

From multispecies tangles and Anthropocene muddles: what can lichen teach us about precarity and indeterminacy in early childhood?

Abstract

This paper pursues storytelling in the Anthropocene as a method of earthly survival and multispecies flourishing from capitalist ruins. Storytelling emerged from (an accidental method of) walking-with during a global pandemic; the figure of the modern-day flâneuse is mobilised as a feminist praxis to investigate infected, entangled and affective relationalities between the human, non-human and more-than-human as they unfold in the daily tangles to emerge from lock-down life in the city. It is through the art of noticing (Tsing, 2015) and the arts of living on a damage planet (Tsing et al., 2017) that a commitment to engaging with the ordinary, mundane and habitual muddle, that the world is viewed, sensed and encountered through a different set of optics. The stories that are told about lichen, a dead pigeon, and a deadly virus are curated from a specific geopolitical moment where the early childhood workforce, as a highly gendered and classed group of ‘essential’ frontline workers, suffer disproportionately. Storytelling provides a means to attune to life in Anthropocene that emphasises precarity, indeterminacy and hope. It is only by recognising that trans-corporeality demands an ethical response-ability to all life forms (Alaimo, 2016) that we might find a means of earthly survival.

LICHEN

Who listens
like lichen listens

assiduous millions of black
and golden ears?

You hear
and remember
but I’m speaking
to the lichen.

The little ears prunk,
scorch and blacken.

The little golden
mouths gape.

[Hadfield, 2014]

Introduction

This paper is inspired by the work of Tsing (2010, 2015) and Haraway (2008, 2016) and their encouragement to pursue storytelling as a method of earthly survival and multispecies flourishing in the time that we now recognise as the Anthropocene. Together their work invites us to grapple with our infected, entangled and affective relationalities to the worlds around us, and of which we form a part. Crucially, it is by exercising the ‘art of noticing’

(Tsing, 2012) and committing to a deep engagement with the ordinary, mundane and habitual muddle that unfolds around us, that we can begin to view the world through a different set of optics. The stories that are told in this paper are curated from a specific geopolitical moment, which has incited a fearful pause. Researching early childhood from the depths of a global pandemic demands different optics, alternative places to search for how childhood takes shape, and contemplate the ways in which it is inextricably interwoven through space, histories and temporalities that manifest within chance encounters (with lichen, with hand sanitiser, and with a dead pigeon). By attuning to life in the Anthropocene it might become possible to find ‘ways of living and dying well together’ (Haraway, 2016) through commitments to multispecies flourishing. As Tsing (2015, p.34) urges:

“If a rush of troubled stories is the best way to tell about contaminated diversity then it’s time to make that rush part of our knowledge practices...we need to tell until our stories of death, near-death and gratuitous life are standing with us to face the challenges of the present. It is listening to the cacophony of troubled stories that we might encounter our best hopes for precarious survival.”

Over the past year life with Covid-19, and the wider social and political forces fuelling the pandemic, have made the interrelatedness across human and more-than-human worlds explicit. As a zoonotic disease the virus reveals social, biological, and ecological precarities on a global scale disrupting established ideas about bodily separateness between humans, animals, and the environment (Alaimo, 2010). A zoonotic disease is transmitted from animals to humans, yet this simplistic framing obscures the inherently relational nature of the pandemic by principally focusing on the viral properties of the disease, as something caused by animals and passed to humans. Instead, I want to urge that we focus on the deeply fraught and complex relationships that humans have with the more-than-human world, as well as some of the most precarious humans themselves.

‘I go to work today, putting my life on the line feeling more undervalued than I ever have before, terrified and completely disillusioned. Children are better in school; nobody here will disagree with that. But the lives of the adults around children, is more important and these same children need their trusted adults at the end of this madness, to be present both physically and mentally, to help them reshape the world, for it will need reshaping.’

[Early Years Teacher, Nursery World, 2020]

Reshaping the world...

It is important to call into question the human exceptionalism that underpins Anthropocentric logic. The Anthropocene is defined as the geo-political epoch in which human induced devastation of planet earth has reached a dangerous tipping point. Human capitalist concerns for unrelenting growth and progress have persistently failed to take into account the needs and concerns for environmental welfare; it has also been a dehumanising project for most humans; and rests upon disregard and exploitation of other-than-human animals. This is reinforced through a hegemonic narrative that hails humans as the dominant force driving planetary transformation. Haraway (1988) argues that the Anthropocene can be understood as ‘the god trick’ where (white, western, elite, hetero-male) humans are placed at the centre of all meaning, and this god-like positioning hierarchically defines everything and everyone relationally. This exclusionary logic drives the decimation of other species and the collapse of global biodiversity. Relatedly and perhaps most pressingly, the Anthropocene accounts for the

breeding and spreading of pandemics – it creates and sustains the conditions of possibility that insist that the underpaid, undervalued, precarious early childhood workforce continues to perform its essential role throughout seemingly unstoppable waves of a deadly pandemic.

A letter from the Chief Executive of the Early Years Alliance in the UK states:

'Early years providers have been on the frontline through this crisis. They have put themselves, and their loved ones, at risk to do what the Government has asked and provide vital care and education to the children and families that need it... What is being asked of the workforce - to continue operating in the middle of the second wave of the pandemic with little support, even less information and no acknowledgement from the Department that is supposed to represent them - cannot continue.
[Nursery World, 2021, p.11]

A pause for thought, a time to feel....

This pandemic insists upon (and for those privileged enough, provides) a vital pause for reflection. It is time to critically engage with the ways in which a global pandemic can reinscribe and further entrench deep inequalities between humans – locally, nationally and on a global scale. Experiences of the virus are inconsistent and undeniably shaped by both privilege and precarity. As Roy (2020) urges though, we might also embrace this pandemic as some form of portal, as an invitation to take up the possibilities that a virus offers for a new imaginary. It can be understood as a call to account for the failures of the Anthropocene, of capitalist logic, human domination and exclusionary rationalism. This time of isolation draws into sharp focus the costs and implications of human exceptionalism and to respond to a deafening call for a different logic. This time of precarity (Tsing, 2015) arrives at a breaking point where reciprocity, ethical responsibilities and care across culture and species become exposed as at best failing, or at worst entirely absent. The asymmetries in the geographical spread of the virus, as well as in the economic and relational fallout in response to tackling it are most acutely encountered by already marginalized populations (including the 'essential' frontline workers amongst them the early years teacher).

'What do you do when your world starts to fall apart?.. Go for a walk...know that there are still pleasures amidst the terrors of indeterminacy.'

[Tsing, 2015, p.1]

Like other feminist new materialists and post-humanist researchers (see www.phematerialisms.org) I turn to the hyper-local, to everyday encounters, ruptures and moments that demand something more, that is the activation of a different optics, which have become necessary and vital during months of lockdown-living. Tsing (2015, p.3) stresses that 'to live with precarity requires more than railing at those who put us here...we might look around to notice this strange new world, and we might stretch our imaginations to grasp its contours.' On discovering my little corner of London afresh, by attuning and attending to the microscopic and the seemingly unremarkable, I have discovered ways 'to explore the ruin that has become our collective home' (Tsing, op cit). This paper seeks to attend to the interconnectedness and relationalities between the human, non-human and more-than-human in an attempt to shift the focus, begin from the messiness of the middle, and so pursue unexpected lines of enquiry that can offer stories that agitate another logic. I offer stories about (seemingly) not very much, a walk in the park, a sideways glance at what is routinely unfolding, a downwards glance at what is routinely underfoot, and upwards glance at what

routinely flies and floats above. This noticing, attuning and willingness to be troubled allows for a deeply political, earthly engagement with the Anthropocene in precarious times.

Becoming flâneuse: walking as accidental method

For as long as I can recall I have been a walker with purpose. The determination with which I took my first steps is a story frequently recounted at family gatherings: fists clenched, furrowed brow, marching from one end of the long garden to the other, unaided, determined and ultimately triumphant. Over the years walking has been a vital lifeline, frequently providing space and opportunity to process difficult thoughts, troubling times, and hormonal surges. For months I have responded to an urgent need to walk without intention, or as Solnit (2014, p. 3) asserts:

‘It starts with a step and then another step and then another that add up like taps on a drum to a rhythm, the rhythm of walking. The most obvious and obscure thing in the world, this walking that wanders so readily into religion, philosophy, landscape, urban policy, anatomy, allegory, and heartbreak’.

When the world around feels dystopian, unrecognisable and inherently precarious, according to Tsing (2015, p.6) ‘our first step is to bring back curiosity’. Walking creates conditions to become unencumbered by the simplifications of progress narratives, and instead attune to the immediate knots and pulses of patchiness that are there to explore. Solitary, energetically paced, directionless walks during lockdown presented otherworldly possibilities to dwell on the knots and pulses that Tsing (op. cit) refers to. I became aware of previously unnoticed events and encounters that unfold in the everyday in-between spaces with sharpened senses ready to attune to sights, sounds and smells that seemed to demand close attention.

Walking then, was never an intentional research method taken up as means to gather data and pursue knowledge production. The solitary, extensive wandering across mile upon mile of my pocket of London has at no point felt like ‘research method’. There is an extensive literature that charts the long history of walking (Andrews, 2020; Guldi, 2012; Solnit, 2014), and the application of walking methodologies in different disciplines from anthropology (Jenks and Neves, 2000; Jung, 2014) to the arts (Irwin, 2006; Springgay and Truman, 2018; Truman and Shannon, 2018; Kothe, 2018) cultural studies (Ingold, 2004; Veronesi and Gemeinboeck, 2009) education (Springgay, 2011; Lynch and Mannion, 2016; Ruitenbergh, 2012) health studies (Butler and Derrett, 2014; Carpiano, 2009), history (Guldi, 2012), landscape studies (Macpherson, 2016), geography (Bassett, 2004; Evans and Jones, 2011; Jones et al., 2008; Pierce and Lawhon, 2015; Curl et al., 2018; Richardson, 2015a, b) and sociology (Bates and Rhys-Taylor, 2017; Kinney, 2017; O’Neill and Roberts, 2019).

Across these various disciplines, walking as method takes many forms and is undertaken for myriad purposes (see <https://walkinglab.org/featured-projects-from-the-hubs>). Walking-with though is typically understood to be a participatory, group exercise, directed by the researcher and intended to bring about a greater understanding of participants’ relations to particular spaces, sites, local histories and connection to neighbourhoods and land. Given the circumstantial restrictions that social distancing makes to in-person research during a pandemic, walking-with became something else: an accidental method that demanded an almost exclusive attunement to the more and other-than human. I have come to understand my wanderings as a form of feminist praxis, where time and space is (re)claimed and created to process and theorise the ways in which precarity in the Anthropocene might be understood as an inherently feminist issue. The act of physically removing myself from the domestic sphere, especially during months of hard lockdown calls into sharp focus my white, middle-

class privilege. The autonomy that I have over daily working practices is not enjoyed by others; the safety, warmth and comfort of home again, is not something that is universally enjoyed. Turning to the experiences of ‘essential’ frontline workforces, early years teachers included, is an uncomfortable, daily reminder to recognise the tensions that shape the relativities of precarity and privilege, risk and safety, freedom and oppression.

Following, Woolf (1930) and more recently Andrews (2020); Elkin (2017) and Solnit (2014) I want to reclaim the vital, transgressive work of the flâneuse, in opposition to the more readily accounted for *flâneur*, for the feminist complexion it adds to walking-with the peculiarities of the city. Solnit (2014, p. 200) points to the flâneur as an imaginary:

‘The only problem with the flâneur is that he did not exist, except as a type, an ideal, and a character in literature. The flâneur is often described as detective-like in his aloof observation of others, and feminist scholars had debated whether there were female flâneurs.’

In contrast to the male figure of privilege and leisure, with time and money to amble around the city to be inspired by urban spectacle, the flâneuse was assumed to be a streetwalker or a homeless woman, walking the city streets of necessity and frequently subjected to street harassment. Conspicuous by comparison, the flâneuse is required to blend into her surroundings, to attune, and to find ways to stretch her imagination, to grasp the contours of a world that becomes unfamiliar on close inspection. The flâneuse then, provides a working definition of an accidental feminist research methodology that refuses the god-trick and instead relies on intuition and sensing affective forces. Or what Tsing (2015) has termed the arts of noticing when in search of pleasures amidst the terrors of indeterminacy.

The past year I have assumed some modern-day incarnation of a flâneuse as I have pursued wanderlust (Solnit, 2014) in the capitalist ruins shaped by precarity and indeterminacy. This wandering has invited research in the Anthropocene to take unexpected forms, that have called into question what counts as valid knowledge; and who and what can be a knower (Lather, 2004). Daily walks with no discernible purpose have generated rich multispecies encounters that draw into sharp focus the need for storytelling and an on-going imperative for off-the-beaten path thinking. Literally and metaphorically treading the lesser-known paths of London streets and woodlands has presented surprises and forced deep engagements with ‘contaminated diversity’ (Tsing, 2013, p.29) which can be found everywhere. Stories of contaminated diversity are ubiquitous, complicated, ugly and humbling because they implicate survivors in histories of greed, violence and environmental destruction. Walking as accidental method during a global pandemic has meant that I have been directly confronted by these stories and implicated in recounting them.

The (im)possibilities of multispecies flourishing and ~~not~~ researching (with) children

The playground at the edge of my local park is busy, flashes of blue surgical masks make themselves felt, but more often park-goers appear bare-faced and not always two metres apart. Officially the playground should be closed to the public. But it is not.

It is a cold January morning, red hands, breath in the air, bare trees, and mud underfoot. Exercise and fresh air – the key to health and wellbeing – but not without risk.

As I walk by, I notice a sizeable gaggle of small children, around 20, maybe more, but there is a sense that there are insufficient adults. On closer inspection it becomes clear that this is a nursery on an outing with a 4:1 ratio. The distinctive, almost chaotically choreographed way in which this group moves around has a profound familiarity: too much, too many, frenetic, zig zagging around – a child is purposefully placed in one seat of a double buggy, I

imagine to even out the strain of adult:child ratios and impose some order. A large bag full of equipment and supplies occupies the second seat, quickly a child descends towards the double buggy and sets off on a journey across the playground, but before much ground is covered there is quick and decisive action by a nearby adult, the brake is applied – a health and safety incident averted.

A child makes a fast descent down the shiny, cold slide, rolls over in his puddle suit and staggers towards the parked buggy. Meanwhile there are loud tears, a tumble from another in the group, just out of view. Hurriedly two early childhood teachers scoop the child off the floor, wrap arms around him, provide comfort, reassurance, careful attention to the child's immediate needs, wiping away snot and tears. The child is bundled in multiple layers of warm and waterproof clothing, rubber welly boots protrude from the ankle cuffs of a puddle suit. There are looks of concern on the faces of the adults, they do not wear masks, their mask-less non-verbal communication with the child appears to sooth. But still hot tears and heavy sobs can be heard from my vantage point way across the park.

Hauntings are agitated: about practice, about care, about the injustices of early childhood policy and the unreasonable demands made of these women, in the cold outdoors, with the omnipresence of an invisible virus that alters what is possible but demands that the same is delivered.

My attention is diverted to another small body, also encapsulated in multiple waterproof, weatherproof insulating layers. Bundled up in this way movement is awkward, the swivel of a head means that vision is impaired by the hood, a woolly hat slides over eyes, stiff rubber boots appear heavy and clumsy. The small bodies and what they can do are reconfigured by the clothing that is designed to enable greater freedom but somehow imposes restrictions. Awkwardly this toddler body bends double having noticed something on the ground.

Poking, scraping, stamping then scraping again.

Chubby hands are red from the coldness of this January day, gloves or mittens have been discarded and there is freedom to explore with the senses: picking, poking, scraping.

I am not the only one to notice this child body noticing.

I am unsure what the white splodge adhered to the floor of the playground might be, possibly chewing gum but its out-of-placeness in this place sets of affective forces, a scrumage in the bag of equipment and supplies produces a pack of baby wipes and a bottle of hand sanitiser. Or 'hanitiser' as social media informs me it is now commonly referred to by the youngest of the Covid generation.

Without much hesitation, and with movements suggestive of a familiar and frequent ritual, the hands are efficiently wiped, and a small dot of anti-bacterial gel is administered, the child instinctively swipes one palm against the other, and then the other way – unfalteringly, habitually, routinely.

The white splodge remains but for now, the noticing is extinguished.

Flapping feathers at the nearby boating lake demand my attention. I spy the familiar pedal boats in the shape of gigantic 10-foot swans. They align the edge of the far side of the water; tethered to each other and then attached to the pontoon. Like so much else, these boats are locked down, sheltering-in-place. Unlike the breathing, flapping birds: ducks, geese, moorhens - free to dip in and out of the icy water. Close by a small flock of pigeons congregate on the bank. Lockdown means that they have not be gifted food by humans to the same extent, as a consequence there are noticeably fewer of them. As I come closer there is a pigeon lying immobile on its back, it is out of reach, the other side of the fence designed to

keep humans, birds and deep water a safe distance apart. From this vantage point I can see that it looks dishevelled and malnourished. It is dead. Instinct tells me to alert the staff in the nearby café – but it too is locked down. I am uncertain of what to do. I will look up the number of the park warden when I get home. Shaken, I quicken my pace and head for the wooded hill at the other side of this urban park that has persistently promised ‘recreation for all’ since its creation in Victorian times.

As I come to the end of my walk, I ascend the hill to my house and I notice white splodges underfoot, at first glance I conclude it is discarded chewing gum, or possibly pigeon droppings – it appears similar to the white splodge noticed by the weatherproofed child. On closer inspection though my assumptions are incorrect. Soon I am unable to not see a tapestry of splodges; different in texture, size and colour, but each contrasting boldly against the black-grey of the London pavement. There are multiple layers, different hues: some bright white like paint, others faded almost pink, others pale green like washed out algae; various sizes; inconsistently spread across some paving stones and not others – not chewing gum at all or bird poo.

But Lichen!

Following Pringle (2017) I have become increasingly intrigued by lichen which has involved embarking upon extensive desk research that has revealed its potential to open-up other ways to encounter the world. Mycologist Anne Pringle researches lichens that grow on tombstones. She observes the slow growth, and occasional disappearance of lichen, she regards them as more-than-ghosts of the past and yet-to-come. She understands lichens as symbiotic assemblages of species: filamentous fungi and photosynthetic algae or cyanobacteria. Many are potentially immortal; they spread in continually renewed filaments, for thousands of years. As Tsing et al (2017, p. G9) note: ‘when we notice their tempo, rather than impose ours, they open us to the possibility of a different kind of livability’. Many kinds of time – bacterial, fungal, human and colonial - meet in the tempo of lichen-time. Lichens disrupt anthropocentric logic of linear time. ‘Lichens are ghosts that haunt us from the past, but they also peer at us from a future without us’ (Tsing et al, op cit). And so, noticing lichen in a London park provides the means to pursue the ‘art of noticing’ advocated by Tsing (2010), in order that I might attune to worlds otherwise and contemplate childhood, gendered labour and precarity in other ways.

The everyday art of noticing lichen....

Lichen is ubiquitous in both the wilderness and urban conurbations; from the arctic circle to the tropics; deserts to mountains, and frequently found affixed to buildings and pavements (National Geographic, 2021). Lichens shapeshift, fade to the background, offer mosaics of pastpresentfutures. Lichens are the essence of symbiotic cooperation, with a self-reliant relationship lichen can withstand extreme temperature changes and dehydration without fear of extinction – some are more than 415 million years old (Pringle, 2017). Lichens thrive in some of the harshest environments on earth, where plants cannot grow, they prepare the way for other vegetation by breaking down bare rock and creating soil through secretion of certain chemicals and by mere attachment to stone.



Images 1- 4: Noticing lichen everywhere (author's own photos)

Lichens are storytellers, if only we are able and willing to attune to their language. Lichenometry estimates the age of exposed rock surfaces by lichen growth rates (Pringle, 2017). With their sensitivity and tendency to accumulate certain pollutants, lichens have been used as bio-monitors of air quality. Thriving in clean atmospheres, the biggest threat to lichen survival is dirty air. The effects of air pollution on lichens have been recognised since the 1800s (Nash, 2008) and lichens are now one of the most widely used bioindicators of pollution (Nimis et al., 2002; Wellburn, 1994; Wolterbeek et al., 2003). Lichens have been used as indicators of sulphur dioxide (SO_2) concentration since the 1970s (Saunders and Wood, 1973; Hawksworth and Rose, 1970; Vick and Bevan, 1976). More recently, several studies have shown a significant correlation between lichens and both oxides of nitrogen (NO_x) and reduced nitrogenous pollutants, such as ammonia (NH_3) (Davies et al., 2007, Gadsdon et al., 2010, Larsen et al., 2007, Larsen Vilsholm et al., 2009, Wolseley et al., 2009). In the recent past environmental scientists have reported an alarming absence of lichen across London, which was caused by microscopic concentrations of sulphur dioxide gas. The sulphur from burning fossil fuels (i.e. coal in homes and factories) was oxidised to sulphur dioxide (SO_2) and when mixed with rainwater fell as sulphurous acid (H_2SO_3). H_2SO_3 polluted the city, creating 'London fog', a poisonous yellow photochemical brew of sulphur and nitrogen oxides. More recently London has been threatened by high levels of nitrogen oxide in the air caused by road traffic pollution. Hauntingly, nitrogen dioxide gas can inflame the lining of the lungs and can cause respiratory symptoms such as shortness of breath and persistent coughing. Nitrogen dioxide can also decrease an immune response to lung

infections. Noticing the presence of lichen on the streets I walk generates a stutter, a moment to contemplate our multispecies flourishing at a time of capitalist ruin.

What stories does the current proliferation of lichen on the streets and pavements in my neighbourhood tell? I resist falling into the trap of telling the by now well-rehearsed ‘re-wilding’ story: a simplistic narrative that claims animals and other-than-human species are thriving in the absence of normal human activity thanks to pandemic shutdowns and sheltering-in-place, which is not universally the case. Take the pigeon populations of London that have long histories of living in cities alongside humans. The interconnections and interdependencies of multispecies are also rendered invisible in this narrative that assumes removing humans from the equation would be beneficial to multispecies flourishing. Liminal animals, such as the seed-fed pigeons in my local park, have entirely different routines to their wild counterparts, and therefore their earthly survival has become intertwined with human relationalities, just as our enmeshment with lichen tells a complex and potentially hopeful story. As Tsing (2015, p. 22) reminds us: ‘we are stuck with the problem of living despite economic and ecological ruination. Neither tales of progress nor of ruin tell us how to think about collaborative survival. It is time to pay attention...to open our imaginations.’

Precarity: The Frontline for the Essential Early Childhood Educator

‘Again, as early years practitioners we have to put ourselves on the front line. We have more contact with the children we care for, cuddling them when they are upset, wiping their tears and snotty noses as they are not at the age to do this for themselves.’

[Early Years Teacher, Nursery World, 2020]

The storytelling I am offering here exposes complex multispecies interdependencies, with lichen holding the potential to remove pollution from the air that we breathe, to Covid-19 providing an exemplification of trans-corporeal bodily vulnerabilities that refuse categorization. Alaimo’s (2016) concept of trans-corporeality stresses that the porosity of species boundaries is most acutely felt when the exploitative forces of power penetrate human bodies. Addressing the material relations between social inequality and bodily health, Alaimo (2010, p.28) focuses on the ‘pancreas under capitalism’ and the ‘proletarian lung’ that testify to the physiological effects of social class (and racial) oppression. The image of the ‘proletarian lung’ is haunting precisely because it so provocative of images of ‘essential workers’ that are by now such a regular feature on the daily news. Distressing images of frontline workers, struck down by Covid-19, attached to tubes and monitors, desperately fighting for their next breath, breath taken from them because they have served in the line duty. I have written previously about the classed and gendered nature of early childhood education (Osgood, 2012) and it resurfaces here in this current storytelling about earthly survival and multispecies entanglements. As members of the frontline of essential workers, the early childhood workforce bears the intense burden of precarity and experiences it bodily. Through the provision of nurturance and education to very young children, which is vital to enable (other) parents to work, this marginalized and devalued workforce becomes complexly implicated in the preservation of capitalism but at an extraordinarily high cost to personal health and well-being. The ‘proletarian lung’ of the early childhood worker exemplifies the means by which external social forces can transform an internal bodily organ, and so further reinforce oppression and exploitation.

Many early years practitioners were already incredibly worried about continuing to work during this period. It is unacceptable that, yet another government announcement has been made without reference to any scientific evidence explaining how those working in the early years are expected to be able to keep themselves and their loved ones safe at a time when those in schools are being told that it is simply too dangerous to go to work.'

[Chief Executive of Early Years Alliance, Nursery World, 2020, p. 11]

Pursing what Tsing (2015, p. 5) terms 'disturbance-based ecologies' reveals the complexities that come to characterise how multispecies come together in curious, generative, troubling, and sometimes deadly ways. Cuddles, tears and snotty noses, lichen, bacteria, and liminal animals that together populate a trip to the local park offer a powerful account of inequality and precarity, that incites a stutter to our thinking and doing. Alaimo (2010, p. 28) asserts that one's body is 'never a rigidly enclosed, protected entity, but is vulnerable to the substances and flows of its environments.' She goes on to argue that humans and other animals are never separate and distinct from the environments and landscapes within which they exist, and in turn exist within them: the logics of capitalism determining the nature and availability of early childhood education is intricately bound up with the re-emergence of lichen and the death of a pigeon during lockdown against a global pandemic. These are inseparable, each working on, with and against the other. We co-exist in a system of constantly interweaving subjectivities which can never be truly separated from each other. Haraway (2016) conceptualises this as sympoiesis: collectively producing systems that do not have self-defined spatial or temporal boundaries. As Pringle (2017, G157) asserts in respect of lichen:

"What was once thought to be mutualism involving two species may be an entangled symbiosis of thousands of species, interacting in every conceivable fashion. A lichen is not just a fungus and its photosynthetic algae. Lichens house hundreds, thousands or perhaps tens of thousands of other species within the thallus, including other kinds of fungi and myriad bacteria'

She goes on to argue that Lichen are nature in that lichen are alive, not man-made and have the capacity to grow in altered landscapes. They signal clean air and stability. Turning to the question posed in the title of this paper, it is imperative that we take seriously what lichen can teach us about the precarity of childhood in the Anthropocene. In order to directly address this a re-turn to Tsing's (2015) concept of contaminated diversity, and Alaimo's (2016) concept of trans-corporeality is useful to arrive at some form on inconclusive ending.

The moral depravity of global capitalism

Contaminated diversity (Tsing, 2015) as it presents during this global pandemic exposes the moral depravity of global capitalism as the source of suffering by further intensifying inequality and injustice, which is intensely felt by the early childhood workforce precisely because it is shaped by gender, social class and race in ways that exacerbate how the pandemic plays out in daily life. Many of the most marginalized are compelled to continue working on the front line as 'essential' workers and in doing so risk their own health because other ways to survive are inconceivable. Fears of contracting coronavirus are real and terrifying but the threat of unemployment, permanent reliance on foodbanks, and inability to pay the rent have created escalating levels of anxiety within marginalised communities. As celebrated heroes, they are framed in a narrative that effectively obscures the reality of being held hostage to an economic system that has further entrenched deep inequalities through its response to Covid-19. Narratives that claim the shape of the pandemic is the inevitable act of an indiscriminate virus do not account for the failings of capitalist economic systems based upon competition

where disparities between winners and losers are acute, and human exceptionalism places value on certain life forms above others.

What my walking adventures, chance encounters with lichen, urban parks, woodland, a dead pigeon, and a nursery outing, and subsequent delving into a wide range of literature from across disciplines has drawn into focus is the need to understand Covid-19 as an issue of interspecies environmental injustice. Environmental justice rests upon a commitment to address the unfair distribution of environmental burdens and harms upon marginalized groups – from early childhood workers, to liminal animals and to unassuming but quite remarkably robust and tenacious lichen. Alaimo's (2015) concept of trans-corporeality emphasizes the physical embodiment of environments or landscapes through unjust social and political processes, which offers an important optics through which to analyse the current crisis. Alaimo argues that human and more-than-human bodies are porous and absorbent of one another, and never truly distinct from the well-being of the other. Haraway (2008, p.32) contests that "to be animal is to become-with bacteria...and, no doubt, viruses and many other sorts of critters". This invisible virus has exposed how utterly decentral and unexceptional the human species is and demands that we leave the portal not in search of a 'new normal' but with a deepened sense of ethical response-ability for multi-species flourishing. Covid-19 has demanded that we become sensitised to the border transcending nature of multispecies co-dependency. The lichen is central to this project. It is by taking lichen seriously, and attuning to the stories it has to tell that we can begin to pursue new imaginaries that fully grasp both precarity and hope, as Tsing (2015, p.20) states:

'Precarity is the condition of being vulnerable to others. Unpredictable encounters transform us; we are not in control, even of ourselves. Unable to rely on stable structure of community, we are thrown into shifting assemblages, which remake us as well as others. We cannot rely on the status quo; everything is in flux, including our ability to survive. Thinking through precarity changes social analysis. A precarious world is a world without teleology. Indeterminacy, the unplanned nature of time, is frightening, but thinking through precarity makes it evident that indeterminacy also makes life possible.'

The Anthropocene as an epoch has been called to account, it is clear the abstraction of human and more-than-human others through a narrow exclusionary lens of a minority of phallogocentric man (Braidotti, 2013) is failing. I hear desperate pleas for a 'return to normal' or to settle on 'a new normal' that should not be too dissimilar from the old normal. The belief that 'normality' can be restored by human exceptionalism (in the form of a vaccine but little other change) misses the point entirely. It is only by reimagining and becoming more attentive to our relations, both human and more-than-human, that our species and many others on this planet will survive. This call for worldly justice, for earthly survival is forcibly sensed through the arts of noticing. Earthly survival rests upon an appreciation and respect for trans-corporeality, that in turn demands that social, health, and environmental justice involves every critter (Haraway, 2016) from lichen, to SARS Cov-2, to liminal pigeon, to pavement, and tree. Perhaps this epoch will instead come to be defined by an invisible force transforming our awareness from within, towards heightened multispecies ethical response-abilities. Or as Pratt (2017, G172) so beautifully proclaims, that what is needed is:

'Curiosity, the practice of reading the landscape as it is *walked*, a deep love of the earth and its creatures, and perhaps above all, the desire to find magic, to enchant or reenchant the world, to make it possible to inhabit it with love.'

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