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# Pedagogies in the Wild

## Entanglements between Deleuzoguattarian Philosophy and the New Materialisms



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## Pedagogies in the Wild—Entanglements between Deleuzoguattarian Philosophy and the New Materialisms: Editorial

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Whether we are said to be living in the Anthropocene, the Capitalocene, or are witnessing the start of the Chthulucene,<sup>1</sup> as feminist science studies scholar Donna J. Haraway (2016) would describe the current post-anthropocentric era, there is a demonstrable need for affective, entangled, transversal forms of *thinking-doing* today. Writing this editorial almost a year after the COVID-19 pandemic erupted, and that as inhabitants of Belgium and South Africa—countries with complex ongoing capitalist-colonial legacies, socio-political presents, and heavily but also differently hit by said pandemic—we more than ever feel that these are times of entwined crisis, chaos, and hardship, overflowing with cravings for pedagogical-philosophical responses that are affirmative, productive, and future-oriented. Reactions that are moreover part theory, part praxis, counter the nihilistic, and are future-focused while still grounded in the present, as to not defer responsibilities to future times (see Geerts & Carstens, 2019).

Critical race studies and queer of colour critique scholars such as José Esteban Muñoz (2009), Stefano Harney and Fred Moten (2013), and Saidiya Hartman (2020) have rethought the connections between the queer, the pedagogical, and the temporal. These thinkers have inspired queer theorist Jack Halberstam (2019) to posit that crisis times require a strategy that is peculiarly productive in its counterproductivity—times

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<sup>1</sup> Introduced as a new geological era by Paul J. Crutzen (2006), the Anthropocene describes the colossal impact humans have had on the environment through industrial and other interventions. The Capitalocene, coined by Jason W. Moore (2013), presents a similar analysis, but additionally underlines the role of extractive capitalism. Haraway's (2016) Chthulucene, on the contrary, is a post-Anthropocene, post-Capitalocene era in which humans were to realise they are living together with other species and could and should do so in non-destructive ways.

like these, in our regard, require thinking-doings that are abundantly *wild*. Wild in being, in becoming, in imagining, in thinking-doing. Wildness, as Halberstam (2019, n. p.) puts it, calls us to pay attention to the “the emptied spaces of crumbling institutions and the destitution to come of environmental disaster,” and find ways of counteracting “the madness of life under our present dictatorship of the callous and unimaginative.” Wildness is not only “committed to mis/readings, refusals, dreaming, fugitivity, insurrection” (Halberstam, 2019, n. p.), but also to seeking out new intimacies, joys, pleasures, and affirmations that run against the grain of extraction-based capitalist realism (see Fisher, 2009). Wildness requires that we rethink modes of being and becoming by jumping the fences that separate divergent disciplines of knowledge and seeking out productive synergies with other non-canonical minoritarian/subjugated knowledges and more-than-human modes of understanding. Wildness, as Halberstam explains elsewhere, is “an epistemology, a terrain of alternative formulations that resist the orderly impulses of modernity ... a merging of anticolonial, anticapitalist, and radical queer interests” (2000, p. x).

## **A Pedagogy of Wild Thinking-Doings**

In pursuing entangled “constellations of human-nonhuman agencies, forces and events” (Taylor & Ivinson, 2013, p. 688), wildness in our regard finds productive expression in Deleuzoguattarian cartographic, schizoanalytic, rhizomatic, and nomadic praxes and their reformulations in feminist new materialist, queer theory, and queer of colour critique. These divergent praxes share wildness in common, asking that we recognise the surprising, important—if often unnoticed and mundane—work that objects, bodies, and phenomena do as material agents. As such, we, together with the authors in this special issue, would like to propose a wild pedagogy that requires us to rethink not only the nature, scope, and effects of materiality, but also forces us to recognise the immanence of materiality and ideality alike. Wildness obliges us to embed new forms of being-presence and being-in-becoming in our pedagogical and research practices, seeking out new individual, social, and environmental ecologies of production, action, and expression.

Part of this wild pedagogical-philosophical outlook, and of feminist new materialist<sup>2</sup> praxes in general (see e.g., Barad, 2007; Haraway, 2016; van der Tuin, 2015), is an attentive citational praxis that conceptualises referencing as something worldly embedded and thus with material-political effects. Largely working within the admittedly exclusivist domains of Continental philosophy and critical theory, cultivating reflexivity with regards to citational praxes certainly matters, as they themselves can carry over pre-existing absences and marginalisations, or as queer theorist Sara Ahmed (2013) has also aptly put it:

The reproduction of a discipline can be the reproduction of these techniques of selection, ways of making certain bodies and thematics core to the discipline, and others not even part. (n. p.)

Non-reflexive disciplinary and other forms of knowledge get reiterated through the praxis of citing, as Ahmed also writes here, therefore fortifying “problematic hegemonies of knowledge production and authority” (Mott & Cockayne, 2017, p. 959). Engaging with materialism-rooted but always speculative reflections-carrying feminist, critical race studies, and queer (of colour critique) approaches, as contemporary critical new materialist and posthumanist scholarship attempts to do, means engaging with entangled—but often still overlooked—matters of for instance sexuality, race and ethnicity, and bio-/necropolitics (also see Chen, 2012; Jackson, 2020; Mbembe, 2017; Shotwell, 2016).

## **Deleuzoguattarian and Feminist New Materialist Thinking-Doings**

Taken the foregoing into account, we therefore use philosophers Gilles Deleuze and Félix Guattari’s rhizomatic, ecosophic, and transversal geophilosophy (see, for example, 1983, 1987, and 1994) as our departure point—since they still represent a Continental minoritarian tradition—but not the end point of this wild philosophising adventure. Broadly speaking, Deleuze and Guattari’s combined output is concerned with the problematic of late liberal capitalism, a crisis which has infiltrated and

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<sup>2</sup> Both Barad (2007) and van der Tuin (2015, p. xiv) propose a type of feminist new materialist philosophy that builds on the feminist theories that have come before by, respectively, highlighting a diffractive reading and citational methodology and an affirmative transgenerational, transversal type of feminism. Haraway (2016) does so, too, and combines the above approaches with a pedagogical-transgenerational one, often generously citing graduate students, younger colleagues, and artists.

extended over all aspects of social, economic, cultural, and personal life, and since the 1980s has melted together with a distinct globalised neoliberal ethos. Along with more contemporary queer and new materialist scholars, Deleuze and Guattari in their combined and separate oeuvres argue for wild ecosophic perspectives that foster dissensus and dissidence in our reconstruction of entangled individual, social, and environmental practices and ecologies that defy the real of machinic capitalist, extraction-based realism and its atomistic ontologies of discrete identity.

This is a challenge that Guattari specifically takes up in *The Three Ecologies* (2000, p. 24), where he explains that “ecosophic problematic is that of the production of human existence itself in [the] new historical contexts” of late capitalism, “whose sweeping progress cannot be guaranteed to continue as it has.” Similar eco-focused and/or capitalism-critical analyses have been made by various feminist new materialists, such as the already-mentioned Haraway (2016), but also Stacy Alaimo (2016), Rosi Braidotti (2013), Mel Y. Chen (2012), Melinda Cooper (2008), Elizabeth Grosz (2017), María Puig de la Bellacasa (2017), and Alexis Shotwell (2016). Braidotti and Grosz, in particular, can be regarded as Deleuzoguattarian new materialists, pushing Deleuze and Guattari’s thought into feminist directions (see e.g., Braidotti 2002, 2006, and 2011). Along with Cooper, these thinkers present a new materialist philosophy that underlines the dangers of a neoliberal capitalist hypermarketed society. Arguing that every single being is currently at risk of being completely commodified, and, eventually, disposed of—starting with those whose bodies have already been constructed to not matter that much, of course, as late liberal capitalism is rooted in colonial modernity and its racial logics (see e.g., Chakravartty & Ferreira Da Silva, 2012)—these new materialists understand only too well the bio-/necropolitical game of extractive capitalism that Guattari (2000) seeks to resist.

The COVID-19 pandemic is, in this sense, but another manifestation of a crisis created and supported by a capitalist system that has converted the earth’s systems and beings into marketable resources. Looking at Shotwell’s (2020), Braidotti’s (2020), and queer theorist Judith Butler’s (2020) recent analyses of said pandemic, all three thinkers agree that the COVID-19 crisis is a more-than-human one. We therefore are in need of a proper posthumanist critical vocabulary and lens to examine the continuous reproduction of the virus in its various parasitic encounters with its human and non-human hosts, such as cardboard boxes, doorknobs, small, unventilated



classroom spaces, cats, and many other phenomena that become entangled with the agential SARS-CoV-2 virus. Butler and Braidotti connect the crisis back to its extractive, environment-damaging capitalist roots: Butler (2020, n. p.) in fact warns of the damaging effect of the Trumpian “cost-benefit” analysis currently in use, which serves to intensify the already pre-existing inequalities created by capitalism. Braidotti (2020, p. 1), in turn, claims that the current neoliberal capitalist regime has re-created “a recurrent sense of hopelessness or impossibility” that has deep roots in the history of capitalism and colonialism. These analyses do not constitute a nihilistic wallowing or naive glorification of a virus-free future. Rather, as Braidotti (2020, p. 2) points out, while the current crisis calls for a “mourn[ing of] the dead, humans and non-humans,” it also calls us toward “a more transversal, relational ethics that encompasses non-humans” and the previously dehumanised. Such a project encourages us to seek resonances between new materialist and Deleuzoguattarian strategies of wildness that move away from discrete individuality toward a recognition that the substance of the human individual is ultimately entangled with that of the collective and the planetary environment.

Ecosophy, as wild pedagogical modus of resistance to capitalism’s economic logics—and, indeed, to the recurrent sense of hopelessness that it generates, particularly in the current time of disruption, crisis, and imbalance—means thinking and doing transversally across mental, social, and environmental ecologies. These three interlinked registers have suggested a way of structuring the responses of the author-contributors to this special issue, as we have outlined it below. These registers, like the contributions to this volume, do not occupy distinctive territories but inhabit entangled ethico-political and ethico-aesthetic landscapes and ways of thinking-doing that are interchangeable. Each of these registers—mental, social, and environmental—are governed, as is each of the contributions to this volume, by an eco-logic, that concerns itself with movements, intensities, and overlapping processes but also a search for cohesion. As with everything in Deleuzoguattarian thought, there are no discrete individualised essences, systems, or registers as such; instead, there are only processes that continually strive to articulate aspects of existence engaged in continual processes of mutation and repose. What interests these thinkers—what makes them (be)*wild*(ering)—is their attraction to dissident vectors and modes of expression that run counter to the normal vectors of subjectification and



singularisation. Each process or ecology in their wild ontology—whether mental, social, or environmental—is, as Guattari (2000, p. 36) puts it, “not given in-itself, closed in on itself, but instead as a for-itself that is precarious, finite, finitised, singular, singularised, capability of bifurcating into stratified and deathly repetitions or of opening up processually from a praxis that enables it to be made ‘habitable’ by a human project.”

## Enacting a Wild Cartography across Three Registers

Reworking the modus of the clinical psychoanalytical session, Guattari (2000) introduces affective (pre-personal), non-objective, and fragmentary registers as ways of invigorating nascent subjectivities that enable the coming-into-being of individual psyches in relation to and with collective formations and environmental assemblages. As with the entirety of the Deleuzoguattarian oeuvre, Guattari is interested in how subjectivity can be reworked via points of rupture as it intersects and becomes with society and the environment. In this way he, along with Deleuze, promotes innovatory minoritarian practices that enable the expansion of alternative experiences centred around a respect for singularity, relationality, and the continuous production of an autonomising subjectivity that can articulate itself appropriately in relation to the rest of society as well as to a more-than-human ecology. Guattari (p. 38) reminds us that in undertaking such a creative task we need to remain vigilant and “face up to the logic of desiring ambivalence wherever it emerges—in culture, everyday life, work, sport,” educational settings, etc.—“in order to re-evaluate the purpose of work and of human activities according to a different criteria” than that of “profit and yield.”

**Francisco B. Trento**, writing in this volume, queers notions of hospitality and diplomacy by drawing our attention to neurotypicality’s equivocal logic of sameness. Trento argues that social ecologies—particularly educational ones—need to be made wild to accommodate a diversity of non-normative mental ecologies. By merging Baradian, Derridean, and Deleuzoguattarian perspectives around relational ontologies, Trento undertakes a queering of educational/collective modes of hospitality and diplomacy by exposing them to the contingent plasticity of diverse subjectivities. **Elina Oinas** attempts a similar merging between mental and collective ecologies, suggesting that a wild-pedagogical praxis begins in the middle, between

individual and group subjectivities where the isolated intersects with the relational. Oinas observes that the wild is both connected and solitary; the impetus to be courageous and free in one's academic research can be lonely and isolating, while the opposite risk-adverse impulse brings stability but also suffocation.

Working from the premise of a socius that is not frozen but constantly mutating, Deleuze and Guattari (1987) suggest ways of extending the reorganisation of primary subjectivity as it develops in human social groups, as well as in encounters with more-than-human agential objects, forces, and affects. For Guattari (2000, p. 47), the "major crisis of our era"—the constantly expanding existential territory of neoliberal capitalism—dulls these encounters, while agitating and neuroticising the socius. This necessitates wild practices that seek out ways in which the social can deterritorialise from mass media formulations and reterritorialise around new connections, significations and assemblages that re-define the socius in more fluid ways. Wildness remains a necessary aesthetic, ethical, ontological, and epistemological paradigm that allows for the "reconquest of creative autonomy" in the social field and the "catalyst for a gradual reforging and renewal of humanity's confidence in itself."

Writing in this volume, **Andy Broadey** formulates a genealogy of educational/artistic/protest events that queer the facialisation/racialisation machines that continue to persist in the socius of integrated global capitalism. Drawing on the notion of the undercommons, Broadey foregrounds a series of minoritarian experiments/becomings and encounters that resist, quare, make-strange, question, and jostle the collective normopathic imperatives that facialise and racialise. In such a manner, Broadey develops a future-orientated Deleuzoguattarian schizopedagogy that sets its compass around the minoritarian, staging a reconstruction of the social ecology as it intersects with mental and environmental ecologies, while reconceptualising the fabrics of the pedagogical, to echo Broadey's claims. Coming at this problematic from a different perspective—that of academic subjectivity as it intersects with algorithmic counting practices—**Susan O. Cannon** and **Maureen Flint** argue for a citational politics that resists the hyper-individualising, competitive, and normopathic forces of neoliberal capitalism. Moving away from the domesticating and controlling tendencies induced by the research metrics of online research platforms, these authors seek out the unpredictable, contagious, and creative aspects of algorithmic counting practices to explore the wild possibilities they offer for reinventing

academic citizenship and collective academic ecologies along more creative, mutational and relational/response-able lines.

Articulating much more than the simple defence of nature, Deleuze and Guattari (1987) are interested in ways in which nature resists classification and attempts at hierarchical mapping processes. The transversal approach that these thinkers invoke involve taking on board the environmental/more-than-human ecologies that exist prior to social groups and individual. They articulate an environment that is not static but engaged in a continuous process of being reinvented and reformulated. As such, they are interested in the creation of new modes of thought and praxis. New modes of thinking and doing—or thinking-doings—imply new meaning-making practices that redefine and replace the narrative of biblical genesis and the hierarchy of tree diagrams that privilege humans (specifically, certain types of human) and foreground modes of economisation and extraction.

The loss of biodiversity and the destruction of ecosystems brought about by neoliberal economisation and anthropocentrism destroys more-than-human entanglements. In countering this **Jacqueline Viola Moulton**, writing in this special issue, takes us into more-than-human shared worlds where relational assemblages are being undone. As ocean/land resources and ecologies are being eroded around us in the Anthropocene, Moulton draws our attention to a more-than-human ethics of care that inheres in shared affective languages beyond words and which exists prior to and beyond human individual/collective identities. We are asked, in this way, to construct environmental ecologies of mourning and care that resist the relentless anthropocentrism and privileging of words. There is a great deal of restoration and learning to be enacted—a rejuvenation that requires an acknowledgement of entanglement, an awareness of more-than-human affect and attentiveness to more-than-human care. Moulton reminds us, along with Haraway and Guattari, that words are the bricks and mortar with which individual lives are built in this destructive and collective world-making we call the Anthropocene.

**Raewyn Martyn** writes that re-worlding and rewilding our narratives and aesthetics is necessary if we wish to break from the narratives that sustain what Guattari (2000) terms integrated world capitalism. This necessary work requires an attentiveness to the ways in which individual and collective ecologies materially entangle with the environmental ecology. It also necessitates, as both Martyn and Grosz suggest, an

onto-ethical lens; “a way of thinking about not just how the world is but how it could be, how it is open to change, and, above all, the becomings it might undergo” (Grosz, 2017, p. 1). Working with the responsive morphology of biopolymers in her art-pedagogical practices that span the fluid boundaries of individual, collective and environmental ecologies, Martyn suggests plasticity as an open-ended onto-aesthetic paradigm appropriate to more open-ended ecologies that are able to resist and refuse the intractability of the capitalist status quo.

A reflective essay by **jan jagodzinski** both investigates and problematises the gestation of a wild onto-ethical/onto-aesthetic paradigm. In attempting to bewilder itself, pedagogy encounters a flowing together of affects, concepts, and technologies; a confluence that finds itself overshadowed by neoliberal regimes of control as well as by the onset of the Anthropocene. Increasingly porous boundaries between the organic and inorganic, the material and immaterial, call for speculative fabulations appropriate to the equivocal nature of this new geological age. Taking inspiration from Deleuzian vitalism and exploring as well as problematising some of its various new materialist manifestations, jagodzinski’s speculative essay explores the idea of in|difference as a toolbox for constructing wild pedagogical assemblages capable of tackling the Anthropocene crisis.

An entry from the digital *New Materialism Almanac*—by Evelien Geerts and Iris van der Tuin—plus a new almanac-styled piece by Sam Skinner, trace the respective cartographies of diffraction and liquid agency. This epigrammatic narrative interlude is followed by a re-view of Braidotti’s *Posthuman Knowledges* (2019) and Bessie Dernikos’, Nancy Lesko’s, Stephanie McCall’s, and Alyssa Niccolini’s *Mapping the Affective Turn in Education* (2020) by Kathryn Strom and Tammy Mills. This creative thinking together with and through two texts explores and enacts affective scratchings that explore—in a carefree manner—what it might mean to enact an affirmative ethics and map entangled more-than-human assemblages. Together, the almanac entries and re-view serve as brief interludes between the more extensive article contributions and the irruptions-filled intra-view that concludes this special issue. Here, the special issue editors, along with Chantelle Gray and Aragorn Eloff, conclude on a more pressing note by underlining productive tensions, diffractions, and resonances between Deleuzoguattarian and new materialist stratagems and concepts; particularly as these pertain to the urgency of gestating bewildering more-than-human affect-laden

wild pedagogies. The creation of such a pedagogy—one that can fluidly traverse Guattari's (2000) three ecological registers in a manner appropriate to our current watershed moment—is, as this roundtable makes clear, more than urgent. After all, as the current pandemic has hopefully made apparent, the dam wall that is holding back all the dire consequences of capitalist realism/business-as-usual is merely an illusory screen. In reality, the cracks have been showing for a long time already—by now they are gaping fissures.

While, as Haraway (2016) hopes, the ensuing cauldron of Anthropocene climate-changes, pandemics, cascading species-losses, widening economic precarity, socio-political violence, and fascist revanches might lead to a more hopeful Chthulucene, it is up to us to configure this more buoyant figuration. We are all called upon to channel the floodwaters that are now upon us in a manner appropriate to such times of uncanny more-than-human entanglements. The wild beckons us away from protective anthropocentric screens of comfort and denialism that keep us from enacting the wilding that is now so desperately needed. We are called toward the challenging work of building a better world/worlding for a community-to-come—a wilding work that will affirm materiality itself in all its entangled more-than-human complexity. There is, consequently, much work to be done as we attempt to reclaim pedagogy from the deadening and world-annihilating clutches of capitalist logics.

For Deleuze and Guattari, difference and creative autonomy are integral to the processual ecosophical engagements of a wild pedagogy, which aims for a continual reforging and renewal of ideas and pedagogical principles. Along with the authors in this volume, and as we affirm in our concluding intra-view, the central premise of Deleuzoguattarian wildness is this: that relational—albeit tangled—pathways across various disciplines of knowledge and, indeed, across mental, social, and environmental ecologies, are not only possible and desirable but unavoidable and necessary. To face this crisis that has come to be known as the Anthropocene, we will need to enact a wild pedagogy that is able to onto-ethically and ethico-politically take stock of the differential scales and speeds at which this event is occurring. To solve this dilemma, we require a pedagogy that is able to reach for the immanence between ideality and materiality; an immanence that implies much epistemological and political pedagogical work as we do the necessary work of traversing mental, social and environmental registers. For Deleuzoguattarian/new materialist thinkers, pedagogues,

artists, and activists, as for the authors whose work graces this special edition, it is transversality—the potential for thinking *outside* of capitalism’s reification of binary logics—that creates a vital critical counter-response and that calls us toward wild pedagogical-philosophical practices.

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## On Unconditional Hos(ti)pitality: Thinking-doing Strategies for Dis/Abling Arts Education

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### Abstract

Hospitality and diplomacy are understood as universal hosting parameters. However, they fail to address non-neurotypical perception, jeopardising the inclusiveness of arts education environments. By bringing hospitality, inclusiveness, neurotypicality, and more-than-human wildness into conversation, I argue for developing pedagogical spaces oriented to deconstructing normalcy. This article emerges at the intersection of disability studies and neuroqueerness and it is further developed through Karen Barad's take on non-human agency and Deleuzoguattarian schizoanalysis. Jacques Derrida conceptualises hostipitality to problematise how hospitality cannot enable radical difference. I discuss this notion in dialogue with anecdotes from *The Spaze*, which is a schizoanalytical experiment and a procedural architecture oriented to non-neurotypicality developed at the Senselab. There, relationality is understood as always more-than-human. In this article, I furthermore examine how diplomacy's rhetoric excludes non-neurotypical perception by enacting what Félix Guattari names normopathy, namely, the privileging of linguistic patterns, human-to-human relationalities, and typical socialities. By discussing non-neurotypicality, I aim to queer rhetoric in arts education, diffracting Derrida's notion of hospitality to foreground the more-than-human relationality developed by Deleuzoguattarian and Baradian perspectives.

### Keywords

Neuroqueerness; hos(ti)pitality; radical pedagogies; arts education; Senselab

## Hos(ti)pitality: A Troubling Concept

In the seminar *Pas d'hospitalité*, given on January the 17<sup>th</sup> in 1996, published as *Of Hospitality* (Derrida & Dufourmantelle, 2000), the deconstructionist philosopher Jacques Derrida exposed the fragilities of the concept of hospitality, which he defined in a different essay as the “right of a stranger not to be treated with hostility when he arrives on someone else’s territory” (Derrida, 2000, p. 5). Hospitality consists of two legal layers: the layers that the state imposes upon its citizens and visitors, and those that operate in the household. The implicit rules of hospitality are spectral. They become present in their absence. As Derrida (p. 10) puts it:

If we do not know what hospitality is, it is because this thing which is not something is not an object of knowledge, nor in the mode of being-present, unless it is that of the law of the should-be or obligation, the act of hospitality, the imperative of which seems moreover contradictory or paradoxical.

Hospitality moreover does an organisational job, and it is necessary for the maintenance of many societal ties. However, its conditions of operability privilege those who can successfully be read as functional, as capable of performing identities and behaviours adequate to each environment—whether a private home, an art class, a concert, or a museum. Attached to implicit conventions, hospitality subtly distributes the visiting bodies into specific spatial, gestural, and discursive coordinates. By doing so, it feeds a hierarchy of subject positionalities. Hospitality separates the ones that can behave in particular ways and the ones that still cannot—and may never—perform as neurotypicals. It stratifies the roles of the host and the visitor. Once arrived at a certain destination, one is received as “a friend, but on the condition that the host, the *Wirt*, the one who receives, lodges or gives asylum remains the patron, the master of the household, on the condition that he maintains his own authority in his own home” (Derrida, 2000, p. 4).

Hospitality thus demands performative gestures for the host and the visitor. Its manifestation happens before the arrival of the subject, before any identification in the threshold of a space; facing the doorbell, customs, or immigration officers. Thresholds include an environment’s spatial arrangements, and these do not only refer to gated institutions opened with the right credentials. There are also symbolic and gestural

thresholds, involving the necessity of complying with particular social cues that are generally taken for granted.

Imagine a situation where one does not perceive the contours of one's own body—where it starts, ends and where the room begins—in the same manner as the host. This fabulation may sound absurd, but it is an issue when discussing cosmologies and modes of perception that deviate from ableist, Western onto-epistemologies. In a neurotypical world, hospitality is always *hostipitality*, as fidgeting or avoiding eye contact is never welcomed. The implicit rules of hospitality regard its embedded hostility. The host holds the quality of being “between vigilance and welcome” (Kearney, 2019, p. 5). Not all bodies carry the same understanding of where one body ends, and another begins, for bodies are porous and subject to numerous affects. Derrida & Dufourmantelle (2000, p. 123-125) address the contingent porosity of a body that opens itself to otherness whereby:

the stranger, here the awaited guest, is not only someone to whom you say ‘come’, but ‘enter’, enter without waiting, make a pause in our home without waiting, hurry up and come in, ‘come inside’, ‘come within me’, not only toward me, but within me: occupy me, take place in me, which means, by the same token, also take my place, don’t content yourself with coming to meet me or ‘into my home’.

If I were to follow a binary framework, I could contrast the visitor to the stranger. A visitor does not always have to prove their credentials when arriving, but somebody always verifies them even before their arrival. A stranger tends to cause distrust; the contingency of unknown subjectivity presents itself as risky. Somebody who stims, fidgets, or interferes with the typical environment by embodying a different—non-typical—gaze is immediately read as a stranger. “Anyone can come at any time and can come in without needing a key for the door. There are no customs checks with a visitation. But there are customs and police checks with an invitation” (Derrida, 2000, p. 14). Hospitality thus becomes a threshold or door. Discursive, spatial, and societal configurations bind hospitality, which needs to be stretched towards radical modalities of inclusiveness. We need to think of hospitality's constraints as capable of being reassembled. Intensive hospitality, which I understand as pushing all of its limits, involves the risk of dealing with the uncertainty that one's space may not retain the same physical, functional, and performative characteristics after the newcomer—

human or non-human—arrives. It means embracing the potential queering of the space itself and facing its contingency. The space does not host—is immanently built with the one(s) that enter(s) it.

Under normal circumstances, the host and the visitor feel obliged to match their understandings of hospitality, diplomacy and its rhetorical constraints, and these constraints are defined by the hosting institution primarily as noise that interrupts the flow of a typical conversation, therefore excluding a range of relations and bodily activities from the field and the environment. While Derrida's approach to hostipitality is perhaps far too human, hostipitality is a concept that could be queered. We can appropriate its potential to detour/skew rhetorical situations by embracing modes of presentation beyond its all-too-human linguistic and rhetorical constraints. Educators need to take seriously what the autistic disability studies scholar Melanie Yergeau (2018, p. 31) claims as the wild more-than-human rhetoric of those not read as neurologically typical: "I want a rhetoric that tics, a rhetoric that stims, a rhetoric that faux pas, a rhetoric that averts eye contact, a rhetoric that lobs theories about."

Hostipitality deals with the tensions that arise from the politics/policies of fear affecting displaced communities, as it "is owed to the other as stranger. But if one determines the other as stranger, one is already introducing the circles of conditionality that are family, nation, state, and citizenship" (Derrida, 2000, p. 7). These are general attributes that exist on a macropolitical level. However, within the micropolitical milieu of daily life (Deleuze & Guattari, 1987), hostipitality is expressed in several forms of the need to perform as able, deceitful bodies that defy the binary distribution of bodies in pairs like cisgender heteronormativity/genderqueerness and neurodiversity/neurotypicality. The neurotypical white, non-disabled male becomes the measure of all things: a flawless human. The necessity to overcome this model needs to be jointly developed with an overcoming of the above binary pairs' anthropocentrism, vouching for ethical modes of egalitarianism that focus on a pre-individual share. In terms of the vitalism of the philosopher and feminist theorist Rosi Braidotti (2006), this share refers to *zoē* or the flow of life in which the subject only exists as "a post-identity site, or an embodied and embedded entity, which exists in the interaction with a number of external forces and others, not all of them human, social or historical others" (Braidotti, 2006, p. 266).

The flaws of hospitality are rarely discussed when it comes to micropolitical questions, like setting up an environment open to non-normative body-minds. Many discourses

do not recognise these marginalised bodies as righteous possessors of rhetorical tendencies; a common trope says that somebody who interacts without looking in the other's eyes is stuck in a small or isolated world. Such affirmations doubly reinforce human-centredness by reducing non-normative individuals to a dehumanised or animalised state. Yet uncanny non-normative and neurodiverse body/minds have radical potential for developing wild pedagogies.

## **Dismembering Hospitality: Diplomacy and Neurotypicality**

Hospitality consists of multiple concepts and practices, and diplomacy is at its core. According to the *Concise Oxford English Dictionary* (2011, p. 404), the notion of diplomacy refers to “the profession, activity or skill of managing international relations,” or “skill and tact in dealing with people.” Yergeau (2018, p. 153) argues that “diplomacy is merely another kind of invitation, an opening through which only the few have means to enter.” A diplomat acts as a mediator between different realms and communication relies on a common denominator. The task of the mediator is to build bridges between worlds, consisting of different languages, cosmologies, and modalities of seeing. This role implies the existence of an ontological gap between opposing sides; that there is a clear divide. Linguistic and non-linguistic patterns of behaviour are not seen as parts of the same continuum of expression. Working mostly with spoken or written words, the mediator builds a threshold of differential exclusion instead of navigating a continuum.

In arts and other educational environments, something is missing when spoken words are enforced as proof of participation, ignoring “intimacies and knowledges that exceed the eye-to-eye, that exceed the I-to-I, [...] the gay(ze), the queering of the field, reference and looking” (Yergeau, 2018, p. 211). That is why Yergeau (p. 154) affirms that “diplomacy is an allistic construct, one that is straightly configured so as to disinvite neuroqueer subjects.” A typical example of diplomatic pre-negotiation happens when moving to another country. One is expected to learn the language of the host. This set of coordinates transduced to the neurotypical world is then attached to expected bodily postures, facial expressions, talkative mouths, and predictable movements that vary across different cultural settings. By bodies, I understand *any body*—so not merely the human body. The hosts must comply to “a right, a duty, an



obligation, the greeting of the foreign other” (Derrida, 2000, p. 4) while one is hosting. One becomes a host in one’s role as a guardian of the integrity of imagined cohesive space in terms of its materiality and the modes of sociality that are there enabled. Hospitality does not relate well with the contingent plasticity of subjectivity, its potential to become other, or change (with) the environment. Nevertheless, “to be considered diplomatic, one must behave, move, and communicate in prosocial, appropriate ways” (Yergeau, 2018, p. 151). Hostipitality chunks the contours of one’s view towards the neurotypical categorisation of the world as different body-minds perceive it. Repetitive patterns and echolalia are understood as acts not capable of producing novelty or difference, but as elements that cut or avoid communication, which is recognised as solely linguistic.

To queer hostipitality, I employ a conceptual apparatus that problematises the boundaries of typical subjectivity. In an education environment, typicality refers to the capability of expressing oneself in loud and clear language and making eye contact. To queer this typicality, I mobilise the concept of neurodiversity as was done by the autistic academic activist movement that demanded the recognition of a multiplicity of modes of existence (Manning, 2012), particularly after the nineties. The movement gained influence with blogs, websites, and, later, YouTube channels. It presupposes neurological variations are one of/among many natural configurations of the human body and subjectivity that need to be understood as other modalities of difference (such as gender, race, and class) are. Neurodiversity advocates for the development of concepts around divergent experiences in and of the world by crafting a non-ableist onto-epistemology that does not rely on the definitions employed by pathologising medical discourses.

Neurodiversity does not come without criticism, however. Pier Jaarsma and Stellan Welin (2012) vouch for a narrow concept of neurodiversity that includes high-functioning autistic subjects, but not those diagnosed as low-functioning. The autistic psychologist Jac den Houting (2019) points out that the kind of argument developed by Jaarsma and Welin strengthens the dichotomisation between low-functioning and high-functioning autists and does not consider the internal variations and contingencies of every subject’s condition. One individual can be successful in some tasks but not in others, and those particularities can change due to environmental, health, or social constraints. Also, that dichotomisation/classification can be used “to restrict access to

support for those deemed 'high functioning' and to deny autonomy and agency to those deemed 'low functioning'" (den Houting, 2019, p. 273).

My understanding of neurodiversity resonates with what Félix Guattari referred to as *normopathy*, which he claimed as one of the worst pathologies of the last century. The philosopher Erin Manning (2012) recaps an anecdote told by Peter Pál Pelbart regarding one of his final meetings with Félix Guattari in 1990. It is publicly known that Guattari suffered from severe bouts of depression, and during one of these episodes at Clinique de La Borde in France, he was petrified. After having slept in his car during a trip from Paris to Cour-Cheverny, he could not utter a single word until the next day. To detour the discomfort that the situation had caused, Peter decided to go on a walk with his partner, but Félix followed them. The imbroglio unfolded when the three of them stopped in front of a pigsty—"I tried to converse with the pigs, using my limited knowledge of oinking. Slowly, the dialogue became more animated, and Guattari began to participate in the conversation. He laughed a lot, and he oinked a lot" (Pelbart as quoted by Manning, 2012, p. 488). On that day, the only conversation they had consisted of oinking (see Manning, 2012). Instead of squeezing the communication into the normopathic parameters, one must, like the characters in the narrative, embrace the richness of other modalities of expression, behaviour, and perception. Normopathy, which they were avoiding, is a term frequently used by Oury and later by Guattari. It refers to the constant unhealthy need to attach to normalcy and neurotypicality and its restrictive linguistic modalities of communication (Cf. Manning, 2012; Massumi, 2014).

The anecdote reinforces the choice of an understanding of neurodiversity that encompasses numerous neurological variations. It embraces not only autism, but dyslexia, borderline personality disorder, and schizophrenia. Broadly, neurodiversity refers to the tendencies of anyone that cannot fit into the neurotypical patterns, and neurodiversity should not stratify subjects into the labels of able or non-able. Following the bio-social model of disabilities (see Shakespeare, 2012), neurodiversity understands that physical spaces and societal structures, like university environments or art studios, are ableist. Their design privileges neurotypical perceptions of the world, rendering them uncomfortable for neurodiverse or disabled individuals in general. One must overcome an ableist framework that considers specific individuals as lacking the capabilities to make them able to thrive in society, understanding that "individuals are

disabled by societal barriers to access and exclusion rather than by medical conditions” (Cutler, 2018, p. 195); and at the same time, avoiding the dangers of flattening all physical differences by overlooking the power relations-driven systems of discrimination and privilege.

To accept neurological variation as natural is not to affirm that the material conditions of the world cannot rely on scientific statements about the physical, biological, and chemical realms. The aim is not to moralise modes of existence and their biosocial origins, while not forcing them to adapt to neurotypical patterns of societal organisation. Yergeau (2018, p. 43) explains how a subject is never neurodiverse enough while at the same time the subject tends to be read as excessively neurodiverse, as “the concept of place is an infinite regress, akin to nesting dolls.” The ontological separation occurs discursively—“in the case of autism, we might consider allism to occupy one pole and autism to occupy the other, with the remainder of human neurology situated in the vast space in between. In such an expanse, where would we situate infinite points among the autism—allism (or self–other) continuum?” (p. 43). To some extent, similar mechanisms affect mostly every subject, since “neoliberal regimes of biocapital produce the body as never healthy enough” (p. 49). Neurodiversity lingers; it cannot be extirpated from a body-mind, despite the numerous approaches on changing non-typical behaviour (cf. Yergeau, 2018), but it queers and moves.

## **Neuroqueer(ing) Hospitality**

Rhetoric is at the core of the ableist device, and the discourses based on common sense reproduce the Aristotelian notion that the human species is uniquely capable of mastering linguistic skills. Language is understood as a set of codified vocal or written syntaxes shared among communities. Many animals share semiotic signals, from sonars to skin colour variations and numerous corporeal signs that indicate volition, intention, and danger. Amongst humans who privilege consciousness many wonder if an individual or set of individuals who do not comply with neurotypical standards can retain rhetoric or a Theory of Mind—the capability to decipher another *human's* intentionality.

Yergeau's *Authoring Autism* (2018) discusses how neurodiversity and gender non-conformism come together. The discourse of one of the most famous researchers of applied behavioural analysis Ole Ivar Løvaas—a discourse that by the way represents the only supposed scientific 'treatment' for autism—compared the 'disfunction' that is 'autism' with that of gender dysphoria. Løvaas collaborated in the infamous *Feminine Boy Project*, "a grant-funded project that used the science of behaviourism to correct the behaviour of 'gender-disturbed children' and restore their chances at a heterosexual, gender-normative future" (Rosciigno, 2019, p. 6). According to Yergeau (2018), neurodiverse and genderqueer folks are not non-rhetorical but demi-rhetorical: they are bodies that trick language itself, plus the consensus on what it means to identify as a subject. Autism, like genderqueerness, must be understood as a negotiation between rhetorical and arhetorical worlds. When one enters a space designed as 'inclusive,' neurodiverse and genderqueer folks are expected to accept and follow the implicit guidelines of a neurotypical/ableist dispositive. Although acceptance and coexistence are undoubtedly necessary qualities, we still must wildly radicalise them. Here, we need to employ Yergeau's (2018, p. 31) queering refrain: "I want a rhetoric that tics, a rhetoric that stims, a rhetoric that [commits] *faux pas*, a rhetoric that averts eye contact." A rhetoric that oinks, as expressed in the tale on Guattari's oinking above mentioned (Manning, 2012).

Identity-based frameworks fail in addressing neuroqueer diversity. Such normative frameworks are often violently imposed on non-allistic subjects in educational and other spaces. Yergeau (2018, p. 120) argues that in such spaces non-allistic subjects are expected to undergo an impossible "recovery" from conditions that are not diseases. The result of this process is the flattening of subjectivities whereby "emphases on recovery have less to do with [the] loss of neuroqueerness and more to do with the covering of neuroqueerness with normalcy." As such, "passing" for or "being read as" able-bodied becomes an ideal to strive for in normative situations of diplomacy. In such situations, subjects must perform as neurotypicals to be accepted according to the implicit normative rules of diplomacy and hospitality, covering, when possible, their neuroqueer traits. Therefore, "neuroqueer identity is dissected into discrete behavioural units that parents [or teachers, counsellors, and therapists] have the opportunity to reinforce or extinguish" (Yergeau, 2018, p. 120). These measures aim to put together normophatic individuals to put it in Guattarian terms (see Manning,

2012). Any institutional critique is incomplete if it denies that the setting of an art education class—or any other class, for that matter—implicitly carries normative/normalising behavioural units that one must mimic.

In educational settings, the behavioural units that need to be exterminated are stimming, clapping hands, coughing in situations of stress, biting, etc. This normalising process anchors the subject into fixed points of identity whereby the undesired identity is thoroughly cleansed and made unreachable/invisible (Deleuze & Guattari, 1987). Neoliberal regimes provide subjects with a range of possible elements and traits that can be composed into a range of acceptable identities. The plethora of options for acceptably remixing one's self-identity gives the impression of fluid movements. Yet, when such identification options are taken on, they are revealed to consist of a violent jumping from one identity to another—and are thus not at all fluid nor transitory. This illusion of mobility disguises the fact that the path in between identities has been lost and obscured. 'Betweenity'<sup>1</sup> is excluded from the process of being read or identified as it is deemed unnecessary and undesirable for fulfilling the rules of the hospitality of the neurotypical world. The act of performing as a neurotypical requires an amount of effort that is frequently exhausting.

Here I am not implying that the need for medical treatment must be disregarded. After all, healthcare is a crucial aspect of a neurodiverse individual's life. Rather, I am arguing for a scenario that includes the practising of unconditional hospitality and the application of a genuinely fluid framework that respects divergent modalities of neurodiverse presentation. In the academic and art fields, this implies creating spaces radically open to divergent subjectivities. I call forth post-qualitative inquiry's (St. Pierre, 2018) contribution of refusing subject/object and human/non-human binarisms to generate pedagogical and research environments that not only respect divergent tendencies but are constructed *with* them. To bypass the risks of falling into the trap of boosting radical hospitality with humanist tendencies, I focus on a Baradian (2003, 2007, and 2012) new materialist queering of the concept of hospitality.

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<sup>1</sup> "Brenda Brueggemann, in her work on deaf rhetoric/ic/s, refers to these between spaces, these crevices and elided openings, as 'betweenity'. Brueggemann's conception of identity, like much of the queer work in this book, moves away from demi-rhetorical notions of fixity, instead apprehending identity as 'a relational positioning' that is always in flux" (Yergeau, 2018, p. 177).

## Diffraction Radical Hospitality<sup>2</sup>

The post-deconstructionist philosopher and quantum physicist Karen Barad's (2003, 2007) understanding of agency is vital to the practices I propose to craft spaces oriented to non-neurotypical perception. While the Derridean (2000) conceptualisation of radical hospitality is key to the development of safer spaces, it is grounded on the idea of separability in between individuals and understands agency as foregrounding human-centredness. That is why I bring Barad's agential realism into play. Barad's take on the entanglement between the ethical, ontological and epistemological realms is influenced by Derrida's spectrology and the Levinasian Other since, as Evelien Geerts (2016, n. p.) explains, "the ethical for all three thinkers is instead related to the subject that is being interrupted in her/his actions and is all about reckoning with ghosts from the past, and the unexpected, the disjointed, and the what-could-happen." Levinas and Derrida are concerned with the ethics of the encounter with the Other. For Barad "otherness"—and hence the ethics of encountering it—"never comes from below or from above, but from within intra-actions between the world and its beings" (Geerts, 2016, n. p.). A Baradian (2007) take on the formal rules of hospitality and its neurotypical ableist constraints implies that they are also constructed in the intra-actions of the event of meeting somebody—human or not-human, as the face of the Other can no longer be restricted to the face of a human being (see Geerts, 2016). This implies that otherness, the ethics of the encounter, and hospitality should be deconstructed through procedural propositions that value these ever-changing material-discursive reconfigurations.

Barad (2003, 2007, and 2014) deconstructs the paradigm of separability between singular entities by troubling the notion of an external agency. Inspired by quantum physics that postulates the unpredictability of the movement of particles as the spinning protons that jump from one point to another, Barad affirms that, on a quantum level, all matter is queer and wild. Matter is composed and recomposed through operations that defy linear causality. "Electrons are queer particles, *mita' y mita'*. They are particles. They are waves. Neither one nor the other. A strange doubling. A queer experimental finding" (Barad, 2014, p. 173). In this paradigm, the individual entities,

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<sup>2</sup> The idea of diffracting expresses the internal differences and superpositions emerging in a relation, and the otherness that sustains the argument of hospitality cannot be anymore though in terms of separability. Diffraction moves from "breaking apart" to 'cutting together-apart,' from 'light within dark within light' to 'agential separability'" (Barad, 2014, p. 176).

“are not separate determinately bounded and propertied objects, but rather are (entangled ‘parts of’) phenomena (material-discursive intra-actions) that extend across (what we commonly take to be separate places and moments in) space and time” (2012, p. 32). What produces difference—or differentiation—are the intra-actions that take place between phenomena. Barad (2007) argues that such intra-actions differ from Cartesian cuts because in such cuts, there still is an external subject acting upon an object. The subject, in this case a human being entering the art lab, moves the lab’s furniture around, moulds a piece of clay, or fills the plastic pool with water. Typically, the relations that are valued in an academic and artistic environment are the ones that involve human-to-human connections. Even if an artist produces a piece with non-human materials, its value is only considered when there is an external human evaluation—in the form of a discursive uttering. An intra-action enacts an agential cut happening somewhere. The contingency of a given space refers to the queerness of matter itself. The agential cut is a “*local*” resolution within the phenomenon of the inherent ontological indeterminacy. Crucially then, intra-actions enact agential separability—the local condition of exteriority-within-phenomena. Thus, differentiating is not a relation of radical exteriority, but of agential separability, of exteriority-within” (Barad, 2012, p. 32). Things and spaces do not pre-exist their entanglements.

Neurodiversity is tackled twice when I employ this Baradian agential realist framework to think of a shared space for artists and researchers. First, when it comes to neurodiverse perception and speaking from this fluid, ever-changing positionality itself. Second, a common trope regarding neurodiverse behaviour describes neurodiverse folks as if they lacked relationality: a simple search on autism on YouTube shows parents or friends of autistic people telling narratives repeating the same refrain: ‘The child is stuck in their own small world, where they play with toys, animals or all sorts of thingies but do not interact with anybody.’ These affirmations are entirely inadequate—conceptually and ethically—and reveal several misunderstandings. In these cases, relationality only seems to be valued if there is a human element at play—and by a human, one means a subject that possesses a talkative mouth expressing clear language. Third, intra-actions, which produce difference by cutting things together-apart (see Barad, 2014), create identities not as stable categories, for “identity is a phenomenal matter; it is not an individual affair. Identity is multiple within itself; or rather, identity is diffracted through itself—identity is



diffraction/*différance*/differing/deferring/differentiating” (Barad, 2012, p. 32), and space and time are shaped only inside of phenomena.

While Barad and Deleuzoguattarian philosophies differ, there are resonances for my argument regarding the hierarchisation of bodies in each and every space(time). An ontology of immanence,<sup>3</sup> like the one Deleuze and Guattari (1988) and Barad (2003, 2007, and 2012) conceptualise, presupposes a one-world ontology (St. Pierre, 2018), as opposed to the transcendental model, conceptualised by for instance Derrida, which is characterised by the separation between discrete entities or categories, such as the human and the animal, the body and the spirit, and the male and the female. In an ultimate sense, the binary categories reproduce the Platonic distinction between the material and the ideal worlds—in the latter the objects and beings would perform their perfection, in comparison to the decaying world where human experience takes place. An ontology of immanence needs to be considered when building any environment that aims to undo the centrism of the able-bodied human, for it does not posit the human body as the actor of all actions: “neither the knower nor the known can be situated in advance of the occasion’s coming to be—both are immanent to the field’s composition” (Manning, 2016, p. 30).

## Is Space the Place?

Following the issues engendered by the lack of knowledge on how to welcome such diverse subjectivities and the lack of practices that engage with non-human materialities’ agency in the context of arts education, I focus on experiments to undo these constraints of normativity. It is challenging to create spaces that welcome neurodiverse body-minds. The conditions that enable their active participation vary in the context of each institution where legal means that facilitate access for non-neurotypical folks intersect with gendered, racial, and social inequalities. Even when

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<sup>3</sup> There are risks on bringing together a philosophy that enacts a plea for immanence—Deleuze and Guattari—and a transcendental approach—Derrida. The philosopher Daniel W. Smith discusses the divide between transcendence and immanence in the recent French philosophy, taking these philosophers as inheritors of these directions. For Smith (2012, p. 272), “one can call into question the status of the transcendental subject (the well-known theme of the ‘death of the subject’): by appealing either to the transcendence of the other or to the immanent flux of experience itself.” While the Deleuzoguattarian philosophy’s univocity vouches that there is nothing superior or beyond Being itself (see Smith, 2012), Derrida inherits a tradition that, after Descartes, found transcendence in the Subject or the Ego in consciousness’ immanence. Derrida and Levinas positioned transcendence in the Other/otherness, feeding Derrida’s idea of *différance*. Smith summarises differences between these philosophers in terms of epistemology, ethics, and ontology, including a concept of desire fuelled by a primordial lack in the human subjectivity, what Deleuze and Guattari criticise in their schizoanalysis. Despite the differences, I propose to queer Derrida’s concept of hospitality by thinking otherness not exclusively as a human other and through transcendence but through immanent mutual inclusion (see Massumi, 2014).

there are legal subsidies and material conditions like physical and semiotic accessibility, hospitality remains an allistic barrier to many neurodiverse subjects. The *Wirt*, the one that hosts (Derrida, 2000), in this case, is mostly the teacher capturing—or trying to capture—the attention of the participants, instead of facilitating a dance of attention. Or as Manning (2012, p. 108) writes it: “[D]ancing-with the environment cueing. It is less being attentive-to than becoming in attention-with: the dance of attention is alive with the tendencies of a mobility that can only express itself through the future-forming interval of event-time.”

The hospitality device includes spatial arrangements, such as for instance where one needs to look or point their senses to be able to achieve approval, as well as the distribution of the environment’s materials. Traditional classrooms and art studios favour those who can bear face-to-face conversations and look into one another’s eyes, even in more decentralised modes of distributing the bodies in a classroom, like circles or small workgroups. Evaluators do not recognise relations with the field (materials) as relations worthy of being valued, discussed, or cared about. It is an irresponsible mode of thinking; of lacking careful attention given to non-human materials and their agential capabilities.



Figure 1: *The Spaze*: The iteration with the plastic pool (Trento, 2018)

At Concordia University's Senselab—a laboratory of research-creation—a group of visual artists, philosophers and dancers have been trying to build a space radically open to neurodiverse bodies (see Manning and Massumi, 2014). The lab focuses on architectures that do not privilege face-to-face conversations and self-presentation, experimenting with a procedural structure. During the classes or reading groups, some individuals do not feel comfortable with situations that involve talking while looking into each other's eyes, targeted questions, and modes of participation that imply regular linguistic interactions. These tendencies are not universal for individuals that identify or are read as neurodiverse. I claim that all tendencies or traits must be not only considered but also co-implied when it comes to the production of a shared (a)sociality and its space(s).

After years of artistic and academic events, physical and digital archives populated the shelves of the research group's room at Senselab. While the topics discussed in the reading groups and classes in the Master of Fine Arts programme resonated with neurodiversity, individuals on the spectrum would rarely be present at the conversations—avoiding situations of discomfort, face-to-face discussions, personal presentations, and traditional forms of evaluation. The space allocated to Senselab used to be a room with a table, a bookshelf, and piles of documents. The residents started to gather the materials from past events that ranged from expensive art supplies to cheap plastic, and began to collectively reshape the room, as you can also see on Figure 1 on the previous page. It began as a fluctuating garden comprising glass terrariums attached to a net wire on the ceiling—the fence was previously part of an artwork by Erin Manning. Strong magnets allowed for connecting any material to the net with little effort.

Following years of composing, several iterations of the assemblage emerged: *The Spaze*—an assemblage embodying the concept of the anarchival, which is not a “documentation of past activity” (Senselab, 2016, n. p.) Derrida affirmed that “what remains unvanquished remains associated with the anarchival” (Ernst, 2015, p. 71). The anarchival, therefore, refers to what cannot be catalogued. In Senselab's understanding, the anarchival also does not refer to a stable entity or pile of categorised data. It is

a feed-forward mechanism for lines of creative process, under continuing variation, a cross-platform phenomenon, between media, between verbal and

material expressions, between digital and off-line archiving, and most of all between all of the various archival forms it may take and the live, collaborative interactions that reactivate the anarchival traces, and in turn create new ones (Senselab, 2016, n. p.).

The anarchival embodied by *The Spaze* shifts the question from determining the nature of the material's identity to what it can do. The sensorial arrays of textures that the anarchival space propelled, were oriented toward non-neurotypical perception. However, there is not a goal or an idealised spatial configuration. On the contrary, the topology of the anarchival space must be procedural and immanent, resonating with the tendencies the shared appetites dictate. Sometimes, for example, the space needed to be divided up in smaller pieces, and everything was compacted in small and massive piles of things. In *The Spaze*, people can reconfigure the disposition of the objects by building new thresholds like tunnels, hiding places, pathways. Sessions of composing with the materials emerged according to everyone's personal appetites. Composing sessions always start in the middle, in the sense that there was never a formal call to action that orients what to do with the materials.

It is schizoanalysis that inspires the work done at the Senselab, or "the active operation that creates schisms, in an ecology of practices, opening up the event to its potential for a collectivity alive with difference" (Manning, 2016, p. 6). Schizoanalysis itself refers to a series of material-conceptual practices developed by Deleuze and Guattari (1987 and 2000) as a counterpoint to a Lacanian psychoanalysis which is on the idea of a primordial lack and the typically structured modus of taking language to be the source of the human unconscious. This Lacanian modus refers to "an individual oral performance, generally centred on a certain familialist habitus of subjectivity, in the context of developed industrial societies; [as well as] affective manifestations circumscribed in the etiolated space of the cure" (Guattari, 2012, p. 51). Contrary to this normalising modus, schizoanalysis, according to Guattari, "endeavours to mobilise collective and/or individual, subjective and/or objective formations, becomings human and/or animal, vegetable, cosmic... It will be directly involved in a diversification of the means of semiotization and will refuse any centring of subjectification" (p. 51). Schizoanalysis does not work upon the individual subject but on micropolitical transindividual assemblages of human and non-human bodies.

*The Spaze* provides an answer to the micropolitical questions involving the different ways of perceiving and interacting with materials via schizoanalytical movement. While any assemblage is subject to the macropolitical shifts, *The Spaze* boosts absolute hospitality to an ecology of thingies that have their agency recognised—and this by not imposing how visitors need to engage with these materialities, and, mostly, by fostering care and radical hospitality with the non-human aspects of agency.

For Deleuze and Guattari (1988), micropolitical and macropolitical structures are intertwined. Micropolitics and macropolitics produce twofold categories, such as male/female, and human/animal through order words and distribution of the bodies in the societal realms. In the macropolitical, the binary classes are created by the great machines of binarisation. In contrast, in the micropolitical, these classes result from “multiplicities of  $n$  dimensions” (p. 212), and by doing so, they may dismantle the macropolitical stratified binary pairs. Following Deleuze and Guattari then, when one only tries to grasp an event by its macropolitical outcomes, one misses the germs of change that are developed by an event as an ongoing process.

The psychoanalyst Suely Rolnik vouches for the necessity of unceasing macropolitical and micropolitical insurrections. In a macropolitical insurgency, for instance, the agents are moved by “the urge to ‘denounce’ the injustices of the world in its current form, which tends to mobilise consciences” (Rolnik, 2017, p. 7). This movement is relevant to my argument because it is directed toward “empowering the subject,” by freeing it from oppression and exploitation by moving beyond “the state of invisibility and inaudibility” (p. 7). This macropolitical insurrection operates by oppositions (oppressed/oppressor) through an ethico-political re-evaluation organised individually or via groups sharing identification (see Rolnik, 2017, p. 8). Rolnik thus brings Deleuzoguattarian vitalism into play by positing both human and non-human bodies as agents of the micropolitical insurrection. Bodies are stirred by “the impulse for perseveration of life, which, in humans, manifests as the impulse to ‘announce’ worlds to come” (p. 11). While the criteria for evaluation consists of achieving “what life demands to persevere every time it is weakened” (p. 11), cooperation takes place through the resonance and fabulation of embryonic worlds. In *The Spaze*, the thingies present are actants in an ever-changing ecology, despite being human-made or not, dead or alive.





Figure 2: An ecology of thingies (Trento, 2018)

Dissent about the spatial configuration in *The Spaze* sometimes led to conflicts. Occasionally, I arrived at the lab, and somebody said that they did a favour ‘cleaning the room’ because the ‘amount of overwhelming materials were creating discomfort during the classes and reading groups’ due to the interference of the tunnels and caves that disrupted the office-alike qualities of the environment. The table resisted in its horizontality after many attempts to queer it, until the space reached a critical mass when the assemblage captured it permanently to a vertical configuration that made it unsuitable for labour. A rant kept on reverberating: ‘The space is too crazy for people to work!’ Such discourse reinforces the necessity of creating radically open spaces. Places and spaces that are already ‘cleaned’ and sterilised are extensively available in any other studying room of the university, or even at any café. This is not to mention the devaluation of material relational practices in favour of typical categories of working itself that takes place via such critique. The lack of proper care with these matters reaffirms that approaches oriented to neurodiversity only work if they promote mutual inclusion, are post-identarian, and, ideally, resist/work (against) disciplinary practices. There is a need for pedagogies oriented towards a collective transformative justice that denies linear causality centred on the subject of action towards the immanent building of truly fluid and cooperative environments, while considering the contingency that may generate uncomfortable situations.

*The Spaze* works in terms of resonance, not mediation. If hospitality is charged with mediation—in the figure of the human moderator that translates one language to another—the resonance “connotes a bouncing a reverberating of modality against and between a mediating other” (Yergeau, 2018, p. 193). The set of techniques developed at *The Spaze* is not universal, nor automatically successful. Local techniques to enable neurodiverse socialities in the academic and artistic fields must be invented, paired with more institutional and legal forms of inclusion. Löytenen (2017, p. 7), for example, argues that differences cannot be represented but only palpated, and these differences express themselves in the event of the encounter between humans, their modes of being in the world, and non-human materialities. The wild palpations “follow (some) modes of thinking and working within the arts (e.g., experimentation, associativity, nonlinear mode of thought), and it is a methodological example of engaging and thinking in encounters, which might be developed and taken back to educational development processes” (p. 7).

While listing nine constraints for a radical pedagogy, Massumi (2017, p. 140), working within a Deleuzoguattarian framework, affirms that a wild pedagogy must “bring the situation to singular expression in a way that gives complete existence to the situation’s real potential as potential, objectively infinite.” Scholars, as Massumi (2017) and St. Pierre (2018) share in the necessity of making pedagogical interactions happen procedurally—the past events keep triggering new iterations of creation. Still, it is always possible to enter in the middle of these iterations. What are the required constraints on/for creating pedagogical environments that follow the ethics of an unconditional hostipitality? I would argue that they must be at least partially procedural: one must construct the space *with* the ones that are visiting—assuming that each mode of existing and seeing the environment has the same ontological status, dealing with possible conflicts and understanding that the majoritarian ways of composing societal structures are already ever-present in most western public and private spaces. Such wild pedagogical spaces must not reproduce the superiority of the ‘correctly’ spoken language. In academia, one is expected to speak using standardised language, as it is “produced in standardised forms by standardised subjects—while non-ableist people sign and stutter. We point and gesture and blink and blow and type. We have accents. We express ourselves through voices generated by computers and the bodies of others” (Ho et al., 2020, p. 131). Mixed methods of



inquiry may come in handy. A wild pedagogy understands that pedagogical settings are always-in-construction, therefore allowing the expression of not-so-fixed betweenities.

## Seven Propositions for an Artistic Research Laboratory

Many discussions about artistic-research pedagogies beyond fixed identities are currently being undertaken by venturesome wild pedagogues (see Manning, 2012 or Löytönen, 2017). Building upon these discussions and dialogues, I propose an approach to deal with non-human or non-neurotypical subjectivities, as academia evaluates relations only if they are understood as human-relations. To do so, one must follow Barad's (2003, p. 805) understanding of intra-action:

Phenomena are produced through agential intra-actions of multiple apparatuses of bodily production. Agential intra-actions are specific causal material enactments that may or may not involve 'humans.' Indeed, it is through such practices that the differential boundaries between 'humans' and 'non-humans,' 'culture,' and 'nature,' the 'social,' and the 'scientific' are constituted.

The evaluation itself needs to change (Massumi, 2017), and spaces need to be radically opened up to all modes of perception. Mixed epistemologies and hybrid post-qualitative methodologies moreover must be implemented. To sum it all up, here are a few propositions, which I have developed more extensively elsewhere (see Trento, 2020):

1) A procedural and contingent space.	The materials that compose the environment can be freely reassembled.
2) A laboratory for invention—of new modes of sociality.	By incentivising participation that does not rely on the requirement of a written or formal outcome; for playing with a textile thread or merely staying still during an event is also a modality of participation.

<p>3) The laboratory is a space for crash-testing onto-epistemological concepts, and concepts are machines.</p>	<p>Think together how native concepts problematise the normative and functionalistic approaches to marginalised subjectivities; not by tokenising them but by employing them as activators for social change.</p>
<p>4) To facilitate the conceptualisation of new futures—rethinking past and presenting—by critically questioning our perceptions and subjectivities.</p>	<p>How to imagine the arts university in ten years? Instead of merely focusing on the productivism of scholar publishing, to organise modalities of participation that make the arts community more inclusive and open to slower or non-normative knowledge(s).</p>
<p>5) To disrupt neurotypical perception, spatially, discursively, and rhetorically. And the rhetoric is more-than words.</p>	<p>Instead of reproducing the models of spatial organisation that have proven to be valid for specific body-mind configurations, facilitate other ways of populating the university and art institutions.</p>
<p>6) To promote practices that dissolve the boundaries between the able and the disabled, the sane and the mad, the human and the non-human.</p>	<p>Respecting asymmetric power relations and facilitating the necessities of marginalised body-minds and creating an environment where each body's affordances can be performed in a non-hierarchised way, where the human and the non-human are valued; and where any non-typical traits are appreciated.</p>

7) To test the limits of unconditional hospitality.	Conflicts will emerge in any scenario populated with a diversity of modes of existence. They require the employment of immanent techniques of conflict-solving through non-punitive justice, and not by excluding one who has “inadequate” behaviour from participation.
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Table 1: Propositions

The suggestions sketched out above offer a multi-layered approach to absolute hospitality in artistic, pedagogical environments. The risks of hostipitality, as Derrida (2000) expressed, need to be considered, in conjunction with a queering of hostipitality beyond the boundaries of the human. That is why I employed a post-deconstructionist Baradian approach that recognises the intra-actions between human and non-human entities. Likewise, as Derrida’s notion of hostipitality needs to be further queered towards the inclusion of non-linguistic modalities of rhetoric, Yergeau’s comprehension of rhetoric recognises the devalued non-talkative patterns of language. Because of this, micropolitics in my regard seems fundamental for establishing pathways to avoid the normopathy in the classroom, and that by valuing the non-human and non-talkative relationalities as creative agents.

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## Wayward academia—Wild, Connected, and Solitary Diffractions in Everyday Praxis

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### Abstract

In this article, I study the everyday conduct of pedagogies in the wild in contemporary academia by means of an analysis of modes of attention in random “thicker ‘moments’ of spacetime-mattering” (Barad, 2014, p. 169). These modes are discussed with the help of the notion of diffraction. I identify three modes of attention—the solitary, the connected, and the wild—that manifest themselves mainly as tensions between several modes. The study leads me to suggest that critical feminist scholarship explicitly aiming to disrupt and trouble normative academia often reproduces competitive, nervous practices, linear onto-epistemologies, and the commodification of both scholars and scholarship. These scholarly practices occur among students and supervisors alike, often in the name of necessity and even survival. Yet, despite the anxiety-inducing aspects of contemporary academia, diffractive moments have a powerful presence, too. In such moments, a wild and responsible otherwise is imagined and diffracted.

### Keywords

Pedagogies in the wild; everyday academic praxis; habit; diffraction.



## Introduction

Pedagogies in the wild encompass diverse aspirations to imagine and practice academia so that the current neoliberal, capitalist, and largely positivist drivers in universities across the world are radically challenged, and alternative avenues for academia are explored and articulated (Cielemęcka et al., 2020; Geerts & Carstens, 2019). How such reconfigurations translate into actual practices, habits, and routines in everyday engagements within universities, has, however, received less attention. For example, both Deleuzoguattarian philosophy and various feminist new materialist debates have been theoretically ambitious yet startlingly thin in their engagement with the empirical details on how academics sharing these ethico-onto-epistemologies practice their craft, and how these academics are able to survive—let alone thrive—within institutions. In some of the most powerful contemporary accounts, exit is the only credible choice (Ahmed, 2017; Halberstam, 2019), creating a new genre of “quit lit” (Rogowska-Stangret & Cielemęcka, 2020, p. 27). I will suggest here that we need a discussion of how to ‘stay with the trouble’ (Haraway, 2016) and practice feminist ‘wayward lives’ (Hartman, 2019) in academia. The focus on waywardness is a tribute to Saidiya Hartman’s (2019) analytical lens that carefully avoids a false choice between an appreciation of beautiful experiments forging new ways of life and an acknowledgement of hardship and injustice.

In this article, my gaze is on ephemeral events that may have consequences. I will study random “thicker ‘moments’ of spacetimemattering” (Barad, 2014, p. 169) in seminar rooms. I use my autoethnographic notes to analyse how the politics of knowledge production in contemporary academia manifests itself as advice and discussion modes, plus embodied sensations and gestures. This addresses the habits (Aldrin Salskov, 2020; Love & Peltonen, 2017) as well as desires of academics and their publics (Berlant, 2011; Wiegman, 2016). With this autoethnographic reading, I join others who analyse exclusions as mechanisms of ontological and epistemological access (Sobuwa & McKenna, 2019; Winberg & Makua, 2019).

Diffraction is here used figuratively, as a pluripotent potentiality of multiple differences and indeterminacy, emerging in a pedagogical situation (see Haraway, 2004, p. 103 for such figurative usage; Juelskjær, 2020, p. 58 for the pedagogical context). The concept is difficult to define without losing the richness of how it addresses worlding and ontology. “We can understand diffraction patterns—as patterns of difference that

make a difference—to be the fundamental constituents that make up the world” (Barad, 2007, p. 72). The practices and habits of academic knowing affect not only the type of knowledge that is possible and responsible—the knower emerges through academia’s devices, techniques, protocols, seminars, and reading practices as well (Barad, 2007; Snaza, 2019).

## **Autoethnographic Notes as Data**

The study presented here is based on my own diaries during an autoethnographic fieldwork period (inspired by methodological thinking of Ettore, 2017; Lapina, 2017; Widerberg, 1995), designed to identify and understand academic practices among feminist academics. My method involved assembling random experiences, moment by moment, to detect how a collective feeling or mood emerges in an institution (Wiegman, 2016). For a period of one month, I took notes on the themes of knowing and pedagogy, noting small incidents, conversations, body language, and my own embodied feelings both during and after events that were part of my ordinary life that month. Methodologically, my work aligns with Springgay and Truman’s (2018) orientation beyond proceduralism; towards inventive practices that enable a heightened sense of the potentiality of the here and now.

My notes taken at two seminar series form the basis of the discussion that follows. The first seminar consisted of two separate meetings. They are part of the formal, obligatory Gender Studies PhD training. The second event was a one-off research seminar with international guests. Both events shared a commitment to feminist academic practices. As people present were not asked for their consent to be included in the research diary, I will mainly focus on my own embodied reflections in what follows. I selected close analysis moments that, in my experience, frequently recur in academic life and are largely unconnected to specific individuals. The events and those who took part in them are anonymised to avoid recognisability. My personal positionality matters here and cannot be anonymised: being a professor and a cis-female, white, middle-aged person hierarchically positions me in a very specific way. The situations that are analysed were not organised by myself, nor was I specifically invited as a speaker. I was not the focal point at any of these events.

To situate the study geographically, I take my cue from theoretical physicist and feminist theorist Karen Barad's (2003) proposition that we are not "simply located at places in the world; rather, we are part of the world in its ongoing intra-activity" (p. 828), combined with an uncomfortable awareness that universities tend to universalise, thereby allowing the capitalist logic of sameness to enter all of their cultural spaces (Holmwood, 2016). It is, however, instructive to describe the specific place where my notes were taken, and to be accountable for characterising the geopolitical location, that is, a rather typical university context in Northern Europe; an institution that moreover ranks among the 100 best universities in the world but is unknown and unexciting to most outside its small host country. It is not interesting in any of the fashionable ways and does not represent any particular stance, whether postcolonial, indigenous, or that of the old elite. The institution is thus marginal in most fields, with possibly a few exceptions when it comes to natural sciences and medicine. While it is aligned with, and thus a part of, the normative power-holding academic community, scholars at this institution share a concern of not being visible or influential in the academic world. The lingering disappointment of being never recognised enough, is, of course, the main driver behind competitive cultures everywhere.

As is typical of contemporary parochial, minor institutions, this particular university harbours an exhausting demand for excellence and international (read: Anglo-American) recognition from its academics. Typical of Europe, the local languages are dominant in social situations, and most staff are not native English writers. While 74% of the research and teaching staff are locally born nationals, international recruitment is growing. In the situations described here the majority, but not all, of the participants are likely to identify as white Europeans. A specific feature of this setting is historical: Aspirational whiteness, or a melancholic longing to be part of 'proper' Europe and the 'West' that has never been quite accomplished due to anxiety about perceived connections to an imagined 'East' or the 'far North,' leading to defensive attempts to claim Nordic exceptionalism (Oinas, 2018; Vuorela, 2009). Universities are prime sites for the performance of national investment in aspirational Western modernity, alongside the high arts, classical music, IT and mobile technology, and an exclusionary welfare-state democracy with an intensive border regime (Maury, 2020).

## Relational Knowing, Modes of Attention

When analysing the data, I identified three modes of attention, namely, the solitary, the connected, and the wild. What I call a mode of attention, subsumes ideals about the known, the knower, and the process, including embodied and affective aspects of methodology. These three modes and their differences are central to my analysis. In the examples I discuss, however, the events always manifest a tension between several of these modes.

Of the three modes, the solitary quest for knowledge indicates science as a craft conducted by an individual. Often it was referred to as something outdated, but a positive version of the solitary played a role too, especially in passing comments made by busy professors longing for a sabbatical. The isolation of a quiet library is not only an ideal of a masculinised genius but has a feminist version inspired by Virginia Woolf's *Room of One's Own* (1929). The exhaustion due to hectic, shredded days cut into slices of administrative and bureaucratic chores and teaching, and an anticipation of critique, underpins the romantic notion of solitude.

The mode of attention that challenges the solitary ideal is that of the connected scholar. Here, knowledge is constructed in collaboration and findings are negotiated and debated as contested, temporary claims. The object of knowledge is performative and relational, and therefore can never be settled once and for all. In connected scholarship, researchers are supported as well as challenged by colleagues in a constant negotiation over the value of their work.

The connected mode of attention, again, differs from the radical onto-ethical stance of the wild in its assumed stability of the knower, the known, the tools, and the textual representations; an orientation to the wild destabilises all of these. In the wild mode of attention, the phenomena studied are not seen as entities; rather, the task is a speculative, oddkin conversation (see Haraway, 2016, p. 2)—witnessing of fluid, dynamic co-constitutions together with multiple human and non-human others. The following examples will hopefully shed light on what precisely is meant by these three modes of attention while focusing on the tensions between them. The theoretical discussion is moreover embedded in my readings of practical examples. The discussion of diffraction must, out of necessity, follow after the examples, to make sense.

## **Warm Embrace and Icy Push: The Connected yet Solitary Modes of Attention in Seminar Practices**

The first examples illustrate pedagogical-epistemic practices as they came to the fore in two PhD seminar situations. They depict the tension between the feminist ideals of connected and wild learning and the constant return to the solitary mode of attention. Furthermore, the examples show that the connected mode of attention can also generate anxiety, competitiveness, and uncertainty. While the feminist pedagogies involved in these seminars explicitly work against the idea of mastery as an ideal knowledge practice, this ideal is implicitly invoked in the form of concrete advice when it comes to research and publications. In a mood of frustrated resignation both junior and senior participants seem to take for granted that there are only limited options available if one is to succeed in contemporary academia.

These seminars are formal components of the PhD program at the university in question. Students and their supervisors from several institutions gather here twice a year, meaning that most of the people attending do not know each other well. Many of the professors are acquaintances but work in different units, and they comment on the work of students they have not previously met. I participated as one of the supervisors, but as I was not the main organiser, I mainly was there to listen. The seminars are supposed to be comfortable, feminist environments where the students can receive feedback and advance their work. After one of the seminars, however, several students commented on the rather uneasy atmosphere, mentioning their own nervousness, detecting a vague tension between participants, most notably between the supervisors. The students seemed to regard nervousness as a given; as something they expect from these seminars.

In the first seminar, two students presented papers framed by feminist epistemologies, reflecting open-ended, processual conceptions of collective knowledge production in which connectedness and relationality were the assumed, idealised principles. The second seminar introduced similar themes of shared, collective ideals of knowing. It started with everyone addressing the question: 'Why am I doing a PhD?' The answer round was filled with enthusiasm, mentioning the pleasure of exploration, opportunities to exercise one's curiosity, learning and going deeper, and critical thinking. Many mentioned collective learning involving experienced researchers and peers, and

working in a community of scholars, thereby underlining the ideal of a relational, collective mode of knowledge production. Wild quests for the unknown and the connected ideals of collective learning thus emerged as themes. The political took centre stage as well, with many students mentioning ‘learning about inequalities,’ ‘going against power structures,’ and ‘precarity,’ although one commented with hesitation in relation to activist scholarship that she was ‘not sure if one can do that here.’ Some pointed to the importance of scholarship for earthly survival and the importance of working with ‘something that really matters.’ The chair concluded that most participants had said ‘something about learning, and enjoyment.’

Against a background in which the connected and the wild were explicitly favoured modes of attention, it is striking that when the seminar proceeded to discuss papers and projects in more concrete ways, the solitary mode of attention was the taken-for-granted means of knowledge production. In the following section I therefore show how responses to students’ actual papers and projects addressed the student as a solitary agent and depicted research as a lonely journey.

Four remarks from a seminar capture this preference for the solitary mode of attention in which both the scholar and her publication become commodities, and the research process is calculated to minimise certain risks. ‘What is your research question?’—a standard question in any seminar—appeared in my own notes, followed by a scribbled ‘Narrow down!’ A second set of recurring comments, ‘Read more!’ and ‘There is a whole tradition...,’ equally sound innocent, yet are also packed with frustration. Lastly, with the addition of ‘What is your contribution?,’ I argue that the PhD student is driven into a specific solitary-connected mode of attention wherein the textually present element of the wild is flagged yet suppressed.

### **‘Narrow Down!’**

The request that students narrow down their research question is meant as an encouragement to be more practical; to think about their study’s feasibility. ‘Within the confines of PhD research, one must find a question one can answer with the data,’ was my own advice, attempting to think about the project outside the norms of temporal linearity. The goal is to design a study that remains within the boundaries of the material at hand, where all the elements fit nicely together. The design should be

doable in three years not only because the university requires results, I noted to myself, but also for the sake of a sense of coherence. As I felt I sounded harsh and managerial, the need arose to add that this practical attitude also benefits the mental well-being of a PhD student, and probably is also wise in terms of funding. In ethico-onto-epistemic terms, however, recommending that a student narrows down their research focus and seek more feasible, publishable research questions, is essentially a demand to disregard potential avenues of thought and lines of flight; to close-down possible diffractions (Springgay & Truman, 2018). While a more practical, risk-averse attitude is meant to support students' mental well-being, it may suffocate the adventurous wild spirit that was initiated by the discussion of what inspires one to start with PhD research. Even though I was initially one of those who uttered this kind of advice, I also noted in my diary that 'these types of support normalise depression.'

Early stage 'Narrow-down!'-seminar rhetoric constitutes an outside that is disregarded by the clever scholar. The admired scholar establishes a story in which the known is already charted; what does not get asked and answered, is not accounted for. The seminar encouraged authoring lists of disclaimers of what a text had not addressed, stated in a matter-of-fact manner that avoids a defensive tone. These are rhetorical signposts that mark territories where exploration should not be demanded. Such a rhetoric makes known that what is not mentioned is wilfully not discussed, and the reader should respect this choice. This cultivates acceptance of a refusal to see beyond; a wilful ignorance glorified in the name of a publishable product. The seminar's rhetoric insists that the focus can and must be limited to what can be established within a given research project. While this 'narrowing down'-procedure may be a psychologically comforting way of proceeding when it comes to doing research, it suppresses uncertainty and curtails leaps into the wild, even in cases where the empirical data may suggest other, more novel directions. The procedure pre-empts the joy of discovery.

## **'Read!'**

The second remark, 'Read!,' is another apparently well-meaning suggestion made by fellow students and supervisors (also see St. Pierre, 2019, p. 4). At first sight, the request to read more seems to go against the modality to publish as efficiently as



possible. More often than not, this injunction, however, is not about enjoying reading more but about reading strategically. Similar remark expressed by a supervisor was the frustrated sigh of ‘there is a whole tradition.’ It indicated not only the academic demand that the student masters the literature of the field in question, but also exclaimed that the paper did not delineate the territory of chosen previous literature decisively. As supervisors are aware that the number of publications keeps expanding, the request to read more, but in a strategic manner, also relates to feasibility. The combined advice on feasibility ends up keeping references and theoretical framing within the realm of the familiar and fashionable; reaffirming the status quo of citational politics of race, class, and geopolitics.

The need to find and demarcate a territory, and then cover it all, reinforces the trope of the classic solitary scholar that, in isolation, could eventually master not only a specific library shelf but a to-be-objectified phenomenon, read everything relevant about it, and create and own a product. The idea of solitary reading until one has attained saturation implies the idea of ‘true’ knowledge that can be found and held as a possession. This kind of knowledge ownership marks a ‘proper’ scholar. What is remarkable in these seminar situations is that even those who otherwise root for radical, wayward scholarship, harboured the desire to have read all the theoretical classics in their original versions, as well as the minor literatures of alternative and activist contemporaries. The alternative-leaning scholars were far from immune from longing to master the latest should-already-have-read lists, and this was expressed surprisingly openly. The ideal of diffracted knowledge pathways suddenly disappeared and gave room to mastery in these discussions.

‘Read more!’ could suggest that the scholar is not alone, but could potentially receive ideas, guidance, and companionship from other authors, indicating the connective mode. ‘Read more!’ could be a diffraction to unknown wild openings. Yet, when such remarks as ‘Read more!’ are brief and the content that one is missing when not familiar with the ‘whole tradition’ remains unarticulated, the gesture merely indicates that there is something the solitary student or scholar should have figured out already. In response to ‘there is a whole tradition’ remark a few bold students insisted on being told the names of authors and books, but more often the reaction was a humiliated murmur of ‘thanks’ and bodily withdrawal.

Perhaps the bodily gesture of avoidance of eye contact and withdrawal could be read as a form of diffraction where open-endedness remains a possibility. Barad (2014) describes such diffracting moments as follows: “[T]his moment, like all moments, is itself a diffracted condensation, a threading through of an infinity of moments-places-matterings, a superposition/ entanglement, never closed, never finished” (p. 169). A moment of frustration might arise by the irritating tension of the being-with in the now, and it also carries a condensed past—perhaps a reminder of an earlier situation of feeling cornered in a classroom. A withdrawal of eye contact and leaving future readings at one’s own discretion is a diffraction to solitary and wild scholarly work. The student’s body language signals that this wild diffraction is defiantly not shared with this crowd, the discussion is over. It is important to note, however, that such quiet diffractions, with one’s gaze down at one’s laptop, are not collective engagements where alternative academic practices emerge, however important they may be for one’s survival, integrity, and creativity.

### **‘What Is Your Contribution?’**

The third remark that kept recurring, is the request to formulate the contribution made by the study in question. The intent behind this is respectful: every study is a relational gift to the wider academic community, and the gift/contribution should therefore be articulated clearly. The contribution remark brings together the solitary and the connected modes of attention. The contribution of the solitary, knowledgeable author who presents and explains clearly defined objects of interest in a convincing document is brought to an audience acting as a jury. The audience confrontation is, of course, planned well ahead, connecting the jury to the solitary quest throughout the project. In this specific solitary-connected mode of attention, the scholar is attuned to the critique of colleagues, as both the object of knowledge as well as the value of the contribution is open to interpretation. In theory, open-ended collective knowledge production holds the beautiful promise of collegiality. Yet, in many of the discussions witnessed during my fieldwork, comments were taken as judgements. Replies were furthermore often defensive in nature.

Given the pressure to perform one’s role of the brilliant scholar before an audience, the critique of the text easily got conflated with that of the author as a person, inevitably

and understandably provoking various emotional responses. One example of author/text/general discussion conflation happened in the following seminar moment where I commented on the way in which a student paper positioned the author in question as a self-defined white scholar interrogating whiteness in academia. Unfortunately, I did not write down my original question, but I do recall saying that I wished to discuss the issue at stake as an important, *shared* concern. How to write about one's privileges as a scholar, and how to verbally position oneself as a racialised 'white' subject were the questions I had in mind. These are emotionally charged topics without easy solutions at hand. A more general discussion, however, was not even possible. The student's reply was so hostile and arrogant that an uneasy silence filled the room, until her supervisor decided to come to her rescue in such a blunt manner that it underlined the impression that the student indeed had been heavily accused and insulted. My critique was impossibly about a general problem, but in this praxis critique identifies a weakness in the student's contribution/product.

The tension felt at that moment was enhanced by the phenomenon under discussion, whiteness in academia, that is seen as something personal and politically contentious. Another student later recalled that the entire group seemed to have responded to the aggression that was in the air and had assumed that there was a chain of events happening: a hope of being appreciated by the student, a rejection by a supervisor [me], and thus a signal of failure, taken personally, and therefore a defensive response, followed by denial and rejection [by the student], supported by another, more caring supervisor. The caring here was oriented more toward the person than the discussion itself, though. A connected mode of attention that was first established by the student's text on her self-positioning discussion as white was seen as spoiled by my remark that asked for further elaboration, interpreted as a jury-like verdict. The quest for a general academic discussion was not heard due to a conflation of the person and the work. The student and her supervisor both reacted by refusing further discussion. The student was reassured by the other supervisor that her written product was fine—even though I still argue that it is difficult to perfectly cover how 'privileged position of whiteness in academia' works under any circumstances; let alone in the colour-blind context of Nordic institutions.

Overall, these seminars ended up supporting a publication culture that required a combination of the solitary and connected modes of scholarship, but in a very specific

sequenced way. In this sequence, the solitary scholar produces a quality product—within the parameters of pre-existing theoretical frames and intelligibility—that has potential value on the market in a process that commodifies both the worker and the end-product. Meanwhile, the connected mode references little more than subjection to the assumed interests of the market/jury/audience. Students who otherwise oppose neoliberal projects of selfhood often mentioned that they assume that this marketing-focused, publication-machine self is the only way of having a career. Thus, while explicit diffractions into the wild and transversal contaminations did occur in these seminars—and that particularly in the written theory sections and in private conversations outside the room in which participants expressed a longing to conduct seminars otherwise—they were nonetheless silenced out of an assumed necessity while partaking in the formal seminar praxis.

I would like to argue here that the solitary-connected mode of attention acts as an engine of anxiety when the modes of attention co-exist in this sequenced way. The neoliberal academic market apparatus is inevitably commodifying and turning everything into a product or personal capital, despite the students' explicit wishes to do radically meaningful work. This element of neoliberal competitiveness could actually be a by-product of a deeper problem, namely, the assumption that any goal besides personal academic success is ridiculous, naïve, or pompously old-fashioned. Not discussing the broader significance of one's academic work fuels the anxiety-inducing aspect of contemporary academia. There are nonetheless, as I also discuss in the following section, many diffractive moments when a wild and responsible otherwise is in the process of being imagined.

## **Wild Encounters with Critters**

So far, the examples used have illustrated the entanglement of the solitary and the connected modes of attention, but little has been said about the wild. In the following I will suggest that there is an aspect of the wild that academia already nourishes and idealises, but which could be expanded upon more. The wild is potentially present in both solitude and connectedness; it is always already there. It is both a bold leap, a political cut, and a mode in the now that does not entail abandoning academia (but perhaps requires a certain preparedness to do so).

My first, somewhat superficial example of the presence of the wild is a conversation I had with a natural science professor, who feared her costly experiment would result in negative results and public shaming, as the project had gained a lot of visibility in popular media and among academic colleagues. Laughingly, however, she took her words back, exclaiming that she did not exactly *fear* this; in fact, she considered the risk of failure had been worth taking. ‘If I lose it all now, I still would have a good life; I don’t need this career,’ she said, as if she was prepared to quit academia altogether. She seemed convinced that this insight—that she did not depend on her professorship and its projects to lead a happy life—had made it possible for her to conduct her bold experiment in the first place. This letting go of the need to excel was her way of having the courage to excel. This example suggests that such forays into the wild are happening all the time, even in the most mainstream of settings. Being protected by being able to use a positivist methodology and having secure employment of course also helps.

Pedagogies into the wild go further than relinquishing one’s career goals without challenging the epistemic mainstream model of science, as illustrated by the attitude described by this particular scientist. While doing the fieldwork for this study, my strongest personal sensation of the presence of the wild mode of attention co-existed in tension with competitive connected solitude. In order to explain this tension, I will discuss one particular seminar that included such wild practices—both literally and figuratively—although other instances, such as specific moments during boring staff meetings, were also good candidates to be diffracted into the wild. I will be referring to this particular seminar as the ‘critter’ seminar, because of its attention to the more-than-human (Haraway, 2016). This seminar basically attempted to create new forms of being-presence and being-in-becoming in research practices, and did so successfully, thereby exceeding the participants’ expectations. It demonstrated that an into-the-wild sociality in academia is possible in such experiments, meaning that, by the logic of diffraction, the wild is also potentially present everywhere.

This so-called critter seminar was an international 3-day workshop, consisting of mostly European and US colleagues, as this is what is typically denoted as ‘international’ in Nordic settings. The 15 participants were early to mid-career scholars, mainly in semi-secure positions, and included only a few PhD students. In my diary, I mention the pleasure of debating with the participants for hours, but the recurring

theme of affective inadequacy appears as well. One element creating the unusually joyful spirit of the seminar was the sense of being attuned to the more-than-human in a politically conscious way. The connected mode of attention created a sense of relationality that is wider than the competitive human-centred one, as I will touch upon now.

### **More-Than-Human Relationality, Co-Created Knowledge**

My first example is a moment during which the calm pleasure of listening to a discussion about more-than-human methodologies was interrupted by a familiar gut punch feeling. In the middle of an enthusiastic but chaotic discussion one of the participants restored the order by reminding us of the book to be written and by telling us that we should not waste pages on well-trodden tracks. She, somewhat impatiently, had already mentioned the familiar phrases of 'that has been done already,' 'there is a whole tradition on this' along with a reference to 'low-hanging fruits.' But, remarkably, the next speakers ignored these comments and continued the conversation about said methodologies. To me this was a relief, and a stubborn act to remain with the chaotic and wild. The urge to be novel and outshine earlier work felt less urgent in the light of the discussion, and even slightly silly. Our discussion did not need to be evaluated against a competitive search for newness. We continued the wild roaming in what we together, here and now, trusted to be of interest to us. Such a decision was not explicitly expressed, but I felt the continued discussion created a sense of decisive confidence and creativity in the group.

Within the context of this seminar, the difference between the earlier described competitive, publication mode discussions where newness is an end in itself, and genuine dialogues containing existing literature in a positive, connected mode of attention, became apparent. The participants resisted the competitive mode collectively. The interruption did not manage to shift the original discussion about new, genuinely transdisciplinary, and undisciplined ways of theorising more-than-human encounters, where speaking across and beyond literatures is necessary. The novelty remark was never explicitly discussed; as in meditation, the habitual disturbance we all are so familiar with was accepted and allowed to pass on. But the habit of obsessing about novelty itself was discussed on a meta-level.

In hindsight, I think the discussion kept on going because of the theoretical approach used and the subject matter, namely, the centre stage that was given to these critters, as Haraway (2016) calls these non-human companions like dogs, mushrooms, and bacteria. The critter presence allots the human scholar a humbler positionality to begin with. The awareness of the more-than-human co-existence toned down the urge to flag one's primary commitment to collegial, human-only competitiveness. If scholarly efforts to grasp worlding co-existence—where the abundance of critters always outnumbers us—is viewed as a collective, shared participation in an evolving, unpredictable whole, the individual contribution to earthly survival and co-existence is not commodified. I believe that the open-ended, wild mode of attention did not arise out of the collegiality, niceness, or good humour of the humans in the room, as the group did not have time to learn to know, let alone, trust, each other—this wild mode of attention rather happened because of our continuous efforts to bring back a joint commitment to the ethico-onto-epistemology of more-than-human social science, despite our usual habits.

Modest witnessing (Haraway, 1997) brought about a more peaceful and humble mode of attention in the seminar. The aim of grasping a confluence of interacting multispecies interests decentres those of humans and, to some extent, enables individual anxieties to be seen in a large scale of things. When the approach to knowledge as contingent, emergent, sensory, social, and animated by multiple, unexpected, multispecies presences, is constantly discussed through concrete empirical examples, a less competitive and vulnerable relationality in human-collegial relationships may be a diffractive side-product.

The seminar explicitly encouraged sharing and explaining content in ordinary language, even though the academic habit of relying on jargon was also still present. In my seminar diary I noted that 'the collective form of thinking together gives a sensation that / know what is important in current literature. Usually the uncertainty-induced shame and fear is so hard to let go of. Now this does not appear to be the case.'

One of the reasons that these theoretical discussions were more open than in the other seminars was that they were always conducted with reference to empirical cases; another was the new materialist framework that in itself encourages a gentle approach to knowing, despite its cryptic language. Abandoning representationalism,



individualism, and the supposed separability of knower and known (van der Tuin & Nocek, 2019), introduces an interdisciplinary field where the idea of 'knowing it all' as a heroic researcher is not only impossible but absurd. This realisation allows for wild roaming that can be joyful rather than rivalry-inducing. "Concepts that activate thought instead of recapitulating what has already been decided" (Geerts & Carstens, 2019, p. 819) promise explorations of the wild.

### **Political, Responsible, Meaningful, Diffracted**

The commitment to wild openness does not necessarily indicate attention to responsibility and meaning, but political debates during analytical discussions may decrease individual anxiety. When attention is only bestowed upon the brilliance of the knower or known as a commodity, career anxiety can take over. When attention is redirected to the effects of knowledge, a more humble and responsible attitude becomes possible. A responsible-wild mode of attention indicated for me an unpretentious being in the now. The following somewhat lengthy passage from my diary hopefully casts light on the tension between struggling with finding the right words and my politically motivated willingness to participate:

I feel like I have early-stage Alzheimer's. I know there are words, I suffer as I know what I don't know, but words keep escaping my mind's groping attempts. My vocabulary is an empty box. My mistake perhaps is that it is not empty; here I just do not trust the ones [words] that are there. Emma [anonymised seminar participant] is different in this respect. Why? She is bold. She sees any situation as political, and her task, as a good leftist feminist and colleague, is to take the trouble to stay with the trouble. It seems she takes it as her duty always to point out the importance of interpreting the political dimensions and consequences of each and every paper. Not to exhibit her brilliant self but to do her share, as respectful with-ness to an important task, where diffracting the political context of each case is our duty. She speaks her mind as honestly as she can, does not say how others should do. I admire her calm, stubborn stance; she brings about the ethics of negotiation and open-ended consideration, insisting on the political whatever it then means. Each author can then do what they wish. But

collectively leaving the discussion on the political out, we are culpable of blindness, the narrowing down of the wild.

I admired Emma's way of acting in the seminar—it feels like a more responsible stance than my own silence, which was engendered by the feeling of not mobilising the right theoretical vocabulary during a casual chat. I interpreted Emma's courage as stemming from a sense of responsibility with regards to the task at hand. Her way of raising issues was more of a public commitment than an individual contribution. It did not demonstrate a moral high ground or even contained a claim to have the right answers. I felt Emma diligently raised questions about the political dimensions of the analysis at hand, while it was this political orientation that gave her the impetus to speak without agonising over whether her words were paraded in exactly the right canon, like I did. My analysis of her mode of engagement is that responsibility seems to free the speaker from the anxiety attached to the typical commodifying performance. Some discussions in this seminar also became familiarly filled with tensions and defensiveness, but the seminar included more occasions of open-ended peer critique focusing on papers rather than on individuals. Such moments demanded a certain open-endedness—not requiring the individual author to present a perfected text, but to join the shared quest for responsible being-with (Haraway, 2016).

Political responsibility, that includes a range of matters that now are captured in the notion ethico-onto-epistem-ology (see Barad, 2007, p. 90; Geerts, 2016) but in earlier feminist theory were encompassed by the generalising notion political, also emphasising the inseparability of ethics, ontology, and epistemology (Haraway, 1988; Harding, 1986), seen through Barad's (2014) new materialist perspective, is

not an obligation that the subject chooses but rather an incarnate relation that precedes the intentionality of consciousness. Responsibility is not a calculation to be performed. It is a relation always already integral to the world's ongoing intra-active becoming and not-becoming. It is an iterative (re)opening up to, an enabling of responsiveness (p. 183).

Traditions that look for the ephemeral, the emergent, the evanescent, the decentred, and the heterogeneous have often been claimed to risk being politically evasive. What I highlight here, is that a sense of scholarly responsibility and a larger, more open-

ended purpose is a more subtle orientation, and it may powerfully work against the compartmentalised, individualised commodification of knowledge.

This is where the dispersed methodology of diffraction is needed. Diffraction opens up a conceptual tool kit that removes the focus from the individual scholar's solitary brilliance. In the enterprise of wild knowing, the tools for engagement become the key site of interest. The focus shifts from both the knower and the entity to be known, to the "agential cut" (Barad, 2007, p. 348) or assemblage of knowledge production. The measurement, technology, technique, or surface on which the knowledge is collectively drawn constitutes the phenomenon itself. The focus is on praxis, processes, and effects. It is in the process that not only the phenomenon emerges, but the knower also becomes (temporarily) constituted (Xin, 2019).

The humanist, colonial, masculine, phallogocentric subject that controls its object is the ideal that the seminars try to resist, but it keeps sticking to us and seducing us (Ahmed, 2017). The comparison made between the different seminar situations shows that the wild mode of attention is more likely to present itself when participants are not the most institutionally precarious in the room, like PhD students, facing a hierarchically attuned environment with their supervisors. The critter seminar participants were mainly mid-career researchers, and thus less vulnerable than graduate students. The position of participants within the rigid institutional-political structures thus influences the participants' approach to ethico-onto-epistemological questions. This has consequences for the practices that are available to individual participants. Drawing on the example of Emma, however, I argue that anyone can, at least momentarily, practice politically relevant, responsible diffractive scholarship (cf. St. Pierre, 2021, p. 7). These moments matter, in the meaning of spacetime mattering.

The diffractive methodology resembles Deleuze's notion of assemblage (see Deleuze & Parnet, 2007), where a series of heterogeneous elements are organised and held together through temporary relations. Assemblage shifts the emphasis from an authentic human individual to the formation of a collective body where individualised human elements do not take precedence. Instead, all proximate and co-participating elements are of interest. Assemblages are provisional and able to transform into something else, being both contingent and structured (Ong & Collier, 2008). In my fieldwork, during those moments where a participant's work was framed as part of an assemblage, commodification, and the cut-throat, competitive gestures

that we habitually employ, became slightly ridiculous, or simply unnecessary. By shifting agency away from a capacity that resides within people, assemblage refers to relationality as a wider and less predictable concept than the competitive-connected mode of attention. One example of a potentially diffractive moment in the PhD seminars discussed above was the emotional withdrawal of the student who was instructed to read more; her attention turned to her notes, and her mind wandered away—from the discussion, possibly to wild diffractions of her own. This kind of solitary diffraction is valuable, too, and could be brought back to a connected mode of attention and fruitful assemblages in later moments.

## Concluding Remarks

This article suggests that by studying moments that matter as diffractions we learn something crucial about everyday practices in academia, where wayward alternatives and leaps into the wild are present as ideals but hard to sustain in the everyday praxis in the face of pressure to present knowledge in commodified ways. The methodological choice to study social situations as diffractions, as I have claimed in this piece, is to enable an analysis that is appreciative of the dispersed and the evasive; of open-ended knowing, while remaining reflexive about the political in research practices. Moments are seen as *constitutive* in the meaning of the diffractive social science proposed here: The adjective constitutive charts potential and follows hope and desire-in-the-making. In constitutive diffractions something shared matters and happens in and to those involved. Diffractions go in unexpected ways. Diffractive social science analysis does not attempt to exhaust a diffraction. It proposes potential outcomes that hopefully matter, that make a difference, causing new diffractions. The described diffractions here include the knower, the phenomenon to be studied, colleagues, and other audiences for the knowledge produced. These are all entangled with one another and co-constitutive of each other.

My analysis developed in this article suggests that the addressed three modes of attention—the solitary, the connected, and the wild—are worthy of attention, even if they only tend to appear as tensions between several modes and never in their pure, actualised forms. I have presented situations in which participants were committed to an understanding of research as a relational practice, often idealising research into

the wild. In most of the situations studied here, people approach research in a manner that I characterise as connected: the researcher sees the object of her/his study as emerging out of collaboration. Representation brings about the phenomenon itself; matter comes to matter in the measurement. The scholar is subjectified into being in relational terms.

What is remarkable, however, is that the connected scholar in many situations is also a very nervous scholar. My analysis indicates that this is due to the competitive spirit and lack of support in contemporary neoliberal academia, but also because of the onto-epistemological modernist sensibility itself (Marcus & Saka, 2006), with an emphasis on the individual knower. Relational connectedness could imply supporting, caring, holding, and nurturing a thinker to grow, but it is also potentially a judgmental, competitive co-existence. In the situations described here connectedness often meant surrender to the brutal arbitration of others. The notion of the connected self in such academic circumstances is an anxiety-producing one, as a self is seen as a collective accomplishment in the process of research. The competitive ways in which the university is organised, as well as the ethico-onto-epistemological tradition of metaphysical individualism and knowing as mastery, affects all scholars, including those who aspire to wild, connected, and collective knowledge practice rather than solitary production.

Even in the practice of the seemingly open-ended feminist social sciences, where the epistemic ideal of mastery is heavily criticised, the competitive connected-solitary mode of attention resurfaces in seminars. There is an outspoken resistance to this on paper, but not in pedagogic or publication praxis. One possible reason for the occasional romanticisation of the solitary mode was its promise of a less anxious, nervous existence, given the exhausting and risky nature of the connected-competitive mode. Solitary work, paradoxically, allows the escape of the lonely performer into a romantic moment with oneself and the unthreatening calm of the library. In the most brutal connected-solitary mode of attention, tremendous uncertainty and laborious normalisation is tolerated due to the cruel optimistic (Berlant, 2011) promise that one's position as a convincing, successful academic of brilliance will become self-evident when rules are followed and one's curiosity is disciplined to deliver a focused, narrow, predictable paper at a time. Any trust in this promise is, however, likely to be fragile and easily dashed.

My suggestion here is that recognising the modes of attention—the solitary, the connected, and the wild—as temporary orientations or commitments may help individual researchers better see what they do in their everyday praxis and engagements, however entangled these modes are; perhaps even precisely because they are ever-changing tensions rather than clear cut categories. The wild is both connected and solitary. Wild-solitary signals courage and freedom but also potential loneliness and isolation when daring to go not only against but beyond the assumed normal. Wild-connected is being heard and cared for in an ephemeral, collective quest, yet also challenged to undertake responsibility and negotiation. The wild, thus, is as contingent as the other modes of attention.

The ethico-onto-epistemological stances of the pedagogies into the wild, the new materialist (Barad, 2007) and Deleuzoguattarian philosophies (Deleuze & Guattari, 1987), and other minoritarian knowledges suggest that enthusiastic, responsible moments and encounters do happen. Diffractions, moments of doing, participating, letting some forces shape and others shatter, in each specific encounter are worlding, already in the now (Haraway, 2016). Wayward academia happens in random “thicker ‘moments’ of spacetimemattering” (Barad, 2014, p. 169). When exploring the diffractive potentiality in everyday pedagogical moments I have found Hartman’s (2019) analytical take on waywardness useful. Wayward academia describes everyday, moment-to-moment insurgencies, where dictates of respectability and success are challenged in daily praxis, despite/within an awareness of a specific, cruel career structure. Wayward academia is a modest proposal that exit is not the only option for alternative pedagogies into the wild, if diffractive moments are taken seriously, and practiced playfully.

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## **An Art School Schizologue [George Floyd, Rest in Power]**

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### **Abstract**

This critical cartography surveys seven moments in critical practice/art pedagogy, which oscillate around the protests of 1968 and diffract the contemporary possibilities of art education in association with Halberstam's (2019) notions of evacuation and wildness. The article reads across Deleuzoguattarian (1994 and 2007) schizoanalysis and Baradian (2007) intra-action to articulate struggles for racial justice as instances of Harney and Moten's (2013) undercommons, operating as alternate sites of knowledge production and collective self-experimentation outside the neoliberal university. These moments of practice—Black Lives Matter protests in Bristol, the UK, the writings of Aimé Césaire, Audre Lorde, Mohamed Melehi, Benjamin Patterson, and Howardena Pindell, as well as a student occupation of Central Saint Martins, also in the UK—are aligned in series allowing the reader to appropriate each one in resonance with each other as a proposal for an art-pedagogy-to-come.

### **Keywords**

Art-pedagogy-to-come; schizoanalysis; Deleuze and Guattari; Barad; wildness

## Introduction

In *May 68 Did Not Take Place*, Gilles Deleuze (2006) claims the protests of that year amounted to a “visionary phenomenon” awaiting “creative redeployment” (pp. 233-234). In Deleuze’s argument, 1968 retains a virtuality “of the order of a pure event”—a potential only graspable in “fluctuations” within the status-quo (p. 233). The fluctuations to which Deleuze refers, occur in the rhythm of the ongoing neoliberal restructuring of the global economy, which contains a subterranean force of possibility “for something else” (p. 234). The murder of George Floyd in the United States on the 25<sup>th</sup> of May 2020 was a brutal reminder that such fluctuations are ongoing, and that neoliberalism’s contemporary economic reforms have allowed institutional racism to continue to fester within the social body, while calling forth the potential for creative change. The urgency of this and other contemporary instances of racial injustice, as well as wider injustices emerging from neoliberalism, re-establish the mobilisation of modes of the above-mentioned creative redeployment as the common project of progressive movements as well as the critical humanities. And this while demanding a renewed attention to resonances across disciplines. To this task, we contribute a critical cartography of struggles for racial justice cutting across fields of democratic pedagogy and critical practice. We return to the reading of desire as a driver of the social undertaken in Deleuze and Félix Guattari’s *Capitalism and Schizophrenia* project (1994 and 2007) and seek to mobilise the transformative force of schizoanalysis in order to, as these two thinkers propose, dismantle Oedipalising forces and transform “the analytic machine into an indispensable part of the revolutionary machinery” (Deleuze & Guattari, 1994, p. 82). Reading schizoanalysis in relation to Karen Barad’s (2007) concept of intra-action<sup>1</sup> and Donna Haraway’s (1997) model of diffractive critique,<sup>2</sup> this paper proposes an art-pedagogy-to-come; an undercommons<sup>3</sup> (Harney & Moten, 2013, p. 28), capable of sustaining an

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<sup>1</sup> Intra-actions—or “causal enactments” (Barad, 2007, p. 178)—articulate a dynamic process of interdependent phenomena formation, while designating relationality as a condition of existence.

<sup>2</sup> Diffractive critique is an affirmative practice that reads across differences to examine distributions of agency. Barad (2012, p. 52) contrasts diffractive critique with tendencies to frame critical practice around the isolation and disclosure of phenomena. For Haraway (1997, p. 16) diffraction extends criticality by framing it as a difference-attentive process resistant to the articulation of phenomena within a recurrence of the known.

<sup>3</sup> The undercommons names a space of commoning within the university; a site of subversive practice to steal back “the life stolen by enlightenment” (Moten & Harney, 2013, p. 26). We read the undercommons as a process of un/learning manifest as ad-hoc intervention and para-institutional organisation.

experimentation within enclosures of identity that Fred Moten (2017) has described as a practice of blurring.

### **1979, New York, Audre Lorde, *The Master's Tools Will Never Dismantle the Master's House***

Audre Lorde's paper, *The Master's Tools Will Never Dismantle the Master's House* (2017), given at the conference *The Second Sex – Thirty Years Later* in New York in 1979, enfold the methodological parameters of schizoanalysis. As a black lesbian, Lorde felt compelled to call out the conference's limited range of speakers and themes, demonstrating how subjugation may inhere in tools of emancipation. Deleuze and Guattari (1994, pp. 28-31) account for such contradictions by rethinking desire as social production, demonstrating how critical modes can internalise oppression from inherited modes of mastery. Schizoanalysis mobilises the unconscious as a factory reconfiguring codified material flows (*hyle*) and systems of interruption (machines) (pp. 36-39), dismantling group fantasies, and subjecting them to creative transformations. Deleuze and Guattari identify three tasks of schizoanalysis: destroying beliefs, representations and interpretations to make Oedipus and castration explode (p. 314); identifying machinic syntheses—"flows, chains and becomings" (p. 338)—and mobilising flows through collective lines of escape (p. 362).

Lorde's schizoanalytic gesture destroyed the Oedipalising assumptions that had been mediating the conference, identified alternate (machinic) intersections of individuals and groups, and anticipated new mutualities prioritising difference that she called "redemptive" (2017, p. 90). We align the function of art-pedagogy-to-come with such a disruption of the frame in a manner that extends beyond the scope of recent pedagogic engagements with schizoanalysis (see e.g., Kruger & Le Roux, 2019; Webb, 2009), and therefore align our project with the beyond of the university. This institutional ruin, which has taken on the character of the double bind<sup>4</sup>, such that the social good of education is marketed through the metrics of excellence (Edu-Factory

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<sup>4</sup> Bateson (1956, p. 252) conceives the double-bind as a recurring pattern of encounters with a specific irreconcilable structure that shapes psychic development. The double-bind comprises three primary elements: a negative injunction, whereby action or lack of action will be punished; a secondary injunction, which denies, obscures or re-frames the first; and a tertiary negative injunction, which is the relationships and contextual factors that make the prior injunctions inescapable.



Collective, 2009), is useful only as a site of evacuation (Halberstam, 2019). Just as Lorde's exposure of her subordination and demand for respect forced into process an alternate mode of transaction, we aim to initiate a diffraction pattern in the university's dual messaging, producing a "wildness" in art pedagogy: a "somewhere else entirely" (Halberstam, 2019, n. p.), the redemptive promise of which lies in the disarticulation of subordination.

Our methodology diffracts ontological, epistemological, and ethical dimensions through contextual dynamics (Murriss & Bozalek, 2019) and conceives art pedagogy as a meshing or queering of schizoanalysis and Baradian agential realism<sup>5</sup> into new approaches for the reconstruction of identities. So, whilst Deleuze and Guattari prioritise the functionality of material process through the interdependency of the body without organs and machinic organisation of the assemblage, and Barad (2007) prioritises the interpretative dynamics of agential cuts in material entanglements, we argue their co-relation is necessary to account for the historico-material construction of race and its basis in interlinked chains of association. For example, Kathryn Yusoff (2018) demonstrates how black subjectivity and geologic transformation couple in the mechanism of colonial history. Further, reading across differing models of justice and redemption we extend Deleuzian (1994) senses of the inhuman to Haraway's (2016) notion of thinking-with or *sympoiesis*, which we argue integrates an ethical impulse with an embrace of shock. The Deleuzian inhuman, which describes a field of virtual intensities and their incommensurable relation to actualised identity, characterised by the neologism *different/ciation*, informs our prioritisation of disjunctive practices seeking to return identities to a state of mutability. Barad (2017) shares a similar concern, viewing the shock and arrest that characterise Benjamin's notion of *Jetztzeit* (now-time) as integral to modes of entanglement and diffraction. "The messianic—the flashing up of the infinite, an infinity of other times within this time—is written into the very structure of matter-time-being itself," as Barad (2017, p. 70) writes. In this sense, *sympoiesis* and the inhuman are not incommensurable. For example, Lorde's (2017, p. 90) question, "What does it mean when the tools of a racist patriarchy are used to examine the fruits of the same patriarchy?" was combative but not adversarial and opened a space for the re-assembly of values in the spirit of comradeship. For Barad,

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<sup>5</sup> Agential realism conceives a phenomenon as a "specific intra-action of an 'object' and the 'measuring agencies'" (Barad, 2007, p. 128). As appropriation informs mattering and turns on selections and preferences, the primacy Barad ascribes to entanglement is at once ethico-onto-epistemological.

embracing shock involves risking oneself to exposure with “entangled relationalities of inheritance” and the “non-contemporaneity of the present” (Barad, 2010, p. 264). Further to the gift of realising how you are historically implicated, the diffractive/deterritorialising charge of shock and arrest brings a productive encounter with the inhuman as a field to be mobilised in “the assembly of counterfutures” (Eshun, 2003, p. 3).

As practice, such diffractive entanglements re-orient the neoliberalising impulses unleashed by 1968 (Ross, 2002)—which otherwise perpetuate the neoliberal socio-economic order (Boltanski & Chiapello, 2007)—producing transformative pedagogic agencies and reframed institutional priorities. Art projects that have characterised the educational turn (Rogoff, 2008, n. p.) have too often envisaged the art museum as a refuge for education. Irit Rogoff’s project *Academy* (2006), which mobilised the Van Abbemuseum in Eindhoven, the Netherlands, to pedagogic ends as a challenge to the standardisation of university education across the European Union, nonetheless accepted the museum as the container of the project’s interstitial dynamics. Our aim is institutional disarticulation, dereliction, and evacuation: an “undercommons” that Stefano Harney and Fred Moten identify with “thinking through the skin of teaching toward a collective orientation to the knowledge object as future project” (2013, p. 27). The undercommons is a scandalous “wildness” (Halberstam, 2019, n. p.), a subterranean fluctuation (Deleuze, 2006, p. 233), a diagram of alternative art pedagogy, and the blueprint for the reconstruction of the university written in the act of withdrawal. The historic reference is the occupations of universities and art schools such as The Sorbonne and Hornsey College of Art throughout 1968. At Hornsey, the precarity of the occupation forced the urgent development of a collective aim through discussion and artistic production. Such activities can be aligned with Alain Jouffroy’s identification of art strikes with a change in production (1970, p. 181). The undercommons as critical cartography disarticulates institutional practices and is the formative condition of a re-imagined possibility of art pedagogy.

We term such critical cartographies schizopedagogies, because they generate critical/constructive flux or experimental intra-activity initiating sites of un/learning. In agreement with Barad’s (2012, p. 50) claim that diffraction “depends on reading insights through one another, building new insights, and attentively and carefully reading for differences,” schizopedagogic un/learning enumerates cuts, identifies

machinic intra-actions, and stages re-combinatory processes. Schizopedagogy functions in accordance with Stephen Zepke's (2014, p. 32) claim that schizoanalytic art operates across "ontological, political and aesthetic poles of a diagram of insurrection" as a proliferation of abstract machines invading normative practice. An example is Lorde's (2017, pp. 1-6) reading of silence as desire compressed to capitulation, whose tyranny she claims must be unlearned. Oscillating around the fulcrum of 1968, this paper is a diagram of art pedagogy beyond its conventional institutional frames. We describe it as a *schizologue*, because the many actions and voices it mobilises are central to its argument. The sections below are conceived as *schizzes*, which for Deleuze and Guattari (1994, p. 43) "have to do with heterogeneous chains, [...] detachable segments or mobile stocks resembling building blocks or flying bricks." This paper then is a chain of actions and voices which together function as a critical cartography of resistance to racism and an example of schizopedagogy in practice.

### **2015, London, St. Martin's College, Student Occupation**

On the psychoanalyst's couch, the art school spurts neurotic fantasies about economisation (Brown, 2015), marketisation (McGettigan, 2013), and excellence (Readings, 1996) that have transformed the institution into a neurotic performance of coherence overlaid upon the schizophrenic fragmentation of extractive capitalism. The symptoms are the arms race of signature architecture and capital expansion projects, the chase for international course validation, student satisfaction surveys and online forums, the dematerialisation of teaching into online archives, lecture capture, and search engines, the professionalisation of creative self-employment, and proliferating health and wellbeing machinery. Each so-called strategy is a reaction to big data (Fuchs, 2019) and cognitive capitalism (Boutang, 2012), Oedipal stimuli re-normalising art education. What the industry calls resilience (Bradit et al., 2019) appears to be adaptative arborescence akin to the self-deforming cast or transmutating sieve of Deleuze's (1992) society of control. Having developed careers in art departments recast by the 2010 Browne Review of UK Higher Education, our view is such departments are snags: dead corpses standing, whose embalmers cannot arrest the rhizomatic processes eating them from the inside—capital

contagion, viral contagion, ecological collapse, neurosis of the socius, and the continuum of reactive policy.

Let us qualify: the art school was always undead—a Frankensteinian construct, founded on divergent ideologies of romantic individualism and utility (Atkinson & Baldwin, 1971) since the expansion of 17<sup>th</sup> century mercantile capitalism. In the contemporary art school, these dual functions morph into fraudulent self-realisation enacted through the spectacle of the degree show and the alleged real-world pragmatics of the professional practice module. A holy trinity of self-control, self-entrepreneurship and self-evaluation disindividuates subjects into component parts, whose perpetually accelerated modulation (Hui, 2015) is assumed to confirm their value. Within this context it no longer makes sense to talk of genesis or essence. The father always arrives late and overreacts. This point is exemplified by University of Arts London's castration complex, which during the last decade's delirium for austerity developed into a morbid fascination with self-amputation. On the 16<sup>th</sup> of March 2015, the university announced plans to cut 800 places on the foundation course at Central St. Martins, UK, and funding for widening participation. On the 19<sup>th</sup> of March, following the 2015 Rhodes Must Fall protests at the University of Cape Town, South Africa, students occupied the reception area accusing the university of institutional racism. In response, a temporary reception corridor was wheeled into place to subvert the occupation. Painted bright green to look friendly and decorated with hastily laminated signs, it demonstrates the reactionary transformation of the art school into a spectacle of control.

Subject to Deleuzoguattarian analysis, the neurotic symptoms of the neoliberal art school reveal: 1) an institutional breakdown wherein the pleasure principle and reality principle of the art school are in a state of permanent warfare; 2) a structural relationship between this internal conflict and the general condition of war regulating the wider global order (also see Hardt & Negri, 2005, p. 3) current university conflicts constitute instances of "imperial civil war" (p. 4) within Empire and therefore interconnect with other forms of blended warfare and data-mining redefining the relation between state, citizen, and consumer in the techno-digital sphere; 4) that these new techno-digital and transnational materialities radically redefine the interpellative subject-Subject synthesis Althusser (2001, pp. 115-120) identifies as the desired production of the educational ISA. Our diagnosis is that only an inhuman

schizopedagogy—rather than the bourgeois-humanist pedagogies endemic to the art school—can reckon with these new material conditions of academic production. Art schools can support schizopedagogic practice—the next section on Mohamed Melehi’s work at Casablanca Art School is a good example—albeit not simply within existing university systems. We propose instead the imposition of schizophrenic shock upon the hyperactive, transactional brain of the art school until it can see that it should be everywhere accelerated beyond the studio and seminar room.

### 1969, Marrakech, Mohamed Melehi, *Exposition-Manifeste/Présence Plastique*

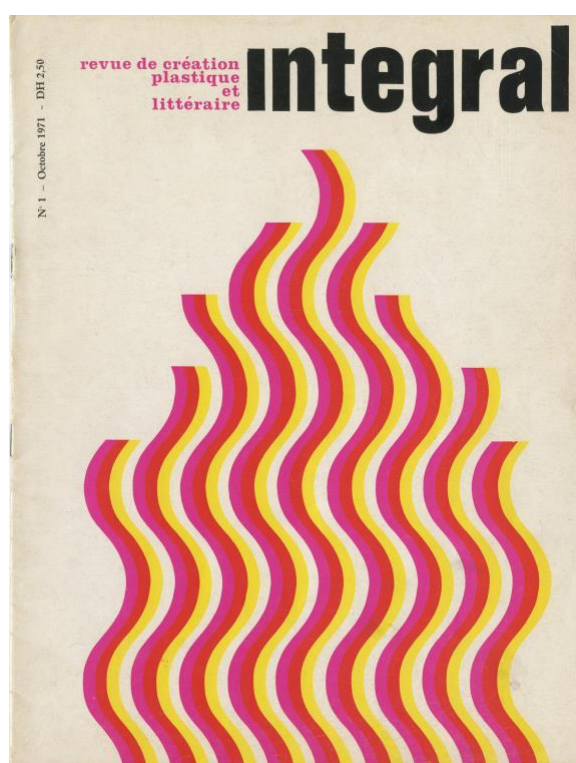


Figure 1: Cover of *Integral* n°1, October 1971.  
Courtesy of Toni Maraini Archives

We now turn our attention to the figure of painter Mohamed Melehi as an exemplar of postcolonial schizopedagogy. We analyse the Melehi artistic/pedagogic assemblage through the prism *Exposition-Manifeste/Présence Plastique* in Jemaa-el-Fna Square, Marrakech, Morocco in 1969 as a functioning structure of institutional affiliations, organisational engagements, and personal relationships. Born in Morocco in 1936, Melehi studied in Spain, Italy, New York, and Minneapolis before he was recruited by Farid Belkahia to École des Beaux-Arts de Casablanca in 1964 where he became

head of painting and photography. Eight years after independence, Melehi returned to a nation of revolt and repression; the so-called years of lead under the rule of King Hassan II.

This context informed the development of Melehi's artistic/pedagogic practice as a de-facialising war machine. Faciality concerns subject formation. Deleuze and Guattari (2007) describe a correlation between a black hole or affective zone in which the subject invests their passions and a white wall onto which signs are projected and from which they rebound. Melehi's project de-facialises because it sets formed subjectivities back into a process of re-development, creating a space to produce alternate senses of Moroccan identity. Working alongside artist Mohamed Chabâa, art historian Toni Maraini, and anthropologist Bert Flint, Melehi adapted the notion of *Bildung* developed by Gropius at the Bauhaus (1938) into a multi-disciplinary curriculum that linked indigenous 'artisanal' production (Berber, African, Arab-Muslim, Mediterranean traditions) and Western avant-garde art. Melehi disseminated these innovations through international exhibitions and artist networks. that foregrounded pan-Arabism and Third-Worldism as central to the activity of the school.

In this context selection became a central and politicised authorial concern. Writing in the journal *Souffles*, Maraini (2015) states,

Two basic issues arose as painters sought to promote modern art through their works and ideas: that of the "avant-garde" [...] and that of tradition. In questioning themselves on these issues, or in being brutally confronted by them, they had to make choices (pp. 105-106).

Abdellatif Laâbi (2015) views such decisions as examples of the wider cultural condition of the colonised subject and the construction of postcolonial nationality. Citing Frantz Fanon's claim that "the colonial mother protects the child from itself, from its ego, its physiology, its biology, and its ontological misfortune" (1963, p. 149), Laâbi (2015, p. 63) addresses colonial schooling as a process of acculturation, whereby aims of "liberation and self-mastery" result in "disorientation" and uprootedness. Forged in this dynamic, the aims of the Casablanca group related to postcolonial reconstructions of Moroccan national identity. Melehi's choice to embed his practice within the Moroccan urban everyday re-contextualises the avant-gardist credo 'art into life,' and his inter-disciplinary fusing of painting and architecture draws influence from



European practitioners such as Moholy-Nagy and Walter Gropius. Such decisions demonstrate that Fanon's terms of opposition—the colonial oppressor and oppressed native population—are entangled. As Laâbi (2015, p. 63) also argues, decolonisation exists as one collective fantasy amongst others, and hegemonic order resurfaces in new postcolonial “micro-castes” and “micro-classes.” This commentary demonstrates how far faith in supersession had been eroded by the conflicted postscript to Moroccan independence after 1956 and the revelation of change after 1968, into which context Melehi's practice was emerging.

Deleuze and Guattari align the insights of this moment with the capacity of capitalist desiring production to fragment and recouple. “No one has ever died from contradictions. And the more it breaks down, the more it schizophrenizes” (1994, p. 151). Deleuze and Guattari argue racialisation integrates non-white indigenous populations as a divergence from the generalised schema of the White-Man face whose model is the image of Christ. All faces are constructs, intersections of signification (white wall) and subjectivity (black hole). “From the viewpoint of racism, there is no exterior, there are no people on the outside. There are only people who should look like us and whose crime it is not to be” (2007, p. 197). Racialisation is an interplay (rhythm) of polyvocal subjectifying forces, or pulsating “backward waves” (p. 197), subject to binary organisation upon the facialisation machine. The counteraction of de-facialisation returns subjectivity to an experimental state and reterritorialises a “new set of artifices” (p. 193). Deformations of facialisation scramble the binary parameters of white (superior) and non-white (inferior) identity, delegitimising colonial ideologies, creating space for the formation of postcolonial nationalities.



Figure 2: *Exposition-Manifeste/Présence Plastique*, Place Jemaa el-Fna, Marrakech, 1969.  
Courtesy of Toni Maraini Archives



*Exposition-Manifeste/Présence Plastique* (1969) functioned as a defacialising machine by bringing the coupling of indigenous and European avant-garde visual languages into Jemaa-el-Fna Square, a mercantile space in the centre of Marrakech dating back to the 11<sup>th</sup> century. Exhibits became a part of the activity that animated the square, producing a flux of visual/behavioural/architectural modes: decompositions initiating micro-fissures: “exothermic reactions” and sudden “crystallisation[s]” (Barad, 2017, p. 25) or diffraction patterns within backward waves of facialisation. We read the wave motif recurring in Melehi’s practice as an emblem of Deleuzian (2006) fluctuation, colonial de-facialisation, and networked commitment to de-colonisation and cosmopolitanism. Creating anew within the existing social relations *Exposition-Manifeste/Présence Plastique* exemplifies schizopedagogy.

### 1962 Paris, Benjamin Patterson, *Pond*



Figure 3: Benjamin Patterson (1962), *Pond*.  
Courtesy of Erin Smith for Walker Art Center, Minneapolis, USA

Benjamin Patterson distills the diffractive flux of schizopedagogic counter-waves into sound actions. His *Variations for Double-Bass* (c. 1962) is a demonstration comprising a series of “[p]itches, dynamics, durations, and number of sounds” (Patterson, c. 1962) that approaches the instrument’s body without organs. The performer improvises Patterson’s score, preparing the instrument with a sequence of objects—clamps, clips, pegs, and paper strips, etc.—plucking, bowing, rubbing, or agitating it to examine the double-bass’s sonic potential. Patterson set out to become “the first black to ‘break the color-barrier’ in an American symphony orchestra” (2012, p. 110), but upon meeting John Cage and David Tudor in 1960, he shifted focus towards experimental practice and became central to the formation of Fluxus in 1962.

Works, such as *Pond* (1961), dismantle sound meaning and disarticulate illocutionary structures of performance and reception. As Kotz (2007, p. 64) also notes, “Rather than pulverizing language into sonorous fragments, the scores focus on the instructions themselves as poetic material.” Patterson’s works enumerate socio-artistic potential that Fred Moten (2012) identifies with the genre of the recipe—enumerating and connecting of components rather than synthesising them into a singular artistic statement. Thus, they invite mobile attention, moving between binary signification, through series in resonance, to the body without organs—whose critico-pedagogic functionality seeds a capacity to diffractively read everyday contexts in a manner consistent with the onto-epistemological orientation of Baradian agential realism. Or as Barad writes, “Practices of knowing and being are not isolable; they are mutually implicated” (2007, p. 128). To articulate knowing as an aspect of differential becoming, Barad examines the case of the brittlestar. This relation of the starfish does not possess a brain, and instead operates through an array of optical lenses meshed with its diffuse nervous system. To avoid predators, the brittlestar can change colour and even break off parts of its body, which it then re-grows, making “matter’s dynamism [...] intrinsic to its biodynamic way of being” (2014, p. 227). The brittlestar is an optical-material morphology, whose mode of apprehension and bodily structure exist in reciprocal presupposition.

*Pond* possesses a similar morphology. Eight performers stand around a six-by-six square floor-based grid before columns marked Q (question), A (answer), and E (exclamation). At timed intervals, each performer releases a wind-up frog into their space and repeatedly utters a choice of phrase appropriate to the column the toy enters, until it leaves. The arbitrary operation of the toy-grid machine regulates mechanical activity and recurring poly-vocal utterance, decontextualising speech and transforming the gallery into a sound environment of human pond-life: a humorous construction that invites participants to imagine further transformations of everyday practices and institutions. Repetitions of co-present terms comprising this sound action enact syntagmatic and associative dimensions of signifying chains. Analysing this process, Deleuze and Guattari refer to Lacan’s reading of Edgar Allan Poe’s *The Purloined Letter* (1972). Lacan analyses how different actors predict the identity of a letter they believe might contain incriminating content, because face-down on a table its actual content cannot be proved. Each actor judges the identity of the letter

according to their understanding the other. The letter's identity becomes subject to a pattern of association akin to the feedback loops of cybernetics. Lacan identified this process with predictive game play, such as the children's game Even or Odd featured in Poe's story, stating, "the symbol's emergence into the real begins with a wager" (Lacan, 2006, p. 192). Deleuze and Guattari (1994) relate interference patterns between signifying chains to schizzes, or detachable segments that cut across chains, facilitating the capture of fragments of one chain by another. A rhythm of recurrent association ensues based on differential variation. Listening to *Pond* is akin to navigating such interference patterns, as associations form between recurring statements, questions, and exclamations; resonances that initiate proto-significations as one phrase is comprehended in the context of another. *Pond* demonstrates how material affection between bodies shapes meaning.

Race is one socio-artistic material of Patterson's practice, amongst others. In *Puzzle-Poems* (1962), it is subjected to a process of cutting, recontextualisation and recombination. Patterson (2012, pp. 113-114) has expressed disdain for the indifference of Fluxus to the civil rights movement and queries simplistically racialised interpretations of his work (see Stiles, 2013). *Puzzle-Poems* situates race alongside other socio-political tensions through selections of images from newspapers and magazines cut out and pasted onto the front and back of cardboard sheets, which are then cut into pieces and presented in boxes. Images of famine and war in Africa contextualised alongside fashion photography and youth culture are first encountered as fragments, which the viewer-participant re-configures. The works were first exhibited in Europe in Robert Filliou's Galerie Légitime presented from under the artist's hat and thus were encountered in the context of the Parisian every day. The work accelerates the ideological mesh of discontinuous geographies and histories manifest on a newspaper frontpage or in a magazine spread, presenting fragments of their material as a technical problem to be solved in the hand and as a diffractive pedagogy to be solved in the mind.

## 2020, Bristol, England, Black Lives Matter Bristol, Colston Action

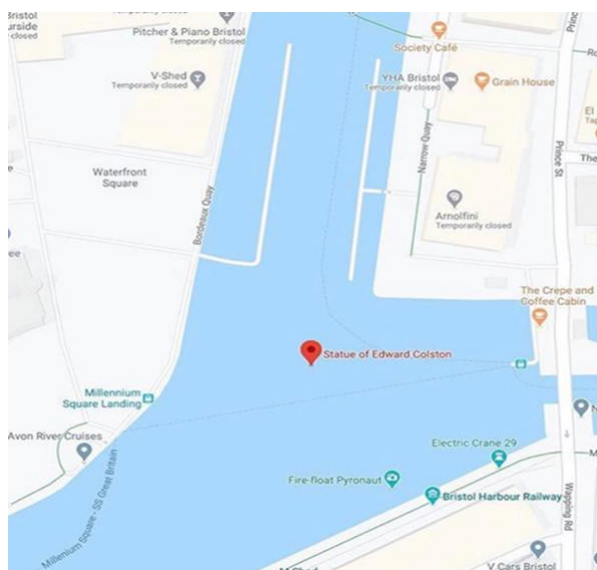


Figure 4: Screenshot of Google Maps showing John Cassidy's statue of Edward Colston in Bristol Harbour, 7th June 2020. Credit Google maps

In 1895, a statue of Edward Colston by John Cassidy was erected in the centre of Bristol, UK. Colston's wealth, accumulated by transporting 84,500 enslaved people to the Americas (19,300 of whom died in transit) through the Royal Africa Company (Nasar, 2020, p. 1218) has been central to urban development of Bristol, yet since the 1990s, campaigners have called for the statue to be removed. On the 7<sup>th</sup> of June 2020, Black Lives Matter Bristol took matters into their own hands and dismantled the statue and pushed it into the harbour.

Occurring shortly after the murder of George Floyd on the 25<sup>th</sup> of May 2020, the spectacularised symbolism of these acts delivered a shockwave through British culture. A series of gestures instantaneously photographed and shared across the digital commons connected colonialism, enslavement, and institutional racism—Colston was blindfolded to show his indifference to the lives he took, a protester placed his knee on the statue's neck mimicking Floyd's murderer Derek Chauvin, Colston was dumped into the harbour like the bodies cast overboard on the middle passage, and a placard left at the base of the statue listed black people killed in British police custody. Reports were posted in the international press and in the following days statues of Churchill and Cecil Rhodes were called into question.

Proving Gramsci's maxim "destruction is difficult" (2007, p. 25), these actions demonstrate iconoclasm—image (*eikon*) breaker (*klastes*)—to be productive activity.

Having been thrown into the harbour on Sunday, by Thursday Colston had been dredged by the council, and placed in store, like some return of the repressed. Conservation work is ongoing to preserve the statue, graffiti and all. The unseating of Colston should be understood as part of a chain of co-related actions. The following week political reaction brought the action into question, obscuring the opportunity for the recognition of those killed and enslaved by Colston that the Black Lives Matter action briefly achieved. The leader of the Labour Party Keir Starmer called the action “completely wrong” (cited in Walker, 2020, n. p.), French President Emmanuel Macron spoke of “historic erasure” (cited in “France won’t ‘erase’ history,” 2020, n. p.) as if this were not the function of Cassidy’s statue in the first place, and the UK Prime Minister Boris Johnson simply cried “thuggery” (cited in “Boris Johnson: Anti-racism protests,” 2020, n. p.). More ominously, the Conservative government mooted increased jail terms for desecration of war memorials and the grave of Scipio Africanus—an enslaved man laid to rest in Bristol—was vandalised. The future of the statue appears to be museum display. According to curator Ray Barnett, the display of the statue will show “people what he represented and what he represents today” (cited in “Inside the secret facility,” 2020, n. p.). This ‘analytic’ approach demonstrates awareness of how museums have historically paraded partiality as objectivity, yet also retools disinterestedness as arbitration. The differing ratios of force manifest within this chain of actions shapes the untimely jostling of the historic within the contemporary, endlessly redrawing networked relations shaping conjunctures—the field in which schizopedagogy of Black Lives Matter Bristol continues to play out.

In schizopedagogy there are no outcomes, only multiple processes and ongoing flux that are the actualisation of wider eventual processes. The power of unseating Colston belongs to its capacity to carry forth ideas of justice, recognition, freedom, dignity, and respect by reconfiguring the social materiality of these seemingly intangible aspects. The bronze cast into the shape of Colston, the stone plinth that gave him his stature, and the harbour water that gave channel to his trade suppressed these ideas: the reframing of these sites within different signifying chains is the condition of redrawing the histories they articulate. Deleuze (1990, p. 151) explains such changes in states of affairs as a “mobile instant” in which the broader and deeper processes that constitute events are represented. He furthermore claims we need to account for ideas by attending to their generation in “the very being of the sensible: difference, potential

difference and difference in intensity” (Deleuze, 1994, p. 57). Ideas are multiplicities, actualised out of an intensive flux subtending states of affairs. Justice, recognition, freedom, and dignity are events cycling in intensive fields, oscillating in the having taken place and to come of the Colston statue. To articulate the capacity for events to transform states of affairs, Deleuze draws upon the words of the poet Charles Péguy. “Events have critical points just as temperature has critical points—points of fusion, congelation, boiling, condensation, coagulation and crystallisation” (Deleuze, 1932, p. 269). Black Lives Matter Bristol brought the injustice of Britain’s institutional racism to a critical point, producing a rhythmic wave of dissensus set within wider currents of desiring production, some expediting its project and others arresting its movement. The drama of revolutionary action is not the guarantor of change, which occurs at the deeper level of the event.

Desire, Deleuze and Guattari (1994, p. 118) claim, is revolutionary and “potentially capable of demolishing the social form.” Yet desire can also be harnessed to exploitation, servitude, and hierarchy. Like the feedback structure of association comprising signifying chains, the historic recursion of racism, whose contemporary manifestation Saidiya Hartman (2017) identifies with dispossession, subordination, indebtedness, inferiority, and domination has led Patterson (1982) to develop a thesis of social death underpinning Afro-pessimism. He claims colonial subjugation can be reproduced with shocking effectiveness at economic and ideological levels. Yusoff (2018, p. 16) relates such conditions to Black Anthropocenes, identifying enslavement as a “geologic axiom of the inhuman in which nonbeing was made, reproduced, and circulated as flesh.” In the latter case, experimentation upon the body without organs needs to function through critical institutionality, focusing upon structural privilege. The action of Black Lives Matter Bristol cannot save historic wrongs, but it can contribute to the project of resetting narratives of colonialism in a way bell hooks (1989, p. 15) describes as “moving out of one’s place.”

The critical cartographies of schizoanalysis provide a way of enumerating histories of material-semiotic entanglement that structure racialisation and provides a process of creative reconfiguration which inheres potential for their ethical resolution. Schizopedagogy is disarticulated normativity. Its lessons operate as staccato jumps across ramifying phenomena. One exercise is to piece together deterritorialised components into a mosaic one can survey. We also call this solidarity, and it is how



we are seeking to write now. Schizopedagogy is always a group activity, even when undertaken by individuals—at La Borde, Guattari (2006, p. 144) sought to produce a “group drive.” Such an arena of collective un/learning and becoming might approach racial identity based on exchange and creative reconfiguration to redraw its bounding enclosures. We now turn to the work of Howardena Pindell, who exemplifies this approach.

### 1980, New York, Howardena Pindell, *Free, White and 21*



Figure 5: Howardena Pindell (1980), *Free, White and 21*. Single-channel video (colour, sound; 12:15 minutes).  
Courtesy the artist and Garth Greenan Gallery, New York

When I was in kindergarten, I had a teacher who was not very keen on black students. There were very few of us possibly two in the kindergarten class, out of a class of perhaps forty. During the afternoon hours we were given a time to sleep. Each of us had our own cot and we were told if we had to go to the bathroom, we should raise our hands, and one of the teachers would take us to the bathroom. I raised my hand, and my teacher flew into a rage, yelling ‘I can’t stand these people’, and took out sheets and tied me down to the bed. She left me there for a couple of hours, and then finally released me. One of the students filed a complaint, perhaps to a parent who did not know I was black, perhaps the child did not know or had not learned to differentiate race at that point in time. I later found out that that teacher had been fired for bothering a student. Perhaps I was not the first one. (Pindell, 2020, n. p.)



Howardena Pindell recounts this childhood trauma to the camera in her video work *Free, White and 21* (1980). As she utters the words ‘tied me down,’ Pindell starts to bandage her head as if dressing the wound of her own presence, then winds the bandage around her neck and pulls the cord as though tightening a noose. The sequence ends with an elongated still of this image. Around the central motifs of binding, covering, enclosure, and obliteration the sequence dialectically opposes the hateful objectification of her teacher’s deeds and the shame manufactured in Pindell by those actions, framing these finally within an image of lynching.

Pindell’s work is a schizoanalysis of her subjectivisation through a sequence of racist abuse. It frames Pindell as a figure agitated by such a “positionality of ‘absolute dereliction’” (Wilderson III, 2017, p. 67) within a framework of universal rights, who has been made painfully aware of “subjugation that rights instigate and the domination they efface” (Hartman 2017, pp. 32-33). Pindell (2020) considers herself the opposite of “free, white and twenty-one” an American idiom meaning “beholden to no one.” There is no expectation of a sovereignty to come within the work (Fanon, 1963), which demonstrates such a figure to be “radically unwritten, and [...] enigmatic” (Marriot, 2018, pp. 1-2). Rather, we are presented with an artist scouring her identity in a manner akin to how Deleuze and Guattari (1994, p. 311) describe the task of schizoanalysis as “a complete curettage”—isolating herself before the camera, haranguing herself from the side of the screen in whiteface, listing experiences of racist abuse, and even mimicking the act of peeling her own skin. This is a nomadic unlearning—an act of escapology. A similar position is taken up by Fred Moten (2017, p. 234) who questions the value of committing to definitive predications of blackness in yet another act of mastery, critiquing Fanon’s “rubric of epidermalization, which is yet another form of enclosure.”

Pindell uses video performance as a schizopedagogic enclosure; a frame that connects overt racist aggression with covert institutional racism, revealing both as absurdities. The process is akin Jack Halberstam’s (2019) strategy of wildness and results in a production of excess. E. Patrick Johnson (2001, p. 3) identifies with the term “quare,” which he considers “offers a way to critique stable notions of identity and, at the same time, to locate racialized and class knowledges.” One way to think about the queering undertaken by Pindell is as creative mobilisation of the resonance between racist behaviour directed towards her and her own reactions to that

behaviour. In this process Pindell engages her personhood as a semiotic/material knot, and makes different temporalities converge—pasts from which she takes flight, the present in which to experiment, and futural becomings to anticipate. The work's recollections, mimicry, and physical transformations disarticulate, traversing the interval between realised modes of identity and fully present intensive potentials. *Free, White and 21* confronts us with the problematically impersonal nature of subjectivity. The work is a traumatised replaying of shocks, and an elongated arrest of formative experiences in crystals of diffractive unlearning. In each of her strategies, the point of counter-actualisation at which the constructed subject and immanent singularities touch is the spark that sets this process in motion. In these terms *Free, White and 21* can be read through the Deleuzian notion of the crystal image. Deleuze (1997) claims,

The crystal image stands for its object, replaces it, both creates and erases it [...] and constantly gives way to other descriptions which contradict, displace, or modify the preceding ones. It is now the description itself which constitutes the sole decomposed and multiplied object (p. 126-128).

*Free, White and 21* stages encounters with the inhuman as disarticulating force of a counter-actualisation. Diffraction disarticulates material-discursive assemblages to produce, in the words of Donna Haraway (1997, p. 16) “more promising interference patterns on the recording films of our lives and bodies.” Facialisation machinery connects identities through intersecting feedback loops networking social, political, historical, economic, and geologic fields. Pindell's video work is a visceral unpicking of these dynamics.

### **1957, Martinique, Aimé Césaire's *Lettre à Maurice Thorez***

If schizopedagogy enacts solidarity as intra-subjective development across social fields by exposing the double bind it also foregrounds inequalities between enclosures, otherwise obscured by universal rights. Respecting this point, we end by emphasising that whilst relational ontologies make a value of connection, solidarity can mean asserting enclosures in the interest of equality. Thus, we conclude with the example of Martinican poet and theorist Aimé Césaire's resignation from the French Communist Party (PCF) on the grounds of a disconnect he observed between the internationalism of European Marxist organisations and anticolonialism of Third-World activism.

Césaire (2010) considered that unity within a Caribbean context was superior to the general sense of unity offered by the PCF, which he believed committed the struggles of former colonial nations to its margins. The double-bind is obvious, and we express solidarity with similar calls made by *The Free Black University* (Owusu, 2020) to operate in the undercommons outside the British university system or para-institutional structures as per *Dark Study* (2020). Césaire (2010, p. 148) also held out a hope of a “form of organization as broad and as flexible as possible, capable of giving impetus to the greatest number.” If such hopes are achievable, ideas of equality, justice, and solidarity that animate organised struggle should be conceived as virtual intensities diffracted through specific discontinuous groups and struggles, not as blunt ideological distortions common to none. Common struggle is the diffraction of an equality, a justice, and a solidarity specific to each, diffracted across the whole. The critical cartographies we have examined clear space for solidarity as the theme of art-pedagogy-to-come. Racism, whose event spans history, recurs as a multitude of violations and denigrating motifs. In our situation racism is articulated across social fields and through state apparatuses, so what is immediately necessary is the dismantling of racist assemblages to make it possible for alternate non-racist structures to emerge. Racism in all its literal and structural variants rests in attitudes and practices. The point is to change those attitudes and practices and through this process ourselves. George Floyd, Rest in Power.

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## Measuring Monsters, Academic Subjectivities, and Counting Practices

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### Abstract

In this paper, we explore the online academic research platforms we are entangled with as tenure-track faculty members in the neoliberal university. We are so embedded in these systems that the assumptions and constructions inherent in practices of counting are often lost, wrapped in the coils of counting practices—a becoming with algorithm. Though academic platforms are intricately enmeshed in our research and lives, they have been operating as “onto-epistemological blind spots” (Sweet et al., 2020, p. 2). And yet, the numbers they produce and rely on (H-scores, impact factors, citation counts, and journal rankings) matter and are “promiscuous and inventive in [their] agential wanderings” (Barad, 2015, p. 487), offering possibilities for intimacy and response-ability to what we are and might become. In other words, attending to the monstrous qualities of counting practices offers an entry point for re-thinking the relational, ethical, and affective aspects of academic subjectivity. So, we attend to *these* qualities to become with the neoliberal counting and control mechanisms in innovative ways. Through this paper, we open ourselves to the wild possibilities of academic algorithms, working within and thinking with counting practices to intimately understand the ontologies of number at work in these platforms and how they work on our subjectivities. As we consider how our futures are being modelled and pre-empted, we think the algorithms in relation to feminist new materialist philosophers, Rosi Braidotti and Karen Barad. We ask: ‘what if?’ we were to think ontologies of number with these theories and see what possibilities emerge. We entangle Braidotti and

Barad with Deleuzoguattarian philosophies to imagine different relational becomings; to construct new ways of attending to our monstrous potentials and possibilities.

## Keywords

Measurement; algorithms; citational politics; counting; subjectivity; new materialisms

*Congratulations, you reached a milestone.*

*... was your top paper this week.*

*Your weekly analytic snapshot...*

*... you were cited by an author from*

*A researcher is following your updates...*

The cadence of these notifications is familiar to academics; email subject lines coerce clicks through mentions of citations, downloads, and reads. Clicks become data points that accumulate to H-scores and numbers of views and mentions. Data points that, ultimately, are gathered together into counts and proffered to show that we deserve (or do not deserve) recognition as a legitimate academic subject. These are pseudo-scientific refrains that both intoxicate and anaesthetise us in our homogeneous academic becoming (Guattari, 2000). Various counts accumulate to produce the academic body and perpetuate the appearance of difference all while desingularising and domesticating. In other words, counting practices and data points become mechanisms of a society of control (Deleuze, 1992). Counting is a boundary-drawing practice; a way of separating, sorting, and organising so that academics may be recognised as valued and individuated subjects. At the same time as counting practices are used to divide and separate, a new normal is also created through the collection of counts. Algorithms are used to model concepts such as impact and then produce numbers that represent an academic body's potential/past/future in the field. Though these models are intricately enmeshed in our research and lives, they have been operating as "onto-epistemological blind spots" (Sweet et al., 2019, p. 2) both

blocking and distracting us from relational, ethical, and affective aspects of our lives and what we might be becoming.

With this paper we seek to make kin with the wild possibilities within academic platforms—to draw lines of inventive connection with ubiquitous contact zones while “cultivating response-ability” (Haraway, 2016, p. 104). To do so, we crawl along the undulations of counting practices in academia to work them and think them differently while asking:

- 1) How are academic platforms producing the concept of scholarly impact?
- 2) What assumptions, forms of content, and forms of expression do the platforms’ information ontologies rely on?
- 3) How might thinking counting practices with feminist new materialisms offer different imagined futures for academics within the neoliberal academy?

In what follows, we first situate our inquiry in the theory and research on counting practices and algorithms. We explore how algorithms function in higher education and what they produce—particularly centring on the production of the neoliberal academic subject. We then offer Rosi Braidotti’s (2006, 2013, and 2019) nomadic ethics and Karen Barad’s (2007) specific material arrangements for knowledge-making apparatus as philosophical entry points to upturn the logics of counting practices. Guided by Braidotti and Barad, we turn to specific examples of counting practices, namely, the academic research platforms, ResearchGate, Academia, and Google Scholar. We explore the assumptions and logics of these platforms before imagining with Barad and Braidotti how we might enact our engagements with them differently and cultivate wild possibilities with/in the academy.

## **Counting Practices, Algorithms, and the Neoliberal University**

As qualitative researchers, we share a history of complicating and opening up possibilities for knowledge productions rather than reifying stable definitions of ‘good’ teaching, assessment, or research (e.g., Cannella et al., 2015; Koro-Ljungberg, 2015; Roulston & Bhattacharya, 2018; St. Pierre, 2014). The authors of this paper share a concern for the emerging and pervasive ways that academics are being counted and measured. In our current positions as tenure-track faculty engaged in the neoliberal

academic marketplace, we often find our conversations circling and congealing around the ways we are counted. We fret over these counts as forecasting devices, scrying into our futures, Magic 8-Balls that continually respond ‘reply hazy’ and ‘concentrate and ask again.’ Our conversations have intensified and layered in the past several months as the global crisis of COVID-19 has heightened anxieties and drawn attention to counting practices. The role of algorithms in producing academic subjectivities is not simply located in the relations between academic bodies, publications, and citation scores. Rather, as the COVID-19 pandemic has also emphasised, algorithms spiral out to other counting mechanisms of university rankings and resource distribution, implicating the neoliberal production of the university itself. Specifically, the practice of ranking or stratifying universities is entangled with the practice of measuring faculty. Counting practices, creating coiled and tangled boundaries around academic impact, have become a taken-for-granted part of the everydayness of what it means to function at a university.

As Gilles Deleuze (1992) wrote on societies of control, “the brashest rivalry [is constantly presented] as a healthy form of emulation, an excellent motivational force that opposes individuals against one another and runs through each, dividing each within” (p. 5). The coils between university rankings and academic merit or impact has produced a desire for “auditable practices, [that have] turned academics into de-individualised members of an auditable group” (Angervall, 2018, p. 106). Becoming an academic is a process of becoming-countable, becoming domesticated in particular ways, seeking practices of recognition through citation scores, scholarly impact, and legible research trajectories. Numbers, as Deleuze and Félix Guattari (1987) wrote, function with the state to “gain mastery over matter, to control its variations and movements” (p. 389). In the neoliberal university, relationships, and collaborations only matter if they are seen or counted by an algorithm (Monea, 2016) or if they make us more productive academic subjects (Cannon & Cross, 2020).

Academic subjects, then, are becoming with what John Cheney-Lippold (2011) termed a “new algorithmic identity” through the collection and analysis of scraped and siphoned data (p. 165). Through the counting practices embedded in platforms such as Google Scholar, ResearchGate, and Academia, academic identities become explicitly visible and are measured in relation to the spectre of a ‘super scholar;’ a production machine whose citation counts and reads are steadily on the rise, who can

always click the button labelled 'add new research.' The super scholar is simultaneously visible and invisible. It is the motivational force for our emulation, even as it is only a disembodied algorithmic ideal toward which we strive with each click and upload. We are tied to this super scholar through measurement practices that draw lines between past-present-future versions of ourselves—lines that domesticate us, keep us in line, rein us in. The numbered number of the neoliberal academic subject is one of cadence and measure, a tempo keeping us in line (Deleuze & Guattari, 1987). And yet, the tethers of domesticity in academia are not only cast by external forces, rather, we are implicated in our taming.

## Recalculation and Potential

The algorithms of academic platforms, claiming to measure and increase our impact and create a more transparent academic subject, are constantly recalculating our subjectivities. Cheney-Lippold (2011) described this process as a form of control and discipline, writing, "as more data is received about a certain user's behaviour online, new coded computations can be done to change who the user is believed to be and what content that user might desire... in this constant feedback loop we encounter a form of control" (p. 168). In a double-bind of transparency-recalculation, practices of counting act as systems of control, passcodes that "mark access to information or reject it" (Deleuze, 1992, p. 5). Numbers function as internalised disciplining devices. Data, defined and organised by the algorithms within and outside of the online academic platforms, draw boundaries about what behaviours are valued, as well as how they are defined and can function. Data, then, become a mechanism for cultivating good academic subjects as well as the means by which these subjects are contained.

Data are collected to measure and account for the academic impact of individuals from different fields and disciplines, the differences between individuals are subsumed into computational norms for academic publishing. A pattern emerges as to what is expected from x academic in x field. Deviations, or spikes, from the computational norm are met with fear and resistance (Pasquinelli, 2016). In this form of control, there is modulation and tuning to the computational norm, the ideal of the super scholar—away from the spike, away from deviation. Matteo Pasquinelli offered the spike as a

potential for “more complex architectures of knowledge” (2016, p. 260). Thus, by leaning into the spike, seeking deviation, one might find wild possibilities away from—and yet still in relation to—the line of control.

Anomalies born out of the norming of diverse data points are one potential for wilding. Luciana Parisi (2013) cited another potential in the algorithms themselves. She proposed that algorithms are not inert and docile but are objects that seize and grasp. In other words, algorithms contain within them a feral quality, anomalies, the potential for wilding. Wilding, (de)cultivating, varying, proliferating. An algorithm within these platforms assigns a value to a scholar’s impact, there are temporal and qualitative variations that are incomputable. Algorithms, rather than being pure devices of control modulate “like a self-deforming cast that will continuously change from one moment to the other, or like a sieve whose mesh will transmute from point to point” (Deleuze, 1992, p. 4). These variations span from author order and journal reputation within a field to the more affective qualities of collaboration, resonance, or possibility produced through and within the doing of academic work. These and other incomputable data, Parisi (2013) argued, are contagions within computations. Similar to Cheney-Lippold’s assertions, the computations, and thus the representations of scholarly impact take on a life of their own, escape domestication. Thus, even as data metrics act on/with us to control and contain our movements in particular ways as academics, they also produce the possibility for other becomings. Reaching into the past and future, the pre-emptive measurements of impact amount to what Parisi (2013, p. 85) termed “post cybernetic control”—not just tracking movement but generating possibility for future movements and interactions. Therefore, within algorithms there exists the simultaneous potential for control/domestication and possibility/wilding through recalculation. The space between control/possibility and domestication/wildness is what we aim to explore and make kin with through this paper. There are, we argue, possibilities in the computational contagions that allow for wild possibilities and potentials.

## **Becoming with Counting Logics**

The neoliberal logics that are enmeshed in counting practices and platforms seep and creep into our various material becomings. We, the authors, and perhaps other



academics, continue to comply, continue to be pulled by the numbers, the counting. We are pulled to perform in relation to the number, to be counted, to count. And yet, we resist the one-way pull to be domesticated, to be docile. Our academic bodies become monstrous as we paradoxically mutate, simultaneously seeking resistance to and visibility within the neoliberal university. We are beyond and outside ourselves, and through leaning into the contagion in the platforms, we become differently.

We have witnessed how these counting practices shield from view and minimise the visibility of the concrete labour, the day to day-ness of student meetings and relationships with colleagues and reading groups (Caddell & Wilder, 2018; Flint & Guyotte, 2019; Hepler et al., 2019; Nxumalo et al., 2020). In research meetings, we calculate how a potential publication might count or not before we have even begun the writing. Futures are foreclosed by a speculative accounting and attention to the production of our academic subjects in line with that (and other futures) (Myers, Cannon & Bridges-Rhoads, 2017). To be clear, the authors are not opposed to the use or consideration of numbers or counting practices altogether—we are not opposed to some cultivation. However, we wonder how particular practices of domestication become dangerous and foreclose possibility in the academy, and how, we might cultivate other (wilder) possibilities of becoming academic. In the following section, we seek to consider how data/numbers are “inserted into specific assemblages and what is expressed through this operation” (Sellar & Thompson, 2016, p. 500). We wonder, how are we becoming with particular counting practices? How do counts inform our ways of relating in the academy even as we consider resisting them?

## **Wild Possibilities through Nomadic Ethics and Apparatus**

As we consider how our past/present/future academic subjectivities are modelled and predicted, we think the algorithms in relation to feminist new materialist philosophers, Braidotti and Barad. We think counting practices together-apart, wondering, what does it do to think ontologies of number with these theories, what falls apart? What possibilities emerge? We recognise the ways in which we are tied to and bound to our “large object of critique” (Colman, 2020, p. 1) and in response we ask, “what if...” a question that “enables the possibility of finding what will engender better conditions for all forms of life” (p. 17).

Specifically, we ask what if we take up Braidotti's (2006) ethics of nomadic subjectivity? A nomadic ethics "rejects moral universalism and works towards a different idea of ethical accountability in the sense of a fundamental reconfiguration of our being in a world that is technologically and globally mediated" (p. 15). Nomadic ethics, which builds from Deleuze's immanent relational ontology, envisions an affirmative and non-unitary subject in contradictory social relations, a subject that has the "desire, the ability, and the courage to sustain multiple belongings in a context which celebrates and rewards Sameness and one-way thinking" (Braidotti, 2006, p. 69). What if, we thought algorithms with other multiple belongings? What if, instead of sameness, we sought the spike?

While Braidotti offers the 'what if' of experimentation and proliferation, Barad provides a framework for thinking ourselves together-apart from the numbers and counts that become representative of us. Through her tracing of the philosophy-physics of Niels Bohr, Barad (2007) reconceptualised objectivity and measurement within a posthuman ethico-onto-epistemology. Building on Bohr's indeterminacy principle, she asserted that the properties and boundaries of phenomena only become determinant through intra-actions which "enact agential separability" (Barad, 2007, p. 140). This enacted separability is the cut together-apart. The cut both separates the phenomenon and binds it as a unit. The cut is an ongoing enacted making and remaking of the subject/object, not in any way a permanent cut. Yet, each cut, each measurement, each citation, is reconfiguring the world.

We wonder as part of this work how we might creatively and response-ably be in touch with these measurements and accountability practices differently to create other consequential meanings. Barad (2012) proposed that,

measurement is surely a form of touching [...] a highly developed sense of touch, a feel for the instruments and molecules at hand. ('Good hands,' that's what it's called.) And touch engages us in a felt sense of causality, whether we generally acknowledge that or not, and whatever it is we may think of this charged and highly important term. Touch moves and affects what it effects. (p. 208)

In this (re)search engagement, then, we touch and lean closer to the measurements that we are becoming with as academics. We ask, what if, we experiment with a kind

of “self-touching:” “an encounter with the infinite alterity of the self” (Barad, 2012, p. 213) that is a doing and undoing of academic identity—simultaneously affirming and making indeterminate—a creating of difference within the strangely familiar. What if we acknowledge how we are in touch with the platforms, the norm and the spike, and the algorithm and its contagion?

## Academic Platforms

We focus our inquiry specifically on the counting practices of the academic networking platforms Academia, ResearchGate, and Google Scholar. Each of these sites offers a way of measuring academic influence or impact—through Google Scholar’s H-score, ResearchGate’s RG, and Research Interest scores, or through site visits and mentions on Academia. We argue that although the academic subject is (re)produced through the counting practices of ResearchGate, Academia, and Google Scholar, the reproduction is not regular, logical, or well-defined. Rather, it is monstrous, or what Elizabeth de Freitas (2016) described as “machinic but non-axiomatic” (p. 463), and what Deleuze (1992) described as “undulatory, always in orbit, in a continuous network” (p. 6). Weaving together the orientations of nomadic ethics of Braidotti and attention to knowledge-making apparatus of Barad, we began by noticing and collecting the numerous indicators and enticements sent to our inboxes regarding our scholarly ‘impact.’

Following Braidotti’s urge to decelerate and seek affirmative modes of relating, and layered with Barad’s emphasis on attending with response-ability to specific material arrangements of knowledge-making apparatuses, we turn next to Sam Sellar and Greg Thompson’s (2016) work to trace the ontological and epistemological assumptions underlying the assemblages of academic research platforms. Given this data, we then retheorise and reimagine how the assemblages would function and warp if we thought the assumptions underlying their form with Braidotti and Barad. Warping and stretching these assumptions, wilding, (de)cultivating what has been taken for granted, allows us to see how the differences in knowledge making practices matter in ethical and material terms. We imagine in excess of the platforms to proliferate reconfigurations of academic subjectivity and measurement.

## Specific Material Arrangements: Givens, Forms, and Expressions

Similar to Deleuze and Guattari's (1987) assertion that when considering numbers, "the question is not one of good or bad but of specificity" (p. 290), Sellar and Thompson (2016) noted that, "our concern is not with the veracity of data in any particular case, but rather to understand how information ontologies transform data into information, and the implications of this transformation for learning" (p. 495). Sellar and Thompson argued that the assumptions undergirding the givens, forms of content, and expression of information assemblages work in concert to govern and control subjectivities. In what follows, we move within ResearchGate, Google Scholar, and Academia to ask the questions: What are the givens? What are the forms of content? And what are the forms of expression? Through this tracing, we explore the assumptions operating within each of these counting systems before moving through how these assumptions become in conversation with Barad and Braidotti.

### Givens

All three systems rest on the fundamental premise that a scholar's impact can be measured, tracked, and predicted based on interactions with other scholars, including citations, mentions, reads, and downloads. Impact flows from the quantity of these interactions and from their spatiotemporal reach. Impact is put forward as the key given in academia and is assumed to be linearly expandable.

*Add new research.*

*Add your co-authors.*

*Boost your score.*

*Add your skills and expertise.*

*Increase your impact.*

These prompts, a small sample of provocations that litter the websites and email notifications generated from the three sites, are based on a premise of givens. This line of thought and assumptions are further laid out by ResearchGate in their description of their presumed cycle of impact:

*When researchers read, recommend, or cite a research item, its Research Interest goes up. Based on our data and feedback from scientists, we chose to focus on these interactions to reflect the lifecycle of a scientist's increasing interest in a piece of research. First, a researcher accesses a research item. If it sounds of interest, they may read the full-text (if it is available). If they like what they read, they might recommend it. And if the work is really relevant, they might cite it in their own research. (ResearchGate A, n. d.)*

Thinking with Sellar and Thompson's (2016) interrogation of information ontologies, there are moral givens suggested by these statements—the linear assumption that reputation 'in the hands of researchers,' as Research Gate described it, is a good thing. Simultaneously, there is the assumption that numbers can represent scholarly quality or impact on a field. Further, this indicates that the numbers can become emancipatory in some way, can allow us to prove ourselves. Inherent in this logic is a presumption that impact is out there and measurable. We just need to have the right tools to measure it. We can control our impact through particular actions, through increasing our network.

*Track your growing reputation. (Academia)*

*People are reading your work. (ResearchGate)*

*2 Days Only, Get 50% Off Premium: Make the Best of Uncertain Times. (Academia)*

Present in these calls and prompts and notifications is a neoliberal logic of rational choice and free will. If you are a rational academic, you will make good choices and be counted. You will make the best of these uncertain times by purchasing a counting system to help you better track your academic life. The alternative assumption, then, is that if you do not adhere to the counting logics you are irrational, and you will fail, and that the failure would have been preventable. Like most neoliberal logics, this 'choice' is presented and is presumed to be natural and easy, as Google Scholar puts forward,

*Google Scholar Metrics provide an easy way for authors to quickly gauge the visibility and influence of recent articles in scholarly publications. Scholar Metrics summarize recent citations to many publications, to help authors as they consider where to publish their new research. (Google Scholar, 2019)*

The logics and counting are presented as helpful and necessary. It is assumed that you desire this counting, that you want to be as counted as possible. Further, the systems also put forward the message that an individual scholar has the agency to increase their impact (or not) through defined and specific actions, like inviting their co-authors and posting links to articles through other networking sites. Yet these forms are controlled and confined: ResearchGate, Google Scholar, and Academia all instruct academics what to do, defining what counts, they domesticate, cultivating particular actions. For example, there is the assumption that older work matters less than newer work (emphasised by the buttons on all three sites urging researchers to ‘add new work’), that who reads or engages with your work matters (“*The name M. Flint is mentioned by a well-known author on Academia*”). It matters who reads your work and where they are from, who desires you and your work.

*Get all the tools and information you need to advance your academic career.*

*We continuously monitor your Mentions and notify you. (Academia)*

*You may be missing out on more than you realize. (Academia)*

## Forms of Content

Sellar and Thompson (2016) described forms of content as “any actions, bodies or things that can be interpreted in standardized ways by information ontologies” (p. 498). Clicking through the back end of ResearchGate, one can find a recipe for a score:

*A read\* has a weighting of 0.05.*

*A full-text read\* has a weighting of 0.15.*

*A recommendation has a weighting of 0.25.*

*A citation has a weighting of 0.5.*

Asterisks and peripheries abound though a reader has to only scroll further to find additional definitions, more boundaries of content. Somehow the value of a citation has been assessed to be worth ten times a read. A read is defined as when “someone views a publication summary or clicks on a figure, whereas a ‘full-text read’ is counted when someone views or downloads the full-text” (ResearchGate C, n. d.). The site notes that reads by people who are not ResearchGate members do not count, noting



that “by only measuring interest from scientists that have logged in to ResearchGate, we can provide the ‘who’ behind the metrics, a key part of understanding how an author’s work is being received” (ResearchGate B, n. d.) The standardisation then, defining what ‘counts’ as content, produces academic bodies that can only be defined in particular ways. Some interactions count more than others, interactions layer, congeal, overlap to produce a scholar visible through the platform, valuable-identifiable through a number or score.

*Adding your lab affiliation to your profile will help more researchers in your field connect with your work on ResearchGate.*

*Your publication has a new achievement. (ResearchGate)*

Google Scholar (n. d.) writes that their asterisk indicates that their cited by count includes citations that might not match the article. It is an estimate made automatically by a computer program. They note that you can “check these citations by clicking on the article’s title and looking for ‘scholarly articles’ with a \* next to their title” (Google Scholar, n. d.). Algorithms counting and recounting reads and citations have the potential for wildness in the asterisk; potential for variation. And yet, even with—and particularly with—the hedging of the asterisk, the danger in these systems is that they are presumed to be linear and stable, molehills rather than the coils of a snake (Deleuze, 1992). In other words, “only certain aspects of a world are ‘sensible’ to information ontologies and the algorithms these support” (Sellar & Thompson, 2016, p. 498). The presence created online is a distortion of our academic subjectivity, a body that both is and is not our self. There is simultaneously a magnification of the importance of our work and at the same time a false narrative of who you are, who you can be. For example, a sample of the daily updates from Academia received by Maureen over the course of a week:

*‘M Flint:’ 34 new mentions, including one in a Microbiology (medical) paper.*

*‘Flint, M:’ 5 new mentions, including one in a General Medicine Paper.*

*The name ‘Maureen Flint’ has 14 new mentions.*

M Flint; Flint, M; Maureen Flint. As a qualitative researcher whose work has centred on higher education contexts and artful methodologies, the likelihood that a paper from general medicine or microbiology might mention this particular configuration of

Maureen Flint is almost laughable. And yet, there is a push/pull of desire here. What might it do to explore the possibilities of inter/transdisciplinarity that Academia and ResearchGate exuberantly, wildly, monstrously propagate? How might these pushes start lines of inventive connection, practices of (de)cultivation, sparking joy or creativity, or even perplexity in their nonsense? How might we respond to these monstrous, wild, misrecognitions? How might we work against/within it, shifting against the logics of domestication and tameness?

### Forms of Expression

Sellar and Thompson (2016) defined the forms of expression as the “set of rules for converting test-taking and ‘learning’ into outcomes via the interpretation, analysis and coding of the given data to generate information” (p. 498). Reads and cites and mentions and recommendations congeal to produce a score, a percentage, a count.

*People are reading your work. (ResearchGate)*

*Your weekly stats report is here. (ResearchGate)*

All three of the counting systems present graphs, charts, and analytics compiled daily for the desiring academic. In addition to enticing users to compare themselves to others, these graphs tempt the researcher to participate in a form of self-touching and provoke the comparison between past present and foreseeable future selves. Academia’s ‘impact’ page measures unique visitors, downloads, pages read, and views, along with the country, city, research field, job title, traffic source, and university of origin of your engaged readers. These counts are compiled by the minute, in a chart documenting the city and country of origin of your viewer, blurring out some information behind a paywall (upgrade to view). ResearchGate, likewise compiles reads and citations and mentions into a score displayed next to your name, also compiling your stats and scores into graphs and charts, tracking the undulations of citations, recommendations, reads, full-text reads, and research interests on your stats page. Your count is compiled into a single RG score composed of publications, questions, answers, and followers, and an h-index, defined as “an author-level metric that measures your research output and its citation impact. It is based on a set of your most cited work and the number of citations it’s received” (ResearchGate C, n. d.). You are placed in a percentile (“*Your score is higher than 50% of all ResearchGate*

*members' scores*") and a helpful box at the top and bottom of the screen beckons you to *"Add more research. Boost your scores. Help create more exposure for your work by adding more of your research."* Finally, Google Scholar tracks citations over time, a graph charting the number of citations oscillating over time, capped off by a small chart documenting citations, H-index, and i10-index, "the number of publications with at least 10 citations" (Google Scholar, n. d.).

Forms of expression, counts, scores, stats congeal into charts and graphs and visualisations that (re)present and offer up a snapshot of academic productivity—impact. Measuring is an ethico-onto-epistemological practice, which according to neoliberal logics, helps us stand in the right place and offers the comforting promise of domestication. And yet the ground is not stable; domesticity uncomfortable. The ground begins to quake and crumble upon closer examination. H-indexes differ across sites. Stats and scores vary across fields. Inboxes are flooded with emails about articles presumed to relate to your own. Within these gaps and misrecognitions, there is a possibility to become differently, to orient affirmatively, to disrupt and create lines of inventive connection. Cultivate in excess of docility. In the following section, we return to Braidotti and Barad to explore how we might spark joy or creativity within these counting metrics. We consider how these metrics might create the possibility of perplexity, bewilderment, a productive and generative wildness. As Halberstam (2019) noted of Facebook in relation to friendship, these systems "co-opted" scholarship and "turned it into a vector for capitalization, advertising, and networking" (para 20). In response, we seek ways to produce other vectors, mutations, and detours, cultivating wild becomings.

## **Proliferating Indeterminacy**

Braidotti (2019) writes that, "situating knowing subjects as immanent to the very conditions they are trying to understand, change, or resist, means that critical thinking is about being able to make a careful ethical distinction between different speeds and territorializations of both knowledge and subject production" (p. 154). We are immanent to, or in Barad's (2007) terms, in intra-action and co-constituting the world with, these counting metrics and academic platforms. And yet, as we have argued through mapping the givens, forms of content, and expression, our academic

subjectivities already have an air of the monstrous about them, many headed Scylla (H-scores, RG scores, reads, and counts contradicting, proliferating), swirling Charybdis (email pings: people are reading your work, you have a new reader), gate-keeping Sphinx (upgrade to view your mentions), all-seeing Argos and scrying, future peering Centaurs (watch your impact rise).

Thinking these platforms with Barad and Braidotti allows us not just to reject these mythical potentials as bad or good, but to think of them as specific material arrangements co-constituting this thing called impact. Taking up this view, we can return to our 'what ifs'.

### **What if, Nomadic Subjectivity?**

We asked, what if, we were to take up Braidotti's (2006) ethics of nomadic subjectivity? In order to enact this 'what if' with Braidotti, we take up the following ethical rule that "to be worthy of our times' we need to change our approach and view historical contradictions "not as some bothersome burden, but rather as the building blocks of a sustainable present and an affirmative and hopeful future, even if this approach requires some drastic changes to our familiar mind-sets and established values" (Braidotti, 2019, p. 3). Inspired by this rule, we approach the project of academic life as an ongoing process, a project of (de)cultivating linear docile practices, spinning web-like and poly-centred potentials, a project of developing a "working hypothesis about the kind of subjects we are becoming" (Braidotti, 2019, p. 2). Braidotti (2019) advocated for the necessity of this approach in light of the exhaustion typifying the present moment, exhaustion which is surely increasing in the midst of this COVID-19 here/now. More specifically, Braidotti has recommended practices of experimentation such as: cultivating deceleration, honouring complexity, and seeking ways to "rework together the negative experiences and affects that enclose us" (Braidotti, 2019, p. 169). These are not new calls to action as they make lines to Guattari's (2000) call for a praxic opening-out that is "precarious, finite, finitized, singular, singularized, capable of bifurcating into stratified and deathly repetitions or of opening up processually from a praxis that enables it to be made 'habitable' by a human project" (p. 53). A process of experimentation seeks (de)cultivation, unlearning that which has become sedimented in our being—an orientation to the wild potentials of algorithms.

All these platforms map who and where and how many but miss the momentum, potential affect, forces, flows - becoming wild(er)ness. As Braidotti (2019) wrote, “we have to learn to think differently about ourselves” (p. 166) and “every present event contains within it the potential for being overcome and overtaken; its negative charge can be transposed” (p. 167). Indeed, mythology is replete with tales of hero(in)es outwitting monsters, taming them, subverting the wild(er)ness to their will. Rather than accept this historical (and often patriarchal) legacy of the duality of good/evil, human/monster, wild/tame, we rather seek to embrace our response-ability to the monstrous. In other words, we are discontent to either uncritically be tamed by these systems, or to reject them all together.

Through the practice of continually locating ourselves as entangled with, producing, and produced by these metrics, pulling apart the givens, content, and forms of expression, we are unfolding the taken for granted assumptions of counting practices. This is a qualitatively different type of positioning, a different relation to the monstrous that is no longer about these measurements as static, as a status, something to be achieved or overcome, but about becoming and momentum. Braidotti (2006) described nomadic ethics as a,

choice in favor of the richness of the possible, an ethics and politics of the virtual that decorporealizes and deterritorializes contingency, linear causality and the pressure of circumstances and significations which besiege us. It is a choice for processuality, irreversibility, and resingularisation (p. 127).

With Braidotti, we can imagine the RG score as a vector into possibility; an invitation to wildly zigzag across multiple time zones, ping-pong and mentioning and citing across fields and disciplines, invoking a spirit of transdisciplinarity. The information ontologies of ResearchGate become an entry point for resistance; an affirmative politics of location that embraces asymmetrical starting locations and an affirmative ethical scholarly practice. Braidotti invites us to consider our citation and clicking practices as ethical moves. Our relations matter. Our clicks matter, producing academic bodies through the twitch of a finger. With Braidotti, these embodied movements are not a one-way linear causality, but a relational zigzagging between bodies and subjectivities that makes possible previously unforeseen resistances to logics of control and possibilities to become otherwise.

## What if? A Cut Together-Apart

With Barad, we asked, what if we acknowledge how we are in touch with the platforms, the norm and the spike, the algorithm and its contagion? All measurements whether qualitative or quantitative involve a particular choice of apparatus that provides the “conditions necessary to give meaning to a particular set of variables, thereby placing a particular embodied cut between the object and the agencies of observation” (Barad 2007, p. 115). The concept of scholarly impact, in particular, is produced through the specific material arrangements of academic platforms, academic subjects, journal editors, universities, and on and on. A cut is being made and remade as to what impact is and how it matters. The platforms produce impact as countable, traceable and determined by geographic reach (across universities and countries and regions) and quantity of touches (downloads, cites, mentions). This specific material arrangement of impact forecloses the complementary conceptual becoming of impact. This complementary impact might be measured (though we are not suggesting this attempt) in shifts in thinking, reconceptualisation of concepts, sighs, tears, smiles, and the like and unlike. The specific material arrangements that produce and value the version of impact produced in intra-action with these platforms (determined by geographic reach and citation counts), also foreclose or make more obscure subjectivities that seek to be in relation with, to touch, the complementary concepts to impact.

## Wild Shifts

We find that to affirmatively and joyfully invite this kind of indeterminacy invokes shifts in ways of living and thinking. Barad (2012) wrote that,

we cannot block out the irrationality, the perversity, the madness we fear in the hopes of a more orderly world. But this does not mitigate our responsibility. On the contrary, it is what makes it possible. Indeterminacy is not a lack, a loss, about an affirmation, a celebration of the plentitude of nothingness (p. 218).

By asking ‘what if?’ we invite provocations to engender other more response-able forms of life. How might we organise ourselves with these platforms in other specific material arrangements that might privilege complementary givens that bear other



forms of content and expressions as recognisable? We wonder how we might work our desire wildly, leaning into the siren calls and removing the wax from our ears. If measurement is a form of touching, we are acknowledging the contacts the material appendages to our academic subjectivity. We are becoming with this version of impact. And there is potential and hope in the indeterminacy and contagion within the algorithm, in the idea that (as Barad [2007] described), that a bit of smoke from a cigar might change the specific material arrangements enough for us to catch a glimpse of another version. Indeed, as Barad (2012) wrote—

life, whether organic or inorganic, animate, or inanimate, is not an unfolding algorithm. Electrons, molecules, brittlestars, jellyfish, coral reefs, dogs, rocks, icebergs, plants, asteroids, snowflakes, and bees stray from all calculable paths, making leaps here and there, or rather making here and there from leaps, shifting familiarly patterned practices, testing the waters of what might yet be/have been/could still have been through doing thought experiments with their very being. (p. 207-208)

These shifts from the familiar require an ongoing response-ability to the world's becoming, they demand a departure from our inherited ways of thinking. So, we ask, what do we mean or want to mean by impact? What are the conditions for the meaningful use of this concept? How might we make it/ourselves intelligible differently? What complementary concepts are being left out? Barad (2010) asserted that "every concept is haunted by its mutually constituted excluded other" (p. 253). We intend to look for those hauntings, to seek other spacetime-matterings, not to be disturbed but to be made together differently.

Interrogating the assumptions and logics of control producing academic subjectivities with philosophers such as Barad and Braidotti demands ontological and epistemological considerations of the ethical and material cuts we make as scholars. Though ResearchGate, Academia, and Google Scholar claim to measure a scholar's impact, or influence on the field, we find this idea untenable. Research happens in intra-action, is on the move, and is always in excess. The possibilities of a researcher's work will always remain ungraspable, untameable by an algorithm or metric. And yet, these metrics persist, they matter, they work on our bodies. Acknowledging this, we have begun to seek and affirm other ways of being in the academy. Exploring the

information ontologies at work through multiple philosophical frameworks creates the possibility to produce and create subjectivities that did not “desire commensurability and efficiency according to a model of [scholarship] as representation” (Sellar & Thompson, 2016, p. 499). Unchecked and unchallenged we believe that information ontologies that privilege counts and categories are a threat to scholarship that has “the sense of an unpredictable and creative adventure of thought” (p. 499). We turn to Deleuze (1992) and Guattari (2000) to “invent other contracts of citizenship” in the academy that “enable the singular, the exceptional, the rare, to coexist with a State structure that is the least burdensome possible” (Guattari, 2000, p. 51).

We are looking for possibilities within the measurement of our academic subjectivities that are fundamentally unpredictable and uncontainable. This is not a rejection of measuring or numbers outright, but rather, a move to imagine numbers differently. As Barad (2012) noted as well, “it may well be the inhuman, the insensible, the irrational, the unfathomable, and the incalculable that will help us face the depths of what responsibility entails” (p. 218). Perhaps, then, we can become measuring monsters, reconstituting, and distorting measurement and challenging the information ontologies toward other ethico-onto-epistemological priorities. Waking ourselves up to more intimate modes of being, derived from a radical reconsideration that seeks to “counter the pervasive atmosphere of dullness and passivity” (Guattari, 2000, p. 69). We will seek the spike, follow the contagion, and explore wild possibilities.

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# The Matter of Mapping Multispecies Entanglements of Mourning—A Manifesto’s Shout, An Orca’s Tour of Grief

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## Abstract

Mapping entanglements is work—work of care, maintenance, and mourning. This project utilises a new materialist methodology inherited from the work of Gilles Deleuze and Félix Guattari, who follow lines of becoming to track compositions which compose worlds. To map (non-linear, temporal, and situated) lines of loss across multispecies landscapes is material work of more-than-human mourning. The New York City-based performance artist Mierle Laderman Ukeles—alongside scholars such as María Puig de la Bellacasa and Donna J. Haraway—reorient configurations of work and care, which enable these lines to be followed into more-than-human worlds. Mapping lines of mourning into multispecies worlds is material work of the aesthetic-ethical response within shared and troubled landscapes. The key storytellers within the narrative of mourning and joy woven into this paper are the Salish Sea, the Lummi Nation, the Chinook Salmon, and the Southern Resident killer whale; the voices and cries to which this project, in work and care, is dedicated.

## Keywords

Ecology; philosophy; mourning; aesthetics; materiality



## Lines

The sleek and powerful black marine body, with its bold offsetting markers and dashes of white conjure forth the readily recognisable figuration of the orca whale (*Orcinus orca*). This easily identifiable cetacean body often obscures the more particular nuanced markings which designate differences within orca whale categorisations. The Southern Resident killer whales, who occupy specific waters in the Eastern North Pacific, are distinguishable both in behaviour and marking patterns. The National Oceanic and Atmospheric Administration reports that “resident whales have a variety of saddle patch pigmentations with five different patterns recognized” (Varney, 2005). Markings, patches, tracings, flows, striations are all comprised by lines; lines which are not purely linear, singular, or of a cohesive trajectory but are rather, as philosophers Gilles Deleuze and Félix Guattari iterate, conjunctions, multiplicities, and complex continuations along other lines. As they write: “[W]e said that we are composed of lines, three kinds of lines. Or rather, of bundles of lines, for each is multiple” (1987, p. 202). To follow the lines which craft the sleek and discernible markings upon the orca out into heterogeneous interrelations is to behold a multitude of entanglements and particularities. These lines map through an earth-in-trouble—revealing loss, death, extinction, and the human’s place and responsibility therein, as contemporary urgencies.

Deleuze and Guattari describe the “animal elegance” of a fish etched across by lines—its unique markings, the crisscross hatchings along its body. These lines, undecipherable to the human eye, become cast aside from human conceptions and iterations of shared worlds; and “thus disorganized, disarticulated,” they world “with the lines of a rock, sand, and plants, becoming imperceptible” (1987, p. 280). These lines, markings, hatchings upon other-than-human bodies and their environments do the work of both aesthetic and ecological worlding—of creating cohabitated worlds, worlds which are at stake to and with one another. These lines upon the orca are more than passive markers; they are lines which go to work, threads which build worlds. The lines and markings upon the Southern Resident orca whale, both unique and patterned, reveal their particularity and situatedness within time, space, and its entanglements of interdependence and cohabitation. They are lines of great multiplicity. Mapping lines of entanglement is work—work of the discursive and the material. Work that moreover builds and (re)builds worlds as acts of becoming.

Deleuze and Guattari (1987, p. 280) write that “making the world a becoming, is to world, to make a world or worlds”. These worlds are worlds in trouble, ecologies in emergency, landscapes in crisis.

These worlds-in-trouble call and cry out in other-than-human languages and craft the ethical claim of liveability through both historical and contemporary time. To whom, to what, and how can the human equitably respond? Ethical claims and responses are composed of lines, threads, strands, pathways. These form an enlivened assemblage itself—a generative and participatory entanglement, entanglement(s) imagined as wild, risky, and performative mappings. This paper reads entanglement (Barad, 2007) alongside the idea of mapping (Deleuze & Guattari, 1987). The idea of entanglement this paper promotes is a conception and praxis which weaves interdependent threads into assemblages, maps, and worlds. Karen Barad, theoretical physicist and feminist theorist, writes that agency itself is relational and that “agencies are only distinct in relation to their mutual entanglement; they don’t exist as individual elements” (2007, p. 33). For Deleuze and Guattari the map is “open and connectable” and “has multiple entryways” (1987, p. 12). Their conception of entanglement is thus a map and a mapping of relational assemblages. “The map has to do with performance,” they write; a performance wherein these relational entanglements of lines and threads perform the map(s) which build and create more-than-human worlds (p. 12). To follow lines of entanglement within worlds-in-trouble is to encounter great loss and death, bringing multispecies concerns within the realm of mourning.

The lines of becoming amongst shared and cohabitated worlds vibrate with agency. Within these generative worlds, creatures, kin, landscapes, machines, animals, and human are brought together in a web of assemblage—an assemblage which experiences both grief and joy. Human exceptionalism enacts poor thinking and thus creates stories that officiate dichotomies and binaries between the human that speaks, uses languages, thinks, weeps, builds worlds, and the non-human that supposedly does not. Mourning disrupts the regimes of thought, language, and of unimaginative ethical configurations. This deconstructionist nature of mourning crafts a wild and open map of weaving and unweaving threads—threads that we can follow to tell, to listen, and to behold rich and complex stories of entangled worlds. Feminist science studies scholar Donna Haraway writes (2016, p. 39), “grief is a path to understanding entangled shared living and dying; human beings must grieve *with*, because we are in

and of this fabric of undoing”. Mourning is both the material cry of an earth-in-trouble as well as the materiality of the ethical response; a response of the of work, care, maintenance,<sup>1</sup> and art. How do we think through burdened and troubled words, such as care, work, mourning, and maintenance, in imaginative and equitable ways? Within these words themselves smoulders a deconstructionist and transfigurational force. Pulling at the edges of these opaque and transcendental signifiers is matter and materiality—the materiality of mourning which is a grieving-with. A mourning, albeit situated and temporal, which is shared, procreative, and made interrelational along traversing lines of difference and loss.

This new materialist approach of mapping lines and threads of mourning through and into shared more-than-human worlds is inherited from Deleuze and Guattari’s lineage of lines, striations, flows, and flights that craft an assemblage—an ethical-aesthetic response as assemblage within the troubled worlds we share. This project is rooted in the scholarship of science and technology studies scholar María Puig de la Bellacasa and wishes to define and exemplify the matters of care that involve “affective, ethical, and hands-on agencies of practical and material consequence” (2017, p. 4). This narrative-driven, philosophical assemblage furthermore follows in the footsteps of the artist Mierle Laderman Ukeles. Ukeles is a New York City-based performance artist and an unsalaried artist-in-residence at the New York Sanitation Department since 1976. In 1968, Ukeles became a mother as well. She therefore started struggling with the hierarchies crafted within the dichotomies of work, the work of art versus the work of maintaining life and the work of the home. Ukeles guides this narrative through her (re)worlding of work, of care, and of maintenance—crafting threads, lines, and striations which are enabled to flow outward into more-than-human worlds. The animal lines of elegance, as Deleuze and Guattari (1987) describe it, are followed from the work of Ukeles and into the lines which form the patches and markings upon an orca whale, the Southern Resident killer whale, the Coast Salish Nations, the Chinook Salmon, and the marine biologists who work with attentive care towards them.

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<sup>1</sup> Ukeles (1969, p. 2) defines two systems of work, one is development and the avant-garde, and the other is the work of maintenance—all that which is required to maintain life; “clean your desk, wash the dishes, clean the floor, wash your clothes, wash the baby’s diaper, finish the report, correct the typos, mend the fence, keep the customer happy, throw out the stinking garbage...”

## Care / Work / Maintenance

The word “CARE” is handwritten in large letters, layered in blue and black pen ink on the top of the typed proposal, written by Mierle Laderman Ukeles entitled *Manifesto for Maintenance Art 1969!* (1969). This document is part proposal, part manifesto. “MANIFESTO!”—handwritten as well—are the words most atop the document; the first of many bold declarations of intent, philosophical thought, and material iterations.

Under Point I, titled “IDEAS,” Ukeles writes that “the exhibition of Maintenance Art, ‘CARE,’ would zero in on pure maintenance, exhibit it as contemporary art, and yield, by utter opposition, clarity of issues” (1969, p. 2). The word *care* here conjures forth historical, philosophical, and socioeconomic hauntings through which Ukeles (p. 2) elucidates the inherited imbalance of both care and work, as she states, “Housewives = no pay”.

The underlying structure and theoretical engine driving this “MANIFESTO!” is the push/pull between the idea of the pure, creative, omnipotent, singular individual versus the communal, the relational, the entangled, and the vulnerable—all that which requires work, care, and daily sustenance is maintenance. Maintenance work, Ukeles writes, in contrast to development (or pure individual creation), is to “keep the dust off the pure individual creation; persevere the new: sustain the change” (1969, p. 2). Maintenance work is the work of the home, of putting dinner on the table, of doing laundry—conjuring forth oppressive gender binaries (and the divisive essentialisms contained within). In the words of Ukeles (p. 3), “I do a hell of a lot of washing, cleaning, cooking, renewing, supporting, preserving, etc.”. Maintenance work, which often consists of free labour, is work which is not considered art in itself, but rather work which is required to sustain the avant-garde and the “pure individual creation” of artistic production. Maintenance work is the work of maintaining life; the work of care.

“Care, caring, carer. Burdened words contested words. And yet so common in everyday life, as if care was evident, beyond particular expertise or knowledge” (Puig de la Bellacasa, 2017, p. 1). With these words, Puig de la Bellacasa opens her book on care—a text that begins by laying out a specific trouble, namely, the trouble of language itself. Words are not passive or pure objects but are rather laborers, performers, gesticulators, historical haunted houses, and wily subjects who, in part, build worlds. As Deleuze and Guattari write (1987, p. 76), “language is not life; it gives

orders. Life does not speak, it listens and waits". These burdened words of care, work, and maintenance give orders and craft worlds—yet we recall the worlds which flow outward from the lines of “animal elegance” (Deleuze & Guattari, 1987, p. 280) which are marked upon the orca whale. These lives, lines, and worlds are, from an exclusionary human perspective, perceived as silent and without language. How do we, as humans, learn to attune our sensibilities, imaginations, and ethical questions toward the cries calling from outside of human-centred language and worlds? Language gives orders (and builds worlds), and as such, words themselves perform the work of human exceptionalism. And they do so by marking the borders of where the human ends, and all that which is the non-human, begins, thereby dangerously separating the worlds of humans and the worlds of animals and their environments. The perceived capacity for world-building inherent within the usage of language begets a dichotomy which Ukeles’ *Manifesto* (1969) identifies as well; that is, a dichotomy between the ideal of the pure individual (the human—the king of creation and almighty being, development, progress, change) and the subordinated collective as well as all modes of otherness (the non-human, the communal, maintenance work, care). Alongside language, mourning and grief, as Ukeles would have it, should become apprehended as something that operates between and across human worlds and non-human worlds. Yet, *National Geographic*, in an article discussing a video of a group of elephants taking time to touch and smell the deceased body of their matriarch, asks of the elephants, “do they have the human characteristic of grief?” (Parker, 2016, n. p.). The ability to mourn, to grieve, and to be affected by loss is aligned, alongside language, as an exclusionary and hierarchic human-only mode of expression.

“The sour ball of every revolution: after the revolution, who’s going to pick up the garbage on Monday morning?”, asks Ukeles (1969, p. 1). At the Wadsworth Atheneum Museum of Art, in Hartford, Connecticut, Ukuleles performed maintenance art and for an eight-hour day cleaned the museum floor, steps, and display cases, revealing the silence, disparagement, and overlooked nature present within this type of work. “The culture confers lousy status on maintenance jobs = minimum wages, housewives = no pay” (p. 2). These philosophical proclamations within Ukeles’ manifesto are situated within the 60s and 70s labour and feminist movements. Progress has been made since then, but the world remains enrooted in the oppressive regimes and ideologies of

racism, sexism, xenophobia, and exploitative labour practices that constitute late-stage capitalism. A global pandemic currently is sweeping across the world, and COVID-19 seems to reveal the active presence of these same delineations and hierarchical discourses of care and work within ethical thought, within the labour market, within socio-political and economic landscapes, and within the home. Ukeles' revelatory statements of the world's apparent disdain for maintenance jobs and workers becomes the question of 2020: Which workers and what types of work are deemed as essential? Who bears the brunt of having to work within the home? Whose lives are viewed as expendable and disposable? Whose voice is heard and who is silenced? These dichotomies within human configurations between development and the individual versus the silence of maintenance work bleed out into the multispecies configuration of shared worlds. The lines between human and animal inherent these same patterns and exclusions between who is granted a voice and who is silenced. These modes of silencing, oppression, and otherness lead into the wild and disruptive plains of mourning.

### **Muteness / Mourning**

During an interview with *Art in America*, Ukeles is asked the following question: "In 1968 you had your first baby?" She answers as follows,

Right. Yes. And when people would meet me pushing my baby carriage, they didn't have any questions to ask me. They didn't say 'How is it, to create life? How can you describe this amazing thing?' There really weren't questions. It was like I was mute, there was no language. (Ukeles in Ryan, 2009, n. p.)

There is both a mourning in muteness and a muteness in mourning. Within the experience of muteness due to socio-political exclusion, one is excluded from language and expression causing the pangs of grief and isolation. "It was like I was mute" (n. p.), Ukeles says in the same interview, revealing the muteness in mourning, as mourning disrupts the perceived clear and concise nature of language and modes of expression. Muteness, within exclusion, casts its subject outside of language and into the wild and transformative plains of lament. Lament ruptures cohesive significations and renders the subject that is experiencing it outside of hegemonic modes of meaning-making. Mourning disrupts meaning itself. Mourning is matter that



disfigures and reconfigures thought, expression, language, worlds. The mourning inherent within the muteness due to exclusion brings the work of mourning into materiality, thereby transfiguring modes of grief into wailings, cries, moans, silences, and tears—the embodied and generative matter of mourning.

Mourning, often a response to death or loss, ruptures meaning-making and knowledge-producing schemes; schemes that, as Deleuze and Guattari warn, often think for us. “We call any specific formalization of expression a regime of signs, at least when the expression is linguistic” (Deleuze & Guattari, 1987, p. 111). Mourning is matter that disrupts these regimes of signs in upending patterned human habits of thought, of praxis, of imagination, and of language. These signifying regimes, which think and speak for us, block, as Deleuze and Guattari describe it, lines of flight (see 1987, p. 508). The threads of mourning are these very lines of flight; lines which emanate from more-than-human worlds and present therein a pathway outward from fixed territories. “The function of deterritorialization,” claim Deleuze and Guattari (p. 508), “is the movement by which ‘one’ leaves the territory”. Our shared worlds are aggregates, weavings, and art performances of care, work, maintenance, assemblages—assemblages which “are complexes of lines” (p. 505).

These complexes craft a map wherein the function and force of mourning is one that disrupts and ruptures cohesive tapestries. This allows for thinking and language to become opened and reimagined alongside beings and places of difference. Ukeles herself, brought into the warp and woof of maintenance work through childbearing, was cast out from question, from language, from voice. In her 1969 *Manifesto*, Ukeles’ silence-cum-mourning becomes transfigured into poetic matter and expression. Mourning strides against our cohesive, rational, and regime-like modes of language, of work, and of care—an aesthetic-ethical pathway and assemblage of lines moving outward from exclusionary territories and into the wild spaces of shared worlds.

The cries, calls, and articulations, especially of that which cannot be expressed, of what the human ear does not decipher as language—the calls of the earth, of multispecies communication, of the terra and the sea—also fall prey to this demonstrative muteness. The philosopher Martin Heidegger notably distinguishes the human from the nonhuman via the operations of thinking and language. He writes, “because plants and animals are lodged in their respective environments but are never placed freely in the clearing of Being which alone is ‘world,’ they lack language”



(Heidegger, 1977, p. 230). Anthropocentrism, as a limiting and exclusionary apparatus, erroneously perceives otherness as muteness and precludes that which is other-than-human from the relational work of world-building and world-sharing. Heidegger underlines this when stating that “the stone is without world” (p. 229).

There is much at stake in the need for co-practices of re-building and re-weaving worlds. Narratives, ethics, and philosophical configurations need to be continually rewoven to allow for the stone, the plant, and the animal to be bodies and beings which matter within epistemological practices of mapping lines of connection. These are lines that configure worlds, and as such, should be mapped with care. “It matters what worlds world worlds,” Haraway also writes in *Staying with the Trouble* (2016, p. 35). As such, being a *being* in the world requires aesthetic-ethical ways of being acutely aware of the worlds that world the worlds we co-inhabit.

## **Southern Resident Killer Whale**

On July 24, 2018, an orca whale, known as J35, gave birth to a female calf in the Pacific waters along the coast of British Columbia. Tragically, within half an hour, the calf died. This poignant moment reveals the multiplicities within the nature of loss and mourning. Encountered in this story, is both the singular loss of one calf to a particular orca (J35) in a body of water, as well as the larger narrative of struggle and loss in the interrelated and dynamic world(s) of the *Orcinus orca* species.

According to the Center for Whale Research, the Southern Resident killer whales had not had a single successful pregnancy in three years at the time of the loss of J35’s calf (see Chiu, 2018). Loss, and the response toward it, is comprised of the one and the many, the singular and the general, the material and the transcendent—revealing the deep and abiding interconnectedness and relationality within worlds. The loss of J35’s calf is a singular story within a larger world and narrative of landscapes in trouble, of death, starvation, and risk sweeping across the species itself. The animal-elegant lines from the markings on J35 align to her dead offspring and flow outward along lines of history, time, space, all the way to the human and back—creating a map of threaded interconnectedness that show how worlds are worlded. In February 2006, the NOAA’s National Marine Fisheries Service declared that the J-pod, of which J35 is a member, alongside the K and L pods (collectively called the Southern Resident

killer whales just referred to), was a distinct population segment (see Varney, 2005). The distinct population segment (i.e., DPS) proclamation for the Southern Resident killer whales allows for these orca pods to be officially declared as endangered by the National Oceanic and Atmospheric Administration. For a DPS to be considered categorically endangered rather than threatened, means that the Southern Resident killer whales must be “at risk for extinction” (Varney, 2005, n. p.).

To map lines of grief across multispecied landscapes is to follow specific, temporal lines of connection and entanglement; it is both a weaving and an unweaving of the ways in which worlds world worlds. Or as also emphasised by Haraway (2004, p. 299): “Lives are built; so we had best become good craftspeople with the other worldly actants in the story. There is a great deal of rebuilding to do.” The designation of the Southern Resident killer whale as a distinct population does more than just linguistically position them as endangered, it allows for resources and operations to be put into place for their protection, sustainability, and liveability, as well as elucidating the ethical questions and modes of responsibility revealed through their situated lives. The foregoing allows humans to see how lines of loss and mourning reveal our relational entanglements with more-than-human worlds.

### **Southern Resident Killer Whale / Chinook Salmon / Salish Sea / Lummi Nation**

“Orca Mother Drops Calf, After Unprecedented 17 Days of Mourning,” reads the *National Geographic* headline on August 13, 2018 (Cuthbert & Main, 2018). J35, also named Tahlequah, garnered national attention as she carried her dead calf for an extraordinary 17 days traveling over 1,000 miles. These many days of work and mourning are called in the press and by the biologists who accompany her, a “tour of grief” (“J35,” 2018, n. p.).

The lines of grief from J35 and her dead calf reach through, across, and within other beings, places, and times—creating a patchwork of communality and interdependence with the Chinook salmon, the Salish Sea, and the Lummi Nation. To follow these lines is to encounter a confluence and proliferation of threads which is an aesthetic-ethical mapping of connection, maintenance, care, and work. Deleuze and Guattari (1987, p. 12) write that this map is “entirely oriented toward an experimentation in contact with

the real;" a map which is "open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification". The loss and complexity of mourning revealed through a singular killer whale opens up a wider world within the relationality of grief, of space, of narrative—illuminating a great and consequential interconnectedness along lines of entanglement. The West Coast Chinook salmon (*Oncorhynchus tshawytscha*), upon whom the Southern Resident killer whales feed almost exclusively, are in trouble themselves. The NOAA Fisheries list two species of Chinook salmon as endangered, seven species as threatened, and one species a candidate for listing under the Endangered Species Act ("Southern resident," 2020, n. p.). As the climate warms in and around Puget Sound and the Salish Sea, the salmon, upon whom so many are dependent, are moving farther north to Canada (Fears, 2015, n. p.). As the sea suffers, so too do the Chinook salmon, resulting in the starvation of the Southern Resident killer whale population. Kathryn Brigham, chair of the Columbia River Inter-Tribal Fish Commission, points out the devastating and pervasive consequences of colonialism in the quote below. Colonialism does not only strip land away from its original inhabitants but also seeks to dominate and eradicate cultures; cultures which work in harmony with the sea, the coast, the salmon, and the orca:

The salmon survived for centuries in the presence of one group of humans: Native Americans. Before the non-Indians came, tribes managed the natural resources and protected them. We were taught that if you take care of the land and the resources, the land will take care of you. (Brigham quoted in Fears, 2015, n. p.)

In January 2019 J17, matriarch of the Southern Resident killer whale J-pod, and mother to Tahlequah (J35), was reported to be malnourished and starving. The death of the matriarchal figure within orca familial pods is a devastating loss. An aerial image by NOAA Fisheries of J17 revealed a "very poor body condition on May 6th, 2019," noting "the white eye patches that trace the outline of her skull due to a reduction in fat around the head" ("Aerial images," 2019). In 2020, the Orca Network listed J17 as missing and since she was no longer sighted with her family, presumed her dead ("Southern resident orca community," 2020). The Southern Resident killer whales and the Chinook salmon reside within particular seas, waterways, and ecologies which enfold these species alongside the impacts of human presence into a cohabitational space of entanglement and dwelling—here, in the waters of the Salish Sea.

The Salish Sea's name pays homage to its first human inhabitants, the Coast Salish. The title of Coast Salish references linguistically related Indigenous peoples of the Pacific Northwest Coast. The Coast Salish designation indicates more than a dozen languages and dialects used within many different Nations and Communities along the lands bordering the Salish Sea: Puget Sound, the San Juan Islands, Gulf Islands, the Strait of Juan de Fuca, the Strait of Georgia, and the Pacific coast of Washington and northern Oregon (Coast Salish people). Within the larger world of Coast Salish is the Lummi Nation, the original inhabitants of the Puget Sound lowlands and southern British Columbia. The Lummi Nation (*Lhaq'temish* or People of the Sea) depend physically and culturally upon the annual migration of the salmon and have so for centuries. From spring to fall, the Southern Resident killer whale lives within the waterways of the Salish Sea, sharing a coast with the community. The Lummi Nation's chairman Jay Julius says the following of these orca pods: "We've fished alongside them since time immemorial. They live for the same thing we live for: family" (Julius as quoted in Yong, 2018, n. p.). Squil-le-he-le Raynell Morris as quoted by Pulkkinen in the Guardian claims something similar: "[W]e as Lummis learn pretty early on who our relations are, and we are taught that those are our relations under the waves. We see them as part of our family, part of our community" (Morris in Pulkkinen, 2019, n. p.). Human impact and relation thus come to bear upon the liveability of the salmon, the orca, and the sea.

Thinking through a changing world, Guattari in *The Three Ecologies* (2000), notes that "kinship networks tend to be reduced to a bare minimum" (p. 17). To follow, thread, weave, and map the lines within worlds, is to encounter both kin and otherness along new pathways of thinking, imagining, and putting into practice our entangled tapestries. This is also underscored by Haraway when she says that "the task is to make kin in lines of inventive connection as a practice of learning to live and die well with each other in a thick presence" (2016, p. 1). These are potent, vital, and urgent lessons, moments, and events of care, of liveability, of work, of maintenance. These are openings within our cohabitated and threaded maps, where mourning can allow us to reimagine who is our kin and what our responsibility is therein. These lines of loss which weave assemblages and entangled maps through the worlds of the Southern Resident killer whale, the Chinook salmon, and the Salish sea both reveal

and imagine the work of maintaining life as an aesthetic-ethical response to landscapes in trouble.

## **Mourning's Materiality**

Throughout the deep entanglements of the Salish Sea, the Coast Salish Nations, the Chinook salmon, and the Southern Resident killer whale, the materiality of mourning is revealed. Kinship across differing landscapes and species enables mourning to be more than just the psychoanalytic matter of the human psyche: mourning is an interdependent multispecies map of world-building, of care, and of work. To unequivocally designate J35's response to the loss of her calf as mourning is to risk the pervasive habit of anthropomorphism; a habit which could lead to humans turning a blind eye to the magnificent rupturing presence of difference.

To place an exclusionary human-only rubric upon the behaviours and responses of a different species is to silence them again, ignoring their unique and situated meaning-making practices within the worlds they inhabit. To read all otherness and multispecies accounts through the lens of the human renders our ethical and creative responses toward difference thwarted and stunted. Yet, to denote all expression and response to loss as a characteristic only belonging to the human misses the point as well. For mourning to be characterised as a privileged human response is to miss the immensely important sensibility required to attune human thinking and doing toward a grieving-with diverging lines, differing species, and worlds of difference. Mourning and grief—as responses to experiences of loss—are not exclusive to human beings. Mourning, woven through multispecies landscapes, is matter that matters. Mourning is matter that weaves entangled lines across differences of ecology and being, crafting a relational map and assemblage of entanglement and responsibility. To speak of entangled lines conjures forth another realm of kinships within these maps of communal ecologies, namely, the tangled lines of technology, the relations and impacts between human, animal, earth, and the inorganic critters of screen, machine, wire, signal, and electricity. The vast impact, role, and interrelationality of these technological critters and kin are not explored in this article but I acknowledge their abiding presence and thank them for their service. I also would like to remain curious, open, and questioning of the binds that we as, humans, make with such machines

and, in extension, the binds and relations enacted therein between animals, environments, and the technologies used to study them.

It is clear that within the apparatus of human exceptionalism, there is a tremendous urge for the human to speak on behalf of what, within our shared worlds, has been silenced. Perhaps mourning can be transfigurational within shared worlds, as the multiplicity within the materiality of mourning is aware of its own limits and boundaries—the limits of anthropocentrism and anthropomorphism. Mourning operates as openings within co-created maps of entangled lines and worlds. Mourning operates as both materiality and work which extends beyond human exceptionalism and the hierarchical delineations between types of work itself.

In an interview, Ukeles (in Finkelppearl, 2001, p. 8) says the following: “People would ask: ‘Do you do anything?’ I had never worked so hard in my whole life as when I had a little baby. Ever”. Deborah Giles, Science and Research Director of the non-profit *Wild Orca*, describes the Southern Resident killer whale Tahlequah (J35) “as an incredibly attentive mother that played with her first calf, Notch (J47), more than most orca moms” (Giles in Long, 2018). These two lines of narrative elucidate the complexity inherited through human ideas of care, maintenance, and work—work that is moreover often gendered. Ukeles pinpoints to the dichotomy of the constructed notion of gendered work: “I learned that Jackson [Pollock], Marcel [Duchamp] and Mark [Rothko] didn’t change diapers” (Ukeles in Wetzler, 2016, n. p.). These ideas of women’s work evoke the essentialist narrative of gender, which produces proliferating lines of oppression and exclusion. Humanity perpetually repeats a great and dangerous binary not only related to labour but also between rationality and emotions. This historical and philosophical inheritance can be found in Plato’s text, *The Phaedo* (2002), which describes the last moments and death of the ancient philosopher Socrates. After drinking the lethal libation to end his life Socrates becomes upset at the sight of tears from the men who were present.

‘What is this,’ he said, ‘you strange fellows. It is mainly for this reason that I sent the women away, to avoid such unseemliness, for I am told one should die in good omened silence. So keep quiet and control yourselves.’ His words made us ashamed, and we checked our tears (Plato, 2002, p. 99).

This idealist legacy hierarchically divides knowledge and emotions and renders mourning as a less-than and debilitated mode of experiencing, knowing, and creating worlds. This Socratic legacy does not imagine or allow for mourning to be a radical, wild, and differing epistemological pathway but instead defines mourning as a weak, subordinate, and gendered position.

Mourning is a relational and entangled response to loss, a destabilising of the secure and self-sufficient 'I'. Ukeles identifies the vacuousness behind the omnipresent and omnipotent 'I'; "it was a total phony thing. It had an evil underside of autonomy, only the 'I'; not acknowledging who holds you up, and who supports you, and who's providing the food" (Ukeles in Finkelpearl, 2001, p. 8). The inheritance of the pervasive human 'I' allows us to ignore our inherent relationality and interdependence, it is an 'I' which builds poor worlds with shallow stories. As J35 carried and mourned her calf for seventeen days along one thousand miles, her journey was work she did not sustain alone. The work of mourning this calf, of attending to the life of J35 herself, of sustaining familial ties was work and care which the J-pod shared. Jenny Atkinson, director of the Whale Museum on San Juan Island reports, "we do know her family is sharing the responsibility of caring for this calf, that she's not always the one carrying it, that they seem to take turns" (Atkins in Goodyear, 2018, n. p.). J35 dedicated seventeen days to carrying a dead calf, an endeavour of mourning she did not undertake alone, providing not only care, but also mourning work. These markers of emotionality, of the varied responses to loss, are matters of shared world-building, worlds of care and work, and of ethical responsibility in the presence of a world facing devastating extinctions.

## Silence / Lament

Philosopher Walter Benjamin notes that "it is a metaphysical truth that all nature would begin to lament if it were endowed with language (though to 'endow with language' is more than 'to make able to speak')" (Benjamin, 1996, 72). For Benjamin, this lamentation is twofold: nature laments language itself and also mourns its perceived *silence*; its *speechlessness*. Ukeles identifies the muteness and lament one experiences when cast outside of the cultural and socioeconomic parameters of language and meaningful work: "I was doing work that's so common, yet there was no



cultural language for this work” (Ukeles in Ryan, 2009, n. p.). Ukeles, who worked within the oft-ignored and oft-silenced realm of maintenance work was perceived as without-voice and so too is the orca whale, within its designation of animal, perceived as without speech and silent.

The visceral display of J35’s mourning work is visual and palpable, and it moreover reveals the more subtle lines and traces of grief which remain undecipherable to human sensibility: the warming of the waters, the copious deaths of the salmon, the slow starvation of the orcas, the ongoing legacy of sustained trauma to the Coast Salish’s First Nations tribes, and the communities who first inhabited these coastal lands. To hear what does not cry out in human voices requires imagination and creative response and responsibilities; it requires ethical listening and thinking alongside a dedication to grieving-with. Haraway’s (2016, p. 39) idea that “grief is a path to understanding” finds resonance in Benjamin’s work which identifies mourning and lament as an epistemological rupture and divergent pathway; “lament, however, is the most undifferentiated, impotent expression of language” (Benjamin, 1996, p. 73). Benjamin upends the linearity and rationality of language and of privileged modes of mourning, or as he puts it, “even where there is only a rustling of plants, there is always a lament” (p. 73). The lament of nature ruptures closed cohesive, and hegemonic narratives of human exceptionalism. The nonlinear weaving and warping lines of grief running through the Lummi Tribe, the Salish Sea, the Chinook Salmon, and the Southern Resident killer whale, are rich and storied stratifications. These stratifications upend the oppressive narrative that nature is silent and awaiting human words and worlds. To be listening for and learning how to attune the human ear to the stories and voices of other beings across topographies of difference, means we can begin to (re)imagine narratives, work, and equitable worlds outside of human-centric worlds which have consisted for too long of mainly human-only voices.

## Earth Maintenance

Part three of Ukeles’ *Manifesto* (1969) is called “Earth Maintenance.” Her performance art document proposes that containers of polluted air, river water, and ravaged land be brought in every day to be “purified, de-polluted, rehabilitated, recycled, and conserved” (p. 4). Ukeles expands the ideas of maintenance work to extend beyond

the home and labour market discourses to reach into the configurations of how we both think about the earth and how we respond with care towards it. Care, as Puig de la Bellacasa (2017, p. 5) states, is not just theoretical thought but the “concrete work of maintenance, with ethical and affective implications, and as a vital politics in interdependent worlds”. Mourning work is the work of care, of maintenance, of aesthetics, of ethics—an interactive and collaborative ethic of map-making from the lines of mourning and interrelation which comprise our shared worlds. These weaving lines that create maps, maps that, as Deleuze and Guattari (1987) write, are full of openings, modifications, reversals, and questions. Ukeles, faced with the silencing inherent within the apparatus of maintenance work asks herself the question of liveability in order to (re)learn how to survive as both an artist and a mother. In an interview, she describes these questions that she must ask of herself, “how do I keep going? ... What do you have to do to keep alive? How do you get from minute to minute? (Ukeles in Ryan, 2009, n. p.).

Within the delineations of specific worlds, species, or types of work as groups that are speechless and silent, the ethical question becomes the question of liveability. To ask with curiosity and care along lines of difference, “*what do you have to do to keep alive?*” is to ask the ethical question. Ethical responses and responsibilities are formed by the quality and equitability within the questions that are being asked. Anthropocentrism perpetuates human thinking and imagination to be what speaks for, instead of learning how to ask questions of. “*How do we keep going?*” becomes the interrelational and aesthetic-ethical question of response and responsibility. J35’s carrying of her dead calf, her tour of grief is a multispecies iteration of this very question. How do we furthermore keep going along and with one another in entangled responsibility, care, and equitable liveability? This becomes the question of grieving-with and of the work of mourning—a work never finished nor closed. To live into these questions themselves is the very pathway of mapping the lines of grief. To live asking curious, risky, and open questions, and to live as if the earth is asking as well these same questions of care, work, maintenance; asking us how it can keep going, overburdened as it is.

The seventeen days during which J35 carried her dead calf required great exertion, care, and work. Deborah Giles explains,

If you're a whale or a dolphin, it means you have to go down and pick that animal up as it's sinking, bring it to the surface, hold your breath for as long as you can and then basically dump your baby off your head in order to just take a breath. (Giles quoted in Chiu, 2018)

J35 struggled against the tide: her breath was heavy, and she was eating less (Mapes, 2019). J35 was putting to work not only a response to loss but the maintenance of her familial bonds; the ways and means Southern Resident killer whales uniquely keep going. About one month after the loss of her calf, J35 was seen no longer carrying the calf's body and was, as the Center for Whale Research reports, vigorously chasing a school of salmon alongside her pod-mates, her behaviour being noted as "remarkably frisky" ("J35 update," 2018). J35 found a way to keep going. The threads of mourning can bring its inhabitants, critters, and kin into the opened thresholds of resilience, liveability—and perhaps, even into joy. The joy of the lines which flow and arch. The joy and freedom of a remarkably frisky orca in all its animal elegance.

Tahlequah's liveability, mourning, and her livelihood is tied up within the complexity of entanglement—the entanglements of sea, salmon, and human impact. We are always connected, not to all things but to specific things, and these situated lines form maps of worlds, full of material ties and strings which trace lineages and legacies of loss and mourning. For Ukeles, the "Earth Maintenance" portion of the *Manifesto* was to construct the image of the earth as a "needy and finite place," to reveal that "taking care of the planet could grow out of ancient work-wisdom" (Ukeles in Finkelpearl, 2001, p. 13). Care, work, and maintenance are multispecies questions to live into; an ethical imagining and (re)imagining of our world as shared. Lines of loss are traceable and connected, temporal and situated. To follow them, is to follow striations of care, to ask ethical questions, to formulate aesthetic ways of listening, and thereby to craft the work(s) of mourning. Flowing through the Salish Sea, the Lummi Nation, the Chinook Salmon, and the Southern Resident killer whale are such lines of loss and mourning, revealing how we can transfigure our all-too-human ideas of care, of work, of maintenance.

## An Ongoing Epilogue

A new thread forms. A new line emerges. The dorsal fin of an orca takes up to a day or two to straighten upwards from the bent-over positionality it receives when in the womb. Jutting up above the waters of the Salish Sea, a sleek and newly upward angled dorsal fin emerges. On September 4, 2020, J35 gave birth to a “healthy and precocious” calf (“J57,” 2020, n. p.). Our tapestry of both mourning and joy thereby expands. Our worldly assemblage becomes a bit wilder. Welcome to the world, J57. As we welcome you, you welcome us...

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## **Adventure: Biopolymer Aesthetics and Empathetic Materialism—Another World is Possible**

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### **Abstract**

This paper discusses affective methodologies within a practice-based PhD research project using plant-based and bacterial biopolymers (bioplastics) for painting, site-responsive intervention, and collaborative video. Biopolymers have long material histories with a range of material qualities and affects that inform adventurous working methods. These methods and associated affects could be said to produce a biopolymer aesthetics and an empathetic materialism forms of onto-aesthetics involving what Elizabeth Grosz (2017) and Félix Guattari (2000) respectively term an onto-ethics and an ethico-aesthetics. In this paper, new materialisms are used to understand the pedagogical qualities of worlding through the artworks of the author, where biopolymer aesthetics generate adventure and bewilderment—aligning with Jack Halberstam’s (2020) idea of an aesthetics of bewilderment.

### **Keywords**

Bioplastics; worlding; bewilderment; art; onto-aesthetics, empathetic materialism; affect.



## Introduction

Biopolymers (bioplastics) are adventurous materials—water-loving, thermoplastic, and porous—that have different material sensitivities and languages compared to petrochemical polymers (commonly used in art during the 20<sup>th</sup> and early 21<sup>st</sup> centuries). In my artworks, these differences are evident in the instability of forms. This inherent instability risks deformation, challenges conventional thinking about the potential forms and deformations of matter, and generates learning through “groping experimentation” (Deleuze & Guattari, 1994, p. 44). This learning invigorates creative methods and habits, enabling adventurous methodologies to emerge over time. In this paper, I use my own biopolymer art practices to think with the kinds of bewilderment that can generate worlding. The experimental learning I propose here, is developed via an attempt to construct a systemic understanding of biomaterials at their molecular and social-ecological (molar) levels, as well as the way they come together and circulate as material affects. My attempt to generate a wild pedagogical art practice is built around the flows of matter and energy that Gilles Deleuze and Félix Guattari (1987 and 1994) articulate as geophilosophy. These flowing processes of thinking/learning/praxis are made evident in my investigation of the collaborative film made for Stef Animal’s track “Adventure”—from the album *Top Gear* (Animal, 2018; Charlton & Martyn, 2019)—and my work *Greywacke Love Poems: Returns* (Martyn, 2019b).

Working with biomaterials, I observe these materials’ instability in moments of entropy and empathy, which I consider as time-based processes (Whitehead et al., 1978) that are emblematic of Jack Halberstam’s aesthetics of bewilderment. In this aesthetics, disorientation is embraced as a form of disorder and “resistant ontology” (Halberstam, 2020, p. 25) that takes place beyond human aesthetics. Entropy and empathy, along with the material sensations of biopolymers, provoke a range of working methods that are also learning methods, including a responsive misuse and adaptation of materials, tools, and machines. Interrogating the affective qualities of artworks involves asking a series of questions: ‘What does the work do?’, ‘What does it do to the viewer?’, ‘To me?’, ‘To other artworks?’, ‘To a world?’ In answering these questions in relation to my art practice and concept-building involving biopolymers, I have identified affective methods of adventure, hydrophilia, plasticity, and porosity. These come together in my artwork and collaborative films to generate an empathetic materialism that produces

a wild biopolymer material aesthetics. I am proposing that these terms are forms of onto-aesthetics that involve what Elizabeth Grosz (2017) terms an onto-ethics and Guattari (2000) an ethico-aesthetics. These onto-ethical aesthetic engagements materialise and give form to socio-ecological engagement—“a matter-form relation, which extracts complex forms from a chaotic material” (Guattari, 1995, p. 28-29) and put them into onto-ethical practice. Petrochemical aesthetics and biopolymer aesthetics move between the geological and the biological, generating a geo- and bio-aesthetics where being and aesthetics are forms and forces of worlding beyond nature. Grosz (2008) urges artists to explore this uncanny worlding via the “sensation[s] embodied as and in material forms” (p. 60). To understand the materialisation of biopolymers, I more generally think through various feminist new materialisms (see e.g., Barad, 2003 and 2014; Braidotti, 2011; Colman, 2006; Gauld, 2014; Haraway, 2008 and 2016).

Grosz’s (2008 and 2017) corporeal and incorporeal (material and immaterial) extensions of Deleuze and Guattari’s geophilosophy (1987 and 1994), as well as Guattari’s ecosophy (2000), have been particularly helpful to understand the kind of worlding that biopolymers encourage. Deleuzoguattarian (1994) geophilosophy considers the figure and ground relationships of philosophy and pedagogy: there, the ground of thinking is a deterritorialising and nomadic space, where ideas are taken and inhabited. This has helped me to navigate the extractive misadventure of English colonisation whereby concepts have been “acquired by inhabiting, by pitching one’s tent, by contracting a habit” (Deleuze & Guattari, 1994, p. 92). My intention in this article is to use various feminist and Deleuzoguattarian new materialisms, alongside my own explorations of the malleability of biopolymers, to trouble neoliberal capitalism and coloniality’s conceptual habits and material practices.

Polymers—plastics—whether they are bio-based or petrochemical, are entangled chains of molecules that can create flexible mass. Biopolymers are metabolised from waste by bacteria (for example, kombucha SCOBY cellulose and fermented polysaccharides or polyesters) that are found in the cell walls of plants as well as in the secretions of marine and terrestrial organisms. Humans have used biopolymers for a long time—almost as long as stone and glass (see Latterman, 2015). Working collaboratively at Scion, a crown research institute in Aotearoa, New Zealand, as an artisan-artist and non-scientist, enabled me to experiment with the different methods,

uses, and risks of biopolymers as well as their laboratory production processes. At Scion, I participated in the development of biopolymer materials using both plant and bacterial polymers, including hydrophilic plant-based cellulose paint medium and thermoplastic blends. This work as “an artisan and no longer as [just] an artist” has enabled me to connect the materials I work with to “forces of consistency and consolidation” as well as with forces of “deterritorialisation” (Deleuze & Guattari, 1987, p. 346). What captivates me about biopolymers, as an artist and artisan, are their material and conceptual capacities for entanglement.

To come together and be perceived as material, plastics go through a process called polymerisation where individual molecules called monomers assemble into three-dimensional chains known as polymers. The roots of this word are in the capacity to *share in something* (Wagner-Lawlor, 2017). These entangled chains create reconfigurable mass—changing arrangement, expanding, and contracting when triggered by factors like heat or hydration. Biopolymers are less fixed than petrochemical plastics (which are prone to a more permanent and insensitive fusion via heat setting). They readily move between two-dimensional and three-dimensional forms over time, allowing painting and sculpture to become four-dimensional. Such fugitive and highly sensitive cellulose materials, as well as the artworks made with them, can rehydrate over time, releasing their layered and embedded images. Thermoplastic biopolymer artworks divulge three-dimensional shape memories—plastic images and forms imprinted within their molecular arrangements, revealed, rather than set, through heat. My experiments with the rehydration and shape memory imprinting processes of biopolymers gestate a form of ethico-aesthetic learning that allow artworks and pedagogical practices to be made reconfigurable—enabling their matters and energies be released back into the wildness of cosmic, geological, and molecular flows.

Introducing the terms biopolymer aesthetics and empathetic materialism, I reflect upon the parallel histories and aesthetics of conventional petrochemical polymers and the even longer histories of biopolymers within Indigenous and non-Western cultures. Understanding the geological, biological, and social histories of petrochemical and bio-based polymers acknowledges how we produce and sustain materiality through memory, habit, and industry (see Grosz, 2013). This understanding informs my practice of alloplastic worlding within a context of larger systemic and planetary

changes (Saldanha & Stark, 2016). Deleuze and Guattari's geophilosophy and ecosophy also help me understand how "self-organising material systems" (Protevi, 2001, p. 2) and various liberatory non-hierarchical systems may function in resistance to the forces of extractive colonial capitalism that sustain fossil fuel-derived petrochemical plastics (Coleman, 2013). In connection to the foregoing, I explore how, in the 21<sup>st</sup> century, circular and doughnut economic frameworks—which can be traced back to Guattari's ecological registers (also see Vare, 2020)—are being used to envision possible liberatory bioeconomy futures, where plasticity becomes a circular and symbiotic component in the making of a new Earth and in the framing of an ecosophic pedagogy (Guattari, 2000).

## Adventure

Aotearoa New Zealand-based musician Stef Animal describes how the album *Top Gear* (2018), including the track "Adventure," draws from Maurice Sendak's trilogy of illustrated children's fantasy books exploring the adventure of childhood psychological development: the toddler phase in *The Night Kitchen* (1970); the pre-school phase in *Where the Wild Things Are* (1963); and the pre-adolescent phase in *Outside Over There* (1981). The music video for "Adventure," as seen in Figures 1, 2, and 4, explores this developmental adventurous and wild dynamic. It was filmed in infrared by filmmaker and artist Jess Charlton, who intuitively observed children encountering hydrophilic biopolymers for the first time, moving through developmental and adventurous processes of familiarisation, territorialisation, and creative destruction.

Each of the site-responsive biopolymer artworks discussed in this paper are formed through adventure with unfamiliar and unstable biopolymer materials that stand in for phases of adventurous development, while generating moments of extreme material fragility and precarity that elicit material empathy and learning (see Gauld, 2014). I am formulating an adventure methodology as a creative and pedagogical method of risk, involving affect-generating and affect-driven developmental processes. I see this as an extension of diffractive learning methodologies (see Barad, 2014; Geerts & van der Tuin, 2016), whereby a diffractive reading of texts or artworks can alter the flow of ideas, around and through each other, creating waves and new potential for thought and action. While diffraction and flow are temporal and physical processes, a

diffractive methodology applies this dynamic materiality to conceptual thinking and alters pedagogical processes by experimenting with inter-textual and interdisciplinary relationships (Barad, 2014). Adventure methodology is similarly time-based and physical, while also being spatially unfixed and open to the affective qualities of risk within research and learning. As with diffraction, encounters between materials and ideas may happen multiply and together over time—not as one singular diffraction or adventure. This allows adventure to redistribute affect through various locations, morphologies, and images of the paintings, sculptures, and site-based interventions.



Figure 1: *Greywacke Love Poems* (Martyn, 2019a). Courtney Place Lightboxes, Te Whanganui-a-Tara.  
Sixteen images on eight free-standing lightboxes

Adventure may involve loss—breakage, injury, ephemerality, disorientation, and reorientation. These are the risky material affects of adventure methodology that play out over time. *Greywacke Love Poems* (2019a)—see figure 1 & 2—and *Greywacke Love Poems: Returns* (2019b)—see figures 4 & 7—reoriented audiences to the geological and social history of the disused Owhiro Bay Quarry within Te Whanganui-a-Tara’s South Coast. Production of the artwork involved adaptation, misuse, and rematerialisation of industrial plastics extrusion processes to create a unique blend of plant and bacterial polymers with pigments ground down from greywacke rock-fall at the site. The project was a Wellington City Council Public Art Panel commission, made in collaboration with polymer scientists at SCION.

The remediated quarry cliff-face and coastline, a popular recreational weekend destination, present dramatic metamorphic strata and fault lines. The biodegradable artworks (Figures 4 and 7), appear and disappear into the coastal landscape for which they were commissioned, performing a kind of return and affective gesture of remediation and love. In both the lightboxes (Figures 1 and 2) and the coastal installation (Figures 4 and 7), the sedimentary and metamorphic processes of orogeny—mountain-building—are used as an analogy for how systems deform under pressure, while also invoking some of the affective qualities of lovemaking. The word adventure, manifest in these artworks, conjures images of caving and canyoning trips, suggesting a navigation through cavernous sedimentary rock forms, carved and made porous through geotrauma (the underground bifurcations and flows they enable and are subject to). According to Noys (1998, p. 504), such underground sites of adventure invoke Georges Bataille’s “bowels of the earth” and Deleuze and Guattari’s processes of sedimentation. The navigation of cave systems used within search and rescue misadventures involves forms of learning developed through habits of wayfinding and subterranean shape memory. *Greywacke Love Poems* (2019a) activate this pedagogical sensorama of wayfinding and shape memory—invoking loss and return akin to the shape memory of the bacterial thermoplastics (which are deformed and then returned to an earlier shape via a trigger temperature). *Greywacke Love Poems: Returns* (2019b) is ongoing exploration of some of the artworks’ slow degradation. The returns—independent of transaction—take place as redistribution, somewhere between gift, use, and loss.





Figure 2: *Greywacke Love Poems* (Martyn, 2019a). Courtney Place Lightboxes, Te Whanganui-a-Tara. Three of sixteen images on eight free-standing lightboxes

The pedagogical qualities of adventure involve experiential learning, where the world and its conditions emerge as adventure happens, always with the risk of loss. Biopolymer artworks involve characteristics and figures of instability, resonant with emergent systemic change, like the destabilisation of “petro-hegemony” (Haluzadelay, 2012, p. 4). This destabilisation is activated by climate justice protests and alter-globalisation—where other worlds are made possible through grassroots and nomadic activism (see Lenco, 2012). These global activisms generate mandates for circular and doughnut economy models which visualise social and planetary boundaries (Raworth, 2017; Royal Society Te Apārangi, 2019). Such shifts are part of the presumed common task of working out what a practice of knowledge for the Anthropocene might be (Wark, 2020).

We can understand this common task as a pedagogical process of worlding, collapsing the space between subject and environment (Palmer & Hunter, 2018). The collapse of worlding happens through human and more-than-human encounters involving processes of expression and legibility that manifest physically and socially. To understand this collapse within the *Greywacke Love Poems* (2019a & 2019b) series, I think of Donna Haraway’s “tentacular worlding” (2016, p. 42) and the pedagogical synthesis of interspecies learning with “diverse earth-wide tentacular



powers and forces” (p. 101), as noted in *Staying with the Trouble*, where Haraway also notes that Indigenous creation stories already recognise more-than-human processes of worlding. In the notes of *Companion Species Manifesto* (2008), Haraway also acknowledges an unpublished manuscript by Paul B. Preciado that introduced her to the concept of alter-globalisation. Both alter-globalisation and Rosi Braidotti’s nomadic ethics (2011) are important frames for thinking about how artists use affect to activate alternate imaginaries and facilitate wilder forms of worlding.

Biopolymer artworks begin to imagine and manifest the way our relationships with plastics could have been and can become more symbiotic and *sympoietic* (Haraway, 2016, p. 125). The history of industrialised plastics can be understood through the misadventure of petro-hegemony and exclusion, enabled by ongoing extractive capitalism. I think about how biopolymer aesthetics could destabilise the narratives and aesthetic forms that sustain a petro-hegemonic world view. And more generally, how artists manipulate affects and narratives to influence our imaginaries every day, often thinking about how they can sustain the active and open forms of affect and risk that enable them to break with habits. The unpredictability of adventure and play become ways to avoid instrumentalisation of affect or the kinds of risk management that neutralise affect—at the same time acknowledging that adventure tourism and the arts are both industries that monetise affect, managing levels of risk to ensure sustainable and archivable, and profitable bewilderment.



Figure 3: “Adventure” (Charlton & Martyn, 2019). Adventuresomefilms. See <https://vimeo.com/379895739>. From Stef Animal’s 2018 album *Top Gear*, Fishrider Records

As an artist, affect studies offers me ways of understanding how artworks carry affect—by breaking it down into moments of affect rather than the *Gestalt* approach to affect within artworks and aesthetics. McKenzie Wark (2020) has written in *Sensoria* about the difficulty of discussing aesthetics with newer generations of students, where she finds that art historically-oriented terms like sublime or beautiful are less useful than references such as zany, cute, and interesting. I like to think of terms such as these coming together as intersecting references of affect, within the bewilderment of biopolymer aesthetics. Within affect studies, Maria Hynes and Scott Sharpe (2015) have described the risks of engineered affect, while also reminding us that affect exceeds use and holds onto the capacity to escape instrumentalisation. Within society's current affect-laden polarisation, both on the Left and Right, affect is often reduced to a reactionary social force, rather than being seen as an active and becoming one. Hynes and Sharpe describe how, despite “warnings about the underhand modulations and manipulations of affect, affect seems also for some to be germane to the solution of the problem” (p. 116). They hope, along with theorists Michael Hardt and Antonio Negri, that “the misadventures of affect under capitalism are not too overwhelming for the revolutionary collective subject” (p. 116).

Adventures and misadventures reveal what is important to us—we imagine what we might lose and hope to gain some clarity about what is at stake. This potential release of what we value, focuses us on protection and resistance. The cognitive dissonance between the desire for risk and the prevention of loss can open up and intensify our awareness of what is possible—increasing our capacity to imagine alternative paths.

Becoming aware of dissonance within personal habits is also important because habits become systemic methods and can create new systems of community behaviour, particularly within the affective materiality and intersubjective experiences of the arts. Systemic approaches to understanding affect, include emotional economies of affect, where feeling and experience circulate (see Ahmed 2004 and 2014), without immunity to the stasis and entropy that govern physical systems, where energy and matter might become either disordered or cease flow and sediment. Habits crystallise through contraction, in both the physical and social world. Grosz (2013) argues that human habits (and perhaps more-than-human habits as well) are forms of potentially creative contraction, where conditions, action and affect intersect. Grosz (p. 231) employs Henri Bergson's notion of vegetative consciousness to explain a

materiality of affect, memory and habit, which “consists in the contraction and synthesis of the elements it requires. Even the plant, in other words, has habits, modes of repeated engagement with its environment. ... a kind of memory, embodied in its cellulose structure.” In biopolymer art-making, habits operate like adventure memories within the creative intersection of mnemonic organic processes and disorderly/entropic physical processes.

## Hydrophilia

Hydrophilic—water-loving—cellulose, creates a paint emulsion that dries into a paint-like film that can be applied to surfaces and later moistened for recomposition or rehydrated to become a fluid medium. Greater rehydration releases pigments into liquid flow, redistributing the image or pattern that was already present within the paint-film. During dehydration, the material contracts and brings pigment particles closer together, increasing definition of image and depth of colour. As the material moves between two-dimensional and three-dimensional forms, images or text may warp or distort.



Figure 4: *Greywacke Love Poems: Returns* (Martyn, 2019b). An example of hydrophilia—cellulose during rehydration before installation at the coastline

The cellulose emulsion and films reconnect to the intimate history of celluloid film and photographic image-making. In my hydrophilic paintings, images develop and are

embedded through liquid distribution of pigment particles, imprints, oxidation, refraction, and other forms of light sensitivity. Taking inspiration from Malabou, for whom plasticity presents itself as “the most eloquent motor scheme for our time” (Malabou cited in Lawtoo, 2017, p. 1206; also see Malabou, 2010, p. 15; Malabou, 2011, p. 58), I draw from Deleuze and Guattari’s (1994) notion of a plant’s organic plasticity. A plant, as they write, contracts “the elements from which it originates—light, carbon, and the salts—and it fills itself with colors and odors that in each case qualify its variety, its composition” (p. 212). Malabou draws my attention to “the mimetic rivalry so openly visible in plasticity’s ‘refusal to submit to a model’” (cited in Lawtoo, 2017, p. 1206), while presenting plasticity as an alternative to writing; as a language-akin to those of flowering plants, constantly changing. Plastic image-making allows for impressions, mimesis, phantoms, and copies. The relationships between plasticity and mediums of reproduction like photography and printmaking resonate. By focusing on the material itself as an eloquent image, one locates the image embedded within the material itself—not reliant on a fixed surface coating or light sensitivity. The imprint or impression is internalised, at a molecular level. Affective methods of production are often indexical, allowing for traces to be made evident. This allows for processes to become visible within subjective and intersubjective experience.



Figure 5: *Adventure* (Charlton & Martyn, 2019). Still shot

The material affects of hydrophilic artworks provoke surprise, curiosity, and a desire to understand what the material is to decode the visceral skin-like stuff. For example, during the installation of the *Greywacke Love Poems: Returns* (2019b), passers-by

would stop and ask questions. Such spontaneous interactions were live events that flowed from the work's affective materiality. Someone asked if one piece was an octopus skin. Another person assumed it was a fungal problem that I was employed to remediate. I almost convinced a six-year-old that it was my pet seaweed. Several middle-aged Pākehā men were suspicious of my permissions. A local elder loved the work. Such multi-layered and unstable aesthetics often remain hidden in an art gallery. Yet, even for those viewers familiar with land art, the multiplicity of fugitive, ephemeral states in these biopolymer artworks retained an element of surprise.

Navigation of instability leads to adaptation of composition beyond a survival of the fittest mentality and materiality. The self-adhesive qualities of cellulose enable physical grafting of supports to sustain fragile or precarious structures. Hydrophilic methods emerge from these habit-forming adaptations of process. Habit “not only mediates nature and culture, inside and outside... habit constitutes a kind of substratum that supports and enables acts of great unpredictability” (Grosz, 2013, p. 226). Biopolymer aesthetics reconfigures and re-materialises polymers at molecular and formal levels (Martyn & O'Neill, 2019).

The cyclical and responsive morphology of biopolymers resonates with their plant-based and biowaste origins, where within an ecosystem, plant morphology, or bacterial fermentation processes respond and adapt within site-specific conditions. The materials used in the works displayed at the old quarry site were reconstituted from previous biopolymer artworks, enabling the work to participate in a circular economy. In this way, material repurposed between artworks and projects might escape existing measures of value but also extend the cycles and reach of productivity. Despite these counterhegemonic tendencies, a circular economy nevertheless risks overlapping with the reproductive dystopia of neoliberalism in which labour, care, management, and materials are endlessly circulated and undervalued (Puig de La Bellacasa, 2017). In such a scenario, discrete artworks become another kind of zombie painting (Robinson, 2014). Repossessing materials, and methods therefore risks a constant restaging that might convert the adventure into entropy. Bearing this in mind, the provisional nature of the work is continuously foregrounded, keeping Wark's (2020, p. 11) common task for speculative artistic endeavours in mind; namely, that “the world might be known provisionally, speculatively, tentatively, without any one way of knowing having to be sovereign over the others.” Nonetheless, again,



such risky and speculative ways of knowing and working characterise the neoliberal mantra of continuous adaptability and flexibility. In other words, adventuresome repurposing risks sustaining capitalism and its precarious systems rather than liberating and repurposing that precarity (Berry & Dunphy, 2018). This is where organic figurations such as *sympoiesis* and symbiosis “enlarges and displaces *autopoiesis* and all other self-forming and self-sustaining system fantasies” (Haraway, 2016, p. 125), moving assemblages beyond individualist or purely *autopoietic* precarious survival modes. As a biopolymer artist, as many artists throughout history, I see artmaking as embracing both *autopoiesis* and *sympoiesis*. It involves both subjective and intersubjective expression and often collaboration beyond the human.

Hydrophilia is part of a symbiotic earth-scale imaginary where loss is observed and understood through cycles of everyday erosion and less visible slow-grinding, hot-pressing, transformations of matter not necessarily perceived in the day-to-day. This scale of imaginary helps us understand human and more-than-human habits of learning and worlding. Symbiotic geologic plasticity is also present in what I am calling biopolymer aesthetics—with its Western/European roots in Bataille’s (1985, p. 45) “base materialism,” yet clearly predated in Indigenous bio-material relationships (Liboiron, 2019)—and within the cosmological timespan of what Emily Apter (2013, p. 132) has described as a “planetary aesthetics.”



Figure 6: *Greywacke Love Poems: Returns* (Martyn, 2019b). Cellulose from Fig. 4 seen again, after dehydration

As mentioned in the “Adventure” section earlier, affects of uncertainty and instability can prefigure progressive change, however, they can also prefigure further



governmentality that exploits uncertainty. This can accelerate aspects of neoliberal control within settler-colonial capitalist systems (see Berry & Dunphy, 2018). Two well-known examples of this are carbon trading and biotech patenting (Pellizzoni, 2017). However, as Hynes and Sharpe (2015, p. 116) observe, we might challenge this acceleration of control by actualising “affect’s resistant potentials.” As they explain with a nod to excessive base materialism, “the gift that affect theory offers to thinking lies in the fact that affect exceeds the economy of exchange to which intellectual thought is today so often subjected” (2015, p. 116).

As a publicly funded outdoor artwork, the intensity of labour and ongoing care operational within the installation of *Greywacke Love Poems: Returns* (2019b) was highly visible and often provoked unsolicited offers of help and conversations about the materiality of the work from passers-by. This enabled me to add another affective layer to the work by reframing the act of biopolymer creation beyond the human, toward an open-ended creationism that challenges assumptions of what technology or what plastic is beyond the binary of nature and culture. Stories that artists and designers tell about their materials exercise powers of creation and narratives that inform subsequent use. Material narratives are part of what Felicity Colman (2006, p. 169) calls the “morpho-sorcery” of forms.

States of hydrophilia and events of orogeny are connected through planetary processes within the hydrosphere and geosphere (Parikka, 2016) matter circulates between these spheres and within processes of entropy—as also evident in artist Robert Smithson’s (1973) writings. For my creative purposes, I think of entropy alongside empathy; namely, as habitual and intuitive methods of working, emerging within and creating systems at a range of scales. These moments of creativity may be born of excess and negative entropy (negentropy), as new energy enters a closed system. Deleuze and Guattari, noting that excessive matter and forces have fed creation across multiple scales and temporalities state that “when forces become necessarily cosmic, material becomes necessarily molecular” (1987, p. 343). They do not see a linear evolution at work, rather a creative repurposing of materials or methods whereby “what was composed in an assemblage, what was still only composed, becomes a component of a new assemblage” (p. 347). This systemic approach, which informs my own work, has been developed with deeper consideration of media materialism and labour by Jussi Parikka (2016).

## Plasticity is life

Our sense of the worlding that has come before us—and what is possible in the future—can be altered by lesser-known and revised material histories. The alter-modern project that influenced Haraway's (2016) tentacular worlding necessitates a refusal of petro-hegemonic narratives. In the 21<sup>st</sup> century, bio-based plastics are often referred to as new materials when actually they are old materials. Indigenous peoples' use of biopolymer materials—seaweed, natural rubber, and plant or bark-based cellulosic materials—predates petrochemical plastics. In this longer history of creative use, we see working methods of plasticity that are sensitive to the more-than-human lively nature of polymers.

The parallel industrial histories of bio-based and petrochemical plastics are tales of dominance, where potential alternate plasticities were excluded and obscured by oil industry interests (Latterman, 2015). Public understanding of plasticity is now destabilised and enlarged by the proliferation of things like bioplastic packaging and increased visibility of bio-based art materials (see Materials, 2020). Within transitions to a bio-based economy (bioeconomy), biopolymers are adapted to existing petrochemical infrastructures—in a kind of petromimicry. Meanwhile, public awareness of plastic pollution motivates manufacturers to differentiate new materials through green colour coding and natural textures, flipping the biomimicry of early petrochemical plastics that were developed to mimic tortoiseshell, circumventing the scarcity of the shells and reach a broader market (Meikle, 1995). Bioplastic aesthetics continue to be responsive to markets—code switching between petromimicry and biomimicry, during production and marketing (Wagner-Lawlor, 2017).

Both bacterial and cellulosic bioplastics can be generated through symbiotic processing of waste streams, or through extractive feed-sources and forest use. In 1926, French biopolymer researcher Maurice Lemoigne began to regenerate waste streams into bacterial thermo-plastics, like those used within *Greywacke Love Poems: Returns* (2019b). Lemoigne's work arises in parallel to Bataille's base materialism, in the wake of Marxist historical materialism. Renewed attention to this work opens a non-linear understanding of this context in relation to feminist new materialist thought, which can be used to consider the symbiotic qualities of more-than-human and bio-based material.



Figure 7: Greywacke Love Poems: Returns (Martyn, 2019b). Bacterial thermoplastic heat forming. Image courtesy of Johanna Mechen

Bataille, as Noys (1998) also explains, understood that base matter and its affects are excessive yet often hidden. According to Melillo (2014), Bataille extended the metaphors of 19<sup>th</sup> century metabolic rift to claim that human waste had become disconnected from the metabolism of local pastoral spaces. Roland Barthes' (1972) meditations on petrochemical plastics works with Bataille's base materialism (1985, p. 45), speculating on the past, present and future of bio-based plastics. For Barthes, base and superstructure exist in material entanglement, as the active nature of base matter means it does not stay put in a binary of high and low. This structural imaginary becomes anarchic, foreshadowing artist Gordon Matta Clark's 1970s notion of anarchitecture (see Halberstam, 2020; Martyn, 2013). As Noys (1998, p. 503) observes, this entanglement is a risky adventure that overburdens the affective potential of matter with revolutionary intent, creating an "unstable discourse, which ...provide[s] a cultural medium to carry the contagion of base matter, in the same way that a virus or a bacteria are grown and developed ... [as] an infectious thought."

This infectious thought shapes human memory and epigenetics, which carry intergenerational forms of gene behaviour that respond to changes in environmental, material, and social conditions, as well as affective regimes. This adaptive plasticity is somewhat akin to shape memory in bacterial biopolymers. The bacterial thermoplastic biopolymers, and polysaccharide blends used in *Greywacke Love Poems: Returns* (2019b), reconfigured through heat, trigger shape-memories at predetermined heat

settings, revealing a plasticity that exists in recognition of a resiliency which involves flexibility but also resistance, deformation, reformation—wilder capacities to reconfigure. Both Barthes and Malabou think about the plasticity of childhood and the ways that children experience trauma and interact with the world beyond trauma (see Wagner-Lawlor, 2017, p. 77). Jennifer Wagner-Lawlor (2017, p. 74) notes that Barthes (1972) derided the shift from wooden toys to plastic toys and she suggests that he thought of plastic as anaesthetic. Malabou's understanding is less anaesthetic: plastics "bring together the origin, as their name indicates, and the future [in their] capacit[ies] for self re-form" and lend themselves to a kind of "biological alter-globalisation" (2008, p. 80; 2011, p. 73). Such an alter-globalisation might involve the kind of more-than-human/intergenerational solidarity already present within Indigenous thinking where plastics derived from fossil ancestors are considered kin (Liboiron, 2019).

Contemporary popularisation of plasticity is described by Wagner-Lawlor as a form of "utopian anticipation" (2017, p. 67) whereby utopian artworks and fictions generate political motivations or a type of prefigurative politics (Leach, 2013). I have been thinking about biopolymer aesthetics as a prefigurative materialisation of movements toward a circular economy. In the 21<sup>st</sup> century, circular and doughnut economic frameworks are being used to envision possible bioeconomy futures, where plasticity involves circular, symbiotic regenerative thresholds.

In Aotearoa New Zealand, the reconfigurations of coloniality and material histories can be seen in Indigenous scientist Teina Boasa-Dean's Ngāi Tūhoe te ao Māori—Tūhoe tribe Māori world view—iterations of doughnut economics (Project Moonshot, 2020) where the circle and doughnut become takarangi (concentric spirals). Boasa-Dean contributed to the 2019 Global Circular Economies Summit in Rotorua, where conversations between scientists were pivotal in navigating spaces between settler-colonial futurity and Indigenous futurities. *Greywacke Love Poems: Returns* (2019b) was made within a disestablished site of colonial extraction. The bacterial polyester used to make the artworks was produced through bacterial metabolism of waste streams. Installed at the quarry, the artwork points toward symbiotic regeneration, and reproduction. Yet this creativity, as noted, points toward neoliberal motifs of continuous flexibility. When scaled up, industrial bio-based production risks further venturing into endlessly adaptable extractive capitalism, as is evident in a recent



discussion of bioenergy plants (see Walmsley, 2020). Biomaterials and associated knowledges are figured within ongoing narratives of coloniality (as manifest in neoliberal extractivism) and its dualist relationship with nature. To date, while Anthropocene scholarship and the new materialisms have highlighted the role of capitalism, they have been slow to acknowledge Indigenous cosmology (Haraway, 2016; Todd, 2016). This has motivated me to think about how artworks (and artists) contend with their material relations to coloniality and extractive capitalism and how affects are generated within these specific relations. My argument is that recognising the dissonance and resonances between the habits and affects of materiality and neoliberal regimes might lead to a more robust alter-global imagination that follows alongside the kin-making material relations of Indigenous thought.



Figure 8: *Greywacke Love Poems: Returns* (Martyn, 2019b). Cellulose from Fig. 4 & 6. seen installed at the old quarry site

## Porosity

Biomaterials are often porous and membrane-like, and in the studio this porosity generates working methods and interfaces where affective processes and regenerative practices allow another world to be possible (see Haraway, 2008). We might talk about such affective interfaces, in a physical and psychic sense that may include more-than-human figures and grounds (Derrida & Caws, 1994). Grosz (2008,

p. 70) enlarges this kind of interface via Deleuze and Guattari, into a “plane of composition”—the site of compound sensations like artworks; sexual selection; and the mobilisation of territorialising and deterritorialising forces. Like Grosz, Bataille’s imaginary also enlarges the interface of human and more-than-human sensations.

Bataille’s work (see e.g., 1985) is often about things that pass between things, about the differences and relations that create excretions and separations. “The notion of the (heterogeneous) foreign body permits one to note the elementary subjective identity between types of excrement (sperm, menstrual blood, urine, faecal matter) ...a half-decomposed cadaver fleeing through the night in a luminous shroud” (p. 94). Bataille’s collapse of the binary relationship between eroticism and death is a model for a collapse of entropy and empathy; a collapse of the material and immaterial, including biological and sexual selection, which are both corporeal and incorporeal. Interpretations of Bataille’s abject affects can reinforce a heteronormative othering (Gutiérrez-Albilla, 2008), rather than an inclusive collapse. The limitations of Bataille’s eroticism have led artist Lisi Raskin (2014) to write about Audre Lorde’s *Uses of the Erotic* (1993), which reclaims the liberatory potential of erotic affect from plasticised sensation and instrumentalisation—this also calls for experiments in bioplastic sensation.

In 2012, I was making large-scale wall paintings by peeling back skin-like layers of acrylic latex house paint. These works often generated an affective narrative of collapse between the liveness of skin and its excretions, and something death-like. The paint transformed from two-dimensional surface into three-dimensional material—membrane-like sheets of surface; layered and extended or fallen. The paint became unfamiliar, seamless coating transformed into material waste—not usually visible as such. In the wake of the 2008 economic crisis, this artistic praxis seemed to materialise a necessary grief. It also became a provocation: to create a painting that could become fluid again.



Within established painting and sculptural practices, such fluidity, reuse and misuse of plastic and skin-like materials is evident in the work of a number of artists such as Eva Hesse (*Aught*, 1968), Lynda Benglis (*Fallen Painting*, 1968), Christine Hellyar (*Flotsam and Jetsam*, 1970), Linda Besemer (*Fold #7: Optical Objectile*, 1998), Margie Livingston (*Folded Painting, small*, 2009), and Helen Calder (*Orange Skin (125 fl. oz*, 2009)). These works combine a mixed-use of petrochemical and natural latex with gestures that include formless pouring, delamination, moulding, casting, and stretching. My explorative use of biopolymers includes these gestures and further deformations and transformations. For example, a sheath of biopolymer paint delaminated within my installation *Climate Change Heartbreak Poems 2006-2013* (2019d, Figure 9) could subsequently be rehydrated to become liquid again, without use of harsh solvents.

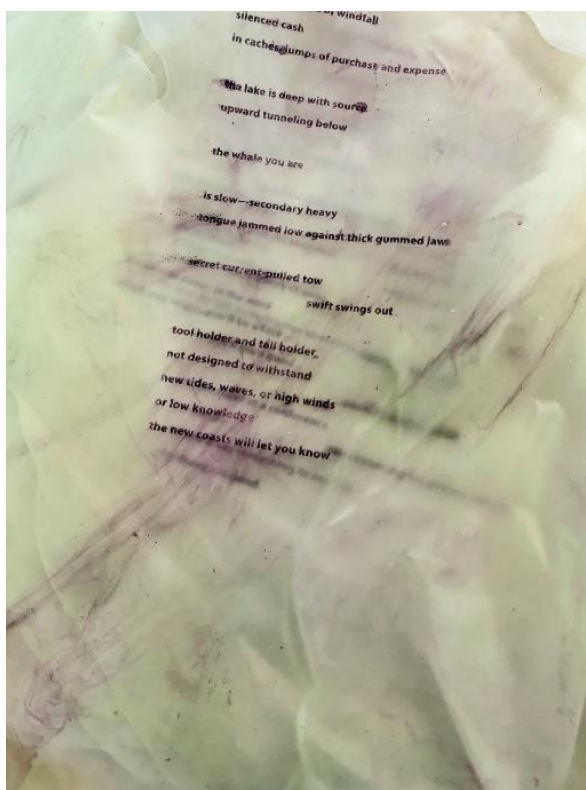


Figure 9: *Climate Change Heartbreak Poems 2006-2013* (Martyn, 2019d). Poems embedded within seawater and cellulose sheets. The purple pigment is drawn up into the pale green cellulose substrate as it dries. The colours reference the “purple oceans and green skies” climate scenario (Copenhagen Meets, 2012). The sheets were installed in the reading nook of Gus Fisher Art Gallery at University of Auckland as part of the group exhibition *The Slipping Away* (2019), curated by Lisa Beauchamp

Bifurcations—the forking of flows—are a key part of the visual language of biopolymers. Forked flows are generated when the liquid emulsion is poured or disturbed—akin to the bifurcated paintings of United States-based artist Lynda Benglis (see Richmond, 2015). Bifurcation is evident in industrialised plasticity and is evident in the bifurcation fallacies of social contexts, whereby false dilemmas may be created through omission or ignorance. Physical entropy and affective empathy can be understood as forking processes too, running in parallel or apart, becoming confluences or oxbow lakes, moving between scales and forms of material flow (Turpin, 2010). I think of entropy and empathy as interrelated processes and as emergent proceedings, that produce and process traumatic affects (Whitehead, 1929). Material empathy develops understanding of how materials generate and behave in relation to social and physical forces or “quanta” (Deleuze & Guattari, 1987, p. 88) that are figured into creative practices.

Empathy is often initiated by events that articulate change or forking processes within a system or entity in the direction of creative flux, entropy, or negentropy. It extends into more-than-human encounters like geo-aesthetics, where we understand geological processes better after witnessing a landslide, or the strata exposed during an earthquake. For Robert Smithson, the “mind and the earth are in a constant state of erosion, mental rivers wear away abstract banks, brain waves undermine cliffs of thought, ideas decompose into stones of unknowing, and conceptual crystallizations break apart into deposits of gritty reason” (in Turpin, 2012, p. 174). Smithson’s entropy includes in-between spaces of non-site—between the self and non-self, the individual and collective. Here we can detect the influence of Bataille’s (1985, p. 35) base materialism; a more-than-human politics that “brought back to the subterranean action of economic facts, the ‘old-mole’ revolution [that] hollows out chambers in a decomposed soil repugnant to the delicate nose of the utopians.”



Figure 10: *Biobitumen: A Greywacke Love Poem* (Martyn, 2019c). Still shot from the film made for Circuit Aura Festival 2019 with photography by filmmaker Rachel O'Neill

Within current theories of an affective turn, exercising empathy creates affects within events (Gauld, 2014). Visible or articulated processes like emotional labour and solidarity, are affective at an interpersonal and interspecies level, as well as at a societal and environmental ecological scale. This affective turn is evident in the processes of entropy and empathy that biopolymer artworks evince; a making-visible that foregrounds “the persistent sense that there must be something more than this, that it didn’t have to be this way, or that things might have been otherwise” (Kramer 2017, p.120). This material/affective response to the breakdown of forms requires us to find the spaces in which we can mourn and pass through, where experience is not fixed in “what had to be” (p.120).

While I lived in the Netherlands in 2016-2017, I read Edith Stein’s *On the Problem of Empathy* (1989), first published in 1917. Stein lived in the Netherlands until 1942, when she was taken to Auschwitz and killed. While reading Stein, I thought about my family history across the fields in Belgium and France, where my great-grandfather had been in 1916 and 1917, with a contingent of cannon fodder from the colonies, participating in a war that created the social and political vulnerabilities that lead to fascism (Martyn, 2018a). My great grandfather lost his arm on those fields in 1917; an event that probably saved his life. It made me wonder about the epigenetics of those events, across time and space, and the art-making and writing of myself and my European peers—many of whom were also grandchildren of that generation. Diffracting Stein and my family history, I was brought into thinking about the synthesis of knowledge politics, aspects of empathy, mourning, and ethics of care (Puig de La

Bellacasa, 2017). This has resonances in the contemporary context in which empathy and kindness are invoked and critiqued, as academics and artists seek affective ways through neoliberal inequality, austerity, and the rise of far-right populism (see Kukar, 2018).

## Conclusion

Methodologies of adventure reorient, disorientate, and bewilder us via pedagogical and affective processes that involve “groping experimentation” (Deleuze & Guattari, 1994, p. 44). This learning is manifest within biopolymer aesthetics, where making and becoming happen at the interface of regeneration and decomposition, as I argued and as is evident in the music video for *Adventure* (2019) and in *Greywacke Love Poems: Returns* (2019b). The deformations within artworks like *Adventure* (2019) and *Greywacke Love Poems* (2019a) contribute to a prefigurative politics of reorientation, regeneration, and redistribution. The so-called *returns* within *Greywacke Love Poems: Returns* (2019b), cannot be a regressive return to a past state, or a return on investment—it is a return to fluid cycles and the folding more-than-human processes of orogeny (mountain building).

In the context of the COVID-19 crisis, the language of economic recovery is being reconsidered because it assumes a backward lens and an attempt to return to the status quo. Instead, activists, thinkers, and artists—those who are working within paradigm shifts necessitated by ecological and social crises—are reorienting toward the language of regeneration (Stephenson, 2020). Like Malabou’s lively and plastic “paradigms of recovery” (Malabou, 2011, p. 73-74) the current shifts language might dismantle and sow different seeds, triggering different genetic compositions, mutation, and a bifurcation of economic and ecologic trajectories. Taken together, such risks constitute a creative and pedagogical bewildering that I have attempted to make evident in my exploration of biopolymer artworks. While writing this paper, I have conceptualised empathetic materialism as a type of feminist materialist entropy that segues with Halberstam’s aesthetics of bewilderment (2020). In this confluence, a kind of nomadic thought (Braidotti, 2011) informs both material self-organisation, creative disorder, and the symbiosis of tentacular learning and worlding (Haraway, 2016). The biopolymer aesthetics I have foregrounded, allow conditions of entropy, habit, and

bifurcation to come together, generating a kind of pedagogical bewilderment that bridges between affective, psychological, collective, and environmental ecologies—making other worlds of thinking and doing possible.

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## The Necessity of an Immanent Pedagogy of In|difference in the Shadow of the Anthropocene

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### Abstract

Life can be theorised actively (liveliness) or passively, or as entangled. What does this mean for pedagogy within the Anthropocene? This essay speculatively develops the concept immanent pedagogy of *in|difference* to explore such a question. This involves an engagement with various expressions of new materialisms, presenting a case as to how the passivity of an *indifferent life* needs to be recognised to mitigate the excessive claims of life from personalist modernist instrumentalism to neo-Darwinian accounts.

### Keywords

Deleuze; Guattari; passive vitalism; active vitalism; difference; indifference; immanence; in|difference



In this brief essay, my intention is to outline the necessity of what I call an *immanent pedagogy of in|difference*. The polysemous word will be explained in what follows. It is assumed that the institution of public and higher education as currently entrenched in both the West and East is an ideological state apparatus (Althusser, 2014) that supports and abets the governmentality (Foucault, 1997) of each and every country. The literature on the concerns and critique of global educational governance, such as the power and influence of neoliberal universities in the West, promoting “micro-entrepreneurs of the self” (Hall, 2016, p. 26), are not taken up here. The literature on this worry spans decades and is constantly growing. Rather than tackle it all, my attempt in this essay is rather modest: to explore the possible force of a pedagogical imaginary that may burrow its way into the social ecology to disturb the global planetary condition of post-cybernetic societies of control and clairvoyance (Neyrat, 2017) where neofascist intensifications of political control, surveillance, and populist manipulation via biopolitics require the creation of new collective assemblages of desire. Regardless how rudimentary in their conceptualisation and fictioning (Burrows & O’Sullivan, 2019) such lines of flight may prove to be—and however tenuous their deterritorialising powers of the established molar relations are—there is an urgent necessity to forward ideas that may make a difference in the shadow of the Anthropocene. The pedagogical imaginary sketched out here draws on an already crowded field of Deleuzoguattarian experimentations with the hopes of offering perhaps new clarifications of the pedagogical and transformative force of Deleuze and Guattari’s thought. As a speculative essay, it moreover argues for the pedagogical importance of in|different materialism, the impersonal immanence of a *life* (Deleuze, 2001).

I would like to begin by expanding on the polysemous meaning of an immanent pedagogy of in|difference by articulating the two terms: difference and indifference along Deleuzoguattarian lines by first drawing out two broad generalisations that are extrapolated from the current raft of theories that are grappling with the era of the Anthropocene and the growing loss of democracy. Education, as it now stands, is headed off planet rather than into and with the Earth due to its ubiquitous privileging of anthropocentrism and the spectre of a world-for-us-alone. As an abstract machine, education remains in the hands of the state; either in the grips of various

neoliberal capitalist forms or, as in China's case, a particular brand of communist-capitalism (or is it capitalist-communism?). An entire rash of philosophies and non-philosophies (Laruelle, 2013) have emerged to grapple with the precarity of climate change, the current euphemism for the Anthropocene. There are, for example, the claims of the new materialisms in their various expressions: Object Orientated Ontology (OOO), onticology, vital (or vibrant) materialism, negative materialism, performative materialism (Gamble, Hanan & Nail, 2019), speculative realisms that question Kantian correlationalism (Meillassoux, 2009), quantum diffraction theories promulgated and spearheaded by a cluster of feminists who follow Barad (2007) and Haraway (2003), post-qualitative methodologies, concepts being claimed as methodologies (Taylor & Hughes, 2016), panpsychism (Shaviro, 2014), and, as in my own case (Jagodzinski, 2016), various assemblage theories inspired and extrapolated from the crowded field of Deleuze & Guattari studies (for example Buchanan, 2020; DeLanda, 2016). Each of these directions has its supporters as well as its own set of worries and criticisms: from the concerns that some lack ethical development by treating humans as one object amongst many within a flat ontology, to worries over the way others question the modification of Bohr's Copenhagen quantum position by offering an entirely different quantum position based on Bohm, the holographic mind, and quantum Bayesianism or Qbism (von Baeyer, 2016).

When it comes to education, each of the above directions has received varying degrees of attention, leaving a crowded house from which each educator must cherry-pick between different interpretations and protocols for experimentation. However, the necessity for such intellectual and pedagogical experimentation across the new materialist spectrum is essential for facing the Anthropocene problematic and humanity's skewed relationality with more-than-human materiality and agency.

## **Difference**

Several generalities can be made concerning this spate of contemporary theorising that helps to set up the proposal for an immanent pedagogy of in|difference. First is the overwhelming proliferating academic discussions regarding the nuances and claims between affect-feelings-emotions. Such discussions point to the tensions and

relationships between the inside and the outside that are enfolded or entangled in some way. When these specific relations are described, analysed, and judged, they result in topological figural contortions that continuously vary depending on the situation or phenomena that has been delineated. The pre-individual realm of the outside of percepts and affects as sensations that are processed at the subliminal neuronal level—that have been called “vitality affects” (Stern, 1985, p. 156) or “Representations of Interactions that have been Generalized (RIGs)” (Bucci, 1997, p. 95)—are, when it comes to an infant, “amodal multisensory perceptions” (Massumi, 2017, p. 192) that are at once synaesthetic. This generalised synaesthesia of the infant’s body eventually becomes differentiated into various neuronal senses depending on the culture and language that the infant finds itself in. Vision, colour, and sound, generally, become separate modalities. Emotions and feeling, in this view, are psychological interiorised states or expressions that result from the brain processing vitality affects (RIGs) that relate a body to its *Umwelt*. The body intuits and processes its *Umwelt* first before it reacts to it, what is usually perceived as “attention affects” (Keetels & Vroomen, 2011, p. 152) as there is a neuronal delay between senses. The point to be made here is that this is a claim of neuro-normativity. However, there is a wide variation of just how the senses are processed below the level of consciousness. A small percentage of any given population will have neuro-atypical synesthetic abilities that enable them to, for example, hear or taste colours numbers or letters, and so on.

The first general claim for an immanent pedagogy to be made, given this neurological evidence, is to forward the primacy of *aisthesis* (versus the more recognisable aesthetics or esthetics), as in Charles Sanders Peirce’s (1960) *firstness*;<sup>1</sup> only then does the Baradian (2007) ethico-onto-epistemological triad follow, which is so often politicised within posthumanist studies. Why is that so? Desire within assemblages emerges from the “allure” (Harman, 2005, p. 143) between heterogenous entities in the way that entities touch each other, both physically and at a distance. The vast array of relations between heterogeneous things can be characterised by an extraordinary

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<sup>1</sup> Peirce (1960) develops a triadic semiosis via a paradoxical triangle of firstness, secondness, and thirdness. Firstness in his complex system is “an instance of that kind of consciousness which involves no analysis, comparison or any process whatsoever... it has its own quality which consists of nothing else” (p. 152). Firstness refers to sensations (qualia) free of subjectivity, will, and thought.

array of *aesthetic* encounters where *physical* sensations are exchanged: an array that then results in beauty through to sublimity (Kant, 1951); everyday commodity aesthetics characterised as zany, interesting, cute (Ngai, 2012); abject relational reactions (Kristeva, 1982); and fetishistic attractions (as per Freudian psychoanalysis or Marxist critique). There is a seemingly infinite variation of intensities that the firstness of aesthetic desire enables, and that a techno-aesthetics (Simondon, 2017)—or, rather, as I suggest, a *techno-aesthetics*—needs to consider, which will be discussed further under the question of ethics and technology. Aesthetic traits<sup>2</sup> are primordial in the exchange of intensities of relationship of attraction and rejection among entities they enable. Affect is more accurately understood as aisthesis, whereas aesthetics already calls on the internalisation of feelings and emotions, which are then identified as beautiful, sublime, cute, zany and so on.

In this sense, ethics is but a particular form of aesthetic relations. The often-cited Spinozian-Deleuzian mantras—*what can a body do? / a body's ability to affect or be affected*—simply recognise the transferences that take place between entities. As these mantras would have it, there is a basic psychoanalytic insight of introjection and projection whereby the resulting transformation of these entities takes place through this inter-intra-action. Much has been made of the claim that “relata do not precede their relations” (Barad, 2007, p. 334), which forwards the body’s internal relations, raising, once more the internal/external paradox. This, however, is not an either-or proposition but a logic of both-and. Supporters of OOO maintain that objects are “withdrawn” (Harman, 2011, p. 54) and paradoxically have an inner depth, an individuality, autonomy, and essence that is paradoxically not an essence in the sense of a stead-fast identity. This seems like a facile insight as any attempt at a speculation as to the true nature of things—their primary being—ends up as a fiction given that the limits of knowledge are reached at quantum levels. The *uncanny* (Ramey, 2016), the *strange* (Morton, 2013), *alien* (Bogost, 2012), and the *weird* (Harman, 2011) simply point to the aesthetic materiality of things whose compositions of percepts and affects are “diagrams” in Deleuze and Guattari’s terms that “construct a real yet to come”

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<sup>2</sup> To clarify why the term aisthesis is being used throughout this essay: Aisthesis refers to physical sensory perception (firstness in Peirce’s system), whereas aesthetics, in distinction, refers to art and, more importantly, designer commodity capitalism.

(1987, p. 141-142). These are maps of physical sensations, matter, and force, rather than representational forms.

A pedagogy that accounts for the “weirdness of reality” (Oral, 2015, p. 460), or a pedagogy of “enweirding” (Taylor, 2016, p. 210) that diffracts OOO via other more ethico-politically accountable forms of new materialism—or a pedagogy that recognises the uncanny from a schizoanalytic Deleuzian position (Ramey, 2016)—is one that privileges aesthetics. These pedagogies are expressions that, from the perspective of an immanent pedagogy of in|difference, may lead to a possible “redistribution of the senses” (Rancière, 2004, p. 12). This is to say that such pedagogies are instances that reorder desire itself as it inheres in entities that circulate within assemblages, thereby transforming and changing individual or collective ecologies and, in turn, altering their relation to the environmental ecology. The question of techno-aesthetics, however, is generally missing from these pedagogical considerations as is the sort of onto-ethics needed for the Anthropocene problematic that disturbs the desire of established assemblages. Recognising how our species has been modified historically through exo-Darwinian means (Serres, 2001) presents the challenge as to what new materialist directions should be supported through a renewed and rewilded pedagogy appropriate and accountable to the Anthropocene. That is to say, a wild pedagogy needs to carefully consider what more-than-human assemblages should be composed, developed, put into action as well as ethically, ontologically, epistemologically, and politically considered. Bluntly put, there is a multiplicity of naturecultures (Haraway, 2003; Merchant, 2016, p. 8): *natura naturans* (nature’s creative forces) intra-acting with *natura naturata* (the created world, which involves AI) that a wild pedagogy needs to take into account if it wishes to productively traverse and balance individual, collective, and more-than-human environmental registers and desires.

The articulation of difference in-itself (pure difference), is of course one of the key achievements of Deleuzian philosophy. It raises a number of tensions in relation to the configured and composed assemblages that I am projecting for constructing an immanent in/different—yet thoroughly wild—pedagogy. The first, to be discussed more thoroughly below is the *zoē-bios* tension: namely, the intra-relations between

free uncontrollable life-energy (*zoē*) and the way it is harnessed and captured as *bios* (which is both ethically and politically charged). This tension will frame my understanding of in|difference. To briefly frame my argument already: difference in-itself is a capacity, not measured or compared to an entity's prior identity, or measured against a norm, or contrasted to some Other. Hence, difference is not a negation of sameness, but more a question of singularity; to recognise disparate entities that are dissimilar and divergent. The emergence of a new singular assemblage characterised by inhuman-human-nonhuman entities would require a *technological interface* between the human and nonhuman via the mediation of the inhuman (AI technologies) pervaded by an aesthetico-ethics; the emphasis being on the relationality of touch that shapes the ethical intra-relationships that emerge within this composed ecological assemblage. In this view, intra-relationality does not begin with ontology per se, but rather starts from an ontology as shaped by an attraction, repulsion or another aesthetic affect of transferences.

What I have in mind are assemblages in which the techno-aesthetics of AI technologies would act as interfaces that enable *communicative exchanges* between the genus homo and other species which will allow humans some semblance of insight into the *Umwelts* (von Uexküll, 1930) of non-human lifeforms. Such speculative AI assemblages would—by their very interspecies interpretive function—be panpsychic and able to navigate degrees of *encephalisation* to determine what insights and degrees of interspecies communication and information exchange are possible. I have more clearly articulated this idea elsewhere (see Jagodzinski, 2019a), where I call on artists such as Natalie Jeremijenko who have developed a speculatively wild aesthetics for such technologies. I make a speculative distinction between two possible forms of inhuman AI in this regard: technologies of *Macht* (power) and technologies of *Lassen* (letting go) (Ziarek, 2004), which render the economies of force quite differently. *Macht*-focused technologies are hierarchical and manipulative in their production of force at the material (bio) level, which is to say representative of the currently existing neoliberal vision of AI as an instrument of manipulation, instrumentalization, and control. Technologies of *Lassen*, by contrast, embody a thoroughly wild speculative vision of technology that queers the dominion of societies of control. Such technologies would redistribute the senses, enabling assemblages of



meaning-making and perception wherein differences are rendered imperceptible and identity markers are side-lined to make room for alterity to become unveiled.

Needless to say, such technologies of *Lassen* would require a variety of ethical stances to go into the exchange: besides empathy and sympathy—understood here as an exchange of feelings (Deleuze & Parnet, 2007) already preconditioned by aisthesis, I propose 4 Cs—compassion, conviviality, co-operation, and connection as aesthetic-ethic exchanges. The question here is how emphatic connections between human and nonhumans can be mutually sustained through exchanges of love and joy in which the aesthetic-affect acts as the ontic register of relations of power (and not just as a register of mere feelings of joy, sadness, sympathy, empathy) as well as become a measure of *potentia* (Hardt, 1993). Such relations do not merely inhere to speculative panpsychic technologies of *Lassen* but play out in the all-too-human world in which aesthetic-affect constitutes the forces of push and pull between individual and collective desires. Such forces are already inscribed in the political relations between *potentia* and *potestas* (be it in fascism or democracy) and played out institutionally across various institutions via conflict and collaboration. The potential development of real-world nomadic *Lassen* technologies of *potentia* via technologies of biomimesis and biomimicry already exists. In a small number of cases, such technologies manage to partially escape the controlling economising clutches of neoliberal capitalism. As far a biomimesis goes, there is already an inherent, albeit flawed, more-than-human exchange that involves humans becoming sensitive to the design of nature and letting go of anthropocentric conceits to some extent. Little more can be said here, given this article's limits of space and scope, except to draw attention to reprehensible exploitation of non-human life by the bioengineering industry through *Macht* technologies. Yet, these issues are not so easily resolved. How would technologies of *Lassen* deal with threats to human life posed by biological others—like the SARS-CoV-2 virus, for instance? As has been pointed out elsewhere in this volume (see Trento), there is a paradox between hospitality and hostility—between unconditional and conditional acceptance of the stranger, the unknown, and the risks that are at play. I am reminded of the film *Life* (2017), where extra-terrestrial life (anthropomorphically referred to as 'Calvin') turns out not to be the cuddly toy that the *Lassen*-infused exobiologists believed it to be.

The above issues also apply to design and design education where there is a recognition of the necessary shift from object to *objectile*; a morphogenetic process where the design object becomes an open-ended, relational, intelligent event that shifts the user-subject's relationship to it (see Marenko, 2015). There is a discernible movement from object to event in design and design education—where “the material-force couple replaces the matter-form couple” (Deleuze, 2007, p. 106)—in keeping with nascent *Lassen*-inspired AI technologies. The trajectory here is that designing AI with more sensitised and nuanced intelligence will necessitate combining silicon and carbon within new post-silicon microchip technologies (Kwinter, 2007). The proposed design for a neuromorphic chip (Simonite, 2013), for instance, offers an anorganic mode of expression that moves beyond the current technodigital objectscape. Here again, however, the tensions between *Macht* and *Lassen* technologies will be at play—as explored in an array of sci-fi narratives (see, for instance, Stengers, 2018). STEM to STEAM pedagogical proposals (Knochel, 2018) that incorporate some of this line of thinking, propose to insert not just A(rt) or A(esthetics) into wild science-education but to dwell, pedagogically, on A(istheis)—to pedagogically cull the ethico-political force of the emergent assemblage, and to dwell on what this means for design pedagogy.

## Indifference

The second generalisation that cuts into all the above competing philosophical directions—and the pedagogies that harness them in various ways—is that they are *all* limited by the impossibility of ever claiming a naïve realism; by this I mean from ever completely epistemologically and rationally understanding the world-for-itself, as a human-independent reality that performs itself. The neoliberal fantasy of perfected algorithmic AI—a circular production-consumption process that totally eliminates all waste—is a dream that can never be realised. Control is never perfect, excess always escapes. By in|difference I am referring to the world-for-itself—the mechanosphere—that is fundamentally indifferent to our desires and which continues to flourish in our absence and despite our depredations (as in Chernobyl's exclusion zone where various plants and animals have adapted to radiation levels that would sicken and kill humans). That said, the mechanosphere—although it functions autonomously—reacts

to and forms assemblages with humans. Here nuances of indifference emerge as with Lucretius' swerve wherein there are numerous thresholds at work; that is, minor inflections which break from complex systems. It is these breaks that constitute the possibility for new modes of relations. In this sense the between of difference and indifference is where such inflections of excess are found. It is where imperception emerges as identity is disturbed and desire undergoes a transversal change. This is to say that a metaphysical realm cannot be eliminated as that which escapes any system remains unknowable.

Speculation about the unknowable is foremost an aesthetic phenomenon (as maintained above), as well as being fictional. There is no complete unification theory (or theory of everything) that could include all events at the quantum level. The Max Planck scale of physical cosmology, for instance, presents the limit case where the standard Copenhagen model of quantum field theory and general relativity theory do not apply to quantum effects where gravity dominates. Furthermore, computer algorithmic calculations are also limited by an omega constant (Chaitin, 2006), yet another affirmation of Gödel's incompleteness theorem. Nor are standard philosophies subject to the limitation of their philosophical decisions—all philosophy is concept creation (Deleuze and Guattari, 1994). To push this even further is to maintain a democracy of thinking (Laruelle, 2013) that allows in all forms of occult thinking and mysticism. With this possibility, the question of the unknowable is not only queered, but it can also—if pushed far enough—become dark, eerie, and perhaps even outright horrific.

There can thus be no fundamental grasp of materiality per se that is specifically new; not least since there is, as yet, no understanding of what materiality implies at the quantum level; from this vantage, we might just as well be using the term "new idealism" (see Grosz, 2017, p. 13) when talking about new materialism. With such designations, the left glove may be inverted into the right glove, and the invisibility of the transition cannot be fully grasped as it describes a becoming-process, an excluded middle of an aesthetic-affective encounter. In brief, some of the relational ontologies of new materialisms continue to display a lingering proclivity towards discursive, cultural, or linguistic approaches—for instance, the agential realist use of diffraction

(see Barad, 2007) as a form of narration or storytelling whereby the researcher's memory stories are turned into artistic forms of research creation. This becomes especially obvious as discursivity is part of agential realism wherein deconstructive strategies are harnessed resulting in the fictive modelling of what is now asserted as research. Such lingering proclivities avoid the thorny difficulties of addressing the concept of the ideal as it intersects with the material—such as, for instance, the speculative existence of morphic fields of resonance (Sheldrake, 1995) where the virtual memory of nature impacts its material forms in various ghostly ways or the speculative metaphysical blueprints of life. Cells as well are said to be sensing and sentient, evolutionary in their memory transmittance (Shapiro, 2009). Not all imaginings are reducible to the material: this seems to be the paradox of idealist materialism or vice-versa (materialist idealism), as in the glove analogy above. We have groundless ground, groundlessness, and an *Ungrund* (Deleuze, 1994, pp. 224-229), the Real (Lacan, 1977), a *life* (Deleuze, 2001), and a long list of metaphysical ways to recognise the void of chaos. For Deleuze, the (Kantian) *noumenal* is immanence as Ideas. Ideas, for Deleuze, are wild and supra-sensible, revealing forces and intensities that lie behind sensations that draw us into nonhuman and inhuman becomings (Smith, 2003). This wildness reveals the direction that a wild pedagogy that aims to teach about the material-ideal needs to undertake.

From this broad claim, the notion of in|difference emerges, not in its negative form as in its meaning in relation to representation (in|difference as a form of non-caring), but as a dark precursor (Deleuze, 1994), which is another way of grasping the importance of a in|different vitalism that acts as a quasi-cause (Colebrook, 2010; Deleuze, 1994) to actualisation versus a more active vital materialism that focuses on creative agency. In|difference addresses a world-without-us, or rather, indifferent to us, which calls us to face life's other—namely, death—which is not its opposite, but its shadow. In|different vitalism looks at differential relations of forces, which may actualise in the form of bounded organisms, their living norms and meanings, but are never exhausted by these elements (Colebrook, 2010, p. 115). Death as an acknowledged end is an *extended temporality* we already inhabit, rather than an end to be prevented. "Terminality" becomes a horizon, a "lifelong" (Ensor, 2016, p. 54) shared condition characterised by a potential for relations of ongoing responsibility and accountability

towards the harmed, the ill, the perishing, and the dead (environments, ecosystems, organisms). While forces allow for the emergence of bodies, the extension of these forces often results in the destruction of bordered organisms. This is to say that an indifferently vitalism recognises that processes of living and dying, growth and decay are complexly interwoven and entangled. For Deleuze (1994), there is an impersonal side of death, as being indifferent in the context of the kind of vector pedagogy might take. The termination of an organic life leads to new life, or creative evolution, a negantropic condition as creativity reinvents itself. The necessity (or demand) for non-toxic assemblages is called on (Stiegler, 2018). Inorganic life is germinal life for Deleuze, whereas organic life is somatic and personal. Inorganic life is related to the death instinct, which is no longer negative; rather it is precisely what staves off the entropy via negentropic creation.

In new materialist inquiry overall, the life/death binary is problematised as non/life, the inter-intra relations between the inorganic and organic (Radomska, 2016). This is but another articulation of indifference. The carbon chauvinism of what life is becomes questionable when it comes to viruses, prions, and inorganic protocells that can be synthetically manufactured. The SARS-CoV-2 virus is indifferent to its host, as is the case with deadly infectious bacteria (see Hird, 2010). We can anthropomorphise (or not) bacteria and viruses in various ways, but this is beside the point. Viruses are not ethically responsible to their hosts: death is life for them. Indifference presents us with the spectre of a posthumous life (Weinstein & Colebrook, 2017), that is, a questioning and an ending of life in its humanist vitalist forms. Such a position seems to be at odds with the Bergsonian *élan vital* promoted by Jane Bennett (2010) and in Barad's (2007) case, where the stress is on agential activism. For Barad, "distinct agencies do not precede, *but* rather emerge through, their interaction" (p. 33, added emphasis), as agential intra-active matter. Her emphasis is on the inseparability of entities. Inorganic passive vitalism that is indifferently is not considered in her framework. Rather, the "animate-inanimate distinction" (2007, p. 419, n. 27) is overcome, drawing her closer, as in Bennett's position, to a Bergsonian vitalism.

In the case of *élan vital*, it is materiality's active role, rather than its indifference as impersonal life that is being forwarded by these theorists. Deleuze's (1994, p. 213)

in|different vitalism, by contrast, describes “a force that is but does not act” per se. This constitutes a break from Bergson—with a Nietzschean twist—whereby an organism is seen to increase its openness to the fluxes of the outside or increases its power of disinterest to the outside. The first is an active becoming while the second is a reactive becoming. Deleuze and Guattari’s (1987) conception of a body without organs addresses this inorganic germinal life as flows of energy from the outside. It raises the way the in|different external flux of matter passes (is enfolded) into the body, and how this flow may be mediated historically via technologies (of *Lassen* or *Macht*). This flow can result in two types of deaths: a reactive death by diminution, or a death by vanishing—a body folded in upon itself that shrinks more and more until it is annihilated. This reactive power towards death is by way of narcosis and exhaustion, an ever-increasing in|difference to the world as if enclosed in a social monadological bubble (Meillassoux, 2007). Deleuze refers to this reactive becoming as stupidity or *bêtise* (see Deleuze, 1994, p. 150). Creative death is the ever widening up to the external flux (outside) until the body dissipates, dissolves, an infinite madness as there is an effacement of any selection of images from the outside, a saturation of existence that is overwhelming. It may be viewed as the very inverse of the social monadological bubble of communication: only chaos comes at you. In/different vitalism complicates existence, requiring the mediation of various technologies (whether as linguistic, artistic, philosophical, or pharmacological constructs)—in other words, “a little order to protect us from chaos” (Deleuze & Guattari, 1994, p. 201). Philosophy, art, and science are the three disciplines that Deleuze and Guattari (1994) promote to stave off chaos, with the caveat that these philosophers require from us to trouble, queer, and wild these disciplines in various transversal and schizoanalytic ways. I have explored the pedagogical implications of this, especially in relation to art (see jagodzinski, 2016). I further maintain that the cosmic artisan exemplifies the necessary sensibilities to intuit the flows of matter when composing cosmic artwork (see jagodzinski, 2019b).

Such a position is not reflected in versions of new materialism that presents materiality as an “active participant in the world’s becoming” (Barad, 2007, p. 136) or “a substance in its intra-active becoming—not a thing but a doing, a congealing of agency” (2003, p. 828) as mentioned above. With such claims, new materialism seems



to lean more toward (post)humanist forms of vitalism as in Rosi Braidotti's (2013) defence of maintaining a critical (post)humanist subjectivity, and articulated more fully by Francesca Ferrando (2019), rather than on the more problematic Deleuzian position of inorganic becoming. Arguments for a materialist activism that are accompanied by spectres of instrumentalism (that range between *Lassen* and *Macht*) and human intervention now need to grapple with the inorganic vitalism of nature that does not 'care' (e.g., the COVID-19 pandemic). At any rate, the question of vitalism remains ambiguous, at least in relation to the indifference that is being explored, especially as difference summons an encounter or event that disrupts what appears as a continuity.

Such events are characterised by *pure* or *Aiôn* time—"non-chronological time, Cronos and not Chronos ... the powerful non-organic Life which grips the world" (Deleuze, 1989, p. 81), Such time is contingent, deep, and enduring. Matter for Deleuze (1989) is temporal and chaotically instantaneous; it consists of instances in which actions appear. These are *not* events, but the continuous stream of lived life. Consciousness as appearance *is* matter as actions occur. Matter is composed of instantaneous actions, acting, and reacting instantly with each other; there is no gap nor delay, nor hesitation in this process of mattering. Such pure actuality is not what is alive, rather it is the splitting of time, that constantly breaks apart into past and future (Deleuze, 1994). Life is identical to the splitting of time (past, present, future); that is, the affirmations (as temporal fusions) that take the place of similar instances via *contemplation*—the retention of instances that resemble each other and that anticipate similar instances that will occur in the future. In this way, gaps are created between past and present action as matter is fused across time in a living present, creating a gap between past and the future. This is time as *organic habituated life* that is lived, which is joined together in a smooth succession of moments that are all similar. For dimensions of time to be split apart (time out of joint), non-organic life intervenes as an event or encounter. This non-organic life is indifferent; that which comes from the outside, forcing an interruption or a hesitation in organic existence. The absorption of actions from the outside of an organism gives life itself a present in which the past is retained. But this absorption can also lead to stress and fatigue, an overwhelming flood of non-organic life leading to a delirium, a breakdown, or a

breakthrough. The interventions of inorganic life from the outside presents a situation where the organism can no longer fuse the various elements outside of itself: a resultant trauma leading to the extremes of the two deaths mentioned earlier. Disruption and difference are introduced to the past time of the organism through such encounters.

Deleuze's Nietzschean and psycho-analytical leanings emphasise inevitable and sombre facts of life as entropy, dissipation, the death drive, dying, illness, war, wounds, and exhaustion. Interruption and collapse are disruptions of organic life. Inorganic life, intruding on organic life in this way (whether as revengeful AI, earthquakes, viral pandemics, or tsunamis) represent the intrusion of Gaia; a force thoroughly in|different to humans (Stengers, 2015). Life on planet Earth only emerges contingently and locally from geophysical forces; it is not independent from the strata that compose it. Neither nature, life nor the planet can be saved as such. The deep time of the Earth, which in|difference addresses, recognises that an internal rupturing force of Gaia makes human extinction a real possibility. There is no unified harmonious whole of Nature in which social processes could be inscribed; rather there are only intermeshing assemblages wherein collective thought might intervene—a necessary intervention which, given the scope of the Anthropocene, will require overcoming the matrix of "Integrated World Capitalism" (Guattari, 1984, p. 283). In|difference in no way cancels or refutes the overall ethical-political grasp that Deleuze and Guattari see as essential for recognising harm, vulnerability, and suffering which are entwined with life and death.

In|difference, in the end, is univocal (Deleuze and Guattari, 1987). All beings are simply matter/information/informed motion. All subjects—as things or entities—are also forces in their capacity to modify and be modified by their environments to the degree of their capacity to feel and/or think, affect, or be affected. As Deleuze and Guattari have it, a myriad of "micro-brains" can be seen everywhere, as the inorganic life of things: "Not every organism has a brain, and not all life is organic, but everywhere there are forces that constitute micro-brains, or an inorganic life of things" (1994, p. 213). Semiosis, as an intermediary codification, is an exchange of informed motion between interior and exterior. "Unnatural alliances" or "interkingdoms" are assimilations and material expressions of these exchanges of codes; a "double capture" takes place in

all becomings (Deleuze & Parnet, 2007, p. 2). The relation between world and an entity in its *Umwelt* becomes an exchange—a translation back into the interpretative technological or biophysical capacities available to that entity (organism). This double capture and exchange happen constantly in Nature—a world in|different to us—through a “thick hybridity” (Lulka, 2009, p. 385). This would follow Spinoza’s conception of the composite individual—a being modified to think through what our species relational assemblages could encompass (from death-threatening viruses like SARS-CoV-2, to gut microbiota, or from poisonous insects and snakes to our closest kin like the chimpanzees or bonobos).

In|difference here is not topographical but topological. Topographical assemblages are formed with specific nonhumans as singular alliances (like domestic animals), or via the extension of humanist subjectivity as animal rights (citizenship). In|difference in its topological forms presents us, however, with the problem of “unholy alliances” (Deleuze & Guattari, 1987, p. 293) between distant or contiguous points where the border proximity is in|different to both contiguity and distance. How do we live with something contiguous such as the SARS-CoV-2 virus, cancer, malarial mosquitoes, or any other deadly life or non-life that threatens? This complicates matters and mattering, aesthetically, ethically, ontologically, and politically.

## Dissatisfaction

How does the Earth think? How can we parse its in|different cosmology or its inorganic life? These are some of the challenging questions that face education in the Anthropocene. How can we read the semiotic exchanges between entities (from the quantum levels up to the inorganic and organic levels)? How is communication between various assemblages (human, inhuman, nonhuman) scrambled through anthropogenic labour? And how can we invent and design new technologies that enable a more insightful grasp of the changes that will force populations to move in unprecedented numbers as sea levels rise? Such issues are at the heart of the problematic for an immanent and wild pedagogy of in|difference. Geologic (rather than biologic) life raises the question of how the Earth system has created an encephalised species. How do we trace the elements of deep time that reside within

our consciousness and generate larval subjectivity within the neuro-chemical mazes of the reptilian or paleomammalian brains enfolded within us? And how will future technologies that access the neocortex, stimulate these more ancient nonhuman layers of consciousness and what ethical conundrums will they raise?

This essay has been an attempt to present some openings and wild questions for the problematic presented to education by the Anthropocene. Yet there is a felt dissatisfaction at the end of this writing. Perhaps what I am feeling is a certain helplessness. There are, after all, no sure conclusive directions for a wild pedagogy that faces the Anthropocene head-on. The COVID-19 crisis, for example, has shown that necropolitics (Mbembe, 2019) is firmly entrenched. And as the inevitable vaccines are doled out, the technological prowess of cognitive capitalism will no doubt be further entrenched. Meanwhile, responses by even the finest of theoreticians to the COVID-19 crisis have seemed to echo the usual humanist sentiments of hope and perseverance, pushing back against the fatigue, fear, and despair brought on by an encounter with in|difference. Nevertheless, the all-too-human nature of things as they are today—the waning of democracies, the increasing of fascism, escalating violent skirmishes, the looming anthropogenetic climate crisis, etc.—simply underlines the dire need for a wild pedagogy that is able to challenge the abstract machines of capitalism and face-up to in|difference. An immanent and wild pedagogy, as I have argued, will need to take stock of contingency, uncertainty, and unknowability for on the horizon of the future lies the real possibility of human extinction. Education today, after all, faces not only the Anthropocene, but a flux of reactive forces and conceptual persona in the form of necropolitical authorities (such as priests, autocrats, and *Macht* technologies). As stated, all of this bolsters rather than diminishes the necessity of a wild pedagogical response, while leaving open the question of whether or not such a response is possible given the forces ranged against it.

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## Diffraction & Reading Diffractively<sup>1</sup>

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According to classical physics, diffraction is a physical phenomenon that comes into being when a multitude of waves encounter an obstacle upon their path, and/or when these waves themselves overlap. Waves in fact always already overlap and extend into one another, so even in the classical rendering, when pushed to an extreme, “we can understand diffraction patterns—as patterns of difference that make a difference—to be the fundamental constituents that make up the world” (Barad, 2007, p. 72). Seen through the perspective of quantum physics, however, we are invited to think about the inherent diffractivity of sets of waves, of single waves, and of single particles, under the right (experimental) conditions.

In contemporary feminist theory, diffraction is often employed figuratively, to denote a more critical and difference-attentive mode of consciousness and thought. Both literary theorist Trinh T. Minh-ha and feminist science studies scholar Donna J. Haraway have engaged with the metaphor of diffraction in their oeuvres in relation to thought, difference(s), and alterity. This engagement matters to the tradition of new (feminist) materialism because the new materialist tradition approaches difference as making a difference in terms of both genealogy, figurative conceptualisation, and of matter coming to matter (Butler, 1993; Barad, 2007). Although Minh-ha does not explicitly refer to diffraction as such, it is clear that her philosophical approach towards identity and difference is a relational, diffractive one, as it radically steps away from what she understands to be the apartheid-based, segregational type of difference, or, put in different terms, the traditional modern Western philosophical approach in which

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<sup>1</sup> This piece is a slightly edited republication of the original New Materialism Almanac entry. See Geerts & van der Tuin, 2016.

difference is seen as to-be-captured, to-be-assimilated, and, eventually, to-be-wholly-eradicated (see e.g., Minh-ha, 1997). Moving through and beyond such a reductive Hegelian Self/Other dialectics, Minh-ha's diffractive conceptualisation of identity and difference focuses on a non-dualistic, non-separational model of identity and difference, in which identity categories, identified groups, and even identified single entities, diffractively crisscross, interfere, and co-establish one another, and differences are respected and allowed to exist and flourish (also see e.g., Minh-ha, 1996). After all, the noun 'identification' and the verb 'to identify' come from the Latin *identificare*, which combines *identitas* and *-ficare* (from *facere*: to make).

Haraway follows in Minh-ha's footsteps when discussing diffraction for the first time in "The Promises of Monsters" (2004): Haraway here explicitly refers to Minh-ha's idea of inappropriate/d others—a notion that expresses how subjects are in a "deconstructive relationality, in a diffracting rather than reflecting (ratio)nality" (Haraway, 2004, p. 69). Part of her feminist critique and revisioning of objectivity within scientific thinking, diffraction for Haraway is a "more subtle vision" than the traditional reflective scientific forms of optics and thinking that actually spotlights "where the effects of difference appear" (p. 70). To rephrase this in more Irigarayan terms: Thinking diffractively steps out of the phallogocentric, reflective logics of producing the Same all over again by acknowledging the differences that exist, while at the same time pointing at where the problematic reductions and assimilations of difference have taken place. Haraway in *Modest\_Witness@Second\_Millennium* (1997, p. 16) expands on this new form of optics and way of thinking by using diffraction as "an optical metaphor:" Diffraction here is even more contrasted with the traditional way of producing (scientific) knowledge, namely "[r]eflexivity." Such a practice "only displaces the same elsewhere," according to Haraway, and creates oppositional distinctions between the real and the figural, whereas diffraction—now reformulated as seeing and thinking diffractively—is all about making "a difference in the world" by paying attention to "the interference patterns on the recording films of our lives and bodies." This does not mean that Haraway wants to get rid of reflexivity: She keeps on working through and beyond reflective paradigms of science, social movements, and policy-making, but it is clear that she considers diffraction to be a more "critical consciousness" than reflexivity, as it gives us the opportunity to become more attuned to how differences are being created in the world, and what particular effects they have on subjects and



their bodies (Haraway, 1997, p. 273). Seeing and thinking diffractively therefore implies a self-accountable, critical, and responsible engagement with the world.

It is exactly this aspect of diffraction that has been picked up by feminist new materialist philosopher and fellow feminist science studies scholar Karen Barad in *Meeting the Universe Halfway* (2007). For Barad, reading (and theorising) diffractively expresses what a self-accountable feminist type of intellectual critique and textual engagement ideally should consist of: Rather than employing a hierarchical methodology that would put different texts, theories, and strands of thought against one another, diffractively engaging with texts and intellectual traditions means that they are dialogically read “through one another” (p. 30) to engender creative, and unexpected outcomes. And that all while acknowledging and respecting the contextual and theoretical differences between the readings in question. This methodology thus stays true to Haraway’s idea of diffraction: Rather than flat-out rejecting what has been theorised before, the foundations of the old, so to say, are being re-used to think anew.

Reading diffractively therefore not only appears to transcend the level of critique, ultimately based in a Self/Other identity politics, but in Barad’s regard also can be regarded as a boundary-crossing, trans/disciplinary methodology, as it brings about “respectful engagements with different disciplinary practices” (2007, p. 93). Blurring the boundaries between different disciplines and theories to provoke new thoughts and theories, this methodology examines how and why boundaries between disciplines and strands of thought have been made and how they can be (re)made to matter more toward inclusion than apartheid.

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*Macmillan Interdisciplinary Handbooks: Gender* (Macmillan Reference USA, 2016) as well as, for example, and with Adam J. Nocek, the special journal issue “New Concepts for Materialism” of *Philosophy Today* (2019). Iris chaired the COST Action New Materialism: Networking European Scholarship on “How Matter comes to Matter” (2014-18) and worked in the H2020 project Ethics of Coding: A Report on the Algorithmic Condition (2017, chaired by Felicity Colman). Iris is founding editor with Rosi Braidotti of the book series *New Materialisms* of Edinburgh University Press. She is also editor of *Somatechnics* with Holly Randell-Moon.

## Liquid Agency

**Sam Skinner**

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If I close my eyes I can hear the faint blue  
traces of blood over-gathered by oil  
and the sound of ice near the seafloor.

There will be a time when nothing living moves,  
a degradation of stillness beyond any liquid scar.  
Still, the solutions of despair are weak  
if you believe you can touch an undersea reef,  
the belly of a small wounded whale.  
You have the power to feel it.  
The breath of the animal  
moving like trust into your arms.

Extract from Joanna Klink, *Terrabone Bay* (2015)

SARS-CoV-2—better known as coronavirus—moves through liquid droplets that migrate from the lower respiratory tract of one individual's body to another via actions such as kissing or coughing (Wilson et al., 2020). Social distancing and mask-wearing are means to control the liquid agency of droplet transmission (Tufekci et al., 2020). The different coronavirus vaccines will be administered in solutions injected into

bloodstreams at a planetary scale: a connected body of people, of bodies and antibodies, a commoning immunity, such are the inversions of individual and community, insides and outsides that the pandemic compels (Mol & Ashraf, 2020).<sup>1</sup> How the virus will respond to and learn from the immune pressure (see Deem and Hejazi, 2010 for this notion) of our bodies and our vaccines is an open question for our laboratory earth.

Naturally, the liquid systems involved in the transmission of the virus are co-constituted with other systems—from the air in our lungs and the atmosphere, to deforestation and the trade in wild animals (Tollefson, 2020). Akin to how words on screen, rendered in liquid crystal, are generated and transmitted through a multitude of material modes and relations, from the extraction of quartz for glass, to the translation of fonts to photons to thoughts—all acting through infinite forms and frequencies, latencies, and energies. Accordingly, this short essay does not intend to suggest that agency is undividedly liquid, rather, it seeks to put the terms *liquid* and *agency* into conversation with each other and correspondingly, with this special issue's themes of pedagogy and wildness. I use the notion of *liquid agency* as a textual device, not a theory, to ask: what agency does liquid have in the world, and vice versa, how is agency liquid in character?

I originally used the term liquid agency as a kind of key at the beginning of my PhD research to excavate the agency of liquid in the shaping of the city of Liverpool in the United Kingdom. I explored relations between its port status and alcohol consumption, sewage systems and marine ecology. Liquid agency was a reductive, but nonetheless enchanted response to my first encounters with new materialist scholarship, particularly its foregrounding of the entangled agencies of matter (Bolt, 2007; Coole & Frost, 2010), and specific concepts such as intra-action (Barad, 2007) and transcorporeality (Alaimo, 2010), ceding that there is no such thing as a blank canvas for agency, human or otherwise, and the implication that one must carefully consider the warp and weft of the canvas, of the world, how it simultaneously shapes and becomes shaped. Liquid agency's crudeness as a term, like a polemical point, is driven less by

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<sup>1</sup> A tweet by @caithuls is of note in terms of the profound liquid agency of, and aversion for, the hypodermic needle used to inject the vaccine into the body: "Release the vaccine in vape form and I promise no one will ask what is in it." Tellingly, this tweet was liked over 800,000 times. See caithuls, 2020.

the point itself, than the response it catalyses. Consequently, as a conceptual key or opener it unlocked further avenues of enquiry (such is the immanent process of life/research!), akin to the anarchic, evasive flow of liquids beyond their containers, beyond control. My research led me to a more focused—if nonetheless transient study—of another container of sorts, namely, the Liverpool Observatory, founded in 1845 to conduct chronometer rating to support marine navigation, which translated into a co-curated exhibition, artist commissions, and an artist book.<sup>2</sup> Liquid agency as a subject and method undid and reformulated itself throughout the project, shifting phases, evaporating, condensing; unpredictably elsewhere, in dances of agency (see Pickering, 2010). I was also drawn to liquid as way to think of those substances that are other-, less-, or more-than water, for example, oil or milk (see for example Jackson & Leslie, 2018; Negrastani, 2008), blood or mucous, to augment with what Laura Winiel has described as an “oceanic turn” (Alaimo, 2019, p. 429) in the Humanities, and to advocate the distinct and transient states in which matter and liquid exist, as a focus of attention. In this latter regard, notable work includes Ben Woodward’s (2012) writing on slime, the edited volume *Liquid Ecologies in Latin American and Caribbean Art* (Blackmore & Gomez, 2020) which maps the mobilisation of fluids and bodies of water in visual art practices and allied genealogies of liquids and fluidities, work on viscosity by Nancy Tuana, who describes the viscous integrations of human embodiment and environment, and Arun Saldanha’s literal reading of the viscosities of human collectivity (Wagner, 2018). I must also mention the quasi-literary liquid sociology of Zygmunt Bauman who, following Ferdinand Tönnies’ concept of fluid reality, compellingly rejected the prefix ‘post-’ in favour of liquid to describe how “society cannot stand still and keep its shape for long” (Davis, 2013, p. 2).

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To be liquid and/or wild is a dance and a state of nature, always liable to becoming variously tamed, transformed, reified, or polluted. Equally, human agency and pedagogy act to produce effects, but are quixotic and entangled, catalysing both difference and stasis, de- and re-centralisations of power. Wildness and liquidity,

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<sup>2</sup> *The New Observatory*, FACT, Liverpool (2017), a group exhibition co-curated, with Hannah Redler-Hawes (<https://samskinner.net/the-new-observatory>), and artist book *Obs* (2019), (<https://www.brokendimanche.eu/artist-books#/obs>).



pedagogy and agency, operate in opaque milieus of embroiled relations and flux. But within this scene, the key touchstones and vicissitudes of climate change, technology, and social justice engender and demand a posthuman orientation and accountability, enkindling a new material-semiotic reality to emerge and to bear witness: the liquid agency of the earth is performing a kind of wild pedagogy. The world is teaching us about the world, about how untameable it is, about the free-flowing liquidity of its agency, and what happens when its wildness is disrupted, when we presume too much of human agency, too little of the earth's, too little of matter. Chaotic weather caused by emissions, or the pandemic's syndemic correlation of infection rates with social inequality (Bambra et al., 2020), for example, each possess a pedagogical agency that operates synergistically as 1:1 scale phenomena and representation, both material and semiotic. As Claire Colebrook (2017, n. p.) writes: "Nature, now, offers its own narrative and frames the human species, placing it within the scale and register of earth system science." Like morphing Matryoshka dolls, we are containers within containers for liquid agencies and wild pedagogies to evade and inhabit. This is not to suggest that, for instance, hurricanes are pedagogical events or lessons doled out by Gaia, but rather that any event is a material-semiotic and generative node (Haraway, 1991; Law, 2019), in which agency and pedagogy are nested and enfolded within one another.

Today, the posthuman subject is evermore decentred, dissolved and reanimated in a sea of material agencies linked to climatic phenomena and autonomous technospheric assemblages. How human sense augments, subverts, and learns to co-evolve with these liquid agencies is a task for a wild pedagogy that "offers access to other forms of knowledge... a larger world of vegetation and animals, rocks and landscapes, water, and creatures seen and unseen" (Halberstam, 2020, p. 10). As Jennifer Gabrys (2016, p. 7) writes: "networked environmental sensors make it possible to listen in on a planet that has always been 'talking to us' but which we can now only begin to hear." Of course, listening to the earth has been a practice of Indigenous cultures for millennia, but new instruments and devices undoubtedly enable novel forms of observation, pedagogy, and agency. Moreover, humanity's ability to educate and act in response to climate phenomena and data is one of the fundamental issues for agency and pedagogy of our time. But the new pervasive tools

of techno-scientific observation, of what could be called the *observe-atory condition*, have a normative dimension, convenient to the techno-solutionist spirit of our age.

The wild pedagogy of Jack Halberstam and others, which catalyses this special issue, asks us to consider what do such systems of knowledge and legibility preclude as well as include, and how do anarchist, queer, and decolonial modes of being that live beyond the fence (see Gulemetova, 2017), teach and affirm more liquid agencies. Notions of wildness and liquidity are particularly resonant with how apparatuses are always a construction to some degree, limited in what they may describe and generate, but excelling in classification and reification, what Nancy Cartwright calls nomological machines (1983). Such machines may enable the measurement of phenomena and the ascribing of laws, but the degree to which these laws hold beyond the machine or container *in the wild*, out at sea, is unknown and unverifiable (Cartwright, 1989), only empirically adequate (see Van Fraassen, 1980). Further still, as Ian Hacking (1983) suggests, it is less the case that we have learnt to understand the wild workings of the world, rather instruments and the world have been made-to-measure, and the world is evermore tamed, customised, and made consistent with instruments and observation. Accordingly, we need wild pedagogies that embrace liquid agency, excess, and the unknown, and catalyse modes of being and the production of knowledge with, and beyond, the propositional and inscriptive, whilst still enabling accountability.

Agency's relationship to accountability is a feature of dialogue within Rick Dolphijn's and Iris van der Tuin's *New Materialism: Interviews and Cartographies* (2012): within which, Rosi Braidotti describes agency, in relation to subjectivity, as a "process ontology of auto-poiesis or self-styling, which involves complex and continuous negotiations with dominant norms and values and hence also multiple forms of accountability" (Braidotti in Dolphijn & van der Tuin, 2012, p. 31). Whilst Karen Barad in the same volume states that agency is about "the possibilities and accountability entailed in reconfiguring material-discursive apparatuses of bodily production, including the boundary articulations and exclusions that are marked by those practices" (Barad in Dolphijn & van der Tuin, 2012, pp. 54-55). Elsewhere, in Felicity Colman's entry on agency in the online *New Materialism Almanac*, agency is articulated as:

something that refers to the relationality of the political cultural position that and by which matter and things are defined, distributed, and organised – by their relationality to other matter and things; and which do not have a pre-existing ontology. (2018, n. p.)

Collectively, the above-mentioned descriptions evidence how an understanding of agency's non-linear and nonhuman emergent relationalities does not preclude a situated applied practice that is rooted in ethical commitments and accountability, rather, it compels it. It is interesting to note how often this is misapprehended, strawmanned even. For example, in the aforementioned article, Colman (2018, n. p.) calls Peter Wolfendale to account, for sardonically suggesting that: "The OOO/ANT/NM axis [thus] solves the pressing political problem of cultivating collective agency by dissolving it." This binary image of dissolution is apparently intended as a criticism, to suggest a phase change of agency from solid to liquid, that liquidates agency into a system of *laissez-faire* relationality, in which everything is everything. But to dissolve something into liquid does not herald a reduction in agency. Bonds may become weaker than those of a solid, but they also become more flexible—a Guattarian molecular revolution no less. Furthermore, there are spectrums of solubility, concentrations alter, substances become diffused, sedimented or immiscible. And in turn substances within liquid solutions are not simply forever interred, they can change state again and again, become a solid or a gas, and in turn, cool, condense, and fall back to earth, picking up particles and minerals in the air, raining upon the parades of purity, linear causality, and consequentialism, weathering the colonial solids of platonic and capitalist extraction, before evaporating, and melting into air again. Equally, as Stacey Alaimo delightfully affirms, why not "dwell in the dissolve," within which "the very substances of the world cross through her, provoking an onto-epistemology that reckons, in its most quintessential moments, with self as the very stuff of the emergent material world" (2016, p. 8).

Moreover, as Astrida Neimanis (2016, p. 4) elucidates in her important and stirring work on water and hydrofeminism, "bodies of water" are "specifically gestational." It is water's ability to catalyse emergence and support life, for life to be dissolved and live within, whilst simultaneously remain fluid and uncontainable, which defines it. In

this regard, the words of Kate Bornstein are poignant when she states that gender fluidity:

is quite different from ambiguity... [it] is the ability to freely and knowingly become one or many of a limitless number of genders, for any length of time, at any rate of change. Gender fluidity recognizes no borders or rules of gender. (1994, p. 52-53).

Perhaps this freedom to gestate and change, to catalyse difference, is what we might hope for from a wild pedagogy imbued with liquid agency, where more-than-human forces echo the evocation in *King Lear* of: "I'll teach you differences" (Shakespeare, 2012, p. 20), or as Ian Pindar and Paul Sutton write in reference to their translation of Félix Guattari's *The Three Ecologies* (2008) employing fluid figurations of agency: "solidarity and dissensus... requires that a plurality of disparate groups come together in a kind of unified disunity, a pragmatic solidarity without solidity; what one might call, for want of a better word, 'fluidarity'" (Pindar & Sutton in Guattari, 2008, p. 15). How to learn to learn, with/in the wild, as a connected body of difference, is something to embrace and affirm indeed. As Montesquieu wrote: "We receive three educations, one from our parents, one from our schoolmasters, and one from the world. The third contradicts all that the first two teach us" (as cited in Noble, 1995, p. 82). Perhaps a wild pedagogy can have a liquid agency that seeks less to contradict, but instead build relations between these three alternate ecologies of *mater* (mother), *alma mater*, and matter. Multiplied further in the three ecologies of Guattari: human subjectivity, social relations, and the environment/nature. Supporting the possibility of transdisciplinary pedagogical modes to flow and pool, like water's ability to dissolve oxygen and other carbon-based molecules, with liquid agency, to create an unending environment for life, for wildness, to thrive.

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## Affirmative Ethics and Affective Scratchings: A Diffractive Re-View of *Posthuman Knowledge* and *Mapping the Affective Turn*

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A book does not exist on its own—it comes to life and is co-produced through the entanglement of the assemblage it is plugged into. Deleuze and Guattari (1987) explain:

A book has neither object nor subject; it is made of variously formed matters, and very different dates and speeds. ... We will never ask what a book means, as signified or signifier; we will not look for anything to understand in it. We will ask what it functions with ... A book exists only through the outside and on the outside. A book itself is a little machine. (p. 3-4)

[In this re-view](#) (AS 1), we (two former K-12 teachers who have been working closely for a decade in the field of teacher and educational leader preparation) diffractively read two books—Rosi Braidotti's *Posthuman Knowledge* (2019) and *Mapping the Affective Turn in Education: Theory, Research, and Pedagogy* (2020), edited by Bessie Dernikos, Nancy Lesko, Stephanie McCall, and Alyssa Niccolini—through each other. We refer to our reading as a *re-view*, following Karin Murriss and Vivienne Bozalek's (2020, n. p.) suggestion that a re-view constitutes “a dynamic process of *thinking together with and through the text* as an emergent, open, in/determinate process ... paying attention to the differences and the fine-grained details that matter.”

In this spirit, we do not offer a typical summary of the main points of the book and critique them—we do not ask what these books mean. Instead we ask what they did when we came into composition with them as a '[Katie-Tammy-Posthuman](#)

*Knowledge-Mapping the Affective Turn*' (AS 2) mixture, highlighting the ideas that moved us to think differently, feel differently, and do differently. We also take up Dernikos' and colleagues' idea of "affective scratchings" (2020, p. 3) by adding hyperlinks as lines of flight, creating momentary ruptures that exceed/subvert the representational logic and linear sequencing of this paper.

## What the Fuck is Affect?

*Katie*

Affect seems like a good entry point, since it features prominently in both books. Ontological relationality is one of the key markers of posthuman thinking, and "the autonomy of affect as a virtual force that gets actualised through relational bonds" (Braidotti, 2019, p. 45) is what defines us as posthuman subjects.

*\*Scratch\**

My [eyes scanned over the heading](#) (AS 3), 'WTF is affect?' in the introduction to *Mapping the Affective Turn*.

My eyes flicked back up in surprise, and I snort-laughed. I wondered where this heading was when I really needed it, back during my PhD studies when I was first trying to make heads or tails of the concept, labouring over Deleuze and Guattari (1987) and *The Affect Reader* (Gregg & Seigworth, 2010) and feeling so very stupid and so very alone. I was obviously in good company, though. As Dernikos and colleagues share, "Defining affect has left all of us scratching our heads at one time or another" (2020, p. 5). Because I did not quite 'get it,' I was reluctant to address affect in my research, which, at best, fed my impostor syndrome complex, and at worst, sent me into paralysis at the idea of writing about something I did not fully grasp. I could rattle off all the definitions: affect is a force or intensity, it is "what a body can do" (Deleuze & Guattari, 1987, p. 257), it is both pre-personal and very personal (Gregg & Seigworth, 2010), it is relational, it is a virtuality. But what the *fuck* does that all mean? Why is this concept so slippery? [And no, Google, we don't mean effect, we mean affect, stop trying to autocorrect it!](#) (AS 4).

As Dernikos et al. also point out, "Teaching is generally considered to be about relations of knowledge transmission, primarily through language or words. Teaching

as knowledge encounters with/in curricula swell with affects beyond—or even before—words” (2020, p. 16). In our discussion, we agreed that this points to why we struggle so much to land on a ‘definition’ or understanding of affect in the Spinozian sense—because it both precedes and exceeds words. We wondered if thinking we have to completely *understand* a concept before we can *do something* with it falls back into the myths of representation (i.e., that there is a 1:1, linear correspondence between words and things and between theory and practice). Really, we agreed, we do not need to know what the fuck affect *is*, precisely. Understanding that it is a force of some kind, an energy or intensity that moves us, animates us, *affects* us in some way, is enough. The important piece is not what it *is*, but what it *does*—which we can analyse and describe. For example, we can examine the different ways that affect shapes (class)room encounters and learning (Boldt, chapter 16; Franklin-Phipps, chapter 9; Nxumalo & Villaneuva, chapter 15; Snaza, chapter 8 in Dernikos et al., 2020); how testing data can produce particular atmospheres and emotional conditions in schools (Sellar, chapter 12); the way that dress uniforms mobilise particular Australian school-girl formations (Wolfe & Rasmussen, chapter 13); how the phantom threat of terror forces Muslim students in England to adopt westernised identities (Zarabadi, chapter 5); or the ways that shame (Zembylas, chapter 4), failure (Springgay, chapter 11), and resistance (Airtton, chapter 7) can be reframed as productive forces.

For the two of us—practitioners with no formal background in Continental philosophy—the affective force generated from achieving adequate understanding of affect together through dialogue and in composition with *Posthuman Knowledge* and *Mapping the Affective Turn* wreathed our faces in elated smiles. We grinned at each other through our respective laptop screens, both of us amplified, exuberant, changed; our capacities expanded for an exploration of what it might mean to engage in modes of posthuman praxes, such as enacting an affirmative ethics.

## Enacting Affirmative Ethics

Braidotti defines an affirmative ethics as “the pursuit of affirmative values and relations” (2019, p. 136) to enact a collective, political praxis of hope, compassion, and transformation. Foregrounded in this idea is the notion of affect, since affirmative

ethics is about “radical relationality” (p. 166), that is, predicated on the ability to affect and be affected by “zoē/geo/techno” (p. 52) assemblages as a way to increase our collective capacity to know and do differently. Braidotti sees affirmative ethics as a response to the toxic conditions and injustices of advanced capitalism, a way to engage with and transform its negative affects—from the traumas faced by those who have never had the luxury of being defined as human, to the physical and mental illness and exhaustion of workers across neoliberal societies, to the despair and anxiety arising from ongoing ecological degradation.

Affirmative ethics does not ignore or gloss over pain, trauma, and suffering, but rather directly engages with it to create ways of becoming-otherwise. Specifically, enacting an affirmative ethics involves processing pain and trauma by examining our current conditions—including and especially the flows of power involved—and generating shared knowledge from them to forge new possibilities. In so doing, we move past good/bad dualisms and rework negativity outside of these binaries, transforming them, and in the process, producing different knowledges, subjectivities, and ways of living together and relating to each other. In the relational generation of new affective capacities, we create adequate understandings of ourselves, each other, and the world.

In *Mapping the Affective Turn*, various authors provide concrete examples of what this collective praxis of affirmative ethics might look like. Franklin-Phipps (chapter 9) describes arts-based interventions that help White students engage affectively with ideas of Whiteness, as an alternative to the typical surface-level activities that tend to reinforce rather than disrupt White supremacy in teaching. In a related vein, Airton (chapter 7) proposes reconceptualising student resistance to critical ideas like White privilege as a flow and finding ways to utilise this flow in strategic ways. In chapter 15, Nxumalo and Tepeyotl Villanueva confront the ways that current early childhood educational practices perpetuate “colonial human-centric dualistic approaches to ‘nature’ that maintain or reinforce extractivist relationships to the more-than-human world” (p. 208 in Dernikos et al., 2020)—for example, water pedagogy in early childhood education typically positions this resource in an individualistic, human-focused way, as something to be consumed or controlled by the children, and separates water from its relations to coloniality and current environmental precarity. The authors then rework these harmful ideas outside oppositional dialectics, engaging

in Indigenous songs and storytelling with the children to relate to the water in ways that highlight its agency and its healing properties, creating different affective bonds between children and water of respect and gratitude. This disruption of human-centred ways of knowing enacts relational knowledges that serve as decolonial resistance to colonial land erasures. In so doing, Nxumalo and Tepeyolotl Villanueva, together with their students and the songs and stories and creek, simultaneously enact an onto-epistemological shift with a post-anthropocentric worldview and a politics that engages with missing people and places.

As we started to read the first chapters of *Posthuman Knowledge* and *Mapping the Affective Turn* at the end of March 2020, the two of us were paralysed in the face of the coronavirus pandemic. Our scholarly work seemed unimportant given [what was happening in places like New York](#) (AS 5), where a tent hospital had been erected in the middle of Central Park to accommodate the influx of COVID-19 patients and a fleet of refrigerated trucks had been repurposed to hold bodies that were overflowing from the morgues. Yet, posthuman ethics and affect provided tools to understand and process what was happening to us. We discussed the affective force of the news cycle, our fears for our families and students, and existential anxieties about the coming economic disaster. We also [engaged with creative modes of meaning-making to process](#) (AS 6) these ideas.

Our conversations also homed in on our own experiences as early-career academics and the trauma of the zero-sum, rejection, belittlement culture of academia. This toxic culture keeps the academy and its ways of knowing white/male/hetero and takes an enormous physical and mental health toll on faculty and students, disproportionately harming Black and Indigenous scholars. Our wondering what an affirmative approach to university and academia would look like, and what affective relations it would make possible, morphed into a way for us to enact our own affirmative ethics in relation to scholarly publishing. In conjunction with a double special issue we were co-editing, we created [guidelines](#) (AS 7) for affirmative peer reviews, and conducted our own initial editorial reviews from a stance of support and caring. We offered our reviewers—many of whom were doctoral students and early career researchers—[a workshop on reviewing from an affirmative stance](#) (AS 8). We worked with them to analyse examples from comments on a recent review Katie had received, examining their construction and the ways they mobilised affect to make the reviewer feel supported—



and how that created capabilities different from more traditional, critical reviewer comments: When Katie received the comments, rather than [her normal response](#) (AS 9) (i.e., defensiveness, having to step away for a few days, and then forcing herself to make a list of ways to address the comments), she was ecstatic at the ways the reviewers had articulated how her work had affected them and was excited to get to work on the suggestions made to move the manuscript toward publication. In a small group discussion, one participant read these reviewer comments and commented, ‘It makes you feel like the reviewer is giving you *a hug!*’

## Mapping Entangled Assemblages

*Tammy*

In *Posthuman Knowledge*, Braidotti views life as a “complex inter-relation of multiple *zoē/geo/techno* systems ... constituted by the circulation of transversal modes of assemblage, in a dynamic exchange that defines reciprocal forms of specification or determination” (2019, p. 52). In this iteration, *zoē* acts as an impersonal force moving through and connecting us to all other creatures and our own bodies. Technological tools and concepts are also shaping forces within human-non-human assemblages, including the second-naturedness of technology as a continuously interacting entity. Braidotti also argues for the importance of accounting for our location in terms of space and time, including the mixture of interacting geo-political-historical-genealogical elements we are connected to. Thus, from a posthuman perspective, life is viewed as dynamic, entangled assemblages of *zoē/geo/techno* entities. Creating cartographies, or maps, of the interactions among and within such entangled assemblages illuminates the flows of power and the effect of affect.

Cartographical thinking, a method of slowing down and clearly articulating the complexity of life, is echoed throughout chapters in *Mapping the Affective Turn*. Wolfe and Rasmussen (chapter 13), for example, explore the dress as part of a power-laden gendering assemblage that produces particular (cis-het) bodies with particular affects—the *proper girl* in her church dress, or the *good girl* in her dress uniform. Saldanha (chapter 14) argues that the examination of educational inequities is incomplete without a mapping of multiple entangled systems that produce them, including historical, institutional, economic, and social systems, as well as the spaces

and materialities where those injustices play out. In these complex mappings, affect is an important actor, as Hickey-Moody notes (chapter 10 in Dernikos et al., 2020, p. 144): “Whether it’s about interpersonal relationships or materiality and what material forms communicate, affect is core.” Hickey-Moody, then, considers how knowledges and practices are shaped and produced by affect, are partial and unpredictable, and are constantly moving within and among entangled *zoē/geo/techno* assemblages, creating embodied experiences.

### **Affective Poetry for Two Voices**

Dernikos, Lesko, McCall, and Niccolini point out that “the affective turn... seeks to disrupt the Cartesian notion of the self-contained, rational subject by embracing a view of bodies as porous and permeable human and non-human assemblages” (2020, p. 4). Their critical posthuman theorising of affect is echoed through Braidotti’s notions of entangled *zoē/geo/techno* assemblages, with entanglement understood as the dynamic intra-action of multiplicities across and through time and space (Barad, 2007). Using artistic practices, I slowed down and created two cartographies to relate two of the hundreds of embodied affective scratchings that vibrated through the assemblages I am embedded in. One cartography can be found [here](#) (AS 10). The second, below, emerges from an entangled mother-son assemblage, produced in entanglement with the elements that constituted our re-view process (Katie and I, the two texts, our sense-making notes, our weekly dialogues, and so on).

*Then*=Late on Friday night, we, my young adult son and I, drove along the frosty, black-blue hued road that wound through the forest on our way to the ski area for the weekend. Our heads leaned in toward each other as we strained to listen to a keynote speech delivered by Karen Barad, sounding tinny and artificial as her voice, the sound waves reaching across time and space, squeezed through the tiny iPhone speaker (Barad, 2016). We paused Barad’s speech periodically, to negotiate its meaning and make space for our own voices and bodies to fill the car with arguments, gesticulations, agreements, and compromises—our entangled mother-son assemblages of winter-car-iPhone-texts-Barad, continuously producing particular knowledges and practices.

Now=Late on Friday night, we re-turned within a different space, my young adult son and I, using our iPhones to negotiate how we make sense of the world. We texted back and forth, [black-blue hued screen shots of our voices made material, arguing, agreeing, compromising](#) (AS 11). These entangled mother-son assemblages of iPhone-texts-theory continuously produce different knowledges and practices, as [affect flows through our mixture of zoē/geo/techno entities](#) (AS 12).

## Posthuman Thinking

The vision of posthuman thinking that Braidotti and the authors from *Mapping the Affective Turn* collectively offer has several onto-epistemological shifts. First, we must attend to affect, even if it is a slippery concept that cannot really be measured or captured in a traditional sense. We also have to ensure that our analyses are explicitly political, and account for subjectivity—not the totally autonomous (hu)man of reason, but rather, a reimagined subjectivity that encompasses assemblages of zoē-geo-techno, a multiplicitous subjectivity defined not by its human and Eurocentric superiority but by what it does—its capacity to affect and be affected by. This view of subjectivity demonstrates the radically immanent perspective of posthumanism: We are all connected, yet different, or as Braidotti puts it, ‘We-are-(all)-in-this-together-but-we-are-not-one-and-the-same’ (2019, p. 54).

Difference, or hybridity, is the natural state of things, and introducing difference opens new opportunities for un-thought potentialities, which is one reason why trans-disciplinarity is an important feature in both works. An immanent perspective also allows us to remain grounded and accountable—there is no above or below. We are embodied and embedded. We can only speak from where we are, acknowledge our geo-political locations and the assemblages we are connected to, and analyse how these relationalities shape the knowledge we produce. Further, this is an active stance, with a focus on ethical praxis—concrete but theoretically-informed things we can do to change ourselves and our world. To make these shifts requires that we engage in *defamiliarisation*, distancing ourselves from rational, Eurocentric, human-centred ways of knowing and being, and practice thinking in affects and relations and multiplicities.

In this diffractive re-view, we put these critical posthuman shifts to work. We accounted for our situated subjectivities by highlighting our own modes of knowledge production and by illuminating our continuous shifting from ‘what does it mean’ (the ideas of the books) to what they produced in relationship, when read through each other and through us. We offered concrete examples of affirmative praxis (e.g., our affirmative review workshop; affect mapping). We disrupted rational, linear concepts by using affective scratchings (Dernikos et al., 2020) and by engaging with trans-disciplinary concepts and trans-genre productions as breaks from status quo academic writing practices. This process allowed us to defamiliarise the linearity and representational logic of typical book reviews (while admittedly still exploiting the protections that still exist within our academic contexts), shifting instead to a *re-view* as a continuous artistic practice, tapping creative potential to disrupt/subvert academia’s neoliberal structures and cognitive capitalism (knowledge production for the purpose of commodification).

Through this collaboration, we increased our affective capacities and worked/lived on the edge of adequate understanding. We also recognise that our work entailed a relationship-as-resistance which is grounded in a kind of supported escape from and nurtured entanglement with anxiety and uncertainty. This relationship-as-resistance not only supported our affirmative ethical stance—it also turned us toward the knowledge that, whatever is happening in the world, we cannot do this work alone. In that spirit we end with a found poem we constructed from an excerpt of chapter 3 of *Mapping the Affective Turn*, an interview with Rosi Braidotti (in Dernikos et al., 2020, p. 49):

*Function*

*in a group,*

*Function*

*in a pack,*

*Function*

*in a herd.*

*Run with*

*the she-wolves.*

*Do not  
imagine  
For a  
minute you  
Can take on  
this system alone.*

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## Affective scratchings appendix

[Affective scratching 1](#): The new project.

[Affective scratching 2](#): Locating ourselves.

[Affective scratching 3](#): The affective power of 'fuck.'

[Affective scratching 4](#): Affect resists capture.

[Affective scratching 5](#): COVID-19 crisis in New York City.

[Affective scratching 6](#): Processing the pandemic through poetry.

[Affective scratching 7](#): Affirmative peer reviewing guidelines.

[Affective scratching 8](#): Affirmative peer review workshop.

[Affective scratching 9](#): Nasty reviewer, we hates it.

[Affective scratching 10](#): Affective, embodied experiencing.

[Affective scratching 11](#): Posthuman text messages.

Affective scratching 12: A [found poem in two voices](#).

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*in Academe*, 2020), “A Posthuman Analysis of Subjectivity and Practices in Neoliberal Work Spaces” (*Textiles and Tapestries*, 2020), and “Working across Time and Space: Developing a Framework for Teacher Leadership throughout a Teaching Career” (*Professional Development in Education*, 2020).



# **Deleuzoguattarian Thought, the New Materialisms, and (Be)wild(ering) Pedagogies: A Conversation between Chantelle Gray, Delphi Carstens, Evelien Geerts, and Aragorn Eloff**

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## **Abstract**

This intra-view explores a number of productive junctions between contemporary Deleuzoguattarian and new materialist praxes via a series of questions and provocations. Productive tensions are explored via questions of epistemological, ontological, ethical, and political intra-sections as well as notions of difference, transversal contamination, ecosophical practices, diffraction, and, lastly, schizoanalysis. Various irruptions around biophilosophy, transduction, becomology, cartography, power relations, hyperobjects as events, individuation, as well as dyschronia and disorientation, take the discussion further into the wild pedagogical spaces that both praxes have in common.

## **Keywords**

Deleuzoguattarian philosophy; new materialisms; (be)wild(ering) pedagogies; irruptions; schizoanalysis

Riffing on the neologism intra-action—first introduced by Karen Barad in *Meeting the Universe Halfway* (2007, p. 33) and denoting “the mutual constitution of entangled agencies”—the notion of an intra-view suggests a different, queering, and more flowy take on the traditionally linear and chronological interview process. The inspiration behind this particular intra-view was a workshop on Félix Guattari’s *The Three Ecologies* (2000) given at the *Pedagogies in the Wild: The 2019 SA Deleuze & Guattari studies conference* at the University of the Western Cape, South Africa, in December 2019. In this intra-view, the conference organisers and workshop facilitators, Chantelle Gray (CG) and Aragorn Eloff (AE), were asked a series of introductory questions by Delphi Carstens (DC) and Evelien Geerts (EG) that explore Guattari’s ecosophical ideas in the context of his work with Gilles Deleuze and the various ways in which their ideas have been enriched via encounters with new materialist and other immanence-focused theoretical-pedagogical lines of flight. These questions have themselves become entangled and diffracted (see Haraway, 1997 and Barad, 2007) through a series of responses, different sets of questions, and so-called “irruptions” or energy-filled provocations/disruptions in the margins of the intra-view that “exemplify and question linearity and normativity” (Koro-Ljungberg, 2015, p. xvii) by Delphi Carstens and Evelien Geerts—and eventually by all of the interviewers-turned-interviewees and vice versa—relating to this special issue’s wild pedagogical leitmotif. What is presented to the reader here, is thus an intra-view that not only has put these ideas of irruption and diffraction into action, but also is guided by Deleuze and Guattari’s resistance against concretised methodologies through the form of individual and collective rhizomatic thinking-doings<sup>1</sup>.

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<sup>1</sup> Also see the introduction of this special issue for this idea of thinking-doings.

What are some of the intellectual-political intersections between Deleuzoguattarian philosophy and contemporary new materialist thought?

**CG & AE:** Deleuze and Guattari's work, both individually and collectively is, in many

ways, the most significant influence on new materialist thought, even if there is a notable lack of citation in this regard in much of the field. This has become increasingly clear as translations of the works of philosopher of science Gilbert Simondon (see e.g. *The Mode of Existence of Technical Objects* [2017] or the recently published *Individuation in Light of Notions of Form and Information* [2020]) have spread in the English-speaking world. It was his work that significantly influenced Deleuze's

**DC:** To my mind, Deleuze's discussions of **differentiation** and **differenciación** takes up the central problem of philosophy as it intersects with evolution, chaos theory, and molecular biology, namely, the problematic of endless variation vs. endless repetition (always the same thing, but never the same thing twice). Deleuze and Guattari's oft-repeated allusion to the symbiosis between the wasp and the orchid (see Sauvagnargues, 2019) is illustrative of how these authors have creatively taken up this problematic into their own processual bio/geo-philosophical assemblage.

The current COVID-19 crisis illustrates the importance of such a move; we cannot fully comprehend what is happening in our own bodies—let alone in our societies—without first apprehending the transcorporeal more-than-human biological/chemical/neuro-affective contact zones between individuals, non-human bodies, and the planetary ecology. Is it possible, in fact, to do any meaningful ontological or ethico-political work today without first apprehending, as these philosophers have done, the empirical claims made in fields like genetics, neurophysiology, evolutionary biology or biochemistry (see Carstens, 2019)?

discussions of processes of actualisation/individuation, the primacy of difference as well as the processes whereby the virtual contents of an idea are determined (**differentiation**) and that virtuality is actualised into distinguished parts (**differenciación**) and distributed; something that was initially best explored by researchers like Keith Ansell-Pearson and Manuel DeLanda (2006). Ansell-Pearson in *Germinal Life* (1999) for instance argues that Deleuze is primarily a **biophilosopher** posing complex questions around the unfolding of life that go far beyond the vitalist

**CG & AE: Biological research** informs much of Deleuze and Guattari's philosophy and they continually remind us that the natural cannot be separated from the machinic. Guattari in fact renames 'environmental ecology' as 'machinic ecology' for the reason that "[c]osmic and human praxis has only ever been a question of machines" (2000, p. 66). Moreover, the final two chapters of Deleuze's *Difference and Repetition* (1994) are deeply influenced by philosopher of science Gilbert Simondon's theory of individuation, in which processes of individual and collective becoming emerge from pre-individual fields of intensity, situating difference as ontologically primary to identity, and process as prior to product. This challenge to the old hylomorphic schema, wherein matter is inert and in need of the transcendent imposition of form, has proven highly influential in the burgeoning field of philosophy of biology, with the ideas of Simondon, Deleuze and various interlocutors and fellow travellers—the pioneers of *autopoiesis* and enaction Francisco Varela and Humberto Maturana, for instance—increasingly reflected in work in developmental systems theory, emergence and similar fields in which matter is understood as pluripotent, dynamic, and bearing immanent, self-forming potential.

**DC: Transduction** refers to Simondon's queering of individuation, which places emphasis on the pre-individual affects, virtualities, and potentialities that both constitute and determine the becomings that generate the multiplicity we mistakenly call the individual. Deleuze's provocation here is this: can we really say anything meaningful about individuals/individuation without considering the more-than-human physical, biological or psychic forces without which individuals cannot self-actualise or access collective or planetary processes?

appellation often foisted upon him, while DeLanda reminds us that Deleuze's work seeks to provide a metaphysics adequate to the new material sciences—those of complexity, chaos, emergence, and so forth.

These fields view heterogeneous arrangements of matter as full of morphogenetic potential (as described by both their phase spaces of behaviour as well as the underlying topological

manifolds defining the tendencies towards maintenance or redistribution of these phase spaces), as involved in complex relationalities of reciprocal influence (and here Simondon's notion of **transduction** is particularly useful, especially via Deleuze's description of the method of dramatisation in *Difference and Repetition* (1994)), as inherently open and non-totalising, and as exhibiting non-linearities that entail a view of these arrangements (or 'agencyings,' to literalise the French term *agencements* typically translated as *assemblages* in Anglophone editions of Deleuze's work) as highly contingent.

In its preferencing of difference (and remember, Deleuze speaks of difference *in itself*, i.e., *difference differing*, as that by which the given is given, as opposed to mere diversity—the given) over identity, of multiplicities as inherently plural and heterogeneous (relating different to different) and process as primary (what Anne Sauvagnargues [2019, pp. 177-182] refers to as a **"becomology"** instead of an ontology), this is a profoundly challenging model of agency and subjectivity—especially in terms of its conviction that matter contains its own immanent possibilities for dynamism and change without any appeal to transcendence (Deleuze and Guattari's critique of hylomorphism is perhaps most comprehensively expressed in *A Thousand Plateaus* [1987]), and it is here that Deleuze and Guattari's thought resonates strongly with the most salient spaces of exploration within the new

**EG: 'Becomology'** is a thought-provoking neologism that neatly captures Deleuze's more processual ontological worldview, Barad's (2007) agential realist ontology—which deconstructs the divide between knower/known/knowledge process that is upheld in modern individualism-based Western metaphysics—that of the more Deleuzoguattarian new materialists, such as Rosi Braidotti (2013) and Elizabeth Grosz (2017), and of many Indigenous and Black feminist thinkers and activists that have always already spotlighted relational, environment-intertwined ontologies and epistemologies (see e.g. Ferreira da Silva, 2017; Hunt, 2014; Jackson, 2020; Smith, 2013; TallBear, 2014; Weheliye, 2014) but that have unfortunately not always been granted as much philosophical legitimacy (as also argued in for instance Todd, 2016).

materialisms. Between-and-becoming instead of here-there, this-that. As Deleuze and Guattari (1987) say in that most over-cited chapter on the rhizome: a river picks up speed in the middle.

**EG:** There are lots of entanglements between **Deleuzoguattarian philosophy** and **contemporary new materialist thought** to be (re)discovered and diffracted,

**DC:** **New materialist and Deleuzoguattarian philosophies** share several core pedagogical provocations and onto-ethical premises, which I have explored in more detail elsewhere (see Carstens, 2019). The core of these shared provocations are as follows: “(1) that we need to exhume materialities lost in a decades-long fetishization of texts and discourses by the so-called linguistic or cultural turn; (2) that education needs to be more attentive to developments in the contemporary life sciences; (3) that matter has some form of agency; and (4) that entities do not precede their relations but rather emerge from them” (p. 144).

specifically when it comes to the creative-critical revisioning of difference-as-differing, ontology, (inter)subjectivity, and agency. New materialist thinkers such as Braidotti (2013), Grosz (2017), and Erin Manning (2009) have used the Deleuzoguattarian onto-epistemological framework to rethink how we are situated (with)in the world while calling for a feminist, posthumanist take on the Deleuzoguattarian conceptual apparatus to better analyse today’s *Zeitgeist*. Especially Braidotti’s work can be read as a continuation of the

Deleuzoguattarian philosophical project—or, more aptly put, critical-creative ways of *thinking*, as ‘project’ comes across as a way too linear, systematic way of doing philosophy.

If we were to briefly provide a critical **cartographical sketch** of contemporary new materialist thought—which, by the way, is quite tricky, as there are many **new materialisms** out there that were nourished by different philosophical materialist, but also feminist, traditions—then we could say that the idea of neo-materialist thinking was first coined by Braidotti (1991) and philosopher Manuel DeLanda (1996) in the 1990s. Braidotti describes the enterprise as follows: New materialist thinking is “a method, a conceptual frame and a political stand, which refuses the linguistic paradigm, stressing instead the concrete yet complex materiality of bodies immersed in social relations of power” (Braidotti in Dolphijn and Van der Tuin, 2012, p. 21).

**EG:** It is important to pause for a second here, let an irruption arise, and think about the ways in which critical theorists tend to construct genealogies of philosophical concepts and **cartographies** (Braidotti, 2011) of strands of thought: Framing, conceptualising, and mapping out phenomena—whether conceptual, empirical, or a mix of both—are never innocent acts and processes.

These epistemological knowledge-creating processes involve a certain kind of world-making and are thus always also at least partially ontological in nature. These onto-epistemological processes should be taken into account when mapping out contemporary **new materialisms** and their interlinked assemblages (also see Geerts & Carstens, 2019).



**AE & CG:** Rendered in French as *pouvoir* and *puissance* respectively, **potestas** and **potentia**, which come to us from Spinoza, are subsumed into the term 'power' in English, eliding their fundamental difference. For Deleuze, along with fellow Spinozists like Antonio Negri and Michael Hardt, *potestas* refers to an organised, transcendent form of power whereas *potentia* refers to our immanent force or capacity to act. Politically, *potestas* can be seen as the shutting down of possibility entailed by the State, Hobbesian or otherwise, with its monopoly on violence, authority and coercion. Against the State and also prior to it, *potentia* is the infinite reserve of capacity and possibility produced by expanding our collective, revolutionary powers of acting—the real strength of the multitude or the war machine.

It is this emphasis on situatedness, immanence, and embodiment that matters here: Like Deleuzoguattarian thought, new materialist theories focus on the world and theorising from within the world to provide a *post-poststructuralist* analysis. Highlighting how human—but also non-human, more-than-human, and dehumanised—bodies are located within intricate webs of power as **potestas** and **potentia**, is central to new materialist theorising. Power relations do not only paralyse subjects but also provide them with contours and parameters to operate within and

fight against. Apart from thus accepting the importance of analysing as well as resisting bio-necropolitical webs of power relations inherent to the encounters and institutions of power we are all a part of, new materialist philosophies also aim at deconstructing various binary-fuelled systems, such as Western anthropocentrism, androcentrism, and human exceptionalism, to reveal a caring for all things of matter. Nature, in both new materialist and Deleuzoguattarian onto-epistemologies, is all that is material—which also includes the cultural and the digital. Regarded as demonstrating agential capacities, nature is put at the forefront of new materialist as well as Deleuzoguattarian theorising, which gives new materialist thought what I would call a critical ecological touch, in addition to the ethico-political characteristics that reveal themselves because of the new materialisms' interest in relations of mattering and power.

New materialist philosophies, such as those of Braidotti (2013), Barad (2007), but also Mel Chen (2012), Stacy Alaimo (2016), Donna Haraway (2016), Alexis Shotwell (2016), María Puig de la Bellacasa (2017), and many others, are thus brought together by a belief that every little piece of matter matters, and they can therefore be read as critiques of the commodification, exploitation, and total destruction of living matter in all of its differing forms—something that corresponds well with Deleuze and Guattari's critique of capitalist extractivism, as touched upon in for instance *Anti-Oedipus* (1983) and its sequel, *A Thousand Plateaus* (1987).

**DC:** Deleuze and Guattari in fact suggest that capitalism has naturalised the artificial, decoding individual and collective flows along with ecosystem and biological production flows, while recoding them around the body of capital-money. Capitalism is infinitely flexible, “always ready to widen its own limits so as to add a new axiom to a previously saturated system” in which everything is monetised and “money and the market” act as its only “true police” (1983, p. 259). As a giant over-coding and regulating machine, capitalism’s singular purpose is to overcome all “limits to growth” as it undertakes a process of “terraformation” (Cooper, 2008, pp. 41-42). While it plunders and lays waste to the body of the Earth (to convert it all into capital-money), capitalism forestalls resistance by atomising the collective/communal will, collapsing it into hierarchical power struggles and competitions between individual desires. Capitalism understands only too well that desire is a world-shaping force from which it means to extort surplus value; a force it has added to its axiom, while turning it against individuals and collectives.

Resistance against the terraforming machine of capital will only be possible if we learn to build new subjectivities that recognise that the individual is not the paragon of truth, that thought is not grounded in identity or representation, but generated out of difference, that desire is not individual but multiple. Our task, as Deleuze and Guattari (1983) see it, is to decode the unconscious processes of desire and explore alternative ways in which desires might be organised. Their immanent transversal philosophy challenges the centrality of any one particular domain of meaning-making, identity or even order of materiality and immateriality.

**EG:** When the notion of **geopower** is linked to the current entangled Anthropocene and capitalist extractivism crises, questions of geopolitical nature immediately arise: are we really in all of this together in an equal manner? Will the COVID-19 crisis for instance really provoke a ‘Great Reset’ of global capitalist systems and structures, or will this so-called ‘Fourth Industrial Revolution’ merely end up sharpening pre-existing global inequalities?

**DC:** Individuality, culture, and history have a radical inhuman outside to them. The desire for individual and political gratification always resists this outside yet forgets how power, sex, race, and oppression move through the earth into individuals, societies, art, and politics and back into the body of the earth via collectivized desires such as capitalist extraction and progress narratives. The work of Deleuze and Guattari and those of feminist new materialists like Grosz (2017) and Elizabeth Povinelli (2016) provoke us into thinking about how geosocial formations come into being and persist. Can we really make any theoretical claims without first considering how notions of individual and collective autonomy are both informed and altered by such **geosocial power relations** and to the spectre of the inhuman/more-than-human outside that hangs over them?

In this sense, I think that many feminist new materialists, although they might not align themselves with Deleuzoguattarian thought, are nonetheless on the same page in

their critique of capitalism. In this critique, both feminist new materialists and Deleuzoguattarians are aligned in their merger of neo-Marxist and/or neo-materialist perspectives, their foregrounding of minoritarian struggles, their interest in **geopower**, their turns toward evolutionary theory, and their queering of psychoanalysis.

**EG:** All four of us seem to be on the same page when claiming that there are many resonances between Deleuzoguattarian philosophy and new materialisms—although it is also fair to say that many current-day thinkers that are regarded as new materialist build on a different genealogy than Deleuze and Guattari’s philosophy (and indeed do not cite Deleuze or Guattari): Haraway and Barad, for instance, tend to distance themselves from Deleuzoguattarian philosophy, and their oeuvres moreover appear to be much more rooted in the Anglo-American enterprise of feminist science studies and Foucauldian understandings of (bio)power, the body, and power/knowledge. Barad’s (2007) agential realism moreover has Levinasian-Derridean touches to it if we were to examine Barad’s interpretation of alterity and the ethical more closely. Already

**EG:** Both **Levinas** (2015) and **Derrida** (1994) are preoccupied with finding a more positive conceptualization of alterity and, hence, more ethico-political interpretations of justice: Treating justice as a regulative, transcendent ideal yet-to-come, however, their philosophies differ from Barad’s, as the latter emphasizes the immanent, worldly contours of justice.

hinting at **Levinasian-Derridean philosophy** in *Meeting the Universe Halfway* (2007), Barad in a later article (2010) suggests that ethico-political response-ability is not only woven into the world but also depends on an agential realist understanding of the relational connections

between beings, rather than subjects and objects with identities-as-differing. Or as Barad (2010) put it in said article:

Entanglements are relations of obligation—being bound to the other—  
 enfolded traces of othering. Othering, the constitution of an “Other,” entails an  
 indebtedness to the ‘Other,’ who is irreducibly and materially bound to,  
 threaded through, the ‘self’—a diffraction/dispersion of identity. ‘Otherness’ is  
 an entangled relation of difference (différance). . . . Crucially, there is no  
 getting away from ethics on this account of mattering. (p. 265)

This particular genealogy that focuses on a pre-existing relationality between all that is that can—or also could not—materialise itself on the basis of recognising that the self is never a ‘self’ without the Other is definitely different from Deleuzoguattarian affirmation. An approach that is also for instance central in Braidotti’s Deleuzoguattarian new materialist philosophy that, as she also writes it in an article

from 2006, “takes as the point of reference *bios-zoē* power defined as the non-human, vitalistic, or post-anthropocentric dimension of subjectivity” (p. 3). In a way, Braidotti and other more Deleuzoguattarian new materialists, such as the already referred to Grosz, offer us an affirmative way out of the recognition conundrum that is so central to Levinasian-Derridean and also Baradian philosophy: The gist here is that the Other needs to be recognised by the subject as their master for the ethical moment to happen—and in Levinas’ philosophy, there is consequently space to also theorise moments of misrecognition and the violence these have engendered. In a Baradian agential realist model, that focuses on complete relational indebtedness, however, misrecognition almost appears to be theoretically impossible...

What about the relevance of *The Three Ecologies* (2000) to contemporary new materialist thought? Could we for instance reread the book as an ethico-political manifesto?

**AE & CG:** In *The Three Ecologies* (2000), Guattari addresses many socio-political problems that we are grappling with today, for example techno-scientific innovations and their multiple, sometimes unexpected, consequences; the modulation—and often retrogression—of human modes of living which, of course, has a direct impact on nonhuman modes of being (frequently disastrous ones!); the rise of nationality which, in its current manifestations, has dire implications for migrants with its exacerbated racist machinery; the homogenising function of media and, now, social media. The list goes on. What is important about this text for new materialist thought, we would say, is that it recognises the entanglement of environmental ecology, social ecology, and mental ecology, taking into consideration not only the macro instantiations of these, but also the molecular domains of affect and desire.

For Guattari, new ecosophical practices must take into account many tangled and heterogeneous singularities—even repressed desires—to counter the ever-expanding and totalising agenda, and grip, of capitalism. Guattari (2000) proposes, then, that we develop a transversal conception of subjectivity which allows for an interface between what he calls existential territories or the actual (finite personal worlds) and incorporeal universes or the virtual (the infinite, non-dimensioned, non-coordinated, trans-sensible world). This final emphasis is of particular importance to the new materialism because if we cannot think the virtual, we limit our understanding of materiality for there is

always something which exceeds that which is actualised. This is the magic of Deleuze and Guattari's philosophy, isn't it?

**DC:** Regarding the manifesto question, I think that Guattari certainly puts together a declaration of intentions that he intended for readers to apply to their immediate contexts with the aim of effectuating real social change, so, in this sense, it is a manifesto. On the other hand, all of Guattari's work reads a bit like a manifesto but exceeds the purposes of the latter because he also tends to develop a very philosophical project. Still, I think *The Three Ecologies* (2000) has much to offer contemporary new materialisms, especially when it comes to its holistic approach to life and the fine balance between society and the forms of societal alienation we are seeing, plus the ecological crises of our times and mental ecology, including the proliferation of mental illness.

What does the notion of diffraction mean, philosophically speaking? Would it be possible to interpret Deleuzoguattarian schizoanalysis as *diffraction-in-action*?

**EG:** As also argued elsewhere (Geerts & Van der Tuin, 2016),<sup>2</sup> the idea of diffraction, seen from a critical theoretical point of view, is closely linked to the project of feminist science studies, and the work of Haraway and Barad in particular. Rooted in Haraway's (1997) take on Trinh Minh-ha's (1997) critique of an apartheid-focused conceptualisation of identity-as-wholly-Other, Barad's (2007) understanding of diffraction is almost a performance of diffractive reading, as both the ideas of diffraction as thinking identity differently (Minh-ha) and diffraction as transcending the traditional epistemological practice of reflection (Haraway) are included in it. As a methodology, diffractive reading and theorising is meant to be a more accountable, affirmative way of engaging with ideas, concepts, theories, while respecting the differences between these ideas, concepts, and theories.

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<sup>2</sup> This particular *New Materialisms Almanac* entry has been republished in this special issue.

**CG & AE:** For Deleuze and Guattari, schizoanalysis offers an alternative method to psychoanalysis. It is a cartographic practice, a process of “plotting a chart of semiotic regimes” (Deleuze, 2006, p. 13) that are historical, pathological, despotic, or whatever, and function in complex ways related to *power*—not the nature of power but, following Foucault, lines along which power exerts itself and why it does so in particular ways and in specific places. This is important for Deleuze and Guattari because they recognise that regimes of signs and their related power mechanisms machine subjectivity in specific ways. In their study of capitalism and psychiatry, they show how flows of intensities become machined and directed to work for the ends of capitalism. Schizoanalysis is a practice aimed at releasing these intensities again—literally allowing life to flow through us more freely. It is, in essence, a healing and liberating practice. If we think of diffraction as an interference, a redirection of energies, then yes, we could think of it as *diffraction-in-action* but thinking *only* of it in terms of diffraction would detract from the complexity of this practice.

**AE & CG:** Prefiguring the dominant view in the contemporary neurosciences, Deleuze and Guattari famously observe near the beginning of *A Thousand Plateaus* that “many people have a tree growing in their heads, but the brain itself is much more a grass than a tree” (Deleuze & Guattari, 1987, p. 36). Far from the arboreal model of thinking, with its neat categories, rote repetitions, and predefined relations between terms, **rhizomatic thought** entails the conjugation of the singular points of disparate series—the defining of an Idea or problematic field—to see what emerges. We learn to swim not by reflection, but through the shock of the icy water, combining the distinctive points of our bodies with those of the waves as we dive into the ocean, bringing together multiple heterogeneous systems in a creative process of learning without exhausting the infinite spaces of real possibility immanent to these systems.

**EG:** Looking at it in the foregoing manner, diffractive thinking probably resonates more with Deleuzoguattarian **rhizomatic thought** than with the praxis of schizoanalysis. At the same time, one could of course also interpret schizoanalysis as a diffractive engagement with the French, mostly Lacanian, tradition of psychoanalysis, Foucauldian ideas about power and fascism, and the Hegelian negative conceptualisation of difference.

**DC:** For Deleuze and Guattari, continuous diffraction is a given; although they use terms such as transversal communication and creative involution, while referring frequently to co-evolution (as in their favourite example of the symbiotic merger between the pollinating wasp and the orchid)! They problematise the whole notion of either/or statements (binary logics) as well as singular representations of the reality.



In the “Rhizome” section of *A Thousand Plateaus* (1987, p. 11), for instance, they counsel us to look to “the wisdom of the plants: even when they have roots, there is always an outside where they form a rhizome with something else—with the wind, an animal, human beings,” etc. And so it is with *everything* in the universe. There is nothing singular in the world, least of all an individual. Everything—whether rock, computer code, bacterium, cosmic ray, capitalism, plant or human forms an assemblage with a multitude of other things and is entangled in transversal relations that completely scramble singular genealogical trees.

On the simplest level of this rhizomatic/schizophrenic/diffractive convergence, Deleuze and Guattari (1987, p. 4) point out that all assemblages (whether we are talking about individual humans, rocks, plants or meaning-making assemblages like new materialism, science fiction, sociology, organic chemistry, or what have you) face (at least) two sides: that of order and that of radical intensity. Their work is full of warnings and caveats about the dangers of **leaning too heavily on one side of the assemblage**. Deleuze and Guattari repeatedly warn us that ignoring the orderly and cohesive can lead to botched or frozen meaning-making assemblages (while the reverse is just as true), which is something they develop extensively in the “Body without organs” section of *A Thousand Plateaus* (1987).

Freud, whom Deleuze and Guattari playfully diffract via Marx, and vice versa, was positively haunted by the radical afterwardness of meaning-making. Deleuze and Guattari are haunted by something analogous. While resisting Freud’s ahistorical interpretation of desire, they simultaneously resist Marx’ ardent historicism, which failed to incorporate collective desire. For Deleuze and Guattari, there is something radically belated and uncanny about our desire to attempt to create meaning (via Marx’ Hegelian dialectic or tripartite division of history, for instance), which means that we need to come at materiality from all sorts of angles, intensive, orderly, aesthetic, scientific, and, and ... while realising that thought and matter are always “connected, caught up with one another” (1987, p. 10).

**DC:** Unfortunately, as Katherine Hayles (2017, p. 71) also points out, a lot of new materialist philosophy has tended to **lean too heavily on the intensive desire-driven side of things**, while eradicating from its figurations “the necessary other side of the story, the forces of cohesion, encapsulation and level-specific dynamics characteristic of living beings.”

**EG:** This most likely can be brought back to the vitalist philosophical origins—which is not to be confused with so-called *Lebensphilosophien*—of many current-day new materialisms: Thinkers such as Braidotti (2013) but also Grosz (2017) and Jane Bennett (2010) rely on an affirmative conceptualisation of energy-driven matter.

Simultaneously, via their **schizoanalytic praxis**, Deleuze and Guattari are building **a kind of therapeutic healing practice** for liberating and exploring alternative organisations of desire that resist the deadening facticity of capitalism and its ruinous spectre of individuality.

**CG & AE:** Deleuze and Guattari develop **schizoanalytic praxis as a healing practice of desire**. It thus replaces the then dominant practice concerned with libido, namely psychoanalysis. Whereas psychoanalysis subjects desire (libido) to the transcendent and universal form of Oedipus, Deleuze and Guattari—as in all their other projects—aim to think of desire more immanently, albeit machined, as a process of “discovering for every case the nature of the libidinal investments of the social field, their possible internal conflicts, their relationships with the preconscious investments of the same field” (1983, p. 382). Schizoanalytic praxis is therefore a defamiliarising and resingularising practice along molecular lines—in the cracks and fissures of molar life—aimed not so much at a particular goal, but at experimentation which, in turn, allows for the production of the new. Guattari, in *Chaosmosis* (1995, p. 12) explains it as follows: “A long time ago I renounced the Conscious-Unconscious dualism of the Freudian topoi and all the Manichean oppositions correlative to Oedipal triangulation and to the castration complex. I opted for an Unconscious superposing multiple strata of subjectivation, heterogeneous strata of variable extension and consistency. Thus a more ‘schizo’ Unconscious, one liberated from familial shackles, turned more towards actual praxis than towards fixations on, and regressions to, the past.”

What is the pedagogical importance of *The Three Ecologies* (2000) & Deleuzoguattarian thought?

**CG & AE:** The plethora of secondary literature on pedagogy *and* Guattari *and* Deleuze attests to the importance of these transversal lines far better than what we can easily summarise here. *The Three Ecologies* (Guattari, 2000) speaks to something we think should be the very foundation of contemporary pedagogy, namely healing practices, as they pertain to forms of sociality, mental and emotional wellbeing, and ecological balance, as well as the deep interconnections between these ecologies. Guattari’s psychoanalytic background was of huge importance to the duo’s work, especially his focus on subject groups; that is, group formations that allow people to work horizontally and experience practices of power—and not only power *against*, for example hierarchies or binary thought processes, but power in its positive iteration, so power *to* be creative together, *to* produce new forms of organisation and so on. These are healing practices because they resist forms of domination, something that is hugely prevalent in schools and academia alike.

What would it look like to change the forms of social organisation in academia where management is not separate from the ‘everyone else,’ where support staff are treated with the same respect as professors, where students are included in curricula development, where ecological health is integral to all classroom practices, just as

mental health is? Instead, we more often than not have the few making decisions for the many, themselves slave to a machinery so succumbed to neoliberal ideals that pedagogy lags far behind economic and related interests.

Guattari, and Deleuze, might ask us to consider how we can change our values of desire to seek social and aesthetic profitability over economic ones. The importance of this text—*The Three Ecologies*—is thus its guidance towards producing new forms of subjectivity from which creative autonomy, individual and collective power, and joy can flow. This seems to be a worthwhile pedagogical endeavour!

Given the transversal focus of Deleuzoguattarian philosophy, how can we push for dialogues across disciplines of knowledge at universities in order to foster ecological pedagogical practices—especially those type of practices that help generate appropriate pedagogical responses and

stratagems to the Anthropocene?

**DC: Hyperobjects** are eventful. According to Deleuze and Guattari (1987), failing to account for the differential scales and speeds at which events occur means that we are unlikely to survive them.

So, unless we are able to comprehend and become accountable to the differential inhuman scales and speeds of the hyperobject/event called the Anthropocene, as Povinelli (2016) warns, the multi-scalar/multi-temporal assemblage we call the biosphere will simply become “something that will potentially extinguish the [human] world and the way we exist in it” (p. 56). The provocation here is this: can a monotheistic/anthropocentric worldview apprehend the contours of an eventful hyperobject? Neither Povinelli or Deleuze and Guattari seem to think so. Instead, these thinkers suggest that only an animist worldview, which can acknowledge ways of existing other than our own (and thereby extend becoming and actualization to all forms of existence), will suffice to see us out of this mess.

**DC:** The stable climatological conditions of the Holocene have been terminated by the Anthropocene. Agriculture, civilisation, and industry developed and flourished under circumstances that no longer hold; it is uncertain how much longer capitalism, no matter how sorcerous, will be able to hold back the inevitable. Under such dire circumstances, the task of pedagogy involves more than mere chronicling. If our purpose is to forge a real, ‘worldly’ justice-to-come, then as pedagogues

we will need to find more inclusive and tangible ways of imagining a future that is not bound up in destructive fantasies of progress and human mastery that have led us into this mess. I think Timothy Morton’s term **hyperobject** (2018) best describes the Anthropocene, which is happening at so many different levels and across so many different scales that it is, in effect, thoroughly bewildering and hard to grasp.

If there is to be any future, however, pedagogy will need to find ways of reaching into

this atemporal multi-scalar tangle. Deleuze and Guattari show us how more-than-human natural histories can be made alive to human cognitive and cultural practices. By utilising their schizoanalytical and transversal strategems, we can find ways of stimulating the imaginative capacity of our students to dream up different and more ethically inclusive futures that are immanent to the networks and natural histories of life that sustain and nurture us.

In one of my favourite pedagogical scenes in *A Thousand Plateaus* (1987), Deleuze and Guattari mobilise a fictional pedagogue, Professor Challenger, to generate a multi-disciplinary pedagogy of bewilderment. A similar scene occurs in Bram Stoker's *Dracula* (1897) via the fictional pedagogue Dr Van Helsing. These pedagogical scenes illustrate the importance of thinking, teaching, and researching about matter and materiality—and, indeed, about what it means to be human in a more-than-human world—by taking onboard the uncanny, the spectral, and the affective. The transversal, trans-disciplinary pedagogies imagined in these scenes not only merge insights from various (and even apparently contradictory) disciplines, but also reveal that a multi-disciplinary pedagogy needs to play up the central trope of the minor literature of science fiction, namely, cognitive estrangement by literally 'making strange.' Pedagogy needs to provoke the mind of learners to interpret and create by thinking outside of the box. The unthinkable alternative is a pedagogy of rote-learning, confined to reductive disciplinary boundaries that slavishly mimes whatever disciplinary-specific epistemology is currently in vogue. This kind of pedagogy is going nowhere. It is only by trespassing, hopping fences, and forging tangled interdisciplinary pathways across multiple disciplines and subject fields that pedagogy can hope to plot escape routes from the major crises of our era.

Deleuze and Guattari's transversal approach mobilises perspectives from outside of philosophy to come to less restrictive understandings of philosophy. Pedagogues need to do the same; marshalling perspectives from beyond whatever discipline or field they might be operating within to enable themselves and their students to come to new modes of awareness. Mobilising a transversal/transdisciplinary outside to any specific discipline is an absolute necessity in an age that is becoming increasingly equivocal and difficult to determine.

How do we take seriously Deleuze and Guattari's ideas of transversal contaminations, as articulated in *A Thousand Plateaus* (1987), between widely divergent realms of knowledge? And how do we use these to facilitate a pedagogy that is able to practice hauntology?

**DC:** The hauntological project alerts us to the fact that capitalism has engendered an age of **dyschronia** when time is out of joint. Getting to grips with dyschronia means mobilising the spectral and uncanny; and the Deleuzoguattarian praxis is all about learning the uncanny (see Ramey, 2013).

**DC: Dyschronia** reminds me that the Anthropocene is powered by the homogenizing anthropocentric spatio-temporality of agricultural time, which has "sucked all lifeforms into it like a vacuum cleaner" (Morton, 2018, p. 77). Agriculture is the demon-engine of civilisation and its latest iteration: capitalism. Industrial agriculture has engendered systems of multispecies forced labour in which the divergent generation times of plants, animals, humans, and microbes have been vastly altered and homogenised to serve the regulated time of economised productivity (Haraway, 2016). The Deleuzoguattarian provocation here is to free ourselves from the domination of human time as the sole apparatus of meaning-making. We need to take stock of their claims (see 1983 and 1987) that our ways of apprehending time are vastly out of joint and that there are multiple more-than-human temporal formats that we need to urgently take onto-ethical stock of.

**EG:** When I hear the notion of hauntology, I immediately am reminded of the oeuvre of Derrida and his *Specters of Marx* (1994) and the new materialist takes on conceptualizations of temporality, the haunting ghosts of injustice, and the pedagogical. Whereas Derrida mostly uses the idea of hauntology in reference to the continued value of Marxist thought for continental critical theory, Haraway (2016) and Barad (2010 and 2019) each engage with the hauntological to come up with an ethico-politics of the present that teaches us to not defer our responsibilities to future times, but to, as Haraway (2016) so neatly puts it, 'stay with the trouble' instead and work through the nitty-gritty. Ghosts of the past, but also of the present and future, need to be reckoned with, according to these two new materialists, and it is in this affirmative reckoning and working through that I see a link with Deleuze's and Guattari's more affirmative take on the hauntological.



**DC:** By orientating itself around the uncanny, the Deleuzoguattarian project moreover can steer us through these troubled times of change, haunted by the ghosts of displacement and extinction, toward more affirmative educational spaces. Creating such learning spaces, however, is no simple task; it requires that we trouble reductive anthropocentric narratives of control and mastery by

**EG:** The notion of **(dis)orientation** here reminds me of Sara Ahmed's (2006, pp. 5-6) phenomenological conceptualisation of feeling disoriented: "In order to become orientated, you might suppose that we must first experience disorientation. [...] When we experience disorientation, we might notice orientation as something we do not have." Disorientation is revealed as resembling feeling lost in space—no longer having a space in place—and in time—a temporalities-based framework that only really starts making sense once it has been brutally halted.

**DC:** The pedagogical importance of **bewilderment** is what drew Deleuze and Guattari to queering Freud, who was obsessed with the ways in which the "conscious self fictionalises itself in belated relation to the materiality of events" (Carstens, 2020, p. 78). For these philosophers, the bewildering nature of cognition does not imply that "reality is unknowable or unteachable"; rather that cognitive disorientation can be made productive by highlighting that mastery is impossible and that "no single epistemological stratagem (such as reductive science, for example) will completely suffice for knowing (or teaching about) materiality" (p. 78).

embracing **disorientation** and **bewilderment**. Only by bewildering ourselves and our students, only by bringing different categories of thought, action, affect and aesthetics, as well as different orders of meaning-making into productive conversation with one another in our classrooms and research practices will we be able to practice a genuinely posthuman hauntology.

How can we use Deleuze and Guattari for the implementation of 'minor' practices in higher education despite the encroachment of neoliberal practices and standards in classrooms?

**DC:** My own work centres around the importance of the aesthetic register of the uncanny in an equivocal age—the Anthropocene—that is increasingly spectral, unhomely, defamiliarising, and ambiguous. The big question for me is how education can break free from the shackles of what Mark Fisher (2009) calls capitalist realism and also from the bonds of human exceptionalism, both of which have come to exert such a poisoned stranglehold over all forms of social reproduction, including education. While human exceptionalism focuses on the reasoned and orderly nature of particular Enlightenment expressions of the human, capitalist realism has been all about combining the arrogant certitude of anthropocentric humanist perspectives with highly speculative and risky endeavours. For a long time, philosophy was overly



concerned with contradiction (e.g., between the orderly and speculative, the human and the non-human, etc.). This was the Marxist response to capitalism (i.e., that it would self-destruct due to its internal contradictions, such as its perpetual boom and bust cycles); to which Deleuze and Guattari (1983) infamously remarked that nothing ever died from contradiction—least of all capitalism!

I think that it is vitally important for pedagogy to keep exploring that which remains radically outside and otherwise to the neoliberal mainstream by playing up the uncanny, the ambiguous, the contradictory, the difficult to determine, the bewildering, and the uncertain. Here, I think that it is extremely important to note the nuances inherent in the term speculative. Capitalist logics of speculation and **neoliberal speculative pedagogies** (ones that capitalise, valorise, and seek economic returns on knowledge and learning), for instance, are not the same as “audacious pedagogies of speculative fabulation” (Carstens, 2020, p. 75).

**EG:** Deleuzoguattarian pedagogy strongly evokes **the anticapitalist critical pedagogies** of Theodor Adorno and Max Horkheimer (1997), Paulo Freire (2006), and bell hooks (1994)—materialist thinkers that all have responded to the incessant commodification and corporatisation of higher education and the classroom *tout court*. Deleuze and Guattari might have brought the more-than-human, the (be)wild(ering), and the pedagogical closer together; the foregoing thinkers also critically tackled capitalism’s internal contradictions by tackling the latter’s—often quite literal—dehumanising effects by emphasising education’s consciousness-raising, liberating, and relational potential.

The kind of pedagogy that Deleuze and Guattari advocate “embraces uncomfortable yet productive tensions,” by weaving together “a diversity of signals and affective regimes” from the minor sciences and arts in order to generate portals “between the scientific/technological and the mystical, the heterogenous and the singular, the human and the non-human, the fixed and the fluid” (p. 77). Pedagogy needs to jump the arbitrary fences erected between disciplines of knowledge and orders of meaning-making. It also needs to accept, as a central premise, that the world remains a more-than-human world that lies tantalisingly beyond our human-all-too-human grasp. Knowledge and learning should bewilder, not make us secure in our anthropocentric certitudes! No matter how much science, economics, or philosophy (or any other discipline) progresses, it will never uncover the whole of the world. This does not, however, mean that the majoritarian regimes of neoliberal capitalism are not hell-bent on cracking open every corner the world, but it does mean that transversal minor practices (minor science, minor art, minor literature, minor philosophy, minoritarian becomings, etc.) offer productive pathways of aesthetic resistance to capitalism’s

deterritorialising/reterritorialising speculative logics of extraction and economisation. It is after all by mobilising the uncanniness of minoritarian aesthetics that Deleuze and Guattari are able to mobilise pedagogical experiments that resist the uncanny world-annihilating, future-eating, disjunctions and agitations of neoliberal capitalism!

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