this belief and literary tradition which is being shouted at here "a fetishism of form" (in Nixon 31-2). So this sense of off-ness which readers may experience when reading Burnett's material-environmentalist poetic lists may grow out of a long groomed fetishism and reader training. Burnett's poetics are pragmatic and call to action and thereby bridge the gap between abstraction and real-world action and (sense) apprehension. With its countless lists, Burnett's matter poetry *knows*, however, that it is this bridge between literary abstraction, personal action, and environmental change which is required to not misplace necessary agency onto the page *only*. Haraway and Burnett illustrate that in a world in which each actant specifically makes the other up in the flesh (think becoming-with), personal voice and subjective experience need to be interwoven into our ways of understanding problems.

It is within this tricky knot that Burnett's matter poetic concerns correspond with Haraway's natureculture idea of the companion species as a figure to think hard (!) with. Because matter poetry is famously difficult and complex, seldomly offering moments of immersion, thinking-hard and thinking-with is the *modus operandi* its aesthetics and poetics require as well as foster (and Burnett adds acting-with to this *modus operandi*). Haraway's natureculture companion species is valuable as a theoretical entry into matter poetry's complex ruminating. And help is definitely needed. With Haraway's *Companion Species Manifesto* and her monograph *When Species Meet,* her natureculture philosophy adds, after the "The Cyborg Manifesto" (1985), another helpful figurative tool, namely companion species, to conceptualize how inter-species collectives emerge through their actual and historic relations. While Haraway's cyborg – part human, part animal, part machine – was, especially through its SF heritage, noticeably techno-scientized, companion species' – mostly dogs, but also cats and horses or rivers – techno-scientized heritage (think breeding, veterinarian science, training, equipment, tracing chips, water-engineering, industrial pollution etc.) is hidden, humming like an unnoticeable background noise behind our human-nonhuman relationships. Technoscientized companion species are conventionally read as "natural" but are actually actants of no-natures, are techno-scientized interpretations of what is considered "natural" or a product of the implosion of natures and cultures through a "New World Order, Inc," (Haraway 1997), a hyper paradigm in which nature is always already cultured and culture is de-naturalized (Haraway & Goodeve 2000, 156-7). Just as Burnett's blue spaces are traditionally read as "natural," "The Teign" shows how techno-scientized they are through the development of industry, science, and environmentalism. The question really is how to intellectually and affectually respond to these hidden and often dirty hybrid histories?

One answer can be found in Haraway's "significant otherness." Countering criticism of relational-ontologies being ahistorical and void of power relations, Haraway's natureculture philosophy produces the *Companion Species Manifesto*, which traces the historical development of (non)human-collectives in their actual everyday lives through "significant otherness" (Haraway 2003, 7). "Significant otherness" are non-harmonious agencies (think *doings*) and joint futures in co-evolutions, for example in the co-evolution of dogs and humans (think *becoming-with*). Companion species, most famously dogs, emerge through techno-scientific breeding apparatuses as a product of imploded natures and cultures (Haraway 1997, 2004), and they engage with the biopower of who can live and who must die as well as the biosocial power of who counts as subject, actor, actant and who does not (Haraway 2004, 5). Companion species also engage with an epistemic power of who produces and reproduces the knowledge and the power in these complex inter-species relationships (Haraway 2004, 39). In matter poetry generally and in Burnett specifically, materiality and green or blue spaces are pushed to the poetic fore as active meaning

and affect makers to allow for a more accurate, so inclusive, view into this active struggle for life, death, and co-existence, correcting an epistemic violence which has favored the human as a primary reference in and around stories for centuries.

Just like blue spaces in Burnett, companion species are messmates in our everyday lives and these figures work like mental frames through which we can read specific species, race, and national histories. Haraway's "companion" in companion species stems from

> "the Latin *cum panis*, "with bread." Messmates at table are companions. "Species," like all the old and important words, is equally promiscuous[2], but in the visual register rather than the gustatory. The Latin *specere* is at the root of things here, with its tones of "to look" and "to behold." In logic, species refers to a mental impression or idea, strengthening the notion that thinking and seeing are clones. Referring both to the relentlessly "specific" or particular and to a class of individuals with the same characteristics, species contains its own opposite in the most promising—or special—way. (Haraway 2006, 100)

Because this inter-species interdependence is not always equal and part of responsive relationships, it must be one of recognition, looking at and thinking-with, and respect – or so the (counter)figure of the companion species (re)claims in its attempt to create counter-*knowings*. In this mundane *doing* and with this ethically pragmatic and techno-scientized *knowing,* companion species are "relentlessly about '*becoming-with*'" (Haraway & Potts 2010, 322, my emphasis); are relentlessly about making each other up – together.[3]

For Burnett's matter poetry, recognition and respect is how power and politics enter worlds of techno-scientizations and materiality within becoming-withs. Haraway's notion of *cum panis* serves as a useful frame to think with here. What Haraway conceptualizes and matter poetry shows is that encounters are not just relational, for example when recognizing the quantum level of human-environmental entanglement when swimming, but that encounters also do something with

[2] *Knowing* that language and discourse matter and have *real* effects, Haraway further writes that "*Species* reeks of race and sex; and where and when species meet, that heritage must be untied and better knots of companion species attempted within and across differences. A kind of atom or molecule, species is also a composition used in embalming. 'The species' often means the human race, unless one is attuned to science fiction, where species abound. Finally, we come to metal coinage, 'specie,' stamped in the proper shape and kind. Like *company, species* also signifies and embodies wealth. I remember Marx on the topic of gold, alert to all its filth and glitter" (2006, 18).

[3] This manifesto rests solidly on her natureculture philosophy and is in itself an example of why Haraway's oeuvre produces a natureculture philosophy based on *knowing* & *doing* & *becoming*. In a *Companion Species Manifesto,* Haraway reiterating the importance of Whitehead's "prehensions" (in Haraway 2004, 6) with its fallacy of "misplaces concreteness" (Whitehead 1952) in scientific knowledge making (c.f. Chapter two *Knowing*) and Judith Butler's "contingent foundations" (in Haraway 2004, 6; 1992) which allow for bodies and agencies that matter to occur (c.f. chapter three *Doing*), as entangled with a *becoming-with* (this chapter).

social gravitational laws; in short, with power, when one, metaphorically speaking, breaks bread with the other.

Swim number VI in "Hampstead Heath" makes the interrelated role of power, respect, and "apprehension" (Nixon 14) in *becoming-with* clearer. The poem again flows from list into free verse while negotiating the activist sphere of wild swimming with a sustainable poetics and physical mobilization against the memory loss of Fukushima.

1. Go for a swim in the rain.
2. For each individual raindrop seen or felt, take the name of a
   Fukushima resident seeking compensation from Tepco.
3. Collect a stone from the bottom of the pond and write the name
   on it.
4. Write in response to the stone.
5. Return the stone to the water. (Burnett 2017, 41)

On a meta level, *Swims* as a long poem apprehends – represents and recalls – Fukushima every time the poetry collection is opened and read anywhere in the world, continuously recognizing this nuclear event throughout very unequal spaces – the literary space on the page, the Japanese nation state and the region around Fukushima *out there*, Hampstead Heath etc.. But more interestingly and on a micro-level, the poem itself breaks with the metaphoricity catastrophes, wars, and conflicts take on (c.f. "Metaphor and War, Again," Lakoff (2003)) and therefore allows us to emote with the victims of Fukushiuma – respectfully! (vs. pitifully). In "Hampstead Heath," the poetic voices criticize how names "are almost entirely absent from Fukushima reports // mostly a nameless 'one woman' is quoted" (Burnett 2017, 41). The poem then rushes into free verse and dips into inter-textually quoting Fukushima reports that continuously describe an array of nameless women; "one woman was frantic that cesium was detected in her breast // milk" or "'my hair fell off,' one woman told me with tears" or "'We want you to somehow get the nuclear plant under control" (Burnett 2017, 43). It is here that Burnett's poem demonstrates how a nameless woman stands and covers up all the individual and civil lives destroyed and inflicted on the ground in Japan. It is not just that some person stands in for Fukushima, covering up all actual, individual, mundane losses, but that this "one woman" in the report remains nameless, doubling the power of metaphor, entangling something concrete (Fukushima) with something abstract (one woman). Burnett's imagined author's voice then allows for a form of respect, by giving real-world instructions for writing the actual "name of a Fukushima resident" on a stone, to #saytheirname and to refuse to "see their long-term livelihoods abstracted into oblivion" (Nixon 41). "2. For each individual raindrop seen or felt" one name "should be written on a stone." This simple act of writing a

Fukushima resident's name on a stone is a form of encounter and an empathetic breaking-bread – a respectful becoming-with each woman and each Fukushima resident while swimming. With each stroke taken while swimming, water will do what it does; it will flow over the stones and wash away the ink on them. This way, the names become accidentally archived in Hampstead Heath (and beyond) and in (nonhuman) bodies through the potential accidental absorption of ink particles. Burnett shows and gives us instructions of how we are and can become beings-in-encounter and how we may begin to break with political abstractions, re-introducing power and natureculture forces into ontological discussions around the concept of becoming at large.

Naturecultures are not just about politics, but also about the very ordinary. Haraway's natureculture figures and matter poetry's knotted beings are ordinary beings-in-encounter, always becoming-with in the river, house, lab, field, zoo. As ordinary knotted beings, they are also always meaning making figures that gather up those who respond to them into unpredictable kinds of "we" (Haraway 2008, 5). This becoming of companion species is hence not a fixed state, but a process of making "each other up, in the flesh" (Haraway 2008, 16). Part of this process is, what Gregory Bateson, refers to as "human and nonhuman mammalian nonlingustitic communication … [which] is communication about relationships and the material-semiotic means of relating" (Haraway 2008, 26). In Haraway's *specere* of companion species a looking back, a regarding, but also a *respecere*, so a form of respect, is part of a non-linguistic communicative relationship of closely interacting bodies who materially (think human genome) are always already specifically entangled through their special and temporal proximity and their intra-species evolution in work and play (Haraway 2008, 27). This material and semiotic relating makes companion species into material-semiotic figures which are not stable (and this is important!), even though the noun "animal," "river" or "human" suggests semantic stability (Haraway 2006a, 143). To double this semantic instability, Haraway thinks that "verbs are much more interesting" (Haraway 2006a, 143). *Swims*' "Rivering" (Burnett 2017, 15) then is exactly such a meta-poetic practice where the "river" leaves its grammatical status of being a noun, a closed-off entity, to *do* something, to *become* enmeshed in a continuous form of becoming-with. The experience of the river as an entity which always wants to flow finds its way into the matter-poetic neologism of "rivering."

This process of becoming-with companion species or other species in matter poetry produces a natureculture notion of thinking-with and knowing-with "tentacularly[4]" (Haraway 2016, 2018), which could not be more vital and politically fundamentally necessary to our contemporary

[4] In *Staying with the Trouble* (2016), Haraway expands her idea of situated knowledge (1988) by introducing tentacular thinking. This methodology leans on the imagery of tentacular blue space creatures (think octopi and other mollusks) to imagine a multi-channel way of thinking that is sympoetic, so a thinking done with the (non)human others, and that deconstructs the hierarchy seemingly naturalized by the anatomy of the human body, starting with the head and the eyes, for a multi-sensory and affectual mode of thought (think many tentacles touching, feeling, sensing, noticing, and computing lifeworlds at the same time).

Zeitgeist of #fakenews, #fridaysforfuture, #climatechange, #blacklivesmatter etc. What naturecultures teach and matter poetry practices is that thinking-, knowing-, and storytelling-*with* "risk[s] contact zones with diverse situated thinking, feeling, and narrating" (Haraway 2018, 102). This risking of contact zones through *situated* becoming-, thinking-, knowing-, and telling-with shows that #fakenews or #altfacts are foremost opportunist and functionalist, pretending that thinking and knowing "were merely functionally useful for crafting reality according to political preference and self-interest" (Haraway 2018, 103). By leaning of Hannah Arendt's *Eichmann in Jerusalem* (1964), Haraway's natureculture philosophy (2016, 2018) demonstrates and Burnett's exercises strong and complex thinking, doing, knowing, and storytelling and how these practices must be tied to a process-philosophical *becoming-with*.

Matter poetry's complexity – it's long form, resistance to immersion, inter-textuality, polyphony, material-semantic figures, material performativity, it's assumed scientific knowledge etc. – is not just a form of intellectual sports for literary scholars to perform thought-acrobatics. But these complexities foster a poetic soil, metaphorically speaking; they form a poetic wild, unruly cartography which allows for many entries – sense, affect, emotion, story, anecdote, scientific, fantastic, historic etc. – to stick with and to bend to so history, personal, nonhuman, material, and environmental complexities can unfold.

To theorize the productivity of matter poetry's complexities and its soil for practicing thinking better, let's turn to Haraway again. In *Staying with the Trouble*, Haraway leans on Arendt's account of Nazi war criminal Adolph Eichmann's inability to think (2016). "Eichmann was a manager, capable of feats of functionalist rationality, but he could not make present to himself what was not himself and his functions, could not imagine, much less cultivate, the capacity to care, to respond, to not know so as to know otherwise and to know-with-unruly-others" (Haraway 2018, 103). Eichmann had "a deeper surrender to what I would call immateriality, inconsequentiality, or, in Arendt's and also my idiom, thoughtlessness" (36).

Thought then is different from disciplinary knowledge or truth or the morality game of choosing between good and evil. Thought is stretchy as it has the ability to bend, to activate something very similar to empathy, a thinking-with someone else's standpoint and reality. Burnett uses the complex net of British water ways with its depth, streams, critters, and flow to discuss wild swimming, environmentalism, politics, and personal mourning and to bend and knot thinking-with water together with an array of standpoint and realities, such as situated pollution, Fukushima, the Gulf wars etc.

This bending towards the nonhuman other, water, to evoke a feeling-with, to evoke empathy really, goes not just for the natureculture material but for the very personal, the very human – in Burnett's case the loss of a parent or a parental figure – as well. This bendiness in

thought is best observed in *Swims*' interlude. As an elegy to Burnett's dead father, *Swims* includes the interlude "Poems for my father," which breaks with the contemporary experimental forms the rest of the long poem portray (think free verse, lists, intertextual scientific reports etc.) to fall into formal sonnets. The two sonnets, "Aegina" (Burnett 2017, 49) and "Wallflowers" (Burnett 2017, 51), knot the traditional 14 lines with the structured repetition of strokes while swimming and with the repetition of birth and death. The lines "If water is baptism let it rain // rivers down your armies of taut veins // storming the heart" entangle the christening of new life as a traditional ritual with the repetition and the exhaustion of swimming during which each stroke tickles human muscles and triggers the cardiovascular system, tauting "veins // storming the heart." More interestingly and hugged in-between these two sonnets, "The Voice" speaks back to Thomas Hardy's poem "The Voice" (1950), in which "A woman much missed" calls to the speaker via "leaves around me falling" and "Wind oozing thin." While Hardy uses this calling to return to the lost human, this "woman much missed," Burnett complicates her calling by bending it towards matter, her dead father, and the cosmos with the lines "There I think I glimpse you, covered in fluid // …. Is it your hand or water underneath // the moon calling" (Burnett 2017, 50). In a move to not possess her father's story, to not own his life in words, Burnett expands the "you" that is called to, entangling the father with the moon and the water to call them all. That's what naturecultures and matter poetry is all about – it's a technique of thought bending to and with the (non)human, organic, in-organic and material other and self in an ethical and respectful manner.

There is something more happening in this mourning of a dead father, a dead parental figure, and this technique of thought bending. This *something more* might be a rare moment of universal experientiality. Usually, thinking- and *becoming-with* the (non)human other in matter poetry is politically and semantically incredibly specific and situated, rarely claiming universality. Matter poetry knows that (western, white, human-centered) universality in literature is incredibly boring, and while matter and materializations are ontologically omnipresent, they matter differently. Still, there is something about losing a parental figure or mourning the loss, the absence, of a parental figure which is so central to the human experience at large that it can evoke or claim a universal experience and affect.

For matter poetry, death is fascinating because, following Ocean Young (2022), death is truth without a medium; the death of a parental figure has no "as is," no vehicle; one experiences this kind of intimate loss of a father or a mother or someone who mothers/fathers without warning or the ability to influence time or space. No medium. Without claiming a universalist conduit of knowing how Bennet's father's life was like, but by creating a poetic simulation of grieving her father with the moon and the sea as kin in her matter long poem, Burnett's imagined author's voice uses water as medium to grasp death and to re-materialize it, to situate it; and the imagined author's

voice hence asks her father while floating on the water, "can you hear me through water?" (51). While death has no medium, grieve does. In this sympoietic interlude, water is the material medium which the grieving voice uses to cope with her personal loss and to visit this almost incomprehensible truth of a person disappearing from one moment to the next.

Recalling Hannah Arendt, Haraway's natureculture philosophy helpfully describes this becoming-with in thinking, writing, and knowing as "the ability to go visiting."

> She trains her whole being, not just her imagination, in Arendt's words, 'to go visiting.' Visiting is not an easy practice; it demands the ability to find each other actively interesting, even or especially others most people already claim to know all too completely, to ask questions that one's interlocutors truly find interesting, to cultivate the wild virtue of curiosity, to retune one's ability to sense and respond – and to do all this politely!" (Haraway 2016, 127)

Politeness[5], here, helps the state of *becoming with* in thought via the move of visiting because politeness stays with the self and the other in waiting for something interesting to occur and in waiting to be intra-actively shaped by the world *out there* and *in here* (Haraway 2016, 127). This politeness and waiting is ultimately tested in Burnett's "The Voice" where the speaker holds on to the possibility of her father speaking back with the help of this bluespace. In naturecultures, visiting is a method with the goal of becoming-with the other – no guarantees! – and swimming as a natureculture method might just be such a tool as one leaves the soil to move into a bluespace, a space to which humans surrender themselves in a dance of sensing and responding. "They are not who/what we expected to visit, and we are not who/what were anticipated either. Visiting is a subject- and object-making dance…" (Haraway 2016, 127).

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[5] For Haraway's natureculture becoming, kin and making kin and kind is, next to visiting, another "category of making and unmaking" (Haraway 2008, 134) via a recognition (Haraway 1997), a polite nod in the exploration of mutual relationalities and bonds:

> Kin making requires taking the risk of becoming-with new kinds of person-making, generative and experimental categories of kindred, other sorts of "we," other sorts of "selves," and unexpended kinds of sympoetic symchthonic human and nonhuman critters. The kin making is crucial for imagining and crafting with each other still possible—barely possible—flourishing worlds, now and to come. (Haraway 2018, 102)

Storytelling and knotting different stories together is in itself a practice of making kin non-biogenetically, while valuing environmental-justice. In natureculture becoming-with, to kin involves a response-ability, so an ability to communicatively and ethically respond to each other, whether one wants to or not. Because if I have a kin, the kin has me, too (Haraway 2018, 104).

4.2. *Swims*: A Playbook for Compost Writing, *Becoming-with*, & Surrender

> Asked for or not, the pattern is now in 'our' hands.
> Relatives are not optional.
> Call that politics.
> —Donna Haraway, "Make kin, not cities!" (2018)

Why start with compost? Compost writing is a methodological innovation which Haraway's natureculture philosophy has introduced rather recently to create storied soil for becoming-with in which "relatives are not optional." Naturecultures and matter poetry is interested in the multiple ways of how we can come together, recognize, and care for as well as make kin in and outside of our human blood-relations. Compost writing is such a tool of how we can learn, train, foster, and imagine a living and dying well together with a lust for care and regard.

Compost brings life and death together in one bio-political move. "Like all things living, CHON – carbon, hydrogen, oxygen and nitrogen – are the 'building blocks' for compost" (Flynn 2019, 4). Compost reacts to the climate as it needs water to ferment. In droughts, like the one we have been experiencing during the last summers (2021, 2022), one needs to add water. "The basis of a compost pile is carbon – the dead, dry stuff like fallen leaves, straw, newspaper, and nitrogen – [as well as] the moist, colorful like vegie scraps. The ideal ration is about 28 C: 1N" (Flynn 2019, 4). Like a compost pile having too much nitrogen enriched matter, when compost writing mixes to many abstract theories and methodologies together, a stinky ineffective slushy soup emerges. If it has too much carbon, the compost pile stops to decompose. Hence compost writing, needs to be situated and grounded in a limited number of applicable methods with a focus on how, in Haraway's words, we can die and live well together.

Compost writing can further also be seen as a situated natureculture epistemology. Here, Haraway uses her methodological innovation as an alternative to a distanced and impartial mode of criticism, and she also pleads for a new way of story writing which opts out of hope and despair as unproductive modes and dives into cycles of making and remaking, com-posting and de-composting (2016, 4). She writes, "Not life writing, but compost writing, writing-with in layered composing and decomposing in order to write at all, living-and-dying-with to be at all, as mortal earthlings—these are the lures that animate my lust for stories" (2019, 556). Compost writing is kin to life writing, so writing from one's personal experience and biography (think Burnett's imagined author's voice & layers of field work as well as autobiography), but, and this is important, compost writing is also critical. Haraway's criticism stems from redefining impartiality as a humanist marker for critical thought into the ability to a "writing-with in layered composting and

de-composting to write it all." Haraway's impartiality does not stem from a detached standpoint (think God-trick or modest witness). Quite to the opposite, it leans into an array of writing- as well as thinking-withs and may I add reading-with[6] diverse human and nonhuman perspectives to create a plurality in thought which describes a natureculture, so a social, phenomenon.

Haraway takes this sympoetic writing-with literally when she states, "nothing makes itself, nothing tells its own story. Stories nest like Russian dolls inside ever more stories and ramify like fungal webs throwing out ever more sticky threads" (2019, 566). This entanglement which is inherent in compost writing requires a material world out there (think planet, earth, soil, critters etc.) as much as it needs semiotics (sign, language, meaning, ink) to create collaborative narratives, an assemblage of living and nonliving stories (2019, 577).

All this – turning away from autopoetic biographies and a turning towards writing-with and thinking-with a plurality of perspectives, tying thinking and writing to the material – fosters an Arendtian ability to train "one's imagination to go visiting" (Arendt *Lectures*, 43, Haraway 2016). Haraway's natureculture philosophy uses this ability "to go visiting" as part of a "becoming-with" as a project of enlarging the self *in knowing & doing & becoming.*

Swims is an example of applied compost writing as it represents British waterways and the complex ways of ecological pollution, climate destructions via Fukushima, and how all this is entangled with the geo-politics of war, by example of Gaza (think matter decomposing and how *zoe*, life, is seen by certain powerful western white subjects as neglectable or even killable), and Burnett's own body, thoughts, and life.

But compost is also about creating something new and bountiful. In this sense, Burnett's long poem also shows us that swimming can be a joyful and rejuvenating method of becoming-with the world in climate ruins (c.f. Tsing 2015). The long poem unveils that while wild swimming, one becomes-with blue spaces to such an extent that one's feeling of one's own body, the structure of the limbs etc., is suspended in time and in the flow of water, the result being, what Philip Fischer calls, a "moment of pure presence" (in Bennet 2001, 5). Jane Bennett calls this rejuvenating effect of Burnett's wild swims "enchantment" (2001). Thinking with Fischer, Bennett theorizes that while enchanted, "You notice new colors, discern details previously ignored, hear extraordinary sounds, as familiar landscapes of sense sharpen and intensify. The world comes alive as a collection

[6] We thus need to re-associate and rethink our reading methods in order to unleash reading's potential to form such (non)human attachements and to sometimes opt out of what Paul Ricoeur famously called a "hermeneutics of suspicion" to interrelate Marx, Nietzsche, and Freud. It is here where Haraway's compost writing intersects with a contemporary debate in literary studies, stirred by Rita Felski, about, what she calls, post-criticism. "Becoming a critical reader means moving from attachment to detachment and indeed to disenchantment" (Felski 2009 in Ahren 14). In order to form attachments through reading with the (non)human other, the goal can very obviously not be to become entirely uncritical (whatever that means). Instead, what Felski is after is more an overcoming of pre-established argumentative "isms:" in short, that the academy has been fostering a critical practice through an array of suspicions (based on repressive identity systems, intersecting around identity issues of sex, gender, race, class etc.).

of singularities" (2001, 5). During the imagined author-voice's wild swim number IV in "The Ouse," she notices "Deep in the water a blue so unlike blue you think of almost // every other color first" (Burnett 2017, 32); further along the poem, the voice drifts like wood in the water and the effect is that you "forget what you know of texture what it is // to be hard brittle starts soft why not be soft choose to live // with softness" (Burnett 2017, 33). *Swims* describes a becoming-with the blue space via affective channels and sense precepting a new shade of blue that is specific to the depth of the Ouse. The distinct drift of the swimming-body via the Ouse's current seems to elicit a form of mobility-with-water which allows a cross-species encounter with water and wood, resulting in the question "why not be soft choose to live // with softness." The soft motion and drift of the water seems to flow into the speaker's mind to elicit an affect of freedom which provokes the question: why not live with softness in this porous state of being touched and hugged by the others? All these inter-species crossings through wild swimming are not just reviving but political, staying true to Burnett's activist-poetry. Political, because they offer the ethically concerned subject a way of regaining strength for the climate fight, and these crossings also induces a "kind of magnanimous mood" (Bennett 2001, 32), an enchantment with the cold, the ergo-dynamics, the depth of blue spaces, and responsive connection to natureculture wordings with no capitalist motivation (this is important for Burnett!) necessary for a full life in inter-species flourishing and dying. (Post-)Modern ethics such as Bennett's (2001) but also Felski's (2015, 2020) teach us that we rely after all not only on alienation, reason, control etc., but also on noticing and fostering positive attachments as well as joyful attunement to the very compost, the world we live in.

Swims reveals a way of representing these complexities on the page without being reductive. In doing so, *Swims* reveals that in matter poetry, a becoming-with entails something special – adding a *caesura* to the theoretical debate about becoming at large; namely, that becoming is not just a multi-species enlargement as well as decentering of the human self but that it requires a form of unbecoming, a decomposing, of the self, a surrendering of the so-called self in the world *out there* and *in here*:

A giving in
to hand
oneself over
or
even
to bow
to.

Burnett's *Swims* offers us materialist surrender-tools, most importantly swimming but also the neologism "kelling" (Burnett 63), to hand ourselves over, to give into another authority, to bow to, or to give up, to stop resisting, to realize something, and ultimately to go somewhere (think Arendt's ability to go visiting & Haraway's thinking hard).

As I have done in the last two chapters, I will, again, explore the matter long poem *Swims* as a playbook for natureculture (de)composting and surrender which does not just theorize the (de-)composition of self but allows us to experience and train an awareness of how we already always become-with and how this requires a form of surrender, an unbecoming.

4.2.1 An Unbecoming via Surrender; Or, How to Swim

> *A dictionary would start from the point at which*
> *it would no longer give the meanings but*
> *the tasks of words.*
> —Battaile in Jane-Elizabeth Burnett, *Swims* (2017)

Swims starts with two things at the same time: the long poems opens with an invitation "to swim" as well as an epigraph by Baittaile which argues for a non-representative way of understanding a dictionary definition better by looking at "the tasks of words," at how words *do* something, at how they act like word actants (see chapter three on *doing*). And so Burnett's long poem does what it preaches and starts with a dictionary definition of "to swim," the main referencing infinitive that remains on the upper left side of the page and is expanded by various listed infinites on the right, such as "to disappear. // To appear," semantically enlarging what "to swim" could mean and do and what it does to the swimmer as part of an assemblage (thing a natureculture *knowing & doing & becoming*).

To Swim
To give
up.
To disappear.
To appear
In *Vanity Fair* before breakfast
To afterwards destroy economy of Greece.
…
To be an assemblage
To drift.

To not advance capitalism
To be at once
in the body
and under
and over it (Burnett 2017, 13)

The line break between the first line "To give" and "up" simulates the slight hesitation a wild swimmer experiences before the bodily encounter of human flesh hitting cold water streams. In-between these lines, the reader cannot only experience a simulation of this hesitation through the enjambement as well as the white space on the page, which stops the reading flow, but this break also simulates the rupturing moment of crossing into an environment, namely water, which is foreign to the swimmer in the sense that the cultural technique of swimming is required to secure survival so one does not drown. "To give // up" then is a precarious move to opt out of the motion of walking as a form of controlled falling with gravity to hand oneself over and to finally fall, leap into the dynamics and energy of water flow.

Because a dictionary entry always lacks a subject, the long poem moves into theorizing a universal function of swimming that is to surrender, a handing over, a giving oneself up to nonhuman matter, to water. Within this surrender, the dictionary voice claims that one's phenomenological sense of existing in time and space seems to tremble when swimming and so we "drift" when entering and morphing with the blue space. This is only the first meta-poetic comment in the long poem which describes that becoming-with a blue space via swimming also entails an unbecoming. This unbecoming encompasses an erosion of a sense of a closed-off embodiment as well as a confucsion of one's orientation by playing with one's sense of time and space which is altered by water. Burnett's first two lines already complicate a traditional notion of becoming(-with) (Haraway 2008, 2010, 2015; Braidotti 2013) to introduce that becoming-with always already necessitate an undoing of self to join with the other, a giving up, a bowing – surrender.

While surrender is tightly squished into the discourse of military defeat, surrender in naturecultures and matter poetry is not necessarily a setback or an overthrow. Surrender, in Burnett, highlights the unbecoming function of swimming which is about connecting intimately with watery non-human matter without a productive or monetary goal, in Burnett's words, "to not advance capitalism," and to simply feel the pleasure of being weightless, of being simultaneously "in the body // and under // and over it." This sense of unordered weightlessness offers an insight into the enchanting powers that swimming has. Still, it might be life- or ecosystem threatening for a human or a river to cross species and material boundaries. Yet, this potential threat can also involve

a certain magic when one plays and leisures around the edges of these material boundaries (c.f. Bennett 2001, 52).

The dark pull of this magic, namely the poem's awareness of the ultimate human unbecoming, it's awareness of death through swimming is explored when the poem changes its form to rush into stanzas that alternate over the page, simulating a wave pattern:

> In display of bones
> to be closer to skeleton and totally fine
> what's the worst that could happen?
> already fallen
> already wet
> already missing
> from the earth but recoverable always
> there is something left
> to be dug up
> to be eaten
> to be stolen (Burnett 2017, 14)

The lines "In display of bones // to be closer to skeleton and totally fine" trace the ontological and material entanglement of death and life via the symbolism of bones, which are contingently materially present during life and while dying. When the speaker's human bones are quantum entangled with water, the elemental dynamics of time-space-matterings change. Just like material water-waves diffract the moment a human body hits a blue-space's surface, time and space are also subject to this diffraction, this splitting to create something other. "[T]o be closer to skeleton and totally fine" points to this shift in the space-time-mattering dynamics of a human body in water. The awareness that blue spaces are one of the most alien spaces to humans through its shiftily hydraulics, vastness, flow, and depth which are all earthly but fundamentally disorientating and due to their lack of oxygen, deadly for humans.

So "what's the worst that could happen" (Burnett 14)? Surrender. Turning to the etymology of "to surrender," "to surrender" comes from the Anglo-Norman French *sur, -rendre*, which is tied to the French reflexive verb *se rendre*, which has three useful meanings: "to bow to" (*se rendre à* [*argument*]), "to go somewhere" (*se rendre quelque part*), and "to realize something" (*se rendre compte de quelque chose*) (OED online). A transversal move is characterized by the fact that nothing ever pre-exists its relating and hence does not "be" (think stable), but "become" (think process) with other human and nonhuman players. Burnett's first poem in *Swims* suggests that while swimming the

philosophical notion of becoming needs to be enlarged: and so when the dictionary-poem's voice says "already fall" and "already missing from the earth // there is something left // to be dug up," it intellectually and physically bows to the dynamics of both the forces of blue spaces but also of naturecultures, in which nothing can completely cease to exist. Even in an event of an ultimate unbecoming via death, one's body would become soil, bone, skin that can be "dug up" or "eaten" by a critter to very intimately become with that critter in its digestive system. In the poem, all this is not moralized or disgusting, but somehow hopeful. "What's the worst that can happen" points to this hopefulness, which is an informed *noticing* as well as "realizing" that "going to" a blue space that one may not fade, may not be alone, one may unbecome a little, but only to become with something else.

This hopeful resilience of becoming-with is emphasized by the call "to not being taken" (Burnett 14). In the end, the poem suggest that we may bow to, surrender, to the very entangled fabric of our material intra-active universe, in which nothing ceases to exist, but becomes with something and something becomes other, even on the page:

> there is something left always when words are at
> their fullest stretch
> something left that cannot be taken.
> To not being taken. (Burnett 2017, 14)

This poem ends with a meta-poetic comment about material language in naturecultures. "[W]hen words are at // their fullest stretch" in matter poetry, the meaning of a word, just as the meaning of the verb "to swim" right in this poem, is stretched to such an extent that it creates room and volume for interpretation but it also becomes almost not graspable, extremely abstract and almost stretched too thinly – similar to water's abstract shape-shifting attributes. This over-stretching may also risk an overflow of interpretations and meanings which may lead to meaning making constellations that are so obscure and loose that they may risk dipping into irrelevance (think Dadaism) – the ultimate unbecoming. In this very case of stretching the semantic texture of "to swim," what is being left that "cannot be taken" on the page? Something material: words, ink, wood, an affect of flowy intensities created by describing the function of swimming. But maybe something else that is left is the mere joy of wild swimming in climate ruins as a revitalizing exercise for the (reading and non-reading) self. "To not being taken."

4.2.2 Becoming & Unbecoming: Burnett's Materialist Writer-Activism

It is in this exact liberational spirit, "To not being taken," we read in Burnett's "Author's Note" that "Each swim is conceived as an environmental action, testing the ways in which individuals might effect environmental change" (Burnett 2017, n.p.). What Burnett's note brings to the fore is that there is something going on between swimming, language, awareness, and activism in *Swims* and what I am interested in is in how far this dialectic may add to a becoming-with as well as an unbecoming through matter poetry.

On a basic level, Burnett's poetic swims are part environmental action because they are consciousness raising as they bring the environment as our daily backdrop to everything we do (swimming, walking, writing etc.) and our entanglement with it to the poetic fore. On language's power to make things conscious, to make one aware, Timothy Morton writes in *Ecology without Nature* (2007),

> Nobody likes it [, the unconscious,] because when you mention it, it becomes conscious. In the same way, when you mention the environment, you bring it into the foreground. In other words, it stops being the environment. It stops being That Thing Over There that surrounds and sustains us. When you think about where your waste goes, your world starts to shrink. (1)

Morton notes that once you "mention" something, you call out and hence mark it with words. "That Thing Over There," the environment, stops being a mere backdrop or a resource to become something more intimate. Language, then, can have the ability to create relations not only semantically, but also spatial by re-directing one's orientation towards a specific environment to make it an active part in the consciousness-raising process.

In matter poetry as well as in *Swims*, language is not only an artistic and consciousness-raising tool, but a complex system which fosters actual relationships and is shaped and shapes by the world, including the individual. Language is hence tied to our environment as well as to our identity, our sense of self – all players in a natureculture becoming-with. In "Ecological Consciousness" (2002), Alphonso Lingis draws on Paul Shepard's *Thinking Animals* and hence introduces a perspective of philosophical Anthropology onto how human speech developed in an entanglement with the material environment as well as the self:

> Formally, speech is distinguished from call-systems by the use of phonemes and morphemes, by which images could be evoked and combined, eventually producing models and scenarios. … Shepard believes that the production of models and scenarios is connected to knowledge of the self, evolved among hominid primates. Shepard thus sees

the necessity to assess one's own status and position in the group to be the decisive factor that required language.

But "the self is not so easily perceived as an object; it is too fluid and close. Nor can it be easily represented" (24). Shepard's thesis then is that "language initially arose as an instrument for the dissection of the human personality as a means of comprehending the self, by an intensely social primate moving into a hunting ecology" (26). It is on the perception of other species and the process of taking them apart that categories were constructed and named. The names subsequently evoke images that count as visualizations of traits of the self. "Friskiness, hunger, and patience can be seen respectively in pups, the searching coyote, or the waiting hawk atop a tree" (27). Thus one can speak about one's own behaviors: one is bugging someone, hounding him, bullshitting her, outfoxing them, badgering the boss, ratting on a colleague, chickening out of a dilemma, clamming up about it. Here would be also the basic model- or scenario-making. The words do not simply call up the corresponding images; they transfer them to another referent: aspects of the self. (Lingis 2002, 15)

Most strikingly through Shepard's anthropological lens, "words do not simply call up the corresponding images" but they impress something – a sense, a feeling, a sound wave, a particle of ink – "to another referent: aspects of the self." What we have here is a theory of language and consciousness as relational (vs. linearly transactional) as well as material-semantic through which "aspects of the self" are entangled with images, but also with other referents and things *out there*. Shepard's view debunks some of the linguistic turn's most famous insights, such as from Wittgenstein's *Tractatus*, "The limits of my language mean the limits of my world." Language, then, is an essential material-semantic motor in a becoming-with which activates imagery in one's consciousness that can encompass the world out there as well as entangles "aspects of the self" with the environment. Language may not limit thought or knowledge about worldly realities, but when looking at language as a material-semantic phenomena, as Shepard and matter poetry propose, it can expand both language and world and self and other.

Burnett uses language in such a Shepardian way to foster new material-semantic relations, a thinking- and becoming-with, between a subject and the world out there for her natureculture environmental action – on and off the page. Firstly, swimming is a ritualized natureculture action in which human bodies merge with blue spaces to form in Alaimo's words, "transcorporealities" (12), porous bodies. Burnett shows us that in this becoming-with, bodies (both human and nonhuman) as well as the long poem's imaged author consciousness are also presented as porous:

> To not end where you thought you did,
> not with skin but water
> not with arms but meadow
> of watercress, dropwort, floating pennywort,
> against all odds to be buoyant. (Burnett 2017, 15)

Swimming and this experience "To not end where you thought you did" is an environmental action that is in itself aware of its fleetingness (c.f. Burnett 2016). Flowing in the water "not with arms but meadow," experiencing the boundaries as one's body not as skinned but watery creates temporal sensations and affects. In her poetics, Burnett writes:

> There is also the presiding knowledge of the limitations of the action in an activist sense. Will the environmental fears expressed on the swimsuit be solved by my swim? Doubtful. But can the swim have a relational and energising function that gives renewed momentum in the face of a precarious environmental situation? Hopeful. (2016 n.p.)

Burnett's activism and writing around environmental actions play with the concepts of collective action (McPhail 1980, Miller 2013). While collective action has become synonymous with protest and an organized as well as deliberate action towards a political goal, David L. Miller's *Introduction to Collective Behavior and Collective Action* (2013), introduces collective action as a "conceptual and analytical approach," which "encourages efforts to discover commonalities among phenomena seen as quite separate" (Miller 2013, 16, in Bauer et al. 2020, 15). So, do Burnett's poems act to foster a becoming-with as well as an unbecoming, a surrender, via language?

In swim IV in "The Ouse," Burnett shows how becoming-with the river Ouse in North Yorkshire can be a planned and decisive environmental action as well as a critical lens in her poetry and poetics. In both Burnett's activism as well as in her art, the river is an agentic activist and artistic actant at the same time, entangling a natureculture *knowing & doing & becoming*. The poem starts with an abstract from an email to collaborators, "*I'll be doing a swim wearing a swimsuit on which I've written some hopes and fears on current environmental issues. I'm inviting you to write your own hopes and fears on my swimsuit which I will take with me as I swim, writing the water with our collective thoughts"* (Burnett 29, original emphasis). The poem which follows is the product of Burnett's actual body flowing through the river with the text imprinted on

Burnett, *Swims*, 2014 in Burnett 2017, 181; image courtesy of Nick Burnett

swimming costume (see image above). In her poetics "Difficult Gifts" (2017), Burnett writes on the genesis of this specific art activism, "The river performs acts of erasure on the text, and I record the resulting text at the end of the swim. The text itself is collaborative in multiple senses, since I invite participants to contribute their own words on my swimming costumes … and the river than adds its own changes to it" (180). The intimacy as well as intra-action in the production and reception process of "The Ouse" is simulated on the page as well by marking this collaborative process in the upper left margins by noting "**suit-text before water**" and by noting the "**suit-text after water**" (Burnett 29, original emphasis), diffracted in the middle we can read the poem which is produced after the swim. Burnett has not just become-with the river, but water is included in the production process of this poem and might offer some nonhuman insights:

suit-text before water		**suit-text after water**
	sun slides buttery of the rushes water softens and stills elsewhere, events I, the rhythm of the river part-nature, part-poem, part-kin	
GAZA *May you not be a war zone*	I, the collaboration part nature — parts nature collapses	*May you not be a war zone* (Burnett 2017, 29)

The river and water as material-semantic actants which create specific relations between rivers and oceans, – such as the Ouse, the Atlantic and the Mediterranean See, connecting the green and blue spaces of England with Gaza – do not strictly allow for an "elsewhere, events." "Elsewhere" or in another place far away, events may happen; though, Burnett's material vibrancy of water shows that not only she as the speaker, but also water comes into existence because of and through a materialization of relationships between her, the environment, her swimsuit, the words on her swimsuit etc. (c.f. Barad "phenomena," 2007). This materialist stance on fostering ontological relationalities changes the possibilities of Burnett's writer-activism: water is a medium which connects England with the Gaza strip materially (becoming-with) and hence troubles a closed-off

notion of "Elswhere." As water hits Burnett's body in England, it creates a sensory impact of being touched by this "Elsewhere," by the Gaza strip, a place that is geographically remote and is entangled in a long and stretched-out conflict which often troubles our attention economy (c.f. Nixon 2011, 15). Both power and perspective as well as differences remain, however, as Burnett's swimming body & life remains not harmed by the war from where she swims in England. In this assemblage, the river Ouse has washed away, erased, the word "*GAZA*" on Burnett's swimsuit and on the page after her wild swim. Death, vibrancy, soil, water, poetry, nature, kinship etc. all collapse, decompose, into creating something new and are transported to the reader, are imoressed onto the reader's eye's while reading. "I, the collaboration // … part nature — parts nature // … collapses" (Burnett 29). Water's collaborative intra-actions produce a new text and through that a specific nonhuman-activist lens; namely one that magnifies through this collapse that the nonhuman, the river, as well as people of Gaza have been excluded from the right of being treated respectfully as well as safeguarded from harm through the power of geopolitics and colonialism. Both polluted rivers as well as the people of Gaza deserve a response and Burnett's poetic swims give these conflicts a tangible materiality – the cultural technique of wild swimming, water, and her poetry collection – upon which she and we can act (c.f. Nixon 2011, 16). By responding to these catastrophes in Burnett's own way via becoming- & unbecoming-with through swimming, poetry, and poetics, she models a personal, activist as well as academic approach of responding and corresponding with words to contemporary issues in an invested, relational, and vibrant way (c.f. Ingold 2015).

4.3 Conclusion: "Keep kelling!"

> what the body buries the water returns, what the water buries the body burns
> in slow sift of memory; keep kelling through the pages of the street, the lake, the body
>
> kelling in the middle of the room, the day, the core, keep kelling: it is all yours, this open possibility.
>
> —Elizabeth Jane Burnett, *Swims* (2017)

Burnett's wild swims end at the river Dart, where the imagined author voice leaves us a gift: "kelling" (2017, 63). "[T]he satisfaction of finding a spot deep enough to swim in needs its own // word, // signaling a joy at depth, like snorkeling without the snork; *kelling*" (Burnett 2017, 63). A

form of becoming-with the other, "muddied in matter" (Burnett 2017, 63), while walking, reading, swimming – "keep kelling through the pages of the street, // the lake, the body." When she asks us readers "keep kelling," the imagined author voice reminds us that "it is all yours, this open possibility" (Burnett 2017, 64). Kelling then is a method through which we recognize the depth of our inter-species, intra-material life; we simply do not exist closed off but we always already become-with and unbecome a little in that process – we are "kelling." And this "kelling" is not just a ways of experiencing and recognizing inter-species life as well as our entanglements, but it is full of "a joy at depth." This depth of the blue-space is something we can enjoy, "without the snork," so on land, in our green spaces, when we "immerse[…] in hills: surround-sound air // mist, buzzarding…" (Burnett 2017, 63). Immersion is just another way of unbecoming of handing a part of oneself, one's attention, affection, attunement, as well as attachments to, for example, the hills. Burnett speaks of "mist" which one can find lingering on hills in the early morning hours. "Kelling" on rolling hills which are covered with mist creates a specific atmosphere as our sight is limited and the air is enriched by water, transporting the slightly metallic as well as earthly smells of the hills into our nostrils. This material aesthetics attunes our modes of perception and our feeling of space towards the hill and the nonhuman. We give up, hand over, our senses as orienting devises to the *atmos*, Greek for steam, to be kelling in a hilly environment which lacks clear demarcations and boundaries as we also lack them when covered in mist (c.f. Felski "atmospheres" 2020, 74-75). Both perceiver and perceived become and unbecome when "kelling." So, "keep kelling."

Burnett's *Swims* then presents itself as a helpful playbook of not just learning about certain steps one can take in consciously becoming-with (non)human others, as we can see in her programmatic list poems which instruct us on how to take action to remember for instance names of the countless nameless female victims of Fukushima or with her technique of "kelling," but her poems also allow us to experience becoming-with and an unbecoming with blue and green spaces.

4.3.1 Natureculture Becoming (With) Play Rules

Such an inter-species enlargement of the self is also at the heart of Haraway's natureculture philosophy of becoming with. Bringing Burnett's *Swims* as a playbook for becoming with and surrendering in conversation with Haraway's natureculture philosophy of becoming with, the following play rules for a natureculture becoming with emerge:

- for Haraway's natureculture philosophy, a material-semiotic notion of being one, individual, closed off is materially counter-factual as her motto "[t]o be one is always to become with many" (Haraway 2008, 4) proclaims;

- in matter poetry and in Haraway's becoming-with, companion species such as rivers or animals are techno-scientized messmates in our everyday lives. Companion species figures work like mental frames through which we can read specific species, race, and national histories with through which our intimate work and play relations emerge;
- we do not exist closed off, but exist as, in Haraway's terms "knotted being" (2008, 5) and we live in diverse and unpredictable forms of "we";
- natureculture's pragmatic ethics teaches us and Burnett's matter poetry trains an applied form of respect vie *specere*: a looking back, regarding – a noticing and a politeness; politeness stays with the self and the other in waiting for something interesting to occur and in waiting to be intra-actively shaped by the world *out there* and *in here* (Haraway 2016, 127);
- natureculture's becoming-with also births a new genre, compost writing, which is kin to life writing and fosters a thinking-hard and thinking-with critically, but not detached; Haraway's criticism stems from redefining impartiality as a humanist marker for critical thought into the ability to a "writing-with in layered composting and de-composting to write it all";
- Burnett's matter poetry is written in such a compost-layered manner, and it thinks- and writes-with an array of blue spaces, the self, and others;
- Burnett uses outdoor swimming to re-materialize abstract environmental concerns by showing that one's swimming body becomes-with these polluted waters; in this move, Burnette's 12 water ways are turned into a site of intra-actions, through which her body and her mind become attached to ecological and geopolitical atrocities, and, likewise, the 12 water ways become part of her poetic meaning making assemblage and critical story telling in a *knowing & doing & becoming-with natureculture*s fashion;
- in matter poetry as well as in Burnett, language is not only an artistic and consciousness-raising tool, but a complex system which fosters actual relationships and is shaped by and shapes the world, including the individual;
- *Swims* demarcates that every becoming-with also entails a form of unbecoming – a surrender, a handing oneself over or bowing to other forces, environments, attunements, relations.

part two

Into Matter Poetry's & Natureculture's Complexities

chapter five

On Humans Who Mistake a River's Voice for their Own: Or, Diffractive River Poetics in Alice Oswald's *Dart*[1]

put your ear to the river you hear trees
put your ear to the trees you hear the widening
numerical workings of the river
—Alice Oswald, "River" (1999) in Bristow (2006)

listen,
a
lark
spinning
around
one
note
splitting
and
mending
it
—Alice Oswald, *Dart* (2002)

my poems are nothing more than a series of extended names spoken together;
a kind of complex onomatopoeia, or 'naming through listening'
—Alice Oswald, "The universe in time of rain" (2000) in Bristow (2006)

How can we hone the skill of putting one's ear onto things, to hone the skill of listening? In "River," a poetic voice asks to "put your ear to the river" to notice the knottedness of the river "to the trees." So, can we apply one's inner ear to a river to hear its relations to trees via reading? Can we start a trajectory of imagining, understanding, and naming something, which one cannot yet see or put into words, namely the "numerical workings of the river"?

[1] Parts of this chapter have been previously published in „Stream Worlding: Diffractive River Poetics in Alice Oswald's *Dart*."*Talisman Cluster on Materiality and Poetry*, 2018. https://www.talismanmag.net/luther.html

In Oswald's long poem *Dart*, it is within and along the river streams through which Dart dwellers, local myths, science, and social-realist systems materialize as well as speak. Through the flow of different voices, which re- and disappear throughout the poem, *Dart* rhizomatically maps multiple agential processes through which the river Dart creates relations between water, soil, plants, animal, humans, and ultimately literature itself in endless, radically open feedback-loops. Here, the "real work // of the river" is to constitute entangled objects, subjects, meanings, and words. Thus, *Dart*'s river streams do nothing less than create worlds off and on the page, "float[ing] a world up like a cork / out of its body's liquid dark" (Oswald 2002, 28).

Whom and what we perceive and participate in when we read Dart is a question which rummages for a natureculture poetics of water. Following this call of water, the call of the nonhuman, is a path well established: roughly sketched, from vitalism to animism to a critical posthumanism, a relational ontology, so a radically open, not closed-off notion of *knowing & doing & becoming* with (non)human water has left its intellectual traces, connecting the global North and South. To name a few: Biblical floods, early modern tempests, gothic and sublime raging waves, US Southern water witching, a spiritual Mississippi bursting with song and voodoo, the congo river as a river in everyone's belly, and a mythical and animated Atlantic saturated with memories of the slave trade and vehicle for cultural hybridity have been structural, symbolic and, affective channels to unveil that water bridges not just continents, but the nature culture divide.

Orienting ourselves back to *Dart* and taking all of these water calls into account, what happens, then, if we take natureculture participation seriously? What if we do not just project voices and intentions onto water, but bring the participation, the partaking and involvement of nonhuman actants, in *Dart*'s case, a river, to the poetic fore? What happens if matter poetry may not only recognize how water influences us within and beyond our human subjectivity, but if matter poetry uses the performativity, so the acting towards a certain effect of water flow and wave by transfusing the material movement of water and stories onto the page and out again? What if perceiving a river, listening to as well as looking at it, can be knotted to reading a river on the page? I suggest that one (of many!) answer(s) to these questions can be found when entangling these problems with "acts of observer-participancy" and the concept of diffraction[2].

[2] Diffraction as a concept started to bridge the divide between the so called "Two Cultures" (Snow) of science and the humanities in the West in the late 1980s. Classical Optics' notion of diffraction was introduced and written into critical theory by literary and feminist theorist Trinh Minh-ha (1988, 1997) and feminist science study scholar Donna Haraway (1992, 1997), whose interest in notions of differences and boundary-drawing practices were influenced by diffraction patterns and their abilities to record where the consequences of differences materialize (c.f. Haraway 1992, 300).

Barad's thinking and her notion of diffraction as a natureculture mechanism of *knowing & doing & becoming* is helpful in understanding these material semantic transfusions from the world *out there* onto the page. In Classical Optics, to diffract translates into the motion of "breaking apart, in different directions" (Barad 2014, 168). Playing around with this optical phenomenon from Classical Physics, Karen Barad reads this phenomenon quantum-mechanically as a "cutting together- apart (one move)" (2014, 168), which creates differentiating entanglements that are in a constant flow on the one hand, while, on the other hand, still forming slight separations that matter[3]. But these differentiating entanglements are never stable, always at risk of collapsing, due to a continual flow. In a Barad'esque understanding of diffraction no absolute isolated distinction or absolute separation between two or more entities can occur, which "troubles the very notion of *dicho-tomy* – cutting into two – as a singular act of an absolute differentiation, fracturing this from that, now from then" (Barad 2014, 168). Within Barad's diffraction framework of no isolation, one is intra-actively constituted through the specific other. In *Dart*, we see the swimmer's voice flooding over the page blubbing, "water with my bones, water in my mouth and my / understanding / when my body was in some way a wave to swim in" (Oswald 2002, 22). The swimmer – and with that the swimmer's bones, body openings, and his making sense of this river world – is materially entangled with the water to such a degree that the swimmer's body's inside and the river's outside are diffracted. Inside and outside - *there* in Devon and *here* on the page - become inseparable. *Dart* practices diffractive writing and reading, which I call quantum entangled "wreading" (a fusion of writing and reading), *through* adapting the natural water movement of flow as a meta-poetics, *through* specific people (the swimmer), *through* specific voices (the river's, scientists', workers' etc.), *through* the book *Dart*, and *through* the reader to create a transmission of matter from Dart to *Dart* and out again into the reader's world. Returning to the earlier question: how can river-matter come into literature and out again? *Through* diffraction.

This process of composing one *through* the specific other breaks with an ontological distinction between the Cartesian subject and object and a Hegelian dialectics of self and other. While diffraction disrupts these traditional Western identity theories, the quantum phenomena correspond with ideas of a so-called New Materialist intervention in cultural studies, taking the materiality that we as humans consist of and the material reality that surrounds us in their generative powers seriously. It is at this ontological and epistemological intermission that I would

[3] In *Meeting the Universe Halfway* (2007) – itself a product of Barad's methodology of diffractive reading – Barad makes sure to draw a clear distinction between the behavior of waves and particles in Classical Physics to the ones in Quantum Mechanics. In Classical Physics, "[p]articles are materialities which occupy a point in space at a given moment in time" (76) and waves are not categorized as things, but as disturbances, which "cannot be localized to a point" (76). Thus, particles and waves exhibit fundamentally different behaviors. In Quantum Physics, however, particles can produce wave patterns and restrain from linearity and causality patterns.

like to bring feminist & science studies scholar Karen Barad's diffraction metaphor (2007, 2008, 2012, 2014) in conversation with Alice Oswald's *Dart*. Staying *true* to Karen Barad's diffractive reading (2007), I aim to formulate a poetics of diffraction *through Dart* and aim to discuss in how far this specifically local material engagement with a river can precisely serve as one of the defining qualities of poetry itself.

5.1 *Knowing & Doing & Becoming* Naturecultures: Diffracting *Dart* and the Human Voice

Right after opening the book, *Dart* acts on the reader by applying its "cutting together-apart," a technique that does not allow for independent relatings, texts, or the separation of space and time. *Dart*'s diffraction consequently restrains the reader to develop a detachment from the river nor a self-determined reading method. But, this practice quantum-entangles the reader immediately with the will of the river - *Dart*'s diffraction connects two things, the reader and the river, separated by space and time to be, at least momentarily, the same: thus Dart's desire to flow and to take all its voices with that flow into the sea becomes our desire as well. We, *Dart*'s readers, are drifting, "meaning driven, deposited by a / current of air or water" (Oswald 2002, 33). We become all of Dart's and *Dart*'s mumblings and close reading becomes river reading.

For the reader to become *Dart*'s mumblings, the Western myth that voice, speech, and poetry are exclusively humanist projects must be broken by exposing this humanist process of meaning-making as a boundary drawing practice itself. Before the poem formally begins, then, *Dart* presents us with a trap through this author-fiction:

> The poem is made from the language of people who live
> and work on the Dart. Over the past two years I've been recording conversations with people who know the river. .... There are indications in the margin where one voice changes into the other. These do not refer to real people or even fixed fictions. All voices should be read as the river's mutterings.
> A.O. (n.p.)

Firstly, the poem acts by exposing itself as material-semantically existing of voices on the ground in Devon, and their transmission into ink traces on the page "of people who live / and work on the Dart." *Existing*, rather than consisting, is one of the key words here since poetry functions not just as a mere container of voices, but comes into material existence through the voices itself. Similarly, the author fiction suggest that the situation of the ground around the Dart – call it reality, call it actuality – is not simply waiting to be read by some kind of single master decoder (think author), but rather emerges through a "powerful and socially charged conversation" (Haraway

1991). The poem goes on to diffract the question of existence or non-existence, future or past, *here* on the page or *there* on the ground into one, namely into *Dart*. Language, here, acts not exclusively as a human tool, but exposes itself as a material-semantic actant (c.f. "Doing") flowing and diffracting this very natureculture conversation – words can be co-created and spring from the depth of a river to jump into a book, only to flea *Dart*'s pages again into the reader's mind. Once the reader opens *Dart* as apparatus of bodily production, s/he is quantum-entangled with the river's voice, trespassing the physical boundaries of the book and, thus, exposing these physical boundaries, which materialize via the paper edges of the pages, as collapsible. Dichotomies between a text (a) in the grander sense of the landscape and voices in Devon and a traditional text (b) the book *Dart* are transfused into one flow of river-voices without an in-between space.

Within the fluid oscillation of fictive and real voice, our reception is directed towards the complicated network of authorships of the poem that we are about to encounter; here we have something like an imagined implicit author "A.O.," which initials resemble the existing author of *Dart* Alice Oswald *out there*, the voice of the Dart dwellers (a swimmer, a ferryman, a Naturalist, a tin-extractor), local myths (Jan Coo), Western myths (Christ, Brutus, King of the Oakwood, Zeus), scientists (Theodor Schwenk), and finally the river Dart itself, asking "who's this moving in the dark? Me. / This is me, anonymous, water's soliloquy" (48). All these voices flush into the text as, so we are told, "the river's muttering." Such a confusion regarding the authority over meaning triggers the questions whether the river can in fact speak. *Dart* demonstrates that this question is a trap based on human-exceptionalism. "The Dart, lying low in darkness calls out Who is it? Trying to summon itself by speaking..." (1). This attempt "to summon itself by speaking" remains unsuccessful because the Dart knows that no single entity speaks individually, but diffractively as one *through* the other. And thus, the river allows a multitude of human and non-human voices to emerge and materialize from its streams and flows to form the mutterings of the Dart: "this secret buried in reeds at the beginning of sound I / won't let go of man, under / his soakaway ears and his eye ledges working / into the drift of his thinking ..." (1). Once *Dart*'s voices drift into our human thinking through our entanglement by reading and tactile experiences with the book as apparatus, we become *of Dart* wordings.[4] Or, as Barad puts it "'We' are not outside observers of

[4] Hence, we readers materialize as river-readers and river-dwellers the moment we meet the books with our eyes and touch it with our hands, creating a common material intra-face of skin-sells, ink, particles of chemicals, water, and wood. This initiation of the reading process is also the initiation of an intra-action. The reader, Alice Oswald, the river Dart, and *Dart*, fictional and real voices, scientific and activist discourses surrounding waterways all act together to form *Dart* as a "phenomenon" (Barad 2008, 138). And while *Dart* unites us all as river-dwellers, it also separates into different groups: the ones who live off the Dart and the ones who do not; the ones who drowned in it and the ones who survived it; the ones who love this local waterway and the ones who fear it; the ones who talk through this river and about it and the ones who read through and about it - into differences that matter and specific "entanglements of which we are part" (Barad 2012, 52). Importantly so, these differences in *Dart* can always collapse and be folded into another through the current of the water.

the world. Nor are we simply located at particular places *in* the world; rather, we are part *of* the world in its on-going intra-activity" (2008, 148).

Diffraction is also at play when we read the river being described as "this long winding line the Dart // this secret buried in reeds at the beginning of sound I // won't let go of man, under / his soakaways ears" (Oswald 2002, 2). Describing the river as a "this long winding line … at the beginning of sound" exposes the Dart not as a formal water way, but as a phenomenon which is in itself a flow of sounds waves, always at risk of diffraction of being entangled with another voice. What this river "at the beginning of sound" is then is something like a chat; or, in nature-culture speak, a "material-semiotic apparatus of bodily production" (Haraway 1991) which emerges in a socially charged conversation with its environment, for example with the walker.

Importantly, the politics of this conversation seem to point against the logic of real world discovery, though. Around the area of "Cranmere Pool on Dartmoor, seven miles from the nearest road" as we read in the annotation in the margins, the walker "consults his map. A huge rain-coloured wilderness. // This must be stones, the sudden movement, the sound of frogs singing in the new year" (Oswald 2002, 1). The walker's map consultation is juxtaposed by the vibrant imagery of, "A huge rain-coloured wilderness" (Oswald 2002, 1). The walker fails to discover the area around the "military trach from Okehampton" via his compass or his map. Neither the Dart out there, nor the poem in here is waiting, yearning, to be easily scanned or read of, in Hawaray's words, "a master decoder" (1991, 199). What the walker identifies as "This must be stones," another poetic voice (the river's?) points out them out as frogs, animated and perceptible by "the sound of frogs singing." Matter poetry, including *Dart*, has an intricate knowledge of the vivid material voices and characters that emerge from objects, such as stone, frogs, or poetry books. Readers of matter poetry experience that literary books are not passive objects, but active conversation partners and full of activation potential. Attentive and professional readers of works with a literary quality also know that literary voices do not stem form one single originator, but rather stream out and into the reading mind and linger there long after the book is finished.

5.2 *Knowing & Doing & Becoming* Natureculture: *Dart*'s Flow Methodology

> When we recognize that we are enmeshed in a shared field of
> energy that creates every aspect of physical reality in
> "acts of observer-participancy", our vision about the world
> radically changes, which in turn affects the way our
> cultural discourses are formulated.
> Evidently, by explicating how reality unfolds,
> quantum theory is literally re-writing its paramount codes.
> —Serpil Oppermann, "Quantum Physics and Literature" (2015)

The flow of water as a fundamental natureculture mechanism which entangles story and voice with nonhuman particles in *Dart* is tied to, what David Bohm, calls a flowing stream (Bohm 1995 in Oppermann 2015, 94). Bohm suggest that a stream is the best image to explain entanglement itself. "'On this stream,' Bohm writes, 'one may see an ever-changing pattern of vortices, ripples, waves, splashes,' which he contends, 'have no independent existence as such'" (Bohm 1995, 48, in Oppermann 2015, 94). Similar to Schrödinger's Cat or the Double-Slit experiment in quantum physics, this stream knots *knowing & doing & becoming* in naturcultures together through the simple act of observing, or in literature's case reading. Experimental physicist *know*, notice, that they and we are always already part of this flow, *becoming with* the river in *Darte*'s case, because observing is not passive, but a fundamentally participatory act, a *doing*. As David Bohm and B.J. Hiley explain, "what actually happens is that the process of interaction reveals a property involving the whole context in an inseparable way—indeed it may be said that the measuring apparatus and that which is observed participate irreducibly in each other" (1993, 6 in Oppermann 2015, 94). So-called humans, then are not mere "cultural" participants in river dwelling or in a cultural technique of reading an apparatus of bodily-production such as a poem, but "constituent parts of nature's ongoing dynamism" (Oppermann 2015, 94). What flow as an image for entanglement points out is that humans in themselves are natureculture players.

In *Dart*, water is also "part *of* the world," part of this "ongoing dynamism" and a natureculture player. Here, water does not function in an esoteric or fantastic manner, but its dynamics are deeply embedded in the physics of flow and surface tension "through which water strives to attain / a spherical form" (Oswald 2002, 20). By performing the dynamics of water flow on the page, *Dart* distributes the diffracted voices as well as the moments of diffraction, where one voice bends into the other and back again, over the page. Hence, in *Dart*, flow functions as the vehicle to circulate sound, time, space, and material-semantic diffractions, including their unsteady

borders, which sometimes even dissolve and interfere with each other. Just as Dart's water as surface can render soundwaves visible so can *Dart*'s ink on the page render these diffractive movements and interferences visible "in a constant irregular pattern" (Oswald 2002, 21):

> and we end up with two-ply, a balanced twist, like the
> river
> 'whenever currents of water meet the confluence is
> always the place
> where rhythmical and spiraling movements may arise,
> spiraling surfaces which glide past one another in
> manifold winding and curving forms
> new water keeps flowing through each single strand of
> water
> whole surfaces interweaving spatially and flowing past
> each other
> in surface tension, through which water strives to attain
> a spherical drop form'
>
> wound onto reels and packed into bales
> tied with polypropylene and cling film to keep it dry on
> the sea.
>
> all day my voice is being washed away
> out of a lapse in my throat
>
> Theodore Schwenke (sic.)
>
> at Staverton Ford,
> John Edmunds being
> washed away, 1840
>
> (Oswald 2002, 20)

The meta-dynamic of flow allows *Dart* to drift from a social-realist voice of the wool mill worker, speaking about the spinning frame for the wool and how the frame twists the wool into "a balanced twist, like the / river," into and intra-textuality with Theodore Schwenk's scientific account. This "balanced twist" performed by *Dart* is intra-textual and not inter-textual since the text produced through the voice of the mill work is neither syntactically isolated by a period from Schwenk's text (river / whenever), nor is it material-semantically independent from Schwenk's account on the dynamics of water-flow. Each naturecultural texts is not "inter-textual", so a textual incorporation

between two texts, but interferes from within each other on *Dart*'s page, hence it is intra-textual, "intra-," from within the different textures via the force of flow.

If *Dart* is an apparatus and the diffraction surface for the river's voices, we can see where one voice diffracts into the other as indicated by the comments in the margins citing "the Woollen Mill" (19), proceeded by "Theodor Schwenk" (20) merging into "John Edmund" (20). Yet, it is also on the page where these voices start to interfere with one another to become one voice of the river. "[A] spherical drop-form," Schwenk's voice, interferes with the wool mill worker voice stating that the wool is, "wound into reels and packed into bales" before it gets "tied with polypropylene" (Oswald 2002, 20) to stay dry on the water, and drifts into John Edmund's voice. Schwenk's and the mill worker's voices interfere one through the other *despite* the indication in the margins, which states that we are still reading only Theodor Schwenk's voice. Here, language, writing and citing conventions are metaphorically subordinated to the will of the water to flow. Flow then, also creates a *Dart*'esque time-space-matter dimension, when we read John Edmund's voice, who, accordingly, was "washed away [in] 1840" (Oswald 2002, 20) in *Dart*'s 2002 edition. Linear time markers of past-future-present dissolve to intra-act with the thick present of *Dart* as text. *Dart*'s diffracted texture allows for a literary consciousness, a material awareness, on the page, which creates a present-as-river thickness that collects all human and non-human river voices into an enriched now as we read the text.

But, where do the river voices flow into? The complete interference of each knowledge tradition and voice into the river's consciousness is finally achieved in the reader's mind, as the final place where *Dart*'s voice flows into. Within the reader's material neurological structures, for example within "the circuit of cells that form mirror neurons" (The Mirror Neuron Revolution), which help us to connect to others and conflate the dichotomy between seeing and doing, we finally *become* quantum-entangled with the river Dart in Devon – we *become* Dart. According to Marco Iacoboni, a neuroscientist at the University of California, Los Angeles, these neurons are the "only brain cells we know of that seem specialized to code the actions of [others] and also our own. ... The way mirror neurons likely let us understand others is by providing some kind of inner imitation of the actions of other people, which in turn leads us to "simulate" the intentions and emotions associated with those actions" (The Mirror Neuron Revolution). *Dart* then does not only meta-poetically simulate the physical phenomena of diffraction and flow, but quantum-entangles us by using the simulation powers of our brain cells to form connections and relations to the river Dart.

In a natureculture fashion of *knowing & doing & becoming,* we can see (the ultimate!) collapse of the traditional distinction between nature and culture as well as literature and science. In *Sensitive*

Chaos: *The Creation of Flowing Forms in Water and Air,* Theodor Schwenk's goal is to read water beyond phenomenology: Schwenk writes, "[t]hrough watching water and air with an unprejudiced eye, our way of thinking becomes changed and more suited to the understanding of what is alive" (10-11). What Schwenk addresses in this single sentence is quite spooky: he suggests that we can physically – within us – comprehend and experience water by applying our vision. Schwenk fuses two senses, namely experiencing/touching with seeing and suggests that thought is in itself material. Here, material thoughts can have a ripple effect. By observing water "with an unprejudiced eye" our material thoughts about water can ripple off material water molecules to physically connect, merge, flow around, and finally change nothing less but our "thinking" (wow!). Thus, we can not only contract human and non-human physicality, but also experience and knowledge. Returning to the process of *becoming* river, it is the reader's material mind where all the river-voices flow into, need to be traced, and disambiguated, and interpreted. Schwenk reminds us "whether born by air currents or falling to the earth as rain or snow – water is always on the way somewhere" (Schwenk 14). While reading (think *noticing*), the river's consciousness floods our mind: metaphorically speaking, "new water keeps flowing through each single strand / of water." Reading then is a very intimate way of materially slipping into another being. Reading establishes a quantum-entanglement, an invisible connection to a river in Devon, which becomes visible on the page through the poem. Diffraction – "this cutting together apart" – is doubled here through the reading process towards a diffracted diffraction. While the reader has a tactile experience with the material-semantics of a river named Dart out there in Devon, England, through the material (ex)change of reading the river's voices (first transfusion and metaphorical diffraction), the reader also becomes aware of this material connection because *Dart* renders it visible through the material book in the reader's hand (second transfusion and metaphorical diffraction).

This diffracted diffraction is complicated even more in *Dart* since reading and writing are in themselves entangled into a diffracted "wreading." This diffractive wreading allows for the reader to become an active participant in *Dart*'s worlding. In each edition, *Dart* leaves a couple of blank pages after the river has flown into the sea on page 48. In the poem's last stanza the river speaks "all names, all voices, Slip-Shape, this is Proteus, / whoever that is, the shepherd of the seals, driving my many selves from cave to cave ..." (48). Just as water has many selves and changing qualities, it also resides in us humans, reminding us that we are already material just as nature is already always material. Water as an element is a matter we all share. *Dart* forces a "response-ability" (Haraway 2016), the ability to respond, upon us. Within the book's structure, we can respond to *Dart* in reading and writing (wreading), filling the last pages with our personal water-stories ourselves – hence the "...". These last pages are not empty, no vacuum, but create a

momentary silence that we as readers can fill until we close *Dart* to end our quantum-entanglement. Yet, our relationship to water is not as reciprocal as it seems. The river's currents and *Dart*'s specific flow do not just pull us and flush us with its voices. In leaving these blank pages, *Dart* also poses the question upon us, whether we need water – rivers, the sea, rain, tears, blood etc. – more than it needs us. The poems suggest an answer by asking "Have you forgotten the force that orders the world" (Oswald 2002, 29)? We simply biologically as well as culturally arbitrarily depend on water. These last empty pages finally draw us into the depth of the sea, where the river currents flow so deep under the sea's surface that they remain invisible to the human eye. *Dart* now leaves it to our hands to diffractively "wread" its stories back to the surface and onto the page, asking once more: "when the lithe water turns / and its tongue flatters the ferns / do you speak this kind of sound: whirlpool whisking round?" (Oswald 2002, 11).

5.3 Conclusion: A Natureculture Situated Poetry

In *Dart*, reading and writing the river translates into creating knowledge that is scientific, mythopoetic, and socially-realistic diffractively *through* one another (think *knowing* & *doing* & *becoming*). The poem intra-actively emerges through different tones, stories, vocabularies, and knowledge practices from the depth of the river and materializes on the page. In this poem's diffractive methodology, the speakers investigate each boundary-making practice, without taking "the boundaries of any other subjects or objects of these studies for granted" (Barad 2007, 93). Here, poetry has a method because it touches upon critical theory and science, and through *Dart*'s diffraction method science, myth and (social-)realism can find a lyric voice. Hence, *Dart*'s methodology pushes boundaries by rendering their peripheries visible only to resolve them again. Method and matter are transformed into poetry and poetry is converted into method and matter at the same time. Within this transformative relationality, words and genres are formulated. Here, the act of "forming" wor(l)ds, a molding, which is included in the term "formulation," is not only reserved for human language, but can also be acted out from within a natural phenomenon such as the river. Thus, linguistic descriptions do not stand in an antithesis to natural phenomena, but they actually reach a material wholehearted plurality of voices together through their numerous reciprocal relations. More importantly, this enactment of boundaries is not static. Just, as water always wants to flow, either from the heavens to earth or from a mountain into the sea, boundaries as well as differences are momentarily drawn only to collapse again. The pedagogy of *Dart* lies in the practice of making the shadows of these differences slightly visible through each stanza-formation and by exposing their instability through the natural flow of water. In doing so, water as matter and element becomes an active worlding participant.

But, as a worlding actant, how does the river Dart materially come into the poem to flow out again into our minds? In the beginning of this chapter, I suggested that this material transfusion can be best explained by playing around with diffraction. This play, this production of diffraction as a phenomenon occurs *out there* when waves go through a slit or face an obstacle, resulting in a specific diffraction pattern within which specific parts of the waves can even interfere. This play, though, also results in a metaphoricity of diffraction – in a consistent resemblance between metaphor and diffraction. Just as waves are split in a diffraction, metaphors are always split into one abstract and expressive component and one grounded and realist one. The metaphor as a stylistic device blurs these formal dividing lines between the abstract and the real to produce something new. In *Dart* as in Devon, the river is in itself metaphorical. "[W]ater with my bones, water with my mouth and my / understanding / when my body was in some way a wave to swim in" (22-23). Here, the swimmer demonstrates that there is no fixed and stable wall of water molecules, which does not penetrate our interior, but water is in his/her "bones... mouth ... [and even in his/her] understanding." By the same logic, speech and voice are merely sound waves as well which are not exclusively human, but penetrate and flood a river, too. The river is just as metaphorical as speech and quantum diffraction or humanity and physical phenomena in general; all agents somehow connect the abstract with the concrete, the flesh with meaning. Evolution, this being on a journey, is doubled here in the river as metaphor. A river, materially situated in a specific local terrain, flows through space, time, and matter, and its characteristic turns and shapes, the river's visual identity, becomes only perceivable from afar, just as evolutionary changes – something new – becomes noticeable only later on. Hence, not everything flows, but some things (metaphorically) flow from one specific locale into/through/to another.

In *Dart*, this metaphoricity of diffraction is textually weaved together with the metaphoricity of a material reality in Devon, namely the "river's mutterings," as A.O. writes in *Dart*'s author fiction. It is specifically this situatedness of the poem, this earthy watery muddiness of the river current and its dwellers, which transforms "the songline from the source to the sea" (A.O. n.p.) into poetry. It develops through the poem's overcoming of time-spatial- genre markers such as here/there, past/future, science/myth/realism, reality/fiction into a transmission from the actual existing river Dart into *Dart*. It is this material translation of a real local place on the ground onto the page, which transforms *Dart* from song into poetry, soaking readers everywhere in the world, once they open Oswald's book. Without this creation of worlds and physical tactile transmission, *Dart* would *not* be poetry, but just a collection of words scattered on a page, creating a semantic network of words without a material connection from us to *Dart*. This collection of words, then, either represented as a chart or written within the conventions of scientific theory,

denies the creation of a sense that is common. Words would here function as evidence, but fail to touch us by affecting our senses or miss out to connect us to the observable world. Abstract words represent something, but do not act upon us. Poetry, as derived from the Greek word poe̅ma, an early variant of poie̅ma, which means 'fiction, poem', however, translates into 'to create' (OED) and is substantial (c.f. Introduction & chapter three). Literally and actually poetry performs and does something: *Dart* creates worlds by forming river dwellers on and off the page – it creates substantial relations. By adapting the natural currents of the river, the long poem pulls the reader into reading nothing less but the consciousness of the river while holding a material transmission of the river Dart in their hands – the book, becoming the river's consciousness itself. Thus, when in the end the seals ask "Who is this moving in the dark?," we all answer "Me. ... water" (Oswald 2002, 48).

chapter six

The Dark Side of Naturecultures:
Materiality & Violence in J.O. Morgan's *Interference Pattern*

Dark is dangerous. You can't see anything in the dark, you're afraid.
Don't move, you might fall. Most of all, don't go into the forest.
And so we have internalized this horror of the dark.
— Hélène Cixous in Timothy Morton's *Dark Ecology* (2018)

So everyone kept on, more so than they had done before.
Each ounce of hatred aimed in his direction.
Whistles at the ready. One last push.
Just so see what he might do under such a weight of scorn.
He wasn't even sure he knew himself.

Till our moment of release, our great wave
of pent-up vitriol, unleashed; a hate
poured out with such a force we feared
of being pulled along in the rush.
—J.O. Morgan, *Interference Pattern* (2016)

After which we discovered the likely reality
was of tiny invisible sheets, many layers
of infinitesimal thinness, each film
undulating at tremendous speed;
multiple parallel oceans, their rippling surfaces
folding and flattening….
—J.O. Morgan, *Interference Pattern* (2016)

Thus far, the matter poems we've encountered, framed by the flexible natureculture heuristic of *knowing & doing & becoming*, have been on the bright(er) side of naturecultures, bringing the productive entanglements of material vibrancy (Bennet 2009), the arts of noticing (Tsing 2021), multispecies flourishing and living as well as dying well with each other (Haraway 2016) to the fore. While pollution, a world in ruins, colonial ghosts, next to others, have been topics of

destruction flowing in and out of this dissertation, a powerful theoretical as well as matter-poetic presupposition has been that matter and materialization in the world *out there* and *in here* emerge through a relational onto-epistemology which (re)connects the human body to the environment (think *Swims*) or shows our fundamental entanglements as well as the agency of nonhuman actants in our daily lives and poetry writing (think *Ocean* and *Dart*) or an onto-epistemological methodology of noticing (think *Jam Tree Gully*). All productive, connective, and sometimes even cozy.

Morgan's long matter poem *Interference Pattern* represents an intervention within this, let's call it, friendly perspective on matter's abilities to connect and foster relations in naturecultures. Counter to this outlined intellectual and poetic trend, *Interference Pattern* opens a semantic field of materializations as well as the relationalities in the quantum world to knot Morgan's scientific quantum voices together with the long poem's voices speaking about different forms of individual, systemic, natural, and mechanic violence.

I call Morgan's intervention one into the dark side of naturecultures. Dark because Morgan's voices talk about the dangers which can harmfully erode one's body and mind. Morgan's voices are also often uncanny in Cixous' sense where we have already internalized the feeling, the horror, of the dark, this not seeing, and reading *Interference Pattern* might activate this deep familiarity of the dark side which being in relation with other (non)humans sometimes produces (think a sublime dark forest, think Freud's motion of the uncanny (1919) (c.f. Morton's *Dark Ecology* (2016)). In *Interference Pattern* we encounter such weirdly uncanny male voices around a male subject who is getting bullied, is "a scapegoat" (Morgan 16). "Each ounce of hatred aimed in his direction. // Whistles at the ready. One last push." (Morgan 17). The continuous establishment of affective channels, flushed with intensities of detestation, produced through cultural techniques of shaming, such as pushing and whistling, finally leads to an explosion of hate on the side of the bullied subject. This explosion of hate has such a force that the first-person plural "we" fear of being infected, pulled along, this outburst of despise. The doubling of the "we" recognizes that the hate inflicted produces a hate within the bullied subject, which is at least two-directional, producing a "weight of scorn," pointing onto the bullied subject and out to the bullies again in a rush of release. In an entangled manner, this rush of release creates a vicious cycle of personal hate which is systematically knotted to toxic masculinity and cultural techniques of shaming. Morgan's darkness entangles personal with systemic violence, meta poetically arguing against powerful notions which separate personal and systemic forms of violence (Galtung 1964, 1965, 1986). This darkness is also material. The movement and the mechanics of hate creating this outburst of the scapegoat, or spill-over effect, is also doubled by quantum voices discussing the big bang (Morgan 2016, 6-7) or quantum entanglement, where quantum bits resonate "throughout the whole bundle // a complex

vibratory code that defines // any outward appearance and characteristic" (Morgan 2016, 23). The long poem's quantum lens on entanglement as well as on states of high density and temperature expanding to burst offers a critical ontological investigation of how violence, such as bullying, is knotted to and entangled with the personal, structural, privilege, gender, science, nature and our origin stories, both scientific (big bang) and religious (Genesis). With that Morgan poetically reimagines, what Michael Murphy calls, "the physics of structural violence" (2022, 2).

Interference Pattern's physical reimagination of violence turns away from Newtonian classical physics with its principles of linear and local causation to lean into the quantum world, the world of networked material-semantics, where hurtful materializations are produced through complex natureculture relationalities (c.f. Barad 2007, Murphy 2022). Morgan's voices as well as the free indirect discourse speaking across the 54 pages of Morgan's long poem reveal that matter is not just vibrant, but that thinking with matter can show how materializations, such as the psychological and physiological effects of hurtful affects and emotions (think bullying), emerge in social, natureculture, relations and these materializations can kill, hurt, wound, and offend. The ontological ethics of the New Materialisms and Haraway's natureculture philosophy of vulnerable, porous bodies, always already involved in *a knowing & doing & becoming*, seems to have a blind spot for matter's ability to violate, be indifferent, to withdraw, and so *Interference Pattern* may add to the philosophical debate around matter and material language in naturecultures.

Yet, *Interference Pattern* does not just elicit a discussion about an entangled view on individual and natureculture violence, but it also introduces matter's resistance to be read linearly or in its entirety on a performative poetic metalevel. This resistance has let literary critics to short and superficial reviews of Morgan's long poem, such as Kate Kellaway's one in *the Guardian* stating, "this book is especially challenging" (2016) or *The Scotsman* noting, "*Interference Pattern* teases us at every turn, inviting us to try to unlock its secrets while keeping the keys just out of sight" (2016). The poem's resistance to be read linearly stems from the long poem's poetic form consisting of voices on the page (a woman cutting herself with a razor (Morgan 2016, 3-4), a surgeon who operates on a cancer patient, an anthropologist with a racist view on "a tribe of primitives" (Morgan 2016, 17-19), a teacher who physically disciplines (Morgan 2016, 32-33) etc.) which, in a collage-style, rush into and out of the pages, some in italics, some in Roman, to interfere with each other and to physically dislocate one or the other in an optical illusion, simulating the superposition movement of interference patterns on the page – as Morgan's title, *Interference Pattern*, suggests.

Turning to quantum physics might be helpful in understanding the quantum phenomenon of Morgan's poetic voices interacting as waves, namely interferences, on the page. In *Meeting the*

Universe Halfway, Barad explains the emergence and experienceable quality of interference patterns in this simple, everyday experiment:

> If two stones are dropped into a calm pond simultaneously, the disturbances in the water caused by each stone propagate outward and overlap with each other, producing a pattern that results from the relative differences (in amplitude and phase) between the overlapping wave components …. The waves are said to interfere with each other, and the pattern created is called an interference or diffraction pattern[1].
>
> A similar pattern can be observed when there are two holes in breakwater.... Walking along the dock, you would feel the boards of the dock moving up and down with the incoming waves. The amount that each board moves up or down depends on the amplitude of the overall wave at each particular point along the dock. If you walked up and down the dock, you would experience the alternating pattern of areas on increasing and decreasing intensifies (i.e., height or amplitude) of the overall wave. … This alternating pattern of wave intensity is characteristic of interference or diffraction patterns. (Barad 2007, 77-78)

Barad's intuitive pond example shows how waves interfere with each other to form patterns and how these patterns differ in intensities or cancel each other out. In Morgan, we do not have stones, or ponds, or water waves, but we do encounter such poetic interference patterns through the natureculture wavefunctions of each poem – the voice(s) on the page making the destructive and violent opaque forces in naturecultures visible – while they speak over, and very rarely to, each other, creating patterns. My interests for this chapter, hence, grow out of Morgan's material poetics on violence itself: How do these poetic interferences operate, and what does Morgan's quantum view on violence make visible?

[1] Murphy (2022) points out that Barad uses diffraction and interference synonymously, while they are different quantum phenomena.

6.1 The Dual Nature of Subatomic Matter, Wavefunctions, & Poetic Interference Patterns

a mind mechanical
sees the particular

two routes to
wave off one

way or
another

the will
it won't

it's principle certain
of nothing known

to chance a spark
a move to change

every moment
new made
—J.O. Morgan, *Interference Pattern* (2016)

With this poem, we are in the middle of quantum-weirdness and weirdness has a firm place in darkness, film noir, (psychological) gothic (you name it) and hence neatly fits into the dark side of naturecultures. This poem about "*a mechanical mind*", or a proton detector, which

> *sees the particular*
>
> *two routes to*
> *wave off one*
>
> *way or*

another

the will
it won't [,] (Morgan 2016, 15, original emphasis)

describes the infamous experiment leading to the discovery of interference, namely Thomas Young's "two-slit experiment" in 1801[2]. The basic set up of this experiment sends monochromic light through two slits onto a detector screen where one can see an interference pattern (think Barad's pond description). Morgan's lines poetically interpret the scientific experiment from which Morgan's long poems lend its name from. So far so good. But while Young's original "two-slit" experiment may have discovered the phenomena of interference, later versions of this experiment, influenced by quantum mechanics, proved that subatomic units of matter have a dual nature (spooky!), behaving either as wave or as particle, depending on the apparatus of bodily production, the whole experimental apparatus including the scientist and the proton detector (think Barad's "agential cut" (2007)). For clarification's sake, let us turn to Oppermann's summary of the weirdness of the double-slit experiment and the dual nature of matter:

> To clarify, consider a box that has two identical atoms midway across, at the top and the bottom. When photon detectors are placed in front of each atom, and a series of individual photons are sent (one at a time), the detectors show that either one atom or the other fluoresces (it radiates a single photon with the full photon energy), but never both. When the detectors are removed, however, the actual experimental result is a pattern of interference. This experiment demonstrates that the atoms change their behavior when the observational setup changes and the results are observed; or rather this "weirdness" – as some physicists have called it – is related to how the results are observed. (2015, 91)

[2] Murphy explains the original experiment on the nature of light as follows: "Essentially, when observing light passing through two slits in a barrier onto a screen, we might expect to see the two brightest spots on the screen directly in line with the slits. Indeed, when only one slit was open, the light passed through the slit and the light was brightest directly across from the slit, fading into darkness above and below. However, when both slits were open, something surprising happened. Rather than a bimodal distribution with two brightest spots and a gradual darkening between and beyond them, Young observed a series of bands of light. He had discovered the phenomenon of interference. The discovery of interference was significant because this phenomenon could not be explained through the particle model of light" (Murphy 2022, 7). The best explanation out there on this very complex quantum phenomenon is by a natureculture figure of sorts: Dr. Fred Allan Wolf's mild-mannered comic physicist, Dr. Quantum (please google and watch Dr. Quantum's explanation of the double-slit experiment on YouTube).

In a sloppy manner, one could claim that the electrons going through the double-slit behaved differently as if they were aware (in the most metaphorical sense) that they were being observed.

Yet it is "how the results are observed", or in Morgan's case, how the poem flows over the page allowing certain voices to emerge and speak to, across or not at all to each other, that brings a certain behavior, or voice, to one's attention and direct the reader's reception. But this is only an optical-illusion. It is the reading and the point of view of the reader itself which allows for one voice or the other to flow into one's mind, where only one voice or the other might echo and stick. All voices are printed on the page in *Interference Pattern*, are *really* there, but only one or the other might be observed via reading.

What Morgan is poetically creating is a literary simulation of the superposition of mater. This "*certain principle // of nothing known*" points to the superposition of both states (wave and particle behavior) when a photon goes into the box as seen by the recorded interference pattern. In the state of superposition, "[*E*]*very moment*" of an electron passing through a slit and being measured is pure potential, "*new made*" // "*a move to change,*" always already wave and particle. "This means that in some deep sense matter shows states of interconnection and randomness, because in the quantized realm wave-particles defy either/or logic" (Oppermann 2015, 92) . Going back to Morgan's poem, the double-slit experiment helps us to understand how this poetic voice on "*a mind mechanical*" serves as a meta-comment to how the simulation of interference patterns on the page creates optical illusions in this very long poem, simulating the weird dual nature of subatomic particles.

In Morgan, not subatomic units of matter but voices interfere with each other and to physically dislocate one or the other in an optical illusion, simulating the superposition movement of interference patterns on the page. The long poem's table of contents creates the first supra pattern, suggesting two texts, two narratives, with different lines alternating between Roman and italics:

> There was her … 3
> *it's like grain*… 4
> The first duty… 5
> *it's like the lights* 6
> (Morgan 2016, n.p., original emphasis)

This, in a way, is the long poem's first optical illusion as there is no logic behind the alteration of the fonts, nor one or the other, neither/nor, in this long poem. Rather, each poetic line listed, alternating between roman or italics, simply indicates the poetic wavefunction – all natureculture

phenomena (social, material, scientific) interacting – of each poetic interference pattern, the interaction of voices on the page of each poem.

This all sounds terribly abstract and help is on its way. Let's simply turn to the long poem's first poem to make the entanglement between voice, font, natureculture wavefunction, and interferences more tangible:

> There was her father's safety razor
> sat without its plastic cap.
>
> *There was the ledge on which she'd clambered and*
> *The smooth face of wall off which she was flicking ants.*
>
> There was the mirror and the recollected gentle
> sweeping motion, so often observed from the door.
>
> *There was the disbelief of her slow backward fall,*
> *a disbelief continued as she struck the stoney ground.*
>
> Except for some reason she never could fathom, she pressed
> the blade to her lower lip and slid it off laterally.
>
> …….
>
> *There was the bright sandstone yard in which she was laid*
> *And the green plush pillow on which her legs rested.*
>
> In the mirror she watched the deep red film
> Slowly lowered to blanket her lip.
>
> ……
>
> *There was noise, and the wonder of how much blood*
> *it must take to have turned such a large pillow black.*

(Morgan 2016, 3-4, original emphasis)

Two distinct lines, one in italics and one in Roman, form a wave like pattern of the free indirect discourse around a woman cutting herself with "her father's razor." The special disposition for the two voices, one in italics one in Roman, moving across the page in two-lined stanzas, are only detectable when read and thus seem to work as functional units. Just as the table of contents plays with the illusion of different narratives, the dual stanzas and fonts invite the reader to read the lines as breath-bundles, taking a new breath and pausing at the end of each stanza. Lineation seems to give us a scaffolding for noticing (think natureculture *knowing*) the moment where these two voices of the free indirect discourse, interfere, interact to break open and let the italics stanza spread over the page to then break again and allow for the Roman stanza to flow over the page (think natureculture *doing*). This interference scaffolding, or pattern, then produces lines of flight, which lead the reader on experiencing a moment in this cutting of the flesh with a razor, a violent material interference between blade and flesh itself, from a dual point of view, simulating the character of the dual nature of matter itself (think wave/particle duality of subatomic matter). But we have a third person address here which allows us to see the event of razor cutting from two particular first person experiences, two particular angels. Voice as a moment of a first-person character speaking is out the window. Rather, the poem gives us "not a voice but voicing" (Culler 2015, 31). Morgan's quantum long poem resists the romantic and expressive model of the poem. In reading this poetic interference pattern above, the poem does not create two characters making an assertion about a fictional or poetic event, or world even (c.f. "inductive approach" in Culler 2015, 31-32). Rather, the repetition of "There was" or "*There was*" seems to make an empirical claim about our world and instances of self-mutilation, noticing minor actualities via the existential claim of "there was," such as that the father's razor which "sat without its plastic cap" or that unfathomably so "she pressed // the blade to her lower lip and slid it off laterally" (Morgan 2016, 3-4). The *punctum* of the poem is in the last breath-bundle about the noise and wonder after the woman cut herself; "[*t*]*here was noise, and the wonder of how much blood // it must take to have turned such a large pillow black."* Weirdly, it is the absence of specifying the noise further and the detail in the description of blood-soaked pillow and the wonder "*of how much blood // it must take to have turned such a large pillow black"* which creates a suspense, a dark tension, of the reader wondering whether this woman died, committed suicide etc. In this detective game of finding the reality-claim of this self-harm event, in which the reader is now caught up, we *become-with* the event, consumed by its mystery, remembering it (c.f. "poem of notation" Culler 2015, 32).

The dark side of our own material embodiment with all its vulnerabilities is not just highlighted by the young woman cutting her lips, and it remains unclear throughout the whole

poem whether she is cutting her mouth or her vulva, but the poem also opens the whole wavefunction, the whole invisible systematic societal forces, of self-harm: the relation to somatic disease such as anxiety or depression which we can read from "*her strengthlessness*" which was "*so easily lifted*" through the cut. The poem also reveals "*the shape of a man stood blocking the sun*" and that "There was the mirror and the recollected gentle // sweeping motion, so often observed from the door." Observation and noticing entangled with powerful gender-dynamics between "*a man*" – Her father? An outside observer? A friend or lover? – blocking something that is warm and restorative. The noticing and the mirror also point to the fact that very often early indication that a person is struggling which might lead to self-harm remain overlooked or pushed aside, rejected, due to shame, not having the right tools for talking about problems, or simple due to a powerful notion in Western societies of "toughening up," without every critically questioning whom this toughening up actually serves.

The darkness of naturecultures is doubled here as the poem brings these hidden, often invisible, assumptions, forces, and entanglements around self-harm to the fore. At least a little. Murphy writes, "If social phenomena are invisible but recognizable through the patterns and effects they produce, then social wavefunctions are the description of the directly invisible entities (Murphy 2021a, 2–9)—a philosophical corollary to the mathematical description of the original wavefunction." Following Murphy (2022), the interference pattern between the two free indirect discourses on the woman cutting herself, these voicings, are a poetic description which make the entanglement of self-harm with gender, anxiety and noticing visible through the poetic text. But just until another interference pattern of two voicings occurs, which will cancel the one beforehand out. After the voicings of the razor-cuttings, we have a poetic analogy around "*grain poured through a funnel*" (Morgan 2016, 4). Then another interference between two voices, cancelling out the first one (think Barad's pond example). This is how the poem proceeds. This canceling each other out of interference patterns is what drives and stretches Morgan's long poem throughout its 54 pages.

6.2 Limiting Potentialities: Violent Interferences & an Enmeshed Social Ontology

Such a miserable hateful spiteful little
girl, such fury, balled up inside her,
she'd pick a fight with anyone
who didn't pull back from the filth
that poured from her mouth,
along with that visible sheen
of grease, on hair, skin, stolen
clothes, a stench of girl-sweat
surrounding her, like an oily bubble;
not that you wanted to get close
to the little bitch, even to
raise a hand:
—J.O. Morgan, *Interference Pattern* (2016)

A girl that simply is "miserable hateful spiteful" and so "balled up inside her" that "she'd pick a fight with anyone" is so detestable that one does not want "to get close // to the little bitch" not even to hit her, "to // raise a hand." In the first stanza of Morgan's poem, the voice, who is, as we learn later in the poem, a supposed caretaker of the girl under this hateful description, leans into a Newtonian framework of violence, which dictates that "[p]ersonal violence abides a linear logic of cause and effect, with one separable and definitive entity acting upon another entity" (Murphy 2022, 8). The poem starts with a definite description of "[s]uch a miserable hateful spiteful little // girl" (Morgan 2016, 29) and her assumed filthiness, which "poured from her mouth" in combination with neglected looks, pointed at by "that visible sheen // of grease, on hair, skin" (Morgan 2016, 29) seems to follow a cause and effect logic of personal violence, already inflicted on the girl by the demeaning speech acts of the poem's voice. An assumption that she has earned such a stereotypical and reductive way of looking at her is implied and strengthened by the note that she is not even worth of physical violence, of using physical energy to punish her. While systemic ideas on class (think greasy clothes), gender (think "the little bitch" as a curse word to express a contempt towards women, entangled with a powerful resonance of male power and force), or disgust as a exclusionary site, are implied through the semantic field of the words piled up by the speaker, the reasoning behind the voice inflicting this violent gaze onto the girl is linear and very specifically personal through the detailed descriptions of her and through the lack of a

systemic analysis of the circumstances which shaped her. Nothing as such. The poem simply starts with "[s]uch a …. girl."

This description activates a very specific kind of violence with the goal of further ostracizing and marking the girl as social outcast. Galtung teaches us that "violence is present when human beings are being influenced so that their actual somatic and mental realizations are below their potential realizations. . .Violence is that which increases the distance between the potential and the actual, and that which impedes the decrease of this distance" (Galtung 1969, 168 in Murphy 2022, 5). The poem's violent language is a phenomenon which does something, it builds a hegemonic and single-sided gaze onto this female individual and interferes with the girl's potentialities of *knowing, doing, and becoming* to limit her actualities.

The third and fourth stanza of this poem interfere with the linear Newtonian physics of violence and create a poetic interference pattern that entangles personal with structural violence through a quantum lens. In the third stanza, the speaker, who is driving in a car, sees the girl on the road in the rain, trying to hitchhike with "her stuck-up thumb; // a lazy creature to the end" (Morgan 2016, 29). And so the voice proclaims so "naturally, you do the decent thing, slow to a gentle stop having first passed by" (Morgan 2016, 29). After the girl enters the car and we get an insight into the voice's ego, filled with spiteful pity and with a "flush of goodly pride in having // helped somebody in need" (Morgan 2016, 29). Based on the chauvinistic remarks from the first two stanzas, we already know the girl now sitting in the car, this closed-off space, is in trouble. Following Murphy (2022) and to quantize with the poem, "let us first assume that a social structure is not a set of relationships between individuals but an entanglement of individuals' social wavefunctions" (2022, 9). As the long poem's quantum ontology and belief in interference patterns suggests, the interaction between the voice and the girl in the car may be seen as two wavefunctions interacting to create a violent interference pattern (Murphy 2022, 9). Let's think from the victim's wavefunction, the young girl, first, which we can only re-create diffractively: we can only deduce the outlines of the girl's wavefunction through the violent interaction with her abuser's, whose voice we hear. The dominance of the abusing voice in this violent interference, doubles the hegemonic patterns of oppression and the failure of recognizing the girl's suffering.

After she does not want to engage in conversation in the car and supposedly says "shut // the fuck up," the voice "thumbs the breaks" after considering what is "right and wrong" which allows "her fly-weight body to pitch hard // into the dash and bounce back, hands // cupped to her bloody nose." The interaction between the voice, the girl, the car, and the voice's "firm belief in discipline" leads to disparaging interference patterns, limiting the girl's future potentialities (think Galtung's broad notion of violence). In terms of personal violence and Galtungen's different

types of aggression, (i) the physical injury of the girl, the bloody nose, may limit her agility and sense perception, (ii) the psychological harm – the humiliation, the power move of the driver to strip her of her physical and mental sovereignty, the reduced sense of safety etc. – can lead to a diminished self-confidence as well as general sense of self in the world, and (iii) the threat of future violence, of which we read in stanza four, when the man has taken the girl under his "care" the mere mentioning of her name would drench a "silver hook" into "the heart and holds it wide" in anticipation of the cruelty to come (Morgan 2016, 31), could generate anxiety and restlessness (c.f. "Galtung's types of harm", Murphy 2022, 9). We, of course and as already mentioned, do not get access to the voice in the girl's wave pattern and can only deduce this through a diffractive reading of the interferences on the page.

What we can directly read, however, is the social wavefunction at play in this violent interference pattern. The dominant voice speaking in the poem assuming that "no doubt it was the best thing for her" (Morgan 2016, 31). The thing that "was the best" is elaborated on in what follows in the last stanza, stanza four of the poem and opens up the limiting, violent social ontology of theses wavefunctions interfering, enmeshing agents and structures together (c.f. enmeshed social ontology, Murphy 2022, 9) and hence entangling a natureculture *knowing & doing & becoming*. So, "what is best" so that "she's loved throughout the realm" is a list of utterly abusive actions towards the girl as described by the dominant voice: she is "urged to go unwashed," she is encouraged "to scream the house down // were it to toughen her throat so hard // no hands could squeeze her breath away," "we'd goad her to scrap," "[w]e'd leave banknotes, // surreptitiously positioned, for her // to pocket with ease" (Morgan 2016, 31). The completely manipulative social ontology drenched with power and a deep knowing of how to stigmatize and break a human being follows in the last three lines; "[w]e'd beat her daily, tell her lies, show // kindness only as pretense, in hope that she // might never choose to trust another soul" (Morgan 2016, 31). The social ontology of this violent interference pattern is entangled with the social wave function of gender-based violence, activates a Victorian morality of cleanliness, takes advantage of the girl underage status and exposes underage as a minority category which allows her to be at the dominant's voice mercy – physically, spatially, socially, psychologically etc. – this violence from the privileged to the less-privlidged is both a result of social disorganization in the home and outside as well as denial. All this is aimed at forcefully banishing the girl from the social fabric held together by trust which allows humans to live together relatively peacefully. What we can see through these complex entanglements is that in the end, the poem leans into a quantum-model of violence to entangle personal with structural violence and to also contextualize the girl's potential behavior as fabricated by the different personal and sociological wavefunctions at play (vs.

Newtonian physics of violence). Additionally, the darkness of this violent interference pattern comes with a bang for the readers as its material-semantically builds affective channels from the poem to the reader through which dark affects such as streams of fear, disgust, and distress flow into the reading body, causing an interference pattern between the wavefunctions of the poem and the reader itself.

6.3 Coda: A Bittersweet Kiss – XOXO

> '… it's not itself the kissing nor the wanting to be kissed
> but the suggestion that in her exists a hope to find fulfillment
> in a kiss I can't request because it's not itself the kissing nor
> the wanting to be kissed but the suggestion that in her exists…'
> —J.O. Morgan, *Interference Pattern* (2016)

> 'Who kissed me?'
> —J.O. Morgan, *Interference Pattern* (2016)

Interference Pattern showcases many voices speaking about kissing, and the long poem ends with a kiss, which emerges from the dark, the off. There is probably nothing more intimate, connecting, but also instable than a kiss. Interestingly, this intimacy as well as the instability of the connection via a mouth, is very similar to the closeness one has when reading, holding the book so close to one's face that one *could* kiss it (c.f. Kennedy 2011), interfering with the book's surface.

Instability is also echoed by the interference patterns that are created when the different voices and voicings, speak across, to, and over each other in Morgan's long poem, as an expression of natureculture wavefunctions. When Morgan's poetic patterns cancel each other out, when one poem ends and another begins, a wobbly optical illusion is created on the page because even trained readers are often only able to grasp one pattern and simply not notice a new poem, a new pattern, beginning and read over it. Yet, on the page, these patterns are still *there*, still real; by manipulating the long poem's texture, Morgan creates a reading experience which is in itself multiple and is most importantly highly unstable, while using day-to-day language.

But let's return to and finish this chapter with a kiss. XOXO. In the long poem's last poem, a king visiting the movie theater asks, "with authority," "Who kissed me?" (Morgan 2016, 53). After no one answers, the thickness and quickness of the silence flowing throughout the theater's hall is described in a quantum material fashion "as an oil-drop spreads over water // into a disc one molecule thick" (Morgan 2016, 53). As the movie hall is now flooded with an intensity that

unites everyone through an affect of tense awkwardness, the silence, this absence of intentional soundings, the king shares,

> 'I felt it. Here.
> On my neck.
> I felt love
> flow out of me.' (Morgan 53)

Out from the dark comes an usherette into the now lit room "her flashlight clutched tight in both hands" (Morgan 2016, 53). She admits and explains her kissing the king from the off,

> 'I live alone. I wanted
> to know how it would feel
> to offer one's touch without asking
> for any such thing in return' (Morgan 54)

While the exchange shows that the usherette's kissing the king plays with a more settle form of violence as well as the power dynamic of king and *populus*, by inverting the dynamic at the moment the usherette takes an upper hand by kissing the king from the off "without asking," the kings neck as well as the usherette's lips also form a line of alignment through which the positive affect of love and enjoyment emerges to merge the two worlds of a commoner and a king.

An usherette kissing a king in a theatre because she wanted "to offer one's touch without asking // for any such thing in return" (Morgan 2016, 54) is as weird as the weirdness of intererences in the quantum world. Leaning on Timothy Morton's notion of the weird, weird can be "a turn or twist or loop, a turn of events. …. In the term *weird* there flickers a dark pathway between causality and the aesthetic dimension, between doing and appearing" (Morton 2014, 5, *original emphasis*). Looking back at the poems in *Interference Pattern*'s the long poems do not just bring the violent and dark side of naturecultures as well as turns of events to the fore, Morton's dark aesthetics of a variety of material-semantic interferences also breaks up those appearances – even linguistic appearances (words on a page) – are never as they seem as they interfere differently with every potential reader and reading of this collection.

Yet, Morton's naturecultures are not just dark or weird, every now and then, just as with the example of the usherette kissing the king without consent, which still felt to the king as if love flew out of him, something like bittersweetness emerges. A kiss then, just as interferences, cannot

only be dark, but also bittersweet. In this line of thought, *Interference Pattern*'s book cover does not only showcase an "x," visualizing two lines interfering, but the x also hints at and simulates two lips being squished together as they get ready to kiss. Let's take this symbolic hint to conclude that naturecultures are not just productive, not just dark, not just weird, but sometimes also dark-sweet (c.f. Morton 2014). So, don't be afraid (at least not always).

chapter seven

When Matter Poetry Speaks Back:
Natureculture Resonance & Echo
in Denise Riley's *Say Something Back*

My own voice cheered me, and, far more, the mind's
Internal echo of the imperfect sound;
To both I listened …
—William Wordsworth, "The Prelude, Or the Growth of the Poet's Mind" (1850)

The eye
May shut
but
the ear has
no door cavern
voices enter
and echo
after
—Joshua Weiner, *The Figure of a Man Being Swallowed by a Fish* (2013)

Do not think you have to say
Anything back. But you do
Say something back which I
Hear by the way I speak to you.
—William Graham, in Denise Riley's epigraph to *Say Something Back* (2016)

What does it mean to, in Graham's words, "say something back which I // Hear by the way I speak to you"? "Do not think you have to say // Anything back" is cheeky because it transgresses our very notions of what counts as experiential data (c.f. Mazzei 2003), as empirical material in our *knowing & doing & becoming*. In literary and cultural studies, our disciplinary practices, such as close reading or reader response theory, shape a predisposition that is towards the text, the word, the imaginary speech act which we call voice uttered by a fictional speaker. But, where is that literary voice when you "don't have to say anything back"? What happens when "back" is not one-directional, to say something back to a recipient, but intra-personal – within oneself? How do we

read something with our ear "which I / Hear by the way I speak to you" in the face of a seemingly absent originator of voice?

Graham's words are shifty. By silencing the correspondent, Graham's words paradoxically unpack a deception in Western thought: namely, that speech is "full presence, a living voice" (MacLure et al. in Daza and Gershon 2015). MacLure et al. call this definition of speech the longing "for access to the subject's voice" (2010), which is tied to an ocular framework of perceiving, representing, and reading that has dominated research both in the Western sciences and in the humanities. Similarly, in *Noise: The Political Economy of Music* (1977), Jacques Attali highlights that "[f]or twenty-five centuries, Western knowledge has tried to look upon the world. It has failed to understand that the world is not for the beholding. It is for hearing. It is not [only] legible, but [also] audible" (in Attali 3).

Literature *knows* that the world is also audible and by playing with presence as tied to voice and visibility, Graham indirectly problematizes the boxing of experience as based on a visual presence or absence within encounters. In this absence/presence dualism, experience becomes categorized into strictly separate boxes of either visual experience, sonic experience, or tactile experience etc. Graham's "But you do // Say something back which I // Hear by the way I speak to you" ultimately challenges our metaphysically privileging vision over sound by implying that these senses are somehow entangled through a specific resonating quality that words can take on.

Thinking with Graham and with our private as well as so-called quiet reading experiences, we somehow know that the poetic text on the page *out there* is heard and bounces back and forth in the reader's mind *in here* and thus entangles the sense perceptions of reading with hearing with speaking to create a presence as well as an absence and a response and a silence at the same time. Words seem to resonate, reverb, on our minds to stick, attach themselves, or just linger.

Grahams words do not just exemplify sonic resonance, but they are also in the epigraph to Denise Riley's matter long poem *Say Something Back*, foreshadowing the meta-dynamics of Riley's *Say Something Back* and the physical laws her long poem plays with; that is the material entanglement of the presence and absence of bodies, words, sound, loss, pain, and time via reverberations. The long poem is, as the title of the last poem on the World War I dead proclaims, "A gramophone on the subject" (Riley 63) of loss. The material entanglements of presence and absence converse with the quasi auto-biographical main piece of Riley's long poem "A Part Song," which is also the main focus of this chapter, in addition to the preceding poem "Maybe, Maybe Not" and the last poem, closing the long poem "A gramophone on the subject."

"A Part Song" is a poetic interpretation of a choral song in 20 parts which diffracts one voice, an imagined author-mother's voice who's lost a child, entangling Riley's loss of her biological

son Jacob in 2008 with the imagined author-mother voice, into many different parts attempting to communicate with a dead child. The different parts of this one imagined author-mother voice take on different registers – from existentialist to one drenched in dark humor – singing in free verse or rhymed stanzas, in a detached, impersonal fashion, distressing the elegy as a highly subjective, confessional genre. And so Riley writes, "I can't get sold on reincarnating you // As those bloody 'gentle showers of rain' // Or in 'field of ripening grain.'" Riley does not only use the natureculture figure of humor here, when her voice "can't get sold on reincarnating you," but the poem also uses intertextuality as resonance by echoing the words of Mary Elisabeth Frye, a Modern American poet, who writes in "Do Not Stand at My Grave and Weep" on the different shapes of rebirths the dead take on, "I am the gentle showers of rain, // I am the field of ripening grain // I am in the mourning hush" etc., and who thus "do not die" (Frye). Riley's poems cannot get sold on this symbolism, this fake "reincarnation," and break, diffract such a symbolism with lines like "modern creepiness" (Riley 2016, 8). By including voices of the literary canon, environmental tropes, and simulations on speaking, sounding, echoing, resonating, Riley manipulates the genre pull of the elegy towards personal mourning and redirects it towards an impersonal and ecological experience of loss.

This redirection towards the collective is also echoed in the mode of production of and around *Say Something Back*. *Say Something Back* does not stand alone – nothing in Riley's corpus ever does.[1] Staying true to this jointness, Riley wrote *Time Lived, Without Its Flow*[2], a speculative prose text

[1]Because resonance disregards hierarchies by entangling and interfering vibrations of all kind, resonance in Riley's work also deeply challenges literary studies idea and methodology of the primary – as in singular – in the primary source. In a way, all of Riley's speculative theory, prose, and poetry must be read as flat sources that reverberate. *Matterphorically* speaking, Riley's corpus functions like a carpet that is continuously woven: within Riley's corpus as a flexible meta-frame, each publication acts as one column of string which is vertically stretched down the loom, but each publication is also weaved, knotted, and looped into other vertical strings. If you read, touch, penetrate one warp, the others move as well, resounding intellectual thoughts, assumptions, and words. Riley's prose and poetry communicate with each other by inscribing theoretical assumptions into each other's work, and the reader may experience how all these different voices material-semantically resonate.

Most of Riley's ideas, in fact, reside not only in one publication, but her ideas and theoretical assumptions disregard, just as resonance does, the hierarchies of primary and secondary sources and separate books. It is not just that Riley's *Time Lived, Without Its Flow* communicates with her long poem *Say Something Back*, but they also echo Riley's theoretical prose on language, the self, and affect in *The Words of Selves. Identification, Solidarity, Irony* (2000*)* and *Impersonal Passion. Language as Affect* (2005) and her earlier prose on the family, motherhood, biology and psychology in *War in the Nursery: Theories of the Child and Mother (1983)*. Especially, *The Words of Selves*' philosophical as well as performative notion that we can "be spoken across by words (by the words' anarchic associations, by their echoing of others' speech, which I can never adequately acknowledge, within my own speech)" (2002) plays a fundamental role in *Say Something Back*. If the words of others can speak across oneself, for example via reading, the self can become a displaced person within oneself through language. Or, one can resonate with, for example, a passed son's voice internally by being spoken across memorized or sticky word fragments that flush through one's mind. In short, Riley's specific use of words as quasi-independent objects and resonators can transform language into personal-impersonal actants (*think knowing & doing & becoming*).

[2]Riley aims to push this personal-impersonal mode of production and reception of her poetry and prose even further. *Say Something Back* is published with the well-established *Picador Poetry*, a press which also publishes poetry by the infamous Jackie Key and Kate Tempest, and arguably has a relatively fixed and limited audience. In today's media landscape, contemporary poetry is *not* the most democratic channel of communication. Thus, things should go differently for *Time Lived, Without Its Flow* so Riley's contemplation on the changed nature of time through death would reach a larger audience. In *Studies in the Maternal* (2016), Riley is in conversation with the professor for Psychosocial

which traces an altered temporality, an "arrested time," that Riley as experiences when suddenly loosing Jacob. *Time Lived, Without Its Flow* rejects the notion that Riley exists closed-off from her son, but that there are always channels of "joining-in" through resonating voices or by manipulating the relativity of time as a result of firmly staying in what Riley describes an "arrested time," this "present instant in which we're now relentlessly inserted" (2012, Kindle Locations 114-117). Riley, explains how she is caught in an interior as well as relative time loop, triggered by her son's death, in which Jacob is not dead, but just "away." In Riley's personal and relative time-space-matter-loop, denying Jacob's existence would not just be morally disloyal to him, but, thinking with the theory of relativity, it would not be true. Because, while Riley can create a contact with her senses to "the outer world" where time is still linear, her "interior [is] only thinly separated from it, like a membrane resonating on the verge between silence and noise" (2012, Kindle Locations 88-89). Since temporality is relative and entangled with our own fleshy experiences, "[a] carnal sensation," and has thus a material effect, Jacob's death affects not only Riley's personal "anatomised emotion," but her temporality as well (Riley 2012). *Time Lived, Without Its Flow* does not just direct the reception of *Say Something Back*'s readership to the problem of temporality, but it breaks open the notion of the singular, closed off mode of expression and reception of a closed-off oneness, both ontologically as well as in terms of *one* idea having to reside only in *one* publication, but rather resonating through many.

At the same time, Riley's *Say Something Back* leans towards the material. "A Part Song's" is stubborn in accepting the death of a child and refuses to do away with the material bonds between a mother, and a child, a literary voice, or, really, anyone's material relationality. In *Say Something Back,* this stubbornness leads to a unique turn to materiality. And so, this long poem plays with what it takes to invoke the loved ones we lost if we take these material relationalities seriously. *Say Something Back*'s performative suggestion is that because our material relationalities are relative and ontological, such as the one between a mother and a child, something always sticks and is, in fact, never lost as in physically absent, but is always already specifically present. Meaning, memory, voice, history etc., carry not only linguistic and semantic value, but they are also always already part of materializations, entangled with our flesh, our material minds, our lived lives. As Riley writes in "Still," "You are dead but you still flicker bluish – I'd not // want to jinx anyone by bobbing like you do // right in my eyes corner, it's maddening. // Rather turn stolid, go blocky, be granite, not // whirr and not flare

theory Lisa Baraitser and shares her intent behind placing *Time Lived, Without Its Flow* with a small and newly established press: *Time Lived, Without Its Flow* was published by a couple of my former graduate students … I thought this would be very good because there would be a kind of anonymity and simplicity about its production. It wouldn't fall into the Americanized trauma publication industry, though I don't mean to disparage it. It's got its strengths as well as its shakier parts, you know a great deal about that yourself, but I didn't want that particular context for this particular book. I wanted to write something which might be accessible to anybody who had gone through a similar experience."

but lodge stock-still, a slab" (2016, 23). The poetic voice problematizes the dead child, the "you," here, and the vibrancy and vitality of material traces that "still flicker" despite the child's death, and this tension between a physical absence through death and a presence of traces, a simulation in her "eyes corner" of the son that "flicker[s] bluish" is "maddening" as it is against everything a dominant Western culture teaches us about the finality of death. The somewhat annoyed voice pleas for these vibrant entanglements to "lodge stock-still, a slab." *Say Something Back* wants us to see that a bluish flicker, memories, words, voices of entanglement can, as a matter of fact, survive destruction or death. They stick. They affect. They can be heard. They can be written into poetry. They can be read. They resonate and, thus, matter.

But how do *they* do it – stick, affect, be heard, be written, be read, resonate? The answer, I would like to suggest, is, just as in Morgan's *Interference Pattern* (chapter six), in Riley's title *Say Something Back*. Saying something, a thing, back is conventionally bound to a physical presence, linearity, and an observable sound. For example, *A* says, "Hello." *B* hears this greeting and says, "Hello," back. Yet, *Say Something Back* pushes us to transgress these conventional boundaries of what counts as empirical data as well as of causality and to look at the material subtext, at what happens around and in-between these "Hellos." While material-semantic quantum-entanglements, such as a shared DNA between a mother and her child or a shared sound-scape, stick and linger, they can go unheard, unseen, or unperceived. Riley's *Say Something Back* brings these seemingly silent, non-visual, and often non-linguistic entanglements between a mother and her child to the poetic forefront by finding a language that leans into these physical and material entanglements. It is this specific use of language as resonators and resounders knotted with the meta-dynamics of the physical laws of resonance, temporality, and relativity which make Riley's poetry into matter poetry.

My proposed notion of resonance is deeply naturecultural. Resonance in this chapter positions itself in contrast to Hartmut Rosa's use of it (2019). Rosa's work on resonance takes up a symbolic entry, arguing for an anthropocentric focus on the so-called good life that can be created once we focus on the ontological relationalities that make up our world. *Say Something Back* presupposes sound as material-semantic vibrations, which are entangled through the physical phenomenon of resonance into a larger collective, but also impersonal practice. *Say Something Back*, in short, takes matter's ability to evoke and carry relationality, meaning, feelings and correspondence of and through things that are, in a powerful Enlightenment tradition, thought as inactive, other or, in fact dead, seriously. And so this chapter argues that Riley transposes these entanglements between a lost loved one and the so-called living into poetic language via echoey textures and sonic resonance.

7.1 A Resonating Carpet & "Maybe; maybe not": Words as Re-Sounders

"To be, or not to be, that is the question"
—William Shakespeare, *Hamlet* (1602)

When I was a child I spoke as a thrush, I
thought as a clod, I understood as a stone
—Denise Riley, "Maybe, maybe not" (2016)

When I was a child, I spake as a child, I understood as a child,
—Corinthians 13:11

but how's her or his correct name made flesh.
Speech-sounds descend, through its not a Cassandra's but something more speaker-free.
There was and there is a life, I swim in it, but I wouldn't say that it's exactly mine.
—Denise Riley, "Pythian" (2016)

Say Something Back offers the poem "Pythian" (Riley 2016, 20), which functions as meta-poetical comment on how words resonate in the long poem. In "Pythian," we encounter a voice asking "but how's her or his correct name made flesh. // Speech-sounds descend, through its not a Cassandra's but something more speaker-free. // There was and there is a life, I swim in it, but I wouldn't say that it's exactly mine." (2016, 20). Here, words are speech-sounds that re-sound within the voice saying "I," without words or a life being "exactly mine," being impersonal. Riley proposes a poetics in "Pythian" which thinks words as resonators, as "speech-sounds" that "descend" and have a carnal, a physical quality when a "correct name [is] made flesh," resounds with and in a person. Her poetics focuses on resonance as a material, sonic, affective, and semantic process very similar to the German Romantic idea of "Stimmung." This process presupposes sound as a quasi-object which vibrates and is part world, part word, part human, part wave, part rhythm, part meter, part affect, part matter, part meaning, part temporality, part reader, part book, part author etc. Resonance knots all these "parts" together into a greater relational practice and event through nothing but words as material-semantic re-sounding actant: "Speech-sounds descend, through … something more speaker-free."

Riley's poetics of words as resonators and re-sounders is helpful when we turn to the first poem of *Say Something Back*, "Maybe, maybe not" (Riley 2016, 1). This prayer-like poem introduces one of the main ideas through which resonance enters Riley's entire matter long poem to echo

out, namely by reconfiguring intertextualities as sonic resonance, reverberating phrases through different epochs and in-between different textual materialities of and with Corinthians 13:11 and Shakespeare's *Hamlet*. This is a clever move on *Say Something Back*'s side. By reconfiguring intertextualities as sonic resonance, *Say Something Back*'s text grows over the boundaries of its material pages and entangles itself with over texts by echoing sonic rhythm and semantic content. In doing so, intertextualities resonate throughout the long poem by including rhetorical aspects as well as a physical ones (think rhythm, breath, affects, emotions etc.). For example and throughout the long poem, Shakespeare is a powerful oscillation frame within which the long poem echoes; lines from *As You Like It* (Riley 2016, 4, poem iv) or *The Tempest* (Riley 2016, 14: poem xx), but most easily overlooked may be *King Lear's* famous line spoken as he carries his beloved daughter Cordelia's dead body in his arms, "Never, never, never, never, never" (Act 5. Scene 3), which rushes throughout the long poem in many shades of "nothing," "never," "not" (Riley 2016, 23: "Not become fish, or a sea, nothing flued"; Riley 2016, 50: "No, nothing ever gets learned"; "Let no air now be sung, let no kind air – // sorrow alone reveals a constant pulse" (Riley 2016, 59), "'He is not missing: he is here'." (Riley 2016, 67)). Riley's intertextual resonance "shows how conditions produced by past works, embodiment in present listening practices, and affective impacts on other resonant bodies and ecologies are all a part of the same process and practice" (Hawk 321). At the same time and returning to "Maybe, maybe not," this time travel of a contemporary matter poem to the bible and the English Early Modern period simulates an experiential mode that is tied to "Maybe; maybe not's" theme, namely growing up in space and time, from child- to adulthood:

> When I was a child I spoke as a thrush, I
> thought as a clod, I understood as a stone
> but when I became a man I put away
> plain things for lustrous, yet to this day
> squat under hooves for kindness where
> fetlocks stream with mud – shall I never
> get it clear, down in the soily waters. (Riley 2016, 1)

When the voice speaking "was a child" it spoke in carefree song, just like the thrush is known for its high, loud and repetitive chatter, it thought "as a clod," concrete and compact, and comprehended as stone, so in a compressed lithic manner with an inhumanly large timespan, describing that time moves slower when one is little. The voice then leaves this dip into ecopoetic

similes and wades into adulthood; "when I became a man I put away // plain things for lustrous," yet until this day, the voice would prefer, even "squat under hooves for kindness" in the *world out there*, "where // fetlocks stream with mud." The last lines, "shall I never // get it clear, down in the soily waters" stresses the confusion of how to grow up, but it also turns stomachs while mirroring the several failed attempts of the imagined-mother-author-voice to find solace after losing a child, not seeing clear under "the soily waters."

"Maybe, maybe not" also speaks back, rhythmically and semantically reverberating, to first Corinthians 13:11. The King James version of 1 Corinthians 13:11 reads "When I was a child, I spake as a child, I understood as a child, I thought as a child: but when I became a man, I put away childish things. For now we see in a mirror, dimly, but then face to face. Now I know in part, but then I shall know just as I also am known." (KJV). The rhythmic monotony of continuously stressing the "I" in "When I was a child, I …" creates a beat that progresses until "childish things" are put away. The stress on the word "I" resonates with the continuous rhythmic stress on the "there be" in 13:8, creating a resonance, a rhythmic resounding, between the prophecy of faith and growing up – the "I" and "there be." The idea of not knowing or knowing "in part," also streams through the never getting "it clear" of Riley's last lines.

Riley's matter long poem also uses the material-semantic performativity of her poetic textures to elicit an experiential quality of what it feels like to grow up *relative* to other's while reading. Firstly, the poem's title "Maybe; maybe not" resonates with *Hamlet*'s famous line "to be or not to be" without doubling any words directly. Yet, by reverberating *Hamlet*'s meter, this innocent looking title creates a similar existential question. The intertextuality here is rather "intra," so from within both poems and the read," and based on metrics. " To be or not to be" follows - / - / - / as does "Maybe; maybe not" / - / - /. This resonance of the patterned stress creates the same comparative meaning of either existing or not through the stark comparison of the stresses.

Revisiting the poem's last sentence "shall I never // get it clear, down in the soily waters" and with that the struggle for clarity and closure, it might be something like finding solace in the language of the dead – a child's, but also Shakespeare's or the Bible's – which highlights in how far intertextualities in Riley are not mere reference to other literary works common to all kinds of novels, short stories, poetry etc., but resonate. Again, Riley's *Say Something Back* preps us with an array of meta poetical comments on resonating intertextualities which highlight the vibrancy of the (written) word, of language, in an animistic fashion: "Listening for dead people" concludes that "The souls of the dead are the spirit of language: // you hear them alight inside that spoken thought" (Riley 2016, 32), or "Death makes dead metaphor revive" shows that "Language, the spirit of the dead, // May mouth each utterance twice. // Spirit as echo clowns around // … each

word overhears itself" (Riley 2016, 62). In Riley's intra-active universe, language is not mere rhythm to reverberate, not mere meaning to touch, affect and be affected, but it is alive as it is attached to a thing, a material-semantic quality, she calls the "spirit"; "The soul of the dead are the spirit of language" (Riley 2016, 62) implies that the soul of the dead – their humanity (thoughts, emotions etc.) – channels into the spirit, a relational vibrancy, of language. Words themselves are fully packed with these multivocal traces in *Say Something Back* so each trace is "echo[ed]" in one word so "each word overhears itself" (Riley 2016, 62). This kind of echo chamber created in oneself or in one long poem via the multivocality of even one line (! – think "Maybe, maybe not") bouncing back and forth, reverberating, via uttering, writing, reading, carrying several layers of breaths, thoughts, and things of others (c.f. Deleuze in Riley 2000, 184).

7.2 Say or Sing Something Back – "A Part Song"

You principle of song, what are you for now
Perking up under any spasmodic light
To trout out your shadowed warblings?
—Denise Riley, "A Part Song" (2016)

After "Maybe; maybe not," Riley's long poem *Say Something Back* rushes into "A Part Song," a poem diffracting one semi-autobiographical imagined-mother-voice who lost a child and who aims to get in contact with that child, into 20 parts. "A Part Song" uses the similar sound characteristics between poetry and song (voice, rhythm, variations in tempo and pitch etc.) to simulate a part song, which is a song written for several vocal parts with a melody and accompanying harmonies, on the page. Next to many resonating intertextualities (a lot of Shakespeare again), each poem allows for a different pitch of that one mother voice – a different register, from hopeful, "It's all a resurrection song" (Riley 13; part xviii) to darkly humored, "*What is the first duty of a mother to a child? // At least keep the wretched thing alive"* (Riley 3; part ii), to impatient "Oh my dead son you daft bugger" (Riley 6; part vii) – to emerge on the page in rhymed stanzas or free verse, in the form of a small haiku-like poem (Riley 11; part xiv & Riley 12; part xvi) or rhyming couplets (Riley 5; part vi). All parts return to the melody of parting and the wish to unite with harmonies of despair, grief, irony, and humor. But these voices also *do* something. The idea of singing, of communicating and corresponding, attaches itself to the meta-theme of Riley's long poem *Say Something Back*, namely the wish for the dead to resurrect themselves via language, via saying something back somewhere during this polyphonic song. And so we have 19 different parts, 19 different poetic diffractions of

one mother-voice singing across the page and in the last part, xx, the dead child's voice emerges in italics speaking across the page, addressing "*my sisters and my mothers*" (Riley 2016, 14). Thinking with sonic resonance and this "principle of song," what is "A Part Song" "for now" (Riley 2016, 2)?

> You principle of song, what are you for now
> Perking up under any spasmodic light
> To trout out your shadowed warblings?
>
> Mince, slight pillar. And sleek down
> Your furriness. Slim as a whippy wire
> Shall be your hope, and ultraflexible.
>
> Flap thinly, sheet of beaten tin
> That won't affectionately pump up
> More cushioned and receptive lays.
>
> But little song, don't so instruct yourself
> For none are hanging around to hear you.
> They have gone bustling or stumbling well away. (Riley 2016, 2)

The first part of "A Part Song" thingyfies the song as an entity one can converse with. The line "what are *you* for" (my emphasis) does not only interrogate the principle's purpose when it comes to the theme of parting as discussed above, but it also introduces the idea of a sonic participation that is ontological with any song through the idea of singing (along) or joining in. Even if soundwaves are "Slim as a whipy wire" and thus perceived as potentially thin or quiet, the participatory nature of singing "shall be our hope." Hope here is fundamentally material and phenomenological; hope is about what can be *known* and perceived when leaning into one's own soundscape and body via singing or writing a poetic simulation of a song onto paper, introducing a philosophical pessimist notion into the principal of song based on participating in the noticeable material experience of singing.

Into this material experience flows a sonic "whippy wire," an onomatopoeia that simulates the vibrations of a quivering wire via the judder our bottom lip produces when uttering "whippy wire." This onomatopoeia streams into a "sheet of beaten tin": "Flap thinly, sheet of beaten tin //

That won't affectionately plump up // More cushioned and receptive lays." When thinking of traditional sonic uses of a "thinly, sheet of beaten thin," the sheets of tin behind an Early Modern stage are called to mind. Traditionally, tin was bend and beaten to simulate the sound of thunder, wavering out from behind the stage onto the audience, creating one relational sound scape for the actors and audience to experience a simulation of thunder. But in Riley's poem, this sheet of tin "won't affectionately pump up" and so the last lines read, "But little song, don't so instruct yourself // For none are hanging around to hear you. They have gone bustling or stumbling well away" (2). When we read, part one of "A Part Song" it has been heard, received, and participated in, and this part of the song is thus already always successful, whether "They have gone bustling or stumbling well away" or not – whoever "they" are. Because Riley introduces words and voice as resounding actants, the poetic voice has already affected readers, streamed through their eyes, into their minds as neurological waves, and into their bodies as affectual and sense material, and out again as sound or as a physical reaction to the information received. "You principle of song" may then refer to the principle that literature and matter-poem are fundamentally open, emerging through voice in the author's and reader's mind via paper, ink, poetry reading as well as writing as a cultural practice etc., and that Riley's matter poetry is hence radically relational and that her literariness emerges through this natureculture relationality (on the "relational" in literature c.f. Dimmock 2009, 1064).

This natureculture quality of words also brings along their ability to echo. Echo is a common figure and trope in Riley's corpus (c.f., most dominantly in "Wherever You Are, Be Somewhere Else," *Mop Mop Georgette*, *Word of Selves*, *Say Something Back*). In *Words of Selves*, Riley argues that echo's mechanism of potentially endless repetition, of soundwaves endlessly bouncing back and forth against the walls of inner oratory, can be traumatic and, importantly, long lasting. Riley writes, there is a "trauma of iteration and reiteration – that involuntary and hypnotic repetition to oneself of the worst interpellations, over and over, compulsively, as they flash unbidden across one's mind, perhaps years after their original articulation" (Riley 2000, 143). This endless repetition of voices and soundwaves bouncing in the halls of our inner minds, though, can also bring solace through inviting the material-semantic traces of others into us through their voices. For, as Wallace Stevens neatly observed of the cavernous grandeur of inner oratory, "When mind is like a hall in which thought is like a voice speaking, the voice is always that of someone else" (in Riley 2005, 17). In *Dry Air* (1985), Riley makes clear that while words co-constitute the self, they are always already material, and hence "common"; in a matter poetry fashion, Riley's philosophy of language is based on the belief that language is part of a material or inorganic other

as well as part of the human self: "if for me some words must be exhumed // out of their sunken heat they must be cooled // to the grace of being common" (Riley 1985, 54).

Riley's theoretical assumption that a stretched-out temporality of other voices, such as a dead's son, speaking across the self, even "years after their original articulation," finds its way into her poetic practice in the last part of Riley's "A Part Song." In part twenty of "A Part's Song," the imagined-son-voice finally emerges from the different parts of the imagined-author-mother-voice to speak back by emerging on the long poem's paper:

> *My sisters and my mother*
> *Weep dark tears for me*
> *I drift as lightest ashes*
> *Under a southern sea*
> *O let me be, my mother*
> *In no unquiet grave*
> *My bone-dust is faint coral*
> *Under the fretful wave* (Riley 2016, 14, original emphasis)

Most strikingly, the imagined-dead-son's voice reverbs with another much-admired dead voice, namely Shakespeare (again!) via the spirit Ariel's song from *The Tempest'* Act I, Scene 2, in which Ariel addresses Prince Ferdinand to tell him about the supposed drowning of his father. In this reverberation via intertextualities, Ariel's original line is "Of his bones are coral made." The delay in the poetic production between Shakespeare and Riley changes the sonic and sematic pattern with Riley's imagined-son-voice's reverbing "*My bone-dust is faint coral.*" "Like the interaction of remembered and perceived voices and images, 'the melodic toll of bells can become cacophonous when echoes mingle with the original sound; when the sounds are words, the return of partial phrases alters the original sense and comments on it as well'" (Scott 291 in Ball 2019, 64).

In the end, Riley's imagined-son-voice asks, "*O let me be, my mother // In no unquiet grave".* And this grave is not silent, not "*unquiet*" because even the tiniest part of the son's physicality, the "*bone-dust*" is always present, faint "*coral*," under not just the sea (referencing Shakespeare), but under each "*fretful wave,*" each sound wave uttered as he, his voice, his language, his always already indwelling, reverberating, uniquely in his imagenied-mother-voice's inner speech. It is not just the poetic subject, our speaker, which is an echo chamber, filled with personal and impersonal voice, bouncing back and forth, but once activated via reading, the whole long poem as well as the reader become part of this echo chamber as well.

After Rohland Barthes' announcement that the author and, historically speaking, his intent is dead (1967), which triggers the birth or the reader and of close reading, Riley (and for that matter Katie King (2019) as well) would, in a natureculture fashion of *knowing & doing & becoming*, interrupt to say that the reader is not the solely active one, but that the production of meaning, content, and literary materializations "lies in the 'hand' of a collective man and nonhuman, material and textual entities" (King in Barla 2019,102). Riley's "A Part Song" thus challenges the idea of a closed-off human subject that acts intentionally towards one goal when creating poetic art that we experience as literary, to distribute the ability to produce meaning and knowledge among various players from which literariness emerges (c.f. King 2019), blowing up a-part-ness beyond the wish the re-incarnate the dead.

7.3 Conclusion: A Poetic Gramophone & An Ecology of Experience

In Riley's matter poetry, sound, resoundings, affect, and echo establish a relationship and a communication channel between the reader, many literary voices, and Riley's life as well as poetics and poetry which is in fact not a vacuum, a "no-thing," but full of thingness and sonic materializations.

In the end, material-semantic resonance and matter may not only create resonating communication channels but may also create a comfort that allows Riley to hand over to the reader "to bear what cannot be born" (71). Matter can be comforting. In the long poem's last piece "7 'He lies somewhere in France.' Somewhere," Riley writes:

> What can it mean, that someone walks
> out of your house then they won't come
>
> back ever. ……
> …….
>
> ……
>
> I am a gramophone on this subject.
> Each day's same horizon to be faced.
>
> You long to fade out into it, yourself.
> I look doggedly after a missing figure.

> What to do now is clear, and wordless.
> You will bear what cannot be borne. (2016, 69-71)

"A Gramophone on the subject" are seven commissioned pieces that Riley wrote to commemorate WW I and which form the end to *Say Something Back*, admitting that once a loved one dies, "won't come // back ever," the speaking subject becomes "a gramophone" on loss. In "Notes to the poems" Riley writes these poems "draw on historical records, including soldiers' and civilians' letters, diaries and memories" (2016, 76). Gramophones are the books of sound reception as they play sound without any electronical amplification. Parallelly, a gramophone reads sound with a small needle just as readers track letters with their eyes while reading poetry. Through transmitting the vibration of the needle, the gramophone transfuses waves into sound. It is not only that Riley writes her personal experience of losing a son into a European war experience of losing thousands of men due to modern warfare during WW I, and thus entangles *Say Something Back* with an artistic and ethical problem of representing atrocities and suffering, but she also fills a literary gap doing so. There are not many women, let alone mothers, in literary history who write about their experience of losing a child. Using the material-semantic abilities of sound waves, Riley, hence, makes an experience of motherly loss available for everyone to experience through matter poetry and, in doing so, also fills a canonic gap.

In the end, Say Something Back uses voice and its ability to vibrate and resonate to create an assemblage of sensation and experience when reading Riley's long poem aloud or quietly that ties in many readers through space and time together with the material world of sound waves – wherever the long poem is read. Going back to the idea of a gramophone, if we touch the sound horn of a gramophone, we can actually feel, experience, the soundwaves, these resonating pulses, of what is played. Riley's *Say Something Back* simulates this in her matter poetry:

> In *The Rhythmic Event*, Eleni Ikoniadou argues that vibrations, hums, and noises all have variations in rhythm that entangle, attune, and entrain humans with the world. The ability to digitally create rhythms, she argues, introduces a mutation into this entrainment. Like evolution, it injects difference into a system to see what emerges. This difference creates an openness to futurity whose impact lies in its affective qualities that move bodies via the material forces of modulation and resonance. (Hawk 322)

Resonating with Ikoniadou's idea that "vibrations, hums, and noises all have variations in rhythm that entangle, attune, and entrain humans with the world," Riley uses voice's material-semantic ability to resonate when she writes in her last lines, "What to do now is clear, and wordless. // You will bear what cannot be borne." This natureculture doing is not fully "wordless," without language, since the beginning of this doing is written on paper, but the continuation of this *doing* is sonic and material. It resonates.

Thinking with Susan Stewart's notion of "distressed genres" – "from 'to make old'; but also 'affliction' and 'to pull apart' or 'stretch'" (Stewart 1991, 4), Riley distresses the genre of the elegy by introducing a realignment from individuating pathos – the notion the there is only one self-reflexive experience of death as triggered by Romantic idealism in the 1790's (Stewart 1991, 4) – towards, what I call, an ecology of experiencing grief and loss. An ecology of grief because Riley's writings believe that the experience of loss, grief, and an altered temporality can in fact be *shared* and is linguistically and extralinguistically participatory. Here, on its last pages, *Say Something Back* stretches the elegy again and, just as late-century American women poets such as Adrienne Rich or Rachel Hadas have shared their grief through their poetry, Riley steps into this feminist tradition and takes writing about grief further by insisting that her altered condition of life through loss can, must, and will be shared. With her last lines "What to do now is clear, and wordless, you will bear what cannot be borne" (2016, 71), Riley asks for her unknown readers to lean into the material-semantics of her poetry and get entangled with material soundwaves, attuned with the experience of loss, and fully emerged into a material and naturecultural world. In the end, we readers "will bear what cannot be borne" through the affective qualities of Riley's words themselves "that move bodies via the material forces of modulation and resonance." Inaturecultures, sonic matter can ultimately bring relief and solace. And so we "bear what cannot be born" when Riley's matter poetry, matterphorically speaking, "says something back" to us.

chapter eight: conclusion

Fog: A Natureculture Poetics of Matter Poetry

> [M]y interest has been in what gets to count as nature and who gets to inhabit natural categories. And furthermore, what's at stake in the judgement about nature and what's at stake in maintaining the boundaries between what gets called nature and what gets called culture in our society.
>
> —Donna Haraway, *Edges in Ecotones* (2007)

> To whom we are accountable to is part
> of what is produced in the readings themselves
>
> —Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (1991)

> Fog is nomadic. A low prowl of Atlantic rooting
> through the city like a bear. In the small town of Prospect,
>
> fog once swallowed a school bus. The children,
> taught to hold hands in an emergency, emerged older
>
> and craving gills. Fog is a flood of moonlight souls
> of dead fishermen. The elders warned us not to breathe it in
>
> or we'd cough for days, their last thoughts caught in the net
> of our lungs. Watch how fog seduces a lamppost. It's a crowded harem
>
> vying under to undress all lights.
>
> —Sue Goyette, "fog" (2011)

"Fog is nomadic." Goyette's fog has no roots, but it wanders and is fundamentally tied to the environment. It only emerges when water vapor condenses in an interplay with the "Atlantic," surrounding "the small town of Prospect" in Nova Scotia, Canada. After condensation, little water molecules combine into bundles of water molecules which form little, tiny droplets enriched with salt from the Atlantic or dust from the air. Water droplets then float in the air and like thick, fluffy clouds seemingly swallow "a school bus" or gently hug "a lamppost." This "seemingly" here points

to how fog manipulates our perception and erodes our sense of where entities, things, people, or story begin or end. Fog's thickness and its ability to seemingly absorb infrastructure dips not only into technoscientized discourses on fog formation, but also flows into Prospect's local myths, which tell of fog carrying the "souls of dead fisherman" on land from the bottom of the sea.

Goyette's matter poem "fog" illustrates why the contemporary matter poetry discussed in this dissertation needs to be read together with Donna Haraway's natureculture philosophy of a *knowing & doing & becoming* as a flexible heuristic for thinking with the scientized implosion of nature into culture (c.f. Haraway 1997). Goyette's poem shifts our noticing to conceptualize fog not just as a natural phenomenon, but as a natureculture actant (*knowing* & *doing*) that influences the ocean dweller's myths and erodes their most intimate boundaries such as skin, the outer lines of a school bus which drives kids etc. (*becoming-with*). With her natureculture philosophy, Haraway supplies a historical explanation of why nature has imploded with cultures to create naturecultures and gives us conceptual tools of how a cultured as well as techno-scientized notion of the environment influences matter poetry's stories and worlds.

Taking a step back and looking at all the matter poems diffractively read and discussed with naturecultures in this dissertation – Kinsella's *Jam Tree Gully*, Goyette's *Ocean*, Burnett's *Swims*, Oswald's *Dart*, Morgan's *Interference Pattern*, and Riley's *Say Something Back* –, what kind of a material natureculture poetics emerges from these poems? I would like to stay with the elemental lens which Goyette's poem "fog" supplies to suggest that we can describe this materialist poetic as one of fog: a poetics molded by sticky attachments, eroded boundaries, noticing, darkness & light, and complex formations.

Sticky Attachments

Fog consists of water molecules which drift up in the air and attach themselves in a materialist as well as natureculture fashion to bridges, houses, things, stories, bodies, our skin (you name it). Matter poetry leans into the stickiness of materializations in a similar fashion. Through her cultural technique of wild swimming, Burnett's *Swims* reveals how human bodies absorb material traces of energy-environmental accidents such as the one in Fukushima in 2011 while swimming because water ways form accidental archives of such material traces which are carried between continents via water flow, wind, streams etc. Burnett uses this stickiness of matter by lending her own body to 12 wild swims across England and Wales and during these swims, material traces stick to her body. By writing about her wild swimming experience in an imagined implied author voice these nonhuman attachments flow semantically into her poetic textures by describing

how nuclear debris stranded on a Canadian coast is linked to the Lake District in which she swam with the same body that is used for writing and thinking-with water. In *Swims*, Burnett then attaches her own embodied experience to nameless voices on the ground in Japan and uses poetic language, words, and meaning to create a "realness" of actual lived lives and a multi-layer, thick experience between Japan and England and the reader, transfusing material experience into a linguistic one. Matter poetry reveals how humans cannot emerge from, cannot escape, attachments with environmental pollution or a physical and quantum attachment to the world *out there*.

Matter poetry also uses the social glue that is sensory by textually manipulating touch, sound, and sight and by building affectual channels between environments, texts, and readers. Goyette's matter poem *Ocean*, for instance, auto-references its own thingness and materiality through the book's jacket which is fabricated with taupe-grey paper onto which three layers of waves, neatly overlapping curls, are pressed onto the rough texture of the book's cover. *Ocean*'s uses the stickiness of sense and affect to create material-semantic attachments between the Atlantic on the ground in Halifax, the poem, and the reader. The waves pressed into the book jacket of *Ocean* are stacked on top of each other, hinting at the often unnoticed "*volumes* of hydrospace" (Elden 2013, Steinberg & Peters 2015, my emphasis) – the *volumes* of naturecultures.
The cover's waves simulate a rhythm which gives the city of Halifax *out there* its rhythmed depth. Goyette doubles attachments here: touch is used to create a relationality between the book and the readers who touches it while holding it. Touch is also used to simulate a very real experience of living next to the Atlantic by doubling the experience of touching the waves on the book cover with the way salty water molecules attach itself to one's skin when dwelling next to the Atlantic.

Eroded Boundaries

Returning to the natureculture poetics of fog and the erosion of boundaries: just as fog plays with boundaries by clouding up the edges of, for example, a streetlamp, confusing our sense of where something ends or begins, so does matter poetry erode the boundaries between meaning and matter by using poetic language as material-semantic actants that can *do* something. Riley's *Say Something Back* introduces us to a material vibrant world of lively inner oratory which fundamentally trouble our notions of real, experienceable, and empirical data. The edges of what we count as "real" are troubled by Riley's notion of resonance which is abstract and elusive through its vibratory qualities. Riley erodes what we consider to be empirical data by claiming that voice does not necessarily need an addressee, but that a multitude of past voices can bounce back and forth in the subject, leaving internal material-semantic traces everywhere in the great halls of inner

speech. In "A Part Song," we encounter a grieving mother's voice whose conviction it is that words act as re-sounders and are echoey. The poem shows us how endless repetitions of voices and soundwaves bouncing in the halls of our inner minds can bring solace through inviting the material-semantic traces of others into us through their voices. Resonance and echo trouble fixed temporal notions of past, present, and future as these voices can manipulate one's sense of time and being. Also leaning into technoscientized notions of waves, Oswald's *Dart* exposes that the claim that voice, speech, and poetry are only reserved for the human subject is in itself a boundary drawing practice, strengthening a dualism between nature and culture. Eroding these boundaries, *Dart* illustrates how words can be co-created by the river Dart and how human voice is always already eroded by the world *out there* and its forces, such as water flow.

Noticing

When we sense fog's thickness via sight, its ability to, metaphorically speaking, eat whole hills, forces us to notice that we always already live in a complex multi-species world – in a world populated by nonhuman matter. Kinsella's *Jam Tree Gully* offers us micro-readings of the South West Australian bushland and of a strong human consciousness that notices the situatedness of naturecultures such as insects, burned tree trunks, rainwater, goats etc. – bottom up. These detailed poetic noticings trigger a cognitive realism produced through a deep imagining and a sense of indeterminacy which lead the reader into an experience of a *presence* of voices, things, colors, and smells while reading. This form of poetic deep noticings is employed by many of the matter poets showcased in the dissertation, for example also by Goyette, Burnett, or Oswald to hone the skill of noticing via reading which can then also be applied in the world out there by, for example, going for a walk or by staring on the wall of one's apartment to notice spiders, a dead fly, some dust etc.

Darkness & Light

Fog's ability to either block the sun and create a darkness or allow for some light to shine through its cracks is a play we can also detect in matter poetry. Matter poetry's engagement with the light, so productive agential as well as vibrant qualities of nonhuman materializations to connect are most dominant in the more environmental matter poems of Kinsella, Goyette, Oswald, and Bennet. Bennet even points to the rejuvenating and joyful practice of swimming; how

floating on water and how detecting new shades of color in the depth of a river can be enchanting, even strengthening, and hopeful while living in climate ruins.

Morgan's and Riley's intervene this intellectual trend by pointing to the dark side of materialities and naturecultures. It is in this darkness in which the real complexities of naturecultures come to the fore and matter poetry is at its best in showing what a poetic lens on (often scientized) materializations can do. While Haraway's natureculture slogan of living and dying well together (2016) often remains on the level of a catchphrase, Riley's matter poetry exemplifies how a turn to materiality (think echo or resonances) can bring solace and connection, even in dark times. *Say Something Back* in the end exposes how this echoey and resonating quality of voices can lead to sharing grief because the reader experiences and carries the same voices that bounce back and forth in the speaker's mind and flow into the poem once it is read so the voices have streamed into the reading minds. *Say Something Back* though doubles the darkness of natureculture connection and portrays that the repetitiveness of echo and resonance comes at a price; that this can create a trauma for the person who acts as an echo chamber for the voices of lost loved ones.

Staying in the dark, Morgan's *Interference Pattern* unpacks how a relational ontological connection in naturecultures can lead and speed up violence and how matter as well as materializations of affect, class, gender, and power can hurt, even kill. Morgan's darkness entangles personal with systemic violence, meta poetically arguing against powerful notions which separate personal and systemic forms of violence (Galtung 1964, Murphy 2022). Morgan confronts the reader with complex violent wave-functions in which power, individual circumstance, as well as a plethora of negative affects are used to limit the possibilities of victims to live their lives to their own accord. A sense of confusion and obscurity is also heightened as *Interference Pattern* introduces matter's resistance to being read linearly or in its entirety on a performative poetic metalevel. Different voices rush into and out of the pages, some in italics, some in Roman, to interfere with each other and to physically dislocate one or the other in an optical illusion, simulating the superposition movement of interference patterns on the page – as Morgan's title, *Interference Pattern*, suggests. These dislocations also create a certain darkness, an unease, within the reading experience of this matter long poem.

Complex Formations

Fox clouds are complex formations of water molecules which are "nomadic," in Goyette's words, and travel over the world out there and in here, constantly expanding their complexity.

In the end, matter poetry allows the readers to experience the workings of subatomic particles and quantum entanglements by making phenomena such as light, fog, or sound, often perceived as immaterial, substantial in their experience by writing them into poetic textures towards a knowing & doing & becoming-with in naturecultures.

Matter poetry creates complex literary formations: Kinsella's poetic filed-to-come unrolls in front of the tracking reader's eyes, following the micro-noticing of the poem's poetic consciousness. Goyette's *Ocean* develops a mythopoetic that entangles (non)human myth making with the natural sciences and strong poetic imagery to convey not just what it feels like to live next to the Atlantic, but to also imagine what it feels like to a body of water, to be the Atlantic around Halifax, and how it feels like to life with humans that very often view themselves as the primary referents of that ocean. Matter poetry always leans into complexity of naturecultures and the quantum worlds. That is why the themes of our matter poems – rivers, oceans, a gully with traces of colonialism, evoking a dead son, violence, resonance, echoes, waves, particles, pollution – are so varied, but they are all technoscientized either by pointing to the wave-like qualities of voice or by diving into the minute material particles which connect us and can hurt us at the same time.

Unearthing Something Novel

With such meetings of nature and culture, this dissertation unearthed something novel: in the first four chapters, I introduced Haraway's natureculture (2003) not just as a theorem, and it is often misunderstood and misrepresented as only that (Van der Tuin & Dolphijn 2010, Latimer 2013, Bellacasa 2010 – just to name a few), but as a whole philosophy in itself which is weaved through everything Haraway has written since the publication of her first monograph in 1976 and is in fact still writing. Due to the sheer mass of texts Haraway has produced thus far, I made the scope of Haraway's natureculture philosophy more tangible by framing it within a flexible heuristic based on three interrelated moves*: knowing & doing & becoming*. While many agree that Donna Haraway is one of the most influential contemporary feminist and posthuman, or as she would have it, compost philosophers, there have been few attempts (to some degree only one chapter in Stache 2017) to really dive into Haraway's implosion thesis (1997) and to situate her paradigm-shifting claim that with the technosciences so-called nature has been imploded into the sphere of culture within her philosophical corpus at large. As we dive deeper into an array of techno-scientized lives with the ubiquity of smart watches, laptops, super smart phones, digital passports, digital immunization cards, AI lead medicine, machine learning, climate fiction, quantum fiction, climate poetry, and other stories that are obsessed with scientific quick fixes (c.f. any Kim Stanley Robinson novel) (you name it!), Haraway's natureculture philosophy with its strong

epistemological criticism towards the technosciences will gain a growing relevance in discussions on how we want to live and die well together (c.f. Haraway 2016) in naturecultures. And it was due time that someone turned to Haraway's corpus and helped to summarize the main ideas holding her natureculture philosophy together.

Haraway's natureculture philosophy then also helps to conceptually frame a new genre, matter poetry, which I unearthed and introduced here, and which I have discussed at lengths thus far. I would like to close this dissertation with some thoughts on the novelty in form and thought which matter poetry brings to the fore. By employing words as material-semantic actants and by utilizing affective channels as well as sense perception, matter poetry does partially leave the level of text and art behind to cross into the environment, the reader, and into technoscientized discourses on the environment, death, life, and violence etc. By ontologically shifting towards matter and by looking at us from where we are not, matter poetry forces us to read against our human(ist) selves. Decentering the human as the primary unit of reference for others, such as an ocean or a spider, projects "an otherness to the human, to sympathise and empathise with a position that troubles and undoes identity while struggling to reassert what is familiar and defining" (Herbrechter & Callus 2008, 95). By introducing nature as material and material-semantic, matter poetry's readers face not a sublime or even god-created environment, but an materialist interpretation of the world *out there* which is partly indifferent to the human (think *Ocean, Jam Tree Gully*) or introduces itself not as background or just an idea, but as a diffracted material-semantic partner to live, work, and die with (think *Dart, Swims, Say Something Back*). Matter poetry challenges us to really reflect on how we impress ourselves onto the nonhuman and vice versa in naturecultures.

Matter poetry has another very real potential: these contemporary matter writers are interested non-scientists, but their work opens up a material-semantic poetic space which fills the gap between science and art, matter and meaning, text and environment. With these matter poets, who are not just poets, but also academics and activists teaching and preaching (Burnette, Kinsella, Riley), we might just hope to see a re-emergence of literary intellectuals in both the empirical and creative world who, through their work, render visible the complex participatory cosmos we live in – in short, nothing less than our involvement in the world's *knowing & doing & becoming*.

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